ROUTLEDGE HANDBOOKS

The Routledge Handbook of Language and Humor

Edited by Salvatore Attardo

"The present *Handbook* testifies to Salvatore Attardo's lifetime involvement in the linguistic mechanisms of humor and its societal effects. The collection of articles he has gathered here represents at the same time a milestone, a compendium, and a beacon: as a milestone, it marks the advances obtained in humor studies up to and including our times; as a state-of-the-art compendium, it both reveals the 'state' of the 'art', and details its cutting edges; and as a beacon, it identifies skerries and dangerous currents, while at the same time shining light on the path ahead across the uncharted waters of future study. I highly recommend the work to anybody involved in humor studies: from the interested bystander to the advanced student to the accomplished researcher and teacher—and beyond."

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The Routledge Handbook of Language and Humor

The Routledge Handbook of Language and Humor presents the first in-depth treatment of all the subfields of the linguistics of humor, broadly conceived as the intersection of the study of language and humor. The reader will find a thorough historical, terminological, and theoretical introduction to the field, as well as detailed treatments of the various approaches to language and humor. Written and edited by the most distinguished scholars in their fields, the chapters cover a range of traditional topics (e.g., teasing, laughter, irony, psycholinguistics, discourse analysis, the major linguistic theories of humor, translation) as well as cutting-edge treatments of internet humor, cognitive linguistics, relevance theoretic, and corpus-assisted models of language and humor. Some chapters, such as the variationist sociolinguistics, stylistics, and politeness are the first-ever syntheses of that particular subfield. Clusters of related chapters, such as conversation analysis, discourse analysis and corpus-assisted analysis allow multiple perspectives on complex trans-disciplinary phenomena. Deliberately wide-ranging, this handbook is an indispensable reference work for all researchers interested in the interplay of language and humor within linguistics, broadly conceived, but also in neighboring disciplines such as literary studies, psychology, sociology, and anthropology.

Salvatore Attardo is Dean of the College of Humanities, Social Sciences and Arts at Texas A&M University–Commerce, USA. He was Editor-in-Chief of *HUMOR: International Journal of Humor Research* for 10 years.

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The Routledge Handbook of Language and Humor

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Routledge
Taylor & Francis Group
NEW YORK AND LONDON

First published 2017
by Routledge
711 Third Avenue, New York, NY 10017

and by Routledge
2 Park Square, Milton Park, Abingdon, Oxon, OX14 4RN

Routledge is an imprint of the Taylor & Francis Group, an informa business

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Library of Congress Cataloging-in-Publication Data
Names: Attardo, Salvatore, 1962–
Title: The Routledge handbook of language and humor / edited by Salvatore Attardo.
Description: New York, NY : Routledge, [2017] | Series: Routledge handbooks in linguistics | Includes index.
Identifiers: LCCN 2016035137 | ISBN 9781138843066 (hardback) | ISBN 9781315731162 (master) | ISBN 9781317551164 (web pdf) | ISBN 9781317551157 (epub) | ISBN 9781317551140 (mobipocket/kindle)
Subjects: LCSH: Humor—Handbooks, manuals, etc. | Wit and humor—Handbooks, manuals, etc. | Language and languages—Handbooks, manuals, etc. | Linguistics—Handbooks, manuals, etc.
Classification: LCC P53.43 .R68 2017 | DDC 809.7—dc23
LC record available at https://lccn.loc.gov/2016035137

ISBN: 978-1-138-84306-6 (hbk)
ISBN: 978-1-315-73116-2 (ebk)

Typeset in Bembo
by Apex CoVantage, LLC

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1
Introduction

Salvatore Attardo

When I first conceptualized the idea of a *Handbook of Language and Humor*, I found that it was relatively straightforward to make a list of the chapters I would have wanted in such a volume. Some of them were obvious: how could a handbook of language and humor not have a chapter on puns, or irony, or laughter, for example? Other chapters were needed for historical coverage: one would not have a serious coverage of the history of the field without a chapter on Raskin's Semantic-Script Theory, or on the isotopy-based European models. Furthermore, once one starts considering the subfields of linguistics, it becomes obvious one needs a conversation analysis chapter, a variationist chapter, a psycholinguistic chapter, a neurolinguistic chapter, a translation chapter, etc. Other chapters were motivated by advances in the field: computational linguistic treatments of humor have undergone a renaissance, as have cognitive linguistic ones, and, at long last, Relevance-theoretic ones. In a few cases, I exercised editorial judgment, for example, decreeing that a new subfield of Internet and online humor had acquired enough significance to deserve a chapter, as have the field of failed humor, the field of the markers of humor (two chapters: one on humor markers and the more narrowly focused chapter on prosody and humor), and the burgeoning field of politeness and humor (a chapter of its own and a significant discussion in the stylistics chapter). Finally, I wanted to ensure fairly even coverage of the various subfields, which is why we have three chapters in discourse-based humor: conversation analysis, discourse-analysis, and corpus-based or corpus-informed analysis, and two chapters on translation, probably the most frequent linguistically related phenomenon applied to humor.

No handbook is ideal, a concept my editorial team had to remind me of repeatedly during intervention-style virtual conferences. Some chapters that had been planned did not materialize and other directions that might have been explored were left to future work: for example, very little attention has been paid to non-Western scholarship (with exceptions, see Chapter 6 on the isotopy disjunction model). All I can say, is that there are limits to what can go into one book, not to mention the expertise of this editor.

The authors of the chapters are undisputed experts on the subject and wherever possible, the leading specialists in their respective fields, often the founders of that tradition, or the main interpreter thereof. I also recruited a couple of emerging scholars when I thought they could shed a new and interesting perspective on a given area.

Very little guidance was given to the authors who wrote their chapters in complete independence. My only requirement, besides the much-hated length of the chapter, was the organization in four parts: an introductory historical perspective section, a discussion of the "core" issues of the field, a discussion of the methodology and a sample analysis, and finally a "new debates" section that would point at the developments of the fields, the new directions that we may expect to see emerge in the near future. When appropriate, I waived even this minor requirement. When a chapter might have been expected to overlap with other chapters (for example, the discourse chapters, which overlap multiply, or the chapter on irony, which may overlap with most chapters), I worked with the authors to ensure minimal and non-disruptive overlaps. Needless to say, some overlapping in coverage among the chapters is to be expected and even a positive feature. I distributed among the authors that requested it the list of chapters, so that they too may determine if overlaps were to be expected and to what extent. In some cases, the authors of different chapters chose to engage in significant discussion among themselves and re-organized the division of contents of the chapters. I also deliberately abstained from intervening in these discussions, limiting my input to ensuring coverage of all relevant topics.

Not only were the authors given complete independence on coverage within their area, but each chapter may have its own methodological and theoretical stance. This is usually stated explicitly in the opening section of the text, but is generally apparent throughout the treatments. Thus for example, the relevance theoretic chapter is concerned mostly with the contributions of that school to the field, rather than with the field at large. The conversation analysis (CA) chapter opens with a clear and thought provoking rejection of the category of "humor," at least as a first approach to a text. We could probably argue that CA and, say the General Theory of Verbal Humor (GTVH) belong to different paradigms (Glenn and Holt do not use this term). These differences are the sign of the existing subdisciplinary differences that coexist, often uneasily, within the discipline of linguistics. I hasten to add that I intend here "linguistics" as inclusive of "applied linguistics." More discussion of the subfields of linguistics and their connections to humor research can be found in Chapter 5 in this volume, which I co-authored with Raskin.

This is not to say that as the editor I renounced attempts at cross-disciplinary fertilization. As is well known, humor studies is an intensely interdisciplinary field and so it would be absurd not to encourage the diverse areas of linguistics to interact with one another. Whenever the authors of the contributions suggested interdisciplinary comparisons or applied ideas from one area to the other, I encouraged these ideas, although I cannot say I always approved of them. I left entire control of the contents of the chapters of the handbook to the authors themselves, provided basic representativeness was assured, of course. As Raskin and I took it upon ourselves to outline some interdisciplinary venues in our co-authored chapter, I felt that my point of view was already sufficiently represented in the handbook.

Generally speaking, the cohesiveness of the handbook chapters is remarkable. Virtually every chapter could have quoted most of the other chapters. Several chapters would benefit from parallel readings. For example Haugh's "Teasing" chapter overlaps nicely with Shardakova's "Politeness, Teasing, and Humor," which in turns overlaps with Simpson and Bousfield's chapter, "Humor and Stylistics." Burgers and van Mulken's "Humor Markers," focused on irony, dovetails with Gironzetti's "Prosodic and Multimodal Markers of Humor," focused on humor at large. Glenn and Holt's, Schnurr and Plester's, and Partington's chapters on Conversation Analysis, Discourse Analysis, and Corpus-Assisted Studies also form humor research answer to the Godfather trilogy.

Sadly, the initial project included two chapters that failed to materialize, due to personal problems of the authors who had to withdraw from the project or could not work within the time frame. Chapters on humorous metaphors and cross-cultural humor suffered that fate.

I ended up writing the chapter on Gricean pragmatics and humor myself after two authors pulled out, for personal reasons.

Now that the project is complete, it is interesting to look at the 35 chapters in this handbook. Two considerations come to mind: first, 35 years ago, when I started researching humor, one could not have assembled a handbook of Language and Humor. There simply was not a critical mass of scholarship to warrant such an endeavor. When 10 years later I published my first book, which quixotically attempted to review all linguistic scholarship on humor, the fact that it was a more or less reasonable goal meant that, while the field had taken off, it was still small enough to be encompassed in one volume. Today, almost each of the chapters in the handbook quotes *several* books on the topic and the emerging fields merely one or two. Second, with the usual exception of psychology, no other discipline in humor studies has reached this level of maturity. Humor is now an accepted topic of inquiry in most of not all areas of linguistics. This is good news for the field of Language and Humor.

I would like to acknowledge the editorial team at Taylor & Francis, Leah Babb-Rosenfeld, the then editor who originally commissioned the handbook, Elysse Preposi, Rebecca Novack, and Kathrene Binag with whom I completed the work. They were always supportive and helpful. Working with them was a pleasure. I would also like to acknowledge numerous friends who helped in the process of editing the handbook.

I would also like to acknowledge the support provided by Texas A&M University–Commerce, who funded several research assistants who were quite helpful. In particular, Lori Douglas and Erin Galope did most of the editing and proofreading.

Last but most definitely not least, I thank my wonderful wife, Lucy Pickering, to whom I could always turn, either when downcast or when elated, and be sure to receive an encouraging smile, or better.

Dallas, Texas, January 2017

2

An Overview of Humor Theory

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Perhaps the first thing to be said when giving a diachronic description of the field of humor studies is that the term "humor" in itself is a very modern one. In fact, taken in the broadly inclusive sense it has today, it dates no further back than the 20th century. Before this, its semantic charge was not only different, but also far more restricted than that which we currently give it. Derived from the classical use of the term to refer to those peculiar or dominant elements in a person that determine their character (choleric, melancholic, phlegmatic, or sanguine), it evolved through Ben Jonson's early 17th-century adaptation of the concept as a basis for comic characterization in terms of which an extravagant or affected emphasis on personal peculiarities made an individual subject to ridicule. The word, as used in this sense, became increasingly popular during the 18th and early 19th centuries, when it came to refer to a Romantic concept of the comic based on individual eccentricity and completely devoid of the critical intent that we normally associate with this genre nowadays. Previous to the connection thus established between the comic and the "humorous," texts on the subject refer to a variety of terms such as *laughter*, *wit*, *comedy*, *raillery*, *jesting*, *scorn*, *ridicule*, *mirth*, or *the risible*, which are used to refer to different manifestations of the phenomenon and, more importantly for our purposes, to different attitudes and approaches to it.

Much has been written on the subject of humor (or laughter, wit, etc.) over the ages, some of it in the form of lengthy essays, other as passing comments embedded in pieces on other subjects. But in all the maze of opinion, speculation, philosophizing, description, and prescription, some of it very repetitive, various lines of interest are visible. The first of these, predominant through the ages from Plato and Aristotle down to the end of the 19th century, is the question of the moral and social acceptability of comedy and the comic, encompassed, for reasons that we will see, in what is known as the Superiority Theory. Those writers concerned with this line of inquiry are interested in the object of laughter, in what, or rather who, we laugh at, in the attitudes of those who laugh, and in laughter's good or evil, aristocratic or plebeian nature. Most seem to feel, though with varying degrees of intensity, that laughter is potentially disruptive, vulgar, and even sinful and that it is therefore necessary to restrain and control it.

Many philosophers and writers on laughter are forced to admit, however, that it does have its beneficial aspects, because it banishes sadness and boredom, puts the individual in an optimistic mood and, in general, lightens the load of everyday living. The positive physiological and

psychological effects of laughter are studied in the Release or Relief Theory of Humor, developed mainly from the 19th century onwards, but already insinuated in classical writers and, some time later, by such 16th- and 17th-century authors as Laurent Joubert and Descartes.

Very often complementary to these lines of thought is an interest in analyzing what types of laughter are socially and morally acceptable and in studying what sort of mechanisms, apart from ridicule and derision, may be used to cause amusement. This line of thinking, originally followed by classical writers in treatises on rhetoric and poetics designed to furnish the individual with elegant, tasteful ways of gaining the attention and good will of an audience by means of wit, is that which has been most fertile for contemporary theories of humor. This approach, known as the Incongruity Theory, shifts the perspective from the emotional angle of derision, envy and malice to a cognitive view of humor and its analysis.

The three streams of comment and theory about humor overlap into each other at many points and in the works of many authors, but, because each corresponds to a different angle of approach to the same object of study, it soon becomes obvious that they must be taken as essentially complementary. Furthermore, each historical period has its own predominant approach to the subject, though this does not necessarily mean that other approaches are completely ignored.

This chapter is divided into three sections, each dedicated to one of the three theories and organized internally following chronological criteria.

The Dangers of Humor: Superiority and Disparagement Theories

The earliest surviving texts on what we now call humor belong to Classical (Greek) Antiquity and are seminal for later ideas on the subject. There is no surviving work from this time that deals exclusively, or even very extensively, with the topic, so the information that has come down to us derives from writings on other subjects, like Plato's *Republic*, *Philebus*, and *Laws*, or Aristotle's *Nichomachean Ethics*, *Poetics*, and *Rhetoric*. From them we can see that one of the principal attitudes (though not the only one) towards laughter at that time was that of suspicion, wariness, and condemnation. Basing their comments on comedy as a theatrical genre, Greek thinkers seem to have been essentially distrustful of laughter, especially if it was excessive and derisive. In that case, they believed it became vulgar. They tended, therefore, from the evidence we can gather, to stress the dangers of laughter and preach for its restriction rather than to study it in any sort of detail. Both Plato and Aristotle condemned the ridicule and derision often implicit in it, and associated humor with vice, offense, vulgarity, and foolishness, so that they declared it unworthy of virtuous, free people, as well as of the elevated matters that should, ideally, concern the upper classes. Comic acting, therefore, should be left to the lower classes, because comedy is a genre related to socially and ethically inferior characters involved in ignoble action (a concept that was perpetuated in classical theatre). According to Plato, laughter is an emotion, and therefore irrational, falling into the category of those elements that must be restrained by Reason. In his view, the laughable person thinks himself or herself superior (richer, better-looking, or cleverer) than s/he really is, which makes them ridiculous. Laughing at them, however, involves a certain malice and malice is harmful and thence wrong. Superiority, therefore, in this earliest of formulations, lies in the conceited and overestimated self-image of the object of laughter, which renders the latter ridiculous (*Philebus*, p. 48a–50b. 4th century BC). Later, Aristotle changed this, defining comedy as "an imitation of men worse than the average" and equating the ridiculous with the ugly, by which he meant "a mistake or deformity not productive of pain or harm to others" (*Poetics*, pg. 5. 4th century BC; Figueroa-Dorrego & Larkin-Galiñanes, 2009, p. 77).

Both Aristotle himself and other classical authors like Demetrius (3rd century BC), Cicero (1st century BC), or Quintilian (1st century AD), though interested in the possibilities of wit as

a rhetorical device to win the attention and good will of an audience, were nevertheless highly critical of the excesses of certain types of laughter and extremely careful to make a distinction between the coarse sort of humor that raises laughs by buffoonery, coarse language and imperfection, physical or spiritual, and the more genteel type, based on wordplay, incongruity, surprise, etc., which raises a controlled smile and is suitable for a refined and cultivated elite. As was mentioned earlier with respect to comedy as a literary genre, therefore, those early thinkers interested in the subject saw in laughter and its appreciation a marker of social class.

Despite their condemnation of certain types of laughter, however, the attitude of these classical authors was relatively enlightened compared with that which comes across from the very scarce writings on the subject of early Christianity. As Figueroa-Dorrego says, the Christian religion had an important influence in the study of humor "not because the Scriptures or the early Christian Church promoted any systematic analysis of this phenomenon, but because they rejected it and held it back for centuries" (Figueroa-Dorrego & Larkin-Galinanes, 2009, p. 49)—for about 1,000 years, in fact. The general attitude to humor of the Church echoed the most rotund condemnations of earlier writers. With its fundamentalist aspirations to control of its members and its insistence on the acceptance of earthly hardship in return for the promise of heavenly bliss, the Christian Church found laughter very dangerous. To quote Figueroa-Dorrego again,

> for Christian thinkers laughter was too associated with the body, and the strict regulation of the body was a central issue in their ascetic approach to life on earth . . . Moreover, humorous laughter was too allied to relativism, subversion, chaos and relax to fit into the agenda of the Church, fully committed to ensuring complete authority in society, very often through the discourse of fear.
>
> (Figueroa-Dorrego & Larkin-Galinanes, 2009, p. 50)

The key texts of Christianity contain very few references to laughter. Those in the Old Testament refer to derisive, scornful laughter. Ironically, in most of these instances it is God himself who laughs and this laughter shows His superiority and omnipotence over mankind, and is connected with punishment and wrath. In the New Testament, where references to laughter are even fewer, the phenomenon continues to be related to scorn, but also to "filthiness" and "foolish talking," which are "not convenient" (Ephesians 5:4; Figueroa-Dorrego & Larkin-Galinanes, 2009, p. 151). Later comments, found in the works of the early theologians of Christianity known as the Church Fathers (Clement of Alexandria, 3rd century AD, Basil of Caesarea, 4th century AD, John Chrysostom and Jerome, in the 4th or 5th century AD), are equally damning and far more explicit: though laughter is natural to man, and moderate laughter (the smile) can be acceptable, immoderate laughter is related to insult and derision, to the ridiculous and foolish and must be kept in check, for it "gives birth to foul discourse, and foul discourse to actions still more foul" in a sequence that may even lead to slaughter and murder (*The Homilies on the Statues to the People of Antioch, XV*; Figueroa-Dorrego & Larkin-Galinanes, 2009, p. 157). The general attitude of the Church, in fact, is well summarized in the following passage, also taken from Chrysostom:

> Christ discourses to us much of mourning, and blesses them that mourn, and pronounces them that laugh wretched. For this is not the theatre for laughter, neither did we come together for this intent, that we may give way to immoderate mirth, but that we may groan, and by this groaning inherit a kingdom.
>
> (Figueroa-Dorrego & Larkin-Galinanes, 2009, p. 158)

The social and cultural life of Western Europe in the Middle Ages was dominated by the Church, as was, to some extent, its political life, so what little was written about laughter and humor in this period continued to be influenced by Church authorities, and its tenor was very similar to that already described. The rise of Monasticism brought with it a life in theory dominated by self-denial, obedience, silence, humility, reverence of God and hard work, and frivolity, foolishness, and vulgarity, and therefore laughter were totally banned. The connection between the laughable and the bodily was emphasized in a context in which monks and nuns were supposed to focus on spiritual matters, and one of the questions most debated in sermons, and even in academic contexts, was whether Jesus had ever laughed or not, the official line being, of course, the negative one. It was not, in fact, until the Renaissance that a renewed, more positive interest in laughter and humor arose, but this new period was marked, as we shall see, by a different emphasis that relegates the "dangers" and threats that beset the laugher to a secondary position.

Not until the Protestant Reformation did attitudes to laughter and humor become as negative as those we have seen thus far. In England, from the building of the first "play houses" in London in 1576 and 1577, a great deal of what was written on humor and laughter took the form, once more, of diatribes against the characteristics of comedy as a theatrical genre. "Comedy," in this sense of the word, was seen as immoral, filthy, and sinful in itself, but it was also considered to provide occasion for sin and immorality, because it led youth into idleness and provided the locus and occasion for prostitution and a multitude of other sins. Representative of this line of thought are Philip Stubbes (*The Anatomie of Abuses*, 1583) and William Prynne (*Histrio-Matrix: The Players' Scourge or Actors Tragedie*, 1633). More influential in terms of humor theory, however, are René Descartes and Thomas Hobbes. Descartes (*The Passions of the Soul*, 1649) is a good example of a complex, multilateral approach to laughter, because he was concerned with describing its physiological manifestations and analyzing its causes. However, he also laid some emphasis on the element of scorn present in laughter, and seemed conscious of the harm that can be done to an individual through derision if it is used maliciously, but he pointed out that when used with such moderation as to be merely "modest bantering," it can be "useful in reproving vices by making them appear ridiculous" (Figueroa-Dorrego & Larkin-Galinanes, 2009, p. 292), thus suggesting that laughter might act as a means of social control, an idea that would be taken up and developed in subsequent versions of the Superiority Theory.

It was Thomas Hobbes (*Of Human Nature*, 1650; *Leviathan*, 1651), however, who crystallized all the reasons for distrust of laughter into one potent statement that linked together all those comments that connected humor with the perception of obscenity or of other people's misfortunes, and that was to cause much debate in subsequent discussions of laughter and humor. Although he recognized that there must be an element of incongruity and surprise present in humor, and linked these with the wit of "jests," he concentrated on the elements of scorn and ridicule present in laughter when he said that:

> *Sudden Glory*, is the passion which maketh those *Grimaces* called LAUGHTER; and is caused either by some sudden act of their own, that pleaseth them; or by the apprehension of some deformed thing in another, by comparison whereof they suddenly applaud themselves. And it is incident most to them, that are conscious of the fewest abilities in themselves; who are forced to keep themselves in their own favour, by observing the imperfections of other men.
>
> (1651; Figueroa-Dorrego & Larkin-Galinanes, 2009, p. 294)

The 18th and 19th centuries constituted, as Michael Billig says, a golden age for the philosophy of humor (2005, p. 57). This was a period marked by an increasing acceptance of the

connection of laughter with good humor and even benevolence, and a predominant interest in explanations of the phenomenon based on incongruity and manifested as socially acceptable "wit." However, a consciousness of the dangers of coarse laughter and of its function as a marker of social status continued to exist, as we may see in the injunctions on the subject of Lord Chesterfield to his son:

> Frequent and loud laughter is the characteristic of folly and ill manners; it is the manner in which the mob express their silly joy at silly things; and they call it being merry. . . . It is low buffoonery or silly accidents that always excite laughter; and that is what people of sense and breeding should show themselves above.
>
> (1748; Figueroa-Dorrego & Larkin-Galinanes, 2009, p. 426)

Hobbes's account of laughter, which became the classic statement of superiority theory, was widely discussed and frequently defended during the period. Hegel, for example, believed that laughter is little more than "an expression of self-satisfied shrewdness" (*Aesthetics*, 1835; Figueroa-Dorrego & Larkin-Galinanes, 2009, p. 498); Alexander Bain maintained that "not in physical defects alone, but in everything where a man can achieve a stroke of superiority, in surpassing or discomfiting a rival, is the disposition to laughter apparent" (*The Emotions and the Will*, 1859; Figueroa-Dorrego & Larkin-Galinanes, 2009, p. 522); and Hazlitt (*Lectures on the Comic Writers of Great Britain*, 1818) gave a lengthy list of objects liable to incite laughter, ranging from a "bottle nose in a caricature," "a stuffed figure of an alderman in a pantomime, through the dress of foreigners" to someone "dressed in the height of fashion, or quite out of it," and ended up by saying:

> We laugh to show our satisfaction with ourselves, or our contempt for those around us, or to conceal our envy, or our ignorance. We laugh at fools, and at those who pretend to be wise, at extreme simplicity, awkwardness, hypocrisy and affectation.
>
> (Figueroa-Dorrego & Larkin-Galinanes, 2009, pp. 475–476)

A short time later, Baudelaire took this attitude to laughter to an extreme, and amplified the moral concern with self-glorifying humor of Plato, Aristotle and Hobbes, by characterizing laughter as the most reliable indication of the satanic spirit in man (*On the Essence of Laughter*, 1855; Figueroa-Dorrego & Larkin-Galinanes, 2009, pp. 508–514).

Particularly fertile for the development of 20th-century offshoots to superiority theory was Henri Bergson's famous essay, "*Le Rire*" (1900). This work is of special interest because, like Descartes's, it relates laughter with social factors, though in a new way. Bergson saw laughter as "always the laughter of a group" (Figueroa-Dorrego & Larkin-Galinanes, 2009, p. 576). Its natural environment, he said, is society. Therefore, it has a social function, responds to certain exigencies of social life, and has a social meaning. Its main function is to keep people under control because, given the fact that nobody likes to be laughed at, it prevents them from deviating too radically from what is deemed socially to be normal, proper, and decent. According to Bergson, "we may . . . admit as a general rule that it is the faults of others that make us laugh, provided we add that they make us laugh by reason of their *unsociability* rather than of their *immorality*." In his view, therefore, laughter is "a sort of *social gesture*. By the fear which it inspires, it restrains eccentricity" (Figueroa-Dorrego & Larkin-Galinanes, 2009, p. 582), its function being "to intimidate by humiliating" (Figueroa-Dorrego & Larkin-Galinanes, 2009, p. 623).

Almost contemporary with "*Le Rire*" was *Jokes and their Relation to the Unconscious* by Sigmund Freud (1905), who gave laughter and humor an important place in psychic life. Freud said that although most jokes are hostile, it is not simply a question of our laughing at the infirmities of

others, but rather that this laughter is a means of liberating those primary instincts of aggression that civilization and society have forced the human being to repress. Jokes allow us to exploit those weak and ridiculous aspects of our enemies that we could not otherwise bring forward openly or consciously; they help us to evade "restrictions and open sources of pleasure that have become inaccessible" (1991, p. 149). Through them we make our enemy small, inferior, despicable, or simply comic, and achieve in a roundabout way the enjoyment of overcoming him.

These intuitions about the hostility present in many manifestations of humor have been amply elaborated on in more recent years. Humor researchers, now predominantly psychologists and sociologists rather than philosophers and men of letters as in the past, have accepted the basic premise that humor is a social mechanism with definite social functions such as consensus, conflict, and control, and have converged to study empirically joking, the specific circumstances in which it occurs, and its effects. A glance at the contents of *HUMOR: International Journal of Humor Research* reveals an abundance of articles with titles such as "Humor's Role in Married Life," "Humor and Social Distance in Elementary School Children," or "Group Differences in the Appreciation of Feminist Humor," to name but a few at random. The hypothesis, initially stated by Plato and Aristotle, that we laugh at the infirmities and ridiculous aspects of our fellow beings was partially refuted in the 1960s and '70s by several authors who demonstrated that this is not altogether true, but rather that "something is humorous to the extent that it enhances an object of affection and/or disparages an object of repulsion" and that "it is unhumorous to the extent that it does the opposite" (La Fave, 1972, p. 198).

Humor, then, according to Social-Behavioral theories, is largely a question of reference groups and "affective disposition," as formulated by Zillmann:

> Mirth, then, is said to vary proportionally with the negativeness of the affective disposition toward the disparaged party, and with the positiveness of the affective disposition toward the disparaging party, and jointly so.
>
> (1983, p. 92)

This being so, humor and its appreciation are very largely judged to be a question of social allegiance and identification, because it is nowadays generally recognized that the scope and degree of mutual understanding in humor varies directly with the degree to which the participants share their social backgrounds. This is why laughter is often limited by national frontiers and the passage of time.

Psycho-physiological Approaches: Release Theory

A connection was first established between humor and health by the classical writers. Aristotle, Cicero and Pliny the Younger (ca. 100 AD) all considered that, if subordinated to the ideals of refined and moderate behavior, laughter can provide pleasure and relaxation. This line of thought was, of course, passed over completely by early Christianity, though Clement of Alexandria (*Paedagogus*, 3rd century AD) and Thomas Aquinas (*Summa Theologica*, 13th century AD) both attributed—albeit grudgingly—a certain positive psychological and physiological effect to laughter. This concession had very much to do with the theory of "humors," established by Hippocrates in the 4th century BC, according to which the sanguine type was optimistic, cheerful and a lover of fun and pleasure, a notion that led many doctors of Antiquity and in the Middle Ages to believe that purified blood made people joyful and prone to laughter, thus reinforcing a relationship between laughter and purity of blood (in the purely physical sense, of course). Later on, in the 17th century, Ben Jonson, inspired by classical and neo-classical theories of comedy

as a literary genre, re-established the connection between the humors and laughter in a slightly different way by using the concept of *humor* as a peculiar or dominant quality that forms the basis of a person's character. For Jonson, when a person's humor is very exaggerated or extravagant, and especially if it is affected or artificial, it becomes a very appropriate subject for ridicule, constituting not a mere quirk, but an evil moral condition that occurs when the appetites gain ascendancy over the Reason. Thus Jonson saw comedy as a social corrective, because it exposes follies and vices to laughter and ridicule. The relation thus established between humor and personal eccentricity would be developed and elaborated on, both in theory and in practice, by Romanticism,

In 1579, Laurent Joubert (*Treatise on Laughter*, Figueroa-Dorrego & Larkin-Galinanes, 2009, pp. 258–277), while subscribing to both Disparagement and Incongruity theories of laughter, described the physical action of laughing in a fashion very reminiscent of certain later authors:

> Laughter is a movement caused by the jubilant mind and the unequal agitation of the heart, which draws back the mouth and the lips, and shakes the diaphragm and the pectoral parts with impetuosity and broken-up sound, though all of which is expressed a feeling over an ugly thing unworthy of pity. . . . This is caused principally by an effusion of humors, but also aided by other accidents, all depending on the agitation of the diaphragm and chest. These parts are agitated by the unequal movement of the heart, which dilates and contracts in turn, but more the former than the latter.
>
> (Figueroa-Dorrego & Larkin-Galinanes, 2009, p. 276)

In *The Passions of the Soul* (1649; Figueroa-Dorrego & Larkin-Galinanes, 2009, p. 290), René Descartes gave a very similar description of the physical aspects of laughter, and more than a century later Immanuel Kant (*Critique of Judgement*, 1790), subscribing fully to the Incongruity theory of laughter, wrote that this expression of amusement begins as the play of ideas in the mind and results in "the furtherance of the vital bodily processes, the affection that moves the intestines and the diaphragm, in a word, the feeling of health (which without such inducements one does not feel) that makes up the gratification felt by us" (Figueroa-Dorrego & Larkin-Galinanes, 2009, p. 433). As the mind is caught up in the deceptions of a jest, it is put through "a rapidly alternating tension and relaxation," which is then repeated by the body in movements that are "beneficial to health" (Figueroa-Dorrego & Larkin-Galinanes, 2009, p. 435). And Kant came to a conclusion that is seminal for Release theory when he wrote that "laughter is an affection arising from the sudden transformation of a strained expectation into nothing" (Figueroa-Dorrego & Larkin-Galinanes, 2009, p. 433).

Kant's definition was taken up by Herbert Spencer (*The Physiology of Laughter*, 1860; Figueroa-Dorrego & Larkin-Galinanes, 2009, pp. 523–529). Stating his premises in a more "scientific" manner, Spencer said that our emotions are, or at least in our nervous system take the form of, nervous energy. There is an intimate connection between nervous energy and our motor system, in such a way that nervous energy tends to produce muscular motion, and, indeed, when it rises to a certain intensity, does so, producing action. In this way, fear produces movements of escape, anger produces physical aggression, and so on. In the case of laughter, what happens is that feelings are built up that are then seen to be inappropriate, so that emotion is changed from strong to weak, and the excess energy thus produced is liberated in a series of muscular movements (laughter) which do not lead to any sort of action, but that serve only to release nervous energy, in much the same way as the opening of a safety valve does in a steam pipe. Thus for Spencer, as for Kant, laughter is a benevolent force that always produces equilibrium within an individual by allowing for the overflow of excess energy.

The idea of laughter as a release of excess energy, and the notion that this energy is created by the building up of an emotion that is then seen to be unwarranted, was taken up by many authors after Spencer and treated in different ways. Freud, among others, used it in the last part of his *Jokes and Their Relation to the Unconscious* to analyze the nature of humor, as distinct from that of jokes and comedy:

> The conditions for [humor's] appearance are given if there is a situation in which, according to our usual habits, we should be tempted to release a distressing affect and if motives then operate upon us which suppress that affect *in statu nascendi*. . . . The pleasure of humor, if this is so, comes about . . . at the cost of a release of affect that does not occur; it arises from an *economy in the expenditure of affect*.
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> (1991, p. 293)

This Relief Theory, in a form very similar to that described by Spencer and Freud, was adopted and adapted in the 20th century by many humanistically inclined students of humor and comedy. Many of them were strongly influenced by the criticism applied to tragedy, and therefore employed classical versions of catharsis as seen through the prism of Spencerean and Freudian theory, to come up with notions such as Elder Olson's "katastasis," by which the emotion of laughter is defined as:

> a relaxation, or, as Aristotle would say, a *katastasis* of concern due to a manifest absurdity of the grounds for concern. And we may distinguish three things involved: (1) the apparent or anticipated sequence of circumstances (agent, act, etc.); (2) the factors of apparent seriousness (good or evil of a certain magnitude, etc. . . .); and (3) a real circumstance manifesting the absurdity of attributing (2) to (1).
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> (1968, p. 16)

Other authors have defended various slightly different forms of the theory, combining Spencer's views with the Freudian concept of laughter as relief from specific inhibitions or repressions as applied by him to aggressive jokes. Among them was Arthur Koestler (1964/1989), who spoke about "safety-valve theory," which assumed some excess of emotions, such as anger, sexual desire, apprehension, pride and so on, needing an outlet to keep them under control. These passions, which might have driven the individual to take action to satisfy them, are deflated and deflected through laughter, which incapacitates a person for action and at the same time leaves him/her pleasurably relieved.

Scientific psychological research slightly altered the tendency descending from Spencer and Freud and, under the auspices of Daniel E. Berlyne, focused on the concept of arousal rather than release. Freud and Spencer spoke about the building up of tension, but were chiefly interested in how it was released on seeing itself unjustified. Berlyne, on the other hand, was more interested in how and in what conditions tension may be built up for laughter to be produced. (1960) According to him "slight and transitory jumps in arousal [excitement or activation] become pleasurable as a consequence of the drop in arousal that quickly terminate them" (1960, p. 199). He concluded that positive hedonic value can arise either from some condition that raises arousal only moderately (an "arousal boost"), or from a sequence of conditions generating an uncomfortable state of heightened arousal that is subsequently reversed (an "arousal jag"). Speaking of jokes, he says that there are many that fit the latter, producing a phase of discomfiture, puzzlement, "tension," or even fright, which is then rapidly resolved (1972, pp. 56–57). Berlyne's position was later modified by M.K. Rothbart et al. (1977), who argued that arousal

increases of any size will be accompanied by pleasurable affect only when they are associated with the subject's judgment that the situation is a "safe" or non-threatening one, because the experience of high-intensity stimulation may lead to immediate avoidance; indeed, if the conditions are very pressing, a person does not remain in a threatening situation long enough to make a judgment anyway as to whether it is safe or not. This led other researchers to point out that, for humor to be taken as such, a specific frame of mind must exist. Freud had already established that one of the conditions necessary for humorous laughter is "a generally cheerful mood, in which one is inclined to laugh," and an "expectation of the comic" (1991, p. 282). Elder Olson also talked about the need to be in an appropriate frame of mind in order to appreciate humor, and more modern, psychological lines of research (McGhee, 1972; Rothbart et al., 1977; Suls, 1977) emphasized the importance of a playful or non-serious mood in most humor situations.

It has been argued that Relief Theory is a theory of laughter rather than specifically a theory of humor or comedy, because all this talk of the building up and release of tension, "arousal jags," and so on, suggests the hysterical laughter often attendant on the happy outcome of a difficult situation. However, though its application to verbal humor is not always apparent, it does account for the intuition, taken up by later theorists, that humor appreciation requires the pre-existence of a propitious frame of mind.

Cognitive-Perceptual Approaches: Incongruity Theory

As I said earlier, the way in which we laugh and what we laugh at was, until fairly recently, considered an indicator of education, sensibility, and, in short, social class, and from as far back as Aristotle, thinkers have made an effort to analyze and define what other factors, apart from ridicule and derision, contribute to amusement. And I use the term "amusement" here, as distinct from laughter, quite deliberately, for the cognitive approach of Incongruity Theory deals with contrived "wit" rather than with the more accidental or incidental laughter occasioned by situation or personal characteristics; it deals (according to many past theorists) with the smile rather than with laughter. And it does so initially from the essentially pragmatic perspective of using amusement with specific aims, as is indicated by the type of works in which we first find this angle: Aristotle's *Rhetoric* and *Poetics*, Demetrius's *De Elocutione* (ca. 3rd century BC), Cicero's *De Oratore* and *De Officiis*, or Quintilian's *Institutio Oratoria*. Indeed, Aristotle, whose comments were seminal for later developments in the field, considered that making one's listeners laugh is a good way to gain their attention and good will (positive identification) and is useful in controversy as a way of disarming one's opponent.

Aristotle, therefore, and those later classical writers mentioned, went to considerable lengths to study the mechanisms and define those (linguistic) devices that can be used to produce laughter: homonyms, synonyms, an unconventional use of language, impossible hyperboles and exaggeration in general, punning, irony, ambiguity, unexpected turns, drawing strange resemblances or dissimilarities, comparisons and metaphors, etc. Some of them (Aristotle, Cicero) referred to the importance of surprise, or of deceiving expectations and also, more specifically, to incongruity (Demetrius, Cicero) and the importance of brevity (Quintilian). All of them, however, though aware of the rhetorical usefulness of wit and of the social and psychological uses of conviviality, drew a line between the boorish humor of buffoons and the low comedy that attracted the rabble and the acceptable, tactful, polished wit of the educated, urbane elite.

This elitist concept of "high" culture as opposed to the "popular" one was taken up again by the Renaissance, which re-discovered classical culture and turned it not only into a fundamental reference, but also, in itself, into one of the most important means of attaining that sophisticated elitist cultural status sought after by the aristocracy and the clergy. In this context Renaissance

humanists interested in laughter returned to Cicero and Quintilian's writings on rhetoric and oratory. Thus Baldesar Castiglione's *The Book of the Courtier* (1528) and Thomas Wilson's *Art of Rhetoric* (1553) concentrated on analyzing what things may cause laughter different from the derisive sort, and they hit, in fact, on many characteristics that would be repeatedly mentioned and analyzed in subsequent literature on the subject.

Though preceded by a new period of predominantly negative attitudes to laughter, as we saw earlier, this interest in the social aspects and possibilities of wit was renewed in the 18th century, when the subject was frequently dealt with in parallel to contemporary discussions on taste and politeness. Writers and thinkers like the Earl of Shaftesbury or Lord Chesterfield were again interested in defining relatively refined forms of laughter and a "polite" concept of humor in line with the "justness of thought and style, refinement in manners, good breeding and politeness of every kind" that the Earl of Shaftesbury (*A Letter Concerning Enthusiasm to My Lord Sommers*, 1708; Figueroa-Dorrego & Larkin-Galinanes, 2009, p. 371) saw as the mark of the individual that lives in a free society. Malicious laughter was increasingly rejected and, in view of this, a great many writers made a real effort to define the various aspects of the laughable or "ludicrous" and what causes it, tending in general to attribute the laughable to incongruity, seen under various guises.

Some authors, such as Joseph Addison (*The Spectator*, 1711), Alexander Bain (*The Emotions and the Will*, 1859), Jean Paul Richter (*School for Aesthetics*, 1813), and George Eliot (*German Wit*, 1856), among others, saw incongruity as the perception and discovery of relations between ideas or things that at first sight appear totally unconnected, but always on condition, as Sydney Smith pointed out, that "it must be . . . things which are never brought together in the common events of life, and in which the mind has discovered relations by its own subtlety and quickness" (1804; Figueroa-Dorrego & Larkin-Galinanes, 2009, p. 439). For others, such as Francis Hutcheson (*Reflections Upon Laughter*, 1725) and William Hazlitt (*Lectures on the Comic Writers of Great Britain*, 1818), incongruity implied finding differences in apparently similar concepts, or between expectations and outcomes, while yet other writers—Corbyn Morris *(An Essay on Wit*, etc., 1744), Coleridge (*A Lecture on Wit and Humor*, 1818), or James Sully (*Ridicule and Truth*, 1877)—accepted both possibilities. Some writers formulated their concept of incongruity in terms very similar to those accepted today. Richter, for example, defined the ridiculous as based on incongruity, but said that the latter lies in the fact that we attribute to another person a knowledge and motivation that seem logical from our point of view, but that are contradictory to what that other person actually does, so that his acts seem nonsensical and ludicrous and cause our laughter (1813; Figueroa-Dorrego & Larkin-Galinanes 2009, p. 450). Arthur Schopenhauer (*The World as Will and Idea*, 1883)—and later Freud (1991, pp. 49–51)—anticipated Victor Raskin's script-switch theory (1985) by saying that we organize our perceptions under what he called "abstract concepts" which frequently lump different things under the same label, so that we often refer to very diverse objects by the same word. The ludicrous arises, according to him, when we are struck by a clash between our initial conceptual interpretation of a word and our perception of another "real" interpretation as activated by the context in which we find it (1883; Figueroa-Dorrego & Larkin-Galinanes, 2009, p. 487). Bergson said a situation was comic "when it belongs simultaneously to two altogether independent series of events and is capable of being interpreted in two entirely different meanings at the same time" (1900; Figueroa-Dorrego & Larkin-Galinanes, 2009, p. 600), and gave the notion of incongruity a social dimension by defining it, in the context of his view of the "wideawake adaptability and the living pliableness" (Figueroa-Dorrego & Larkin-Galinanes, 2009, p. 578) necessary in social life as "something mechanical encrusted on the living" (Figueroa-Dorrego & Larkin-Galinanes, 2009, p. 585).

Whatever the version of incongruity given, this factor was usually recognized as necessary but not sufficient to cause laughter. In the early 18th century, in fact, the connection between incongruity-based wit and laughter was not necessarily at all clear. Indeed, wit is sometimes described as similar to simile and metaphor, though the two latter are "slower" in their effect than wit because they are more accurate and complete (Corbyn Morris, 1744; Figueroa-Dorrego & Larkin-Galinanes, 2009, p. 413). We also find in the literature of the period frequent references to "grave wit." So, what other ingredients are necessary to make incongruity funny? Some authors, such as Sidney Smith (1804), emphasized the idea that the incongruity must be a novel one; others, following the same line of thought, stressed that an element of suddenness or surprise is indispensable (Kant, Smith, Schopenhauer, Coleridge) and that the new conjunction of ideas cannot be useful, beautiful or sublime, nor can it excite "high passions" such as anger or pity (Sidney Smith), or any sense of danger or pain (Coleridge), and Herbert Spencer said that only "descending" incongruity can cause laughter, because "laughter naturally results only when consciousness is unawares transferred from great things to small"; "ascending" incongruity, produced "when after something very insignificant there arises without anticipation something very great" (1860; Figueroa-Dorrego & Larkin-Galinanes, 2009, p. 529), causes wonder, as happens in the case of poetic metaphor or simile. Charles Darwin (*The Expression of the Emotions in Man and Animals*, 1872; Figueroa-Dorrego & Larkin-Galinanes, 2009, p. 532), like Freud, specified that "the mind must be in a pleasureable condition" for incongruity to be perceived as funny, and the latter also mentioned brevity as a necessary condition for the success of jokes.

Thinking and research on the role of incongruity in what we find humorous was one of the main lines taken up in the 20th century, and certainly that which has proved most fertile for contemporary linguistic theories. Pursued by thinkers such as Arthur Koestler (1964/1989), Paul Jerry Suls (1972; 1977), McGhee (1972; 1977), and Thomas Shultz (1976), among others, the theory changed slightly, and incongruity alone was no longer considered sufficient to make something funny. Instead, humor appreciation was conceptualized as a two-stage process involving the discovery of an incongruity followed by the resolution of that incongruity by the application of a different cognitive rule. This resolution is what separates humor from what otherwise would be simply nonsense. Suls (1972) compared the information-processing strategies used in dealing with a joke or cartoon to those used in the process of reading normal, non-humorous material. The chain of input, prediction, confirmation/disconfirmation, readjustment to new input, etc., is the same, but what happens in a joke, which is normally a simple narrative structure, requiring little readjustment on the part of the receiver, is that there comes a point, usually at the end, where the listener's expectations are abruptly disconfirmed without the possibility, because this is the termination of the joke, that later text will be read in to reconcile the incongruity. At this point, the receiver engages in what Suls called "problem solving" to find how the ending (i.e., the "punch line") follows from the main body of the joke.

In explaining how this task is carried out, Koestler coined the term "bisociation," which became pivotal to the theory. The pattern underlying the appreciation of jokes, he explained, is the perception of an entity (either a situation or an idea) in two "frames of reference" or "wavelengths" or "associative contexts." When the idea or situation is perceived in two frames, it is "bisociated," i.e., linked to two associative contexts, which normally are incompatible (Koestler, 1964/1989, p. 35).

This explanation was taken up in various ways by other authors such as Keith-Spiegel (1972), or Avner Ziv (1984) who emphasized, once more, the importance of the element of surprise in a joke. Indeed, the unexpected, located in the "punch line," was established as a necessary (though not sufficient) condition for the humor experience. The punch line itself, thus defined as a

high-powered selection factor that distinguishes humor from non-humor, because it contains a shift from one level of abstraction to another, was also given considerable attention. Avner Ziv stressed that it should be short, and should constitute "a point of climax that is quickly over," no matter how lengthy the lead-up (1984, pp. 90–91), and John Morreall described the effects of the punch line as a sudden psychological change that takes place too fast for us to assimilate into our experience in the way we can assimilate other psychological changes and that is a function of the amount of change ("the difference between the earlier stage and the latter") and the time over which the change takes place (1983, pp. 48–49). For a sudden change, therefore, there must be a relatively large difference between the two states, and the time separating them must be relatively short.

Conclusion: Victor Raskin

As may be appreciated from what I have written, each new version of humor theory tends to be layered on and over-reach previous ones; each historical period builds on, but also adds new insights to the theories received from previous ones. This is particularly so in the 20th century, when interest in the subject became "scientific" in the hands of psychologists, sociologists, and ultimately, linguists. Indeed, one of the most interesting accounts of incongruity and its resolution, both because it encompasses many aspects of past theory in a way that is both satisfactory and convincing and because it has turned out to be seminal for the linguistic theories set out and explored in the rest of this volume, is that given by Victor Raskin (1985). Founded on script-based semantics, it sets out to "determine and formulate the necessary and sufficient conditions for [a] text to be funny" (1985, p. 47) and establishes that

> A text can be characterized as a single-joke-carrying text if both of the following conditions are justified:
>
> i) The text is compatible, fully or in part, with two different scripts
> ii) The two scripts with which the text is compatible are opposite.
>
> (1985, p. 99)

Raskin's formulation subsumes many previous theories: by virtue of its reference to scripts (culturally/socially acquired), the theory embraces the social basis of humor appreciation pointed to by social-behavioral theorists. We are also reminded of superiority theory by some of the "script-oppositeness relations" listed by Raskin to develop his formulation (goodness-related scripts/badness-related scripts, high-stature-related scripts/low-stature-related scripts, etc.), while the notion of "scripts" in itself ties in with the formulations of incongruity given by Richter and Schopenhauer in the 19th century. Like many proponents of Relief Theory, Raskin lays stress on the fact that the appreciation of jokes necessitates a frame of mind receptive to humor. Also, what he calls the "script-switch trigger," which causes the receiver of a joke to become aware of the opposite scripts involved (creating "arousal boost" and "arousal jag") is, of course, the "punch line" of 20th-century incongruity theory, while the "trigger" and its effects remind us of Suls's "problem solving" and Koestler's "bisociation."

Because of all these (and more) parallelisms and connections, therefore, and in spite of its new linguistic orientation, Raskin's script-based theory is particularly interesting to the historian of humor theory, who will surely find equally rich material for thought and research in tracing the sources that underlie the recent linguistic theories set out in this volume.

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3
Humor Universals

Annarita Guidi

This chapter focuses on the universal language correlates of a semantic-pragmatic pattern that is here assumed as a humor universal, i.e., the Script Opposition (Raskin, 1985). After a discussion on the main research issues in human sciences, three dimensions for the study of humor universals are proposed, and some possible research paths are considered. A comparative analysis of puns is proposed as an example of empirical verification of humor universals. A first reason of this choice is the importance of humor universals testability: at the present time humor language universals, e.g., pun mechanisms, are the only ones that have undergone a systematic verification. This state of the art is related to the cluster of variables (e.g., situation, social and cultural background knowledge, attitudes) that sciences must take into account when dealing with humor.

Besides, the pun is here seen as a *prototype* of verbal humor. Puns are clearly identifiable as a means of humor production (Oring, 2011),[1] and share with other types (e.g., non-verbal humor phenomena) the same semantic-pragmatic pattern. As remarked by Morton (2014), relativism is sometimes used to deny the possibility of cross-cultural comparisons (whose pioneers come from the anthropological field); yet,

> while many anthropologists might agree that the content of humor is invariably culturally specific [. . .] Douglas's abstract definition of humor as a play on form [. . .] depends fundamentally on a universal cultural account of humor as bisociation [. . .] the standard example of bisociation in humor is punning, which depends on the phonemic structure of particular languages, yet can be performed in all of them.
>
> (pp. 46–47)

Within the linguistics application to Humor Research, the necessity for cross-cultural analyses has been asserted (Attardo, 1996; 2008). Universals in linguistics have been discussed by Greenberg (1966/2005) and represent an important issue within the generative perspective; some related ideas, such as the relationship between language structure and *use* (e.g., frequency, Zipf, 1935), have been recently reconsidered in cross-linguistic analysis (Bybee, 2006; 2010). These studies address the fact that some phenomena, pertaining to different levels of the language system (e.g., phonology, morphology), can be present in all languages. A basic aspect is

thus the analysis of data in a cross-linguistic/*cultural* perspective; the empirical grounds make universals, since the publication of Greenberg's work, concrete and accessible (Haspelmath, 2005). Formulation of universals should assure their testability; at present time, "the empirical work of testing the predictions on a representative sample of the world's languages remains to be done" (pp. x–xi).

A program of research initiatives is included in a contribution (Evans & Levinson, 2009; Levinson & Evans, 2010)[2] where language universality and diversity are considered in terms of cognitive constraints; the premises of such a model can be taken into account also in disciplines other than linguistics. Recurrent patterns across languages/cultures are seen as stable solutions satisfying multiple design constraints that reflect cultural-historical factors and the characteristics of human cognition. For example, it is assumed that languages can recruit their sound systems from fine phonetic details that vary in almost unlimited ways; thus, languages can systematically differ in arbitrarily fine phonetic detail. As a consequence, analyses should start from a set of universal phonetic resources organized by the cognitive system; cultures would differ in the way they classify and use such resources.

Historical Perspective

The universality of humor is maintained by influential scholars within psychology, anthropology, and sociology. As argued by Apte (1985) and Lefcourt (2001), humor is a universal aspect of human experience, occurring in all cultures and virtually all individuals throughout the world. Edmonson (1952, p. 6) highlights "the assemblage of observed regularities in behavioral sequences leading to laughter" as a crucial feature of humor. Not only are humor and laughter considered universal; according to Berlyne (1969) humor and play are strictly related, while Martin (2007) argues that all forms of humor seem to originate in a basic play structure.

Laughter (one of the least understood human behaviors) and smiling (the most frequent facial response to humor: Ruch, 1993) are considered universal expressive patterns in the sense that they are *innate* (Ruch & Ekman, 2001); laughter is supposed to be present before human beings develop speech. At the same time, the difficulty of determining the universality of humor on the base of laughter is assumed (Olbrechts-Tyteca, 1977). From the psychological perspective, it is clear that laughing or smiling in response to humor not always corresponds to humor appreciation or enjoyment (Frank & Ekman, 1993); across cultures, the functions and meanings of such expressive-communicative social signals significantly vary (i.e., humans from different cultures smile in situations involving both negative and positive emotion, such as embarrassment, surprise, discomfort), to the extent that no universal facial expressions of enjoyment have been recognized (LeBarre, 1947; Mead, 1975).

Also functions of humor are hypothesized to be universal, and classified into two macrocategories: social management (e.g., reinforcing social relationships, remedying of embarrassing or unpleasant situations, gaining attention, pointing out the violation of rules: Nilsen, 1983; Norrick, 1984) and defunctionalization (Long & Graesser, 1988). The first is strictly related to the functional explanation of humor proposed by the pioneer studies in anthropology (Parsons & Beals, 1934; Radcliffe-Brown, 1940; 1949; Hammond, 1964)—that is, social control, or humor as the deterrent/punishment for socially deviant behaviors. The latter mainly concerns the social play in which language is used for humorous purposes. In cross-cultural psychology, humor is approached as a universal in terms of its effects on health; the focus is thus on the factors supporting/banning humor (Kruger, 1996; Lefcourt, 2001; Dean, 2003). In terms of social functions, another important element related to the universality of humor is the "joking

relationship," whose widespread existence is documented by various research (Apte, 1985); such codified relationships are aimed to maintain social harmony.

At a more general level, humor is considered a universal, partly natural and partly acquired, mode of *communication* (see the concept of non-bona-fide communication: Raskin, 1985); that is, a *use* of language for purposes (or functions: Jakobson, 1960) other, or further, than sharing information, intentions, judgments, orders, requests, etc. Humor is a human-specific dimension found throughout all of recorded history; no cultural group has ever been discovered that was devoid of a sense of humor (Chiaro, 2010): "responding to humor is part of human behavior [. . .] other parts of which comprise such important social and psychological manifestations of homo sapiens as language, morality, logic, faith, etc." (Raskin, 1985, p. 2). Thus, also in terms of language, humor *per se* is a universal: "humor, like communicating and instructing, is one of a small number of pervasive and universal language functions" (Bergen & Binsted, 2004, p. 79).

Even though humor is universal to humankind (Monro, 1963; Berlyne, 1969; Sternthal & Craig, 1973), the type of humor expressed and/or appreciated may vary considerably across cultures. The specific features (e.g., targets, contents) of humor in different social and ethnic groups are the core issue of ethnic humor studies that highlight the most salient elements, norms, values, and systems of relationships of a culture and its worldview (Davies, 1986; 2014; Ziv, 1988; Lincoln, 1993; Mbangwana, 1993; Fry, 1997; Al-Khatib, 1999). On the other hand, cross-culturally spread taboos (e.g., sex, obscenity) are considered common subjects of humor (Berger, 1999). A trans-cultural nature is also attributed to the character of the fool (Radin, 1956) that can be found in the Amerindian cultures (e.g., Inca courts) as well as the African ceremonies and the Japanese theatre. Concerning humor preferences and appreciation, some cross-cultural and cross-national studies have been conducted (Morain, 1991; Nevo et al., 2001), with different results. Humor is, thus, something present in some form in all human groups and, at the same time, it is recognized as a culturally and historically contingent construct (Fine, 1983; Boskin, 1987; Hall et al., 1993; Purcell et al., 2010). Different cultures view humor in different ways (Alford & Alford, 1981).

As a consequence, a first question is related to what can be considered as universal in humor. Schmitz (2002), on the base of Long and Graesser (1988), divides humor into three categories: universal, culture-based, and linguistic. Universal humor is often equated to non-verbal humor (e.g., slapsticks: Boxman-Shabtai & Shifman, 2013) as well as to humorous expressions not related to linguistic features or cultural elements (Jabbari & Ravizi, 2012). Because "what seems to have been lost on most researchers is that beyond this reference to the surface form of (part of) the text, verbal and referential humor share the same deep semantic and pragmatic mechanisms" (Attardo, 1996, p. 1), universality should be considered for verbal as well as non-verbal forms of humor. Moreover, cultural differences are not exclusively humor-related (i.e., non-native speakers should know the same things in order to understand a joke vs. a political debate on the Watergate affair: Attardo, 1994, p. 212).

Therefore, in the search for, and empirical verification of, humor universals it seems important to focus on basic, shared cognitive patterns and elements, as is suggested by the six Knowledge Resources of the General Theory of Verbal Humor (Attardo & Raskin, 1991). A further reason for setting humor universals research in the cognitive framework is the fact that some humor phenomena, such as jokes and comedy, appear to be easily borrowed from culture to culture (Mintz, 1983); cultural modifications in joke translation often consist of replacement of personal names, brands, etc. (Shifman et al., 2014). This perspective is also important for applied research, as the issue of general humor mechanisms are related—indeed,

the "appeal" of humor as a universal communicative technique (Unger, 1996; Beard, 2005) and the construction of models (e.g., taxonomies) for the analysis of cross-cultural humor-based advertising (Crawford & Gregory, 2015).

We can approach the concept of humor universal through three comparative dimensions: (1) conceptual features (e.g., ambiguity); (2) phenomena (e.g., jokes, irony, dialect humor[3]); and (3) aspects of phenomena (i.e., irony factors—ways in which joke texts are arranged and mechanisms of humor understanding/appreciation). With respect to such issues, within the frameworks of cultural anthropology, ethnography, philosophy, linguistics, psychology, and sociology, some scholars came to very similar conclusions, though they were not yet supported by a huge cross-linguistic/cultural base of empirical data.

1. Related to such conclusions is the cluster of conceptual features identified by human sciences as cross-cultural constants. Through synchronic and diachronic analyses of literary and communicative practices, themes, functions, and constraints, cross-cultural features of humor have been recognized in ambivalence (Bakhtin, 1979), unexpected, overturning, lowering or degradation, violation of norms, highlighting/penalization of a deviant behavior. Morton (2014) refers to universal structural properties through the notion of anti-structure, i.e., "the state of being betwixt and between (liminality) [. . .] formal contradiction [. . .] reversals and inversions to subvert rules and regulations" (pp. 46–47). A dialectic of perspectives (recurrent elements vs. non-reducibility of language- and culture-specific elements—e.g., the "non-exportable" nature of humor (Eco, 1981) emerges from these studies. Although the features just listed are not humor-specific, at the same time, such features are present through different combinations and declinations, in texts and contexts that have been analyzed since the last half of the twentieth century (Guidi, 2008). The model of family resemblance (Wittgenstein, 1951) is important in order to understand this first dimension. None of such features, taken alone, can be assumed as a humor universal; the outlined cluster should be considered in a holistic perspective, i.e., one or more (combinations of) features are present in any humor manifestation.

Such features can be referred to as the psychological concept of *incongruence* that, even if not humor-specific, is a constant of the reflections on humor since the philosophical approach of Plato. The incongruity-resolution model (Suls, 1972; McGhee, 1979; see also Koestler, 1964)[4] is important for humor universals research because it points out how the cognitive framework can isolate potentially universal elements, or aspects, of humor. A cognitive approach can, indeed, provide a more basic understanding of how humor mechanisms operate across different cultures (Alden et al., 1993). Nonetheless, processing (and resolving) the inner incongruence of a humorous stimulus is seen as an evolutionary/adaptive advantage in the Disabling theory of Chafe (1987).

The same conceptual features, as well as the incongruity model, are gathered and synthesized into an operative model (i.e., a set of verifiable conditions) by Raskin (1985). The Semantic-Script Theory of Verbal Humor is the only one individuating two conditions for humor occurrence; because it has not yet been falsified, we can assume the semantic-pragmatic mechanism of Scripts Opposition (whose neural correlates are analyzed, for example, by Casadonte, 2003) as a first (and absolute: see the section "Methodology and Sample Analysis") humor universal. The model is also at the base of the General Theory of Verbal Humor (Attardo & Raskin, 1991), which lists six parameters to be instantiated in a humorous text; such parameters (Script Opposition, Logical Mechanism, Target, Situation, Narrative Strategy,

Language) can be considered a systematic base for the development of comparative studies on humor universals.

2. Concerning the presence of specific phenomena across languages and cultures, I only point out a datum. Despite its universality, humor derives uniqueness from the cultural context (Apte, 1985) or co-text. As argued by Sherzer (p.c.), the kind of text identified as "joke" within the so-called Occidental culture does not exist in others, e.g., the Kuna culture. A cross-linguistic analysis of puns (Guidi, 2008) shows that, besides contents of humor, text types and cultural contexts represent a limit in the search for humor universals: this is due to the fact that so many textual/contextual patterns in which humor regularly occurs (e.g., the Balinese verbal routines, the Japanese Rakugo, the Tzotzil verbal dueling) are culture-specific. This does not imply that Knowledge Resources, such as the Narrative Strategy, are not crucial in comparing jokes or other text types; for example, the question-and-answer pattern, as a language-independent construct, could be detected across languages/cultures (Petrenko, 2008), with specific instantiations (e.g., riddle, knock-knock joke).
3. Concerning specific aspects of humor phenomena, according to Apte (1985) the "verbal techniques" of humor "are universal [. . .] probably used in all cultures, although they may not be as extensively defined as the numerous structural processes in language. At the basis of much linguistic humor are the various types of linguistic units and their interrelationship" (pp. 178–9). In a similar way, Hill (1985) argues that "punning owes its own occurrence to the essential nature of language and meaning, and [. . .] it must therefore occur in all languages and cultures" (p. 450). The importance of such reflections is also related to connections made by Hymes (1964) between humor and verbal play. Such juxtaposition makes even more clear the fact that linguistic mechanisms, processes,[5] clues at the base of humor are not only the correlates of a common semantic-pragmatic pattern; they are language mechanisms *tout court:*

   > there are two anthropological maxims for the study of speech play and verbal art: unlike some forms of art, (1) their medium is itself already culturally structured and (2) they are universal. Hence the need [. . .] to consider the structure of the language which is their mode of existence.[6]
   >
   > (pp. 291–293)

We find the same idea in the first analyses of verbal humor in non-Indo-European languages. Sapir (1932), looking at the relationship between productions of native speakers and the characteristics of Navaho language, argues that the homonymy relationship is the most important factor determining the occurrence of puns; the great number of homonymous elements in Navaho allows the humorous reinterpretation of words and phrases in riddles, proverbs, and puns.

Then such a consideration can be found in Pike, one of the first linguists (with Emeneau, 1947) collecting data on non-Indo-European humor. The key idea influencing the following studies is that homonymy—as a structural property and a constitutive ambiguity of language systems—can be exploited for humorous purposes. Homonymy and near-homonymy presumably occurs in all languages and tonal ones, such as Mixtec, are no exception.

It is not by chance that such kinds of phenomena (homonymy, near-homonymy, and so on) represent the base of the first taxonomies of puns. Such scholars implicitly highlight the possibility of finding unifying elements across languages/cultures. The aim to individuate a constant and the ability to explain the nature of humorous texts beyond differences of time

and space, also inform Greimas's work (1970) on jokes, that moves from a conceptual feature (contrast or disjunction) to an effort to model such texts in terms of isotopes (i.e., semantic interpretations).

The Development of Puns Studies as a Path Towards Humor Universals

For a long time, and mainly within a structuralist approach, puns have been the sole application field of linguistics to humor[7] (Raskin, 1985; Attardo, 1994). Their universality has been taken for granted within the scientific community but has not been supported by experimental data; the models proposed appear partially limited with respect to the aim of accounting for, and predicting, puns mechanisms across languages/cultures. For example, "systematic" taxonomies of puns (Attardo, 1994), centered on the levels of language systems, appear to be based on Indo-European languages; as a consequence, their classification categories are invalidated by typological differences (e.g., tonal vs. non-tonal, analytic vs. fusional language).

Important enhancements have been conveyed by a second generation of studies, based on phonetic similarity/distance. Such concepts have gained a crucial importance since the 1980s; taxonomies simplify the set of classification criteria and point out the relevance of the phonetic structure. Therefore, the string (vs. the word), as a "linear sequence of elements of determinate length and constitution" (Crystal, 1991, p. 329) emerges as the unit of analysis; this is an important step in the search for universals, because it foregrounds (1) the basic, abstract elements (or resources) of the phonetic chain involved in punning, and (2) the mechanisms of manipulation of such elements. The appropriateness of the string is claimed by Attardo (1994), who notes that puns manipulate words as well as smaller and larger units, i.e., "arbitrarily large segments of utterances [. . .] strings of phonemes arbitrarily chosen in the utterance" (pp. 131–132). The string is used by Hempelmann (2003), Ritchie (2004), and Guidi (2012a, 2012b).

Because phonetic similarity emerges as a core factor, phonetic distance is deeply analyzed. Vitz and Winkler (1973) define phonetic distance as "the proportion of phoneme positions after alignment which do not match" (p. 376). The first hypothesis on a threshold of phonetic distance is due to Attardo (1994), who considers phonetic similarity as crucial with respect to pun processing and appreciation, also in the light of the metalinguistic nature of puns (i.e., a text making an implicit reference to its linguistic structure). The author hypothesizes that such a recognition process could fail when a certain phonetic distance threshold is passed, i.e., when the two strings (target and pun—e.g., respectively, *dying* and *lying* in *Diplomacy: the fine art of lying for one's country*) are phonetically distant to the extent that their similarity is too difficult to be perceived. Phonetic distance thus comes to represent a cognitive constraint, to be satisfied by patterns of punning manipulation. Scholars who focus on phonetic distance are Lagerquist (1980), Monnot (1981), Zwicky and Zwicky (1986), Sobkowiak (1991), and Hempelmann (2003). The latter deals both with measuring phonetic distance and establishing a threshold of perceived similarity, and is the first application of Optimality Theory to puns. Hempelmann calculates distance according to the number of segments (i.e., phonemes) differing in target and pun and the difference, in terms of distinctive features, between each pair of segments. His study determines a threshold corresponding to five phonemes. It is hypothesized that, if a pun went above this threshold, the target string would be not recognizable. Such a threshold has been extended to cross-linguistic comparison and tested in languages other than English (see the section "Metholodogy and Sample Analysis").

Core Issues and Topics

In the outlined framework, the primary focus in the study of humor universals is not on the specific Target (e.g., cultural symbols) or Situation represented in humor (or place in which humor occurs); it is on the cognitive, semantic-pragmatic mechanisms, Logical Mechanisms (see their relation to the resolution of humorous incongruities: Attardo, 1997), Narrative strategies (e.g., questions-answers, exposition, dialogue as narrative arrangements of jokes), and formal (e.g., linguistic) general mechanisms through which humor is expressed/understood. The universal to be tested is not, say, a social category as the humor Target; the universal to be tested is the presence of a Target of humor and, at a more detailed level, the fact that such Target is characterized (and laughed at)—for example, on a social or linguistic basis (e.g., a different language: Cardona, 1976; non-grammatical expressions: Raskin, 1985). Some specific Script Oppositions may not be present in a culture/language community, but the point would be to find humor that is not script-opposition-based, or jokes not including a punch line in a specific position of the text (see Attardo, 1994).[8] Script Opposition and Target can be analyzed in terms of absolute universals (Evans & Levinson, 2009): the matter would not be sampling, but finding one counterexample. As for puns, phonetic similarity represents the Logical Mechanism, and a cognitive constraint (the lower the grade of phonetic similarity, the higher the cost of pun processing); for other phenomena, the relationship Logical Mechanism/cognitive cost can be analyzed. Consider jokes in a cross-cultural perspective: can Logical Mechanisms differ in terms of cognitive load? Which Logical Mechanisms recurrently gather together the opposed scripts? Which Narrative Strategies are more frequently related to specific Logical Mechanisms?

The issue of phonetic similarity is even more important in the light of research focused on the perceptual dimension of language universals, which shows how speakers can avail themselves of the universal form-meaning relations embodied in the biological code.[9] Such dimension is relevant with respect to the pragmatic correlates of punning manipulation. Besides phonetic similarity and intentionality, which conditions do allow the felicity of pun? Which is the role of cues, or humor markers, i.e., elements that distinguish humor from other aesthetic experiences (Berlyne, 1969)? How to compare them across languages/cultures? Regarding verbal cues, a promising result concerns the relationship between puns and idioms. According to scholars in Conversational analysis (Sacks, 1972; Sherzer, 1978), puns are likely to occur in formulaic expressions. Despite the language-specificity of such expressions, cross-cultural tendencies emerge (Gossen, 1973; Partington, 2006; Litovkina, 2014), and the current base of data could be enhanced by further corpora studies. Formulaic phrases are present in 67% of Hempelmann's (2003; 2004) corpus of English puns; in Guidi's (2008) multi-language corpus, they are involved in 41% of cases. Two main hypotheses can be formulated on the correlation between punning manipulation of an idiom (e.g., English/Balinese: target *see you later*, pun *siu surat* "1,000 letters") and perlocutionary effects. On one hand formulaic expressions, because of their salience (i.e., frequency, familiarity, accessibility), could act as clues, facilitating the target recognition; this can explain why puns tend to manipulate them. On the other hand, experimental data (Guidi, 2012b) show that puns manipulating idioms are more frequently judged as errors by native speakers; the idiom seems to act as a limit; i.e., its violation leads to the interpretation of the pun as an ill-formed, or senseless, utterance. Other verbal cues are represented by specific lexical and grammatical intensifiers, as well as metalinguistic comments and tropes (see Burgers et al., 2012; Fusari, 2013 for irony). In puns, phonetic similarity (also involving idioms) guides the hearer in backtracking the whole expression and realizing the overlapping of opposed scripts. This relates to Non-Bona-Fide communication and recognizing the humorous intention

of the speaker. Also regarding other phenomena and modalities, it could be important to compare how humorous intention is signaled:[10] are the laughter (Vettin & Todt, 2004) or the tone of voice and the facial expressions (Caucci & Kreutz, 2012 for sarcasm) cues, or markers, of humorous intentions in languages/cultures other than those in which such aspects have already been shown? And, do languages share the ways in which such cues occupy specific positions in the text, discourse, or conversation?

Concerning the Knowledge Resource of Language, because cognitive processes and constraints are assumed here as a base, a first issue concerns the determination of an operative model for cross-linguistic comparison of humorous phenomena. Results of second-generation studies point in this direction, highlighting the overlap between puns and ludlings:[11] this model corresponds to the manipulation of phonetic material, based on shared knowledge, and aimed to goals other than those of Bona-Fide communication. Whether the goal is to amuse the hearer, and/or to respond to the needs of in-group communication, the speaker intentionally modifies, on the basis of shared cognitive rules/processes, the elements of a string corresponding to a (or part of a) sentence or a word. At a high level of abstraction, such manipulation takes the form of one or more of the categories of change in structural rhetoric: an item can be altered "per adiectionem," "per detractionem," "per immutationem," or "per transmutationem" (Lausberg, 1998, §58, pp. 217–220). Other results of second-generation studies relevant for the definition of such a model are related to the line between puns and errors. On the semantic-pragmatic plan, Script Opposition seems to differentiate puns from phonological-lexical errors, slips of the tongue, and spontaneous blends (Guidi, 2012a, 2012b). While in puns relationships other than Script Opposition (e.g., co-hyponymy) seem not to be present, in spontaneous phonetically based phenomena, a semantic part (Script Opposition, or other relationships), or "interference" (Motley, 1980), can't be excluded. Comparative corpora studies, besides providing new semantic-pragmatic and phonological data on humor universals, could contribute to further define such a boundary.

A last topic deserving cross-cultural analyses is metalanguage of humor. Is a common organization recognizable across folk taxonomies? Such an issue affects the definition of the humor universal itself and its level of generality; in this case, the object is represented by semantic components (Langacker, 2009). Guidi (2006; 2012c) shows four components to recur in six humor classifications:[12] Verbal (humor expressed through language: Zinacantan *ʔištol loʔil*, lit. toy tale or "frivolous talk, joke"); Codified (humor characterized by constraints on text structure, or linguistic form, or situation in which it occurs—e.g., rituals: Tzeltal *loʔil k'op*, lit. Carnival language or "humorous speech, jests occurring in Carnival"); Bilateral (humor characterized by a double constraint—i.e., a specific number of participants producing specific actions: Tzotzil *baʦ'i ʔištol loʔil*, lit. genuine frivolous talk or "verbal dueling, puns"); Aggressive (humor directed to a target with explicit derogatory tones and purposes: Tzotzil *jolom-k'optay*, "to ridicule"). These components are hypothesized as a cross-culturally shared structure, i.e., a pattern of features grouping/differentiating in a similar way the words of the humor field. Semantic values, as well as specific combinations of components, are proposed as cultural specificities. For example, all analyzed languages tend at least to discriminate between Verbal and +/− Verbal humor (Basque *irrimarra* or "caricature"), and between Aggressive and non-Aggressive humor; the combination (Verbal, Bilateral) is found to be lexicalized only in Chinese, English, and Tzotzil.

Methodology and Sample Analysis

The methodology outlined here is based on a definition of pun, used as an operative model (i.e., a tool for cross-linguistic comparison) whose theoretical framework is represented by

Optimality theory (Prince & Smolensky, 1993). Autosegmental Phonology (Goldsmith, 1976) is used for data representation and comparison (through Segments tiers, Consonant-Vowel tiers and Tonal tiers). The model is related to Greenberg (1966/2005) with reference to a hierarchy of constraints as the interpretive mechanism and a series of cognitive-linguistic patterns (i.e., phonological processes modifying elements of strings) as empirical universals to be verified on multi-language corpora.

The main points related to Optimality theory, whose hierarchy of violable constraints has proven to account for puns' cross-linguistic tendencies, are the following. Phonological patterns (e.g., substitution of phoneme clusters, as in English/Navaho: target *studebaker* or "car trademark," pun *hastoi bibía* or "old man's stomach") are bound to phonetic similarity and designed as violations of constraints. Marked/unmarked (e.g., metathesis/substitution of phonetic elements) is equated to less frequent/more frequent and, here, to more costly/less costly in terms of cognitive processing. Markedness (and its cognitive cost) is a scalar concept; e.g., a frequency-based hierarchy of phonological processes can include metathesis (least frequent, most marked), addition and deletion (less frequent, less marked), and substitution (most frequent, unmarked). Low frequency/markedness are related to a high processing cost, while high frequency/unmarkedness are related to a low processing cost.[13]

On a corpus of English puns, Hempelmann (2003) examines violations of constraints postulated by Optimality theory. Such theory models language diversity in terms of differences among hierarchical arrangements of universal and violable (an important difference with previous approaches in generative grammar), constraints (e.g., No Metathesis). The scholar hypothesizes a correlation between phonetic similarity and frequency of puns: the lower the phonetic distance, the higher the frequency in the corpus. The proposed hierarchy of constraints is ordered according to the frequency of their violation and their cost in terms of phonetic similarity:

> higher-ranking constraints rule out [. . .] "less similar" output forms [. . .] When we observe one output and not another, it is essentially the same thing to say [. . .] that in a description in OT the constraints which are relevant in the evaluation of this form are in a certain order, implying different levels of perceived similarity.
>
> (Hempelmann, 2003, pp. 56–57)

The hierarchy is arranged from the most to the least frequent corresponding violation.

IDENT(f) pt	no change at level and type of feature f
MAXpt	no deletion
DEPpt	no insertion
MAX/DEPpt-σ	no deletion/insertion of a syllable
IDENT(')pt	no change of stress position
LINpt	no metathesis

(Hempelmann, 2003, p. 87; p = pun, t = target)

On this hierarchy is based the cross-linguistic analysis of puns (Guidi, 2008) aimed at verifying the existence of common punning mechanisms and providing a predictive classification for further comparative studies. The following definition is operative in the sense that it can be used to describe puns in any language; it is represented by a set of conditions, hypothesized to operate simultaneously in punning.

A pun is a phenomenon consisting of the manipulation of a string of undetermined length, which represents a section of an utterance. Such manipulation consists of an exploitation of

phonological *processes* ordinarily involved in language, which can be reduced to four basic categories: addition, deletion, substitution, and inversion. This manipulation operates within a certain threshold—it does not involve more than five *elements* (which can be phonemes, syllables, word and syllable boundaries, stress or tone patterns); can occur in any *position* of the string domain (initial segment, final one, any other) and of the syllable domain (onset, nucleus, coda, rhyme); evokes two (or more) scripts, whose relationship is a Script Opposition; is intentionally performed by the speaker and/or perceived as intentional by the hearer (Guidi, 2012a).

PROCESS (PUN)	CONSTRAINT	PROCESS (CASUAL SPEECH)
Substitution IDENT(F,')	constraint	assimilation, dissimilation, lenition, fortition, lengthening, shortening, neutralization
Deletion	MAXpt constraint	truncation
Addition	DEPpt constraint	epenthesis, reduplication
Inversion	LIN constraint	metathesis

The definition was tested on 209 puns across 15 languages differing in family and morphological typology;[14] the main goal was to find, in each language, a pun for each category of the model (e.g., for any pattern displayed in the definition). Results are synthetized as follows.

The four processes can account for all cases; some are not always realized (i.e., inversion is present in 9 languages out of 15). This datum can be explained both in terms of the limited number of puns available in those languages, and through the fact that inversion is the most costly mechanism. Substitution is realized in all languages, addition in 13 languages, and deletion in 12 languages. Hempelmann's hierarchy proves to be valid across the languages analyzed; it is thus a starting point for further cross-linguistic testing.

SUBSTITUTION
DELETION
ADDITION
ADDITION/DELETION of syllable
ADDITION/DELETION/SUBSTITUTION/INVERSION of stress/tone
INVERSION

Also the phonetic distance threshold established by Hempelmann is a valid reference point for cross-linguistic analysis: only 10 puns (half of which are bilingual ones) manipulate more than 5 elements.

Elements not considered in previous studies are the word boundary and the syllable boundary.[15] Syllable boundary (.) manipulation tends to match the word boundary (#) one, as in the Balinese pun represented in Figure 3.1 (target *kaki ja?* or "where is your grandfather?" *di semae* or "in the graveyard," pun *ka kija?* or "where will you go to?" *di semae* or "in the graveyard"):

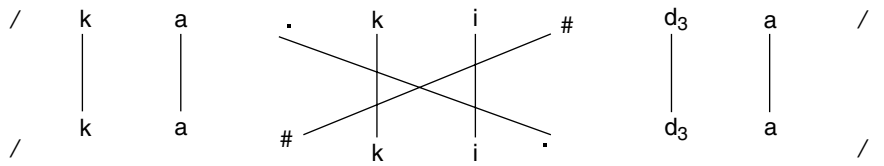

Figure 3.1 Inversion of the syllable boundary and the word boundary in a Balinese pun

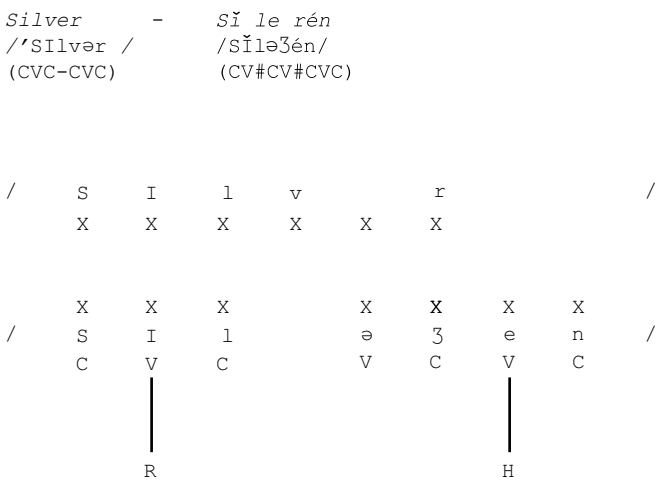

Figure 3.2 Addition of the word boundary in the syllable domain in a Chinese/English pun

In other cases, word boundary manipulation involves the rhyme domain: the symbol # is added between syllable nucleus and syllable coda, as in the English/Chinese example in Figure 3.2 (target *Silver* or "person name," pun *sǐ le rén* or "a person is died"):

In semantic-pragmatic terms, pun strings convey attested meanings; the list of Script Oppositions available within the literature can account for all puns of the corpus. In some cases, Script Oppositions show the salience of a certain concept within a cultural context; for example, incest/non-incest (a specification of the essential normal/abnormal opposition) is found only in Tzotzil and related to a specific social hierarchy and system of kinship relationships. In a similar fashion, grammatical/non grammatical opposition reflects the Mixtec sociolinguistic situation (e.g., contact with Spanish language, prestige of bilingualism) documented by Pike.

New Debates

Turning to future research directions, a first set of paths descends from the cross-linguistic analysis outlined earlier. On a phonological plan, humor studies can verify if the model proposed can account for puns in other languages; it is possible to find, in languages already analyzed, puns exploiting processes, manipulating elements, using domains predicted by the definition, but not observed in the corpus; puns in other languages are bounded to the same phonetic distance threshold; the measure of distance proposed (Guidi, 2012a) is suitable for further comparative analysis; Hempelmann's hierarchy of constraints is suitable to describe puns in further languages or not (in the latter case, different rankings of violations could be observed).

The model proposed is characterized by a high level of abstraction that is necessary in order to compare language systems. Fine-grained analyses can, however, be designed in terms of empirical universals, i.e., hypotheses falsifiable by new findings. For example, if we consider substitution as the basic (i.e., unmarked, most frequent) punning process (i.e., the "No change at level and type of feature f" as the softest constraint), we can hypothesize that if a language shows puns, substitution is present,[16] or, if in a language puns are realized through deletion, addition, or inversion, they are also realized through substitution of phonetic elements.

Another path concerns the tendency to realize puns through manipulation of just one element (Guidi, 2012a: 12 out of 15 languages), or distinctive feature (Lagerquist, 1980). It can be

hypothesized that, if puns are present in a language, cases based on such kind of manipulation are present. Concerning other aspects of the Logical Mechanism (phonetic similarity), it could be verified whether, across languages, puns tend to show an inverse relationship between the value of phonetic distance and the string length; to manipulate the first element(s) (e.g., first phoneme, onset of the first syllable) of the string;[17] to preserve the syllabic structure (Sobkowiak, 1991; Hempelmann, 2003; Guidi, 2008). Moreover, concerning the relationship markedness/frequency/cognitive cost, further corpora-based comparisons of puns could clarify the extent to which marked and unmarked elements (e.g., voiced/unvoiced consonants) oust each other.[18]

A final point (also relevant with respect to a further comparative analysis of the Script Opposition of language distortion: Raskin, 1985) is that puns do not violate phonotactic constraints, i.e., do not realize impossible sequences. Experimental results in Berent et al. (2008) show that speakers are aware of universal constraints on specific linguistic elements absent from their native language.[19] The author's conclusion is that language universals reflect universal linguistic knowledge, as well as that Optimality Theory sees cross-linguistic generalizations arising from a universal knowledge, which is part of the speakers' language faculty. Puns as humor universals can thus be seen as evidence of the fact that speakers share a cross-linguistic knowledge (i.e., patterns[20] and constraints) and exploit it (i.e., using patterns to violate constraints) for humorous purposes.

Notes

1 Specific humor categories can of course be individuated, through a focus on the social context, also in the case of puns: see Bell et al. (2011).

2 One of the scholars' points concerns ethnocentrism and the focus on European languages/cultures as factors leading to spread misconception of (language) universals; the same affect the possibility, for the first-generation studies on verbal humor, to provide descriptive or explicative models suitable for any language/culture.

3 On irony as a "natural and universal" phenomenon that does not need to be learned or taught see Wilson and Sperber (1992); on irony as a cultural universal see Li (2008); Liberman (2009) analyzes situational irony in a cross-cultural perspective, also referring to metalanguage of humor; on translation of irony see Hirsch (2011). A list of universal irony mechanisms is proposed by Coromines I Calders (2010, pp. 151–157), including "contrast between verbal surface and message" and other features, actually analyzable in terms of Script Opposition and Narrative Strategy (Attardo & Raskin, 1991). On irony factors (e.g., evaluativeness) see Attardo (2000). On dialect humor see Davies (2014).

4 An event will be experienced as incongruent if its constitutive elements, and its structure, is perceived as not compatible with normal, or expected, patterns. Incongruity is resolved when the event pattern is recognized as meaningful, or compatible with another, not previously considered, pattern.

5 As highlighted by Sherzer (1976), play languages are based on processes, or "rules" (e.g., metathesis of the syllables of all or most words), not different from those operating in "ordinary" language. The difference is only related to the frequency of use, or productivity, of such rules.

6 The appropriateness of this framework depends on an interdisciplinary approach:

> One can hope that the study of verbal play and art will be extended by the structural analysis of many more individual cases and by the development of cross-cultural typologies and frameworks for controlled comparison [. . .] both activities require close cooperation between linguistic and ethnographic work, for the phenomena are essentially sociolinguistic [. . .] needless to say, linguistic accuracy is the only solid basis for all such work (Hymes, 1964, pp. 291–293).

7 De Saussure (1922, pp. 46–48, 152) considers puns as data, useful to determine the phonological system of antique languages; and, also, as an empirical evidence of the existence, in what we now would call mental lexicon, of associative mechanisms exclusively based on phonetic similarity.

8 Enlightening in this sense is the definition of ethnic humor (Raskin, 1985), whose scripts are acquired separately from linguistic competence and are not part of native speakers' semantic competence; see

also Davies (1986; 1997 for a comparative study on jokes). The universalist assumption underlying the concept of humor style is examined by Taher et al. (2008).

9 As shown by Chen (2005, p. 187) speakers, regardless of their language repertoire, perceive paralinguistic sound-meaning relationships in unknown languages. Language-specificity would impact on interpretation, i.e., on the association of a given parameter (e.g., a specific tone of voice) with a given meaning (thus on the cue role of the parameter).

10 On meta-communicative signals see Canestrari (2010).

11 The term is used by Laycock (1969) to define secret languages, play languages, ritual languages (phenomena often related to entertainment, but non-necessarily humorous). For a more detailed analysis see Guidi (2012a).

12 On the base of previous studies, dictionaries, and informants' reports, lexical fields of humor in Basque, Chinese, English, and three Mayan languages (Tzotzil, Tzeltal & Zinacantan) are determined and analyzed.

13 Comrie (2003, p. 209) specifies that "some language universals reflect inbuilt constraints on human beings, in particular on their cognitive capacities [. . .] some other language universals find a [. . .] natural explanation in terms of the relation between linguistic structures and the functional uses to which they are put." Puns are considered here as violations of soft cognitive and phonological constraints, realized through linguistic patterns that are exploited for humorous purposes.

14 Languages of the corpus (followed by the number of puns collected) are: Balinese (10); Chinese (27); English (12); Italian (14); Japanese (41); Korean (8); Mixtec (13); Navaho (8); Rundi (4); Sanskrit (12); Seneca (3); Tzotzil (24); Vietnamese (16); Winnebago (5); Yoruba (7).

15 For an analysis of this aspect in Arabic punning see Eisele (1997).

16 A language in which puns do not show patterns of substitution would determine the non-absolute nature of substitution as universal.

17 See Sobkowiak (1991, p. 93) on the "super-high phonological salience of word-initial consonantism" and Attardo (1994) on the salience of initial and final domains ("bathtub effect").

18 Zwicky and Zwicky (1986, p. 497) show that, in the pattern 'substitution of occlusive consonants,' marked sounds tend to oust unmarked ones. See also Sobkowiak (1991) and Attardo (1994, p. 124) for an interpretation in terms of the relationship puns-errors.

19 For example, a test on universal constraints on onset clusters represented by consonant sequences (e.g., *bl*ock) shows that speakers of languages in which C-C-initial syllables are not present misperceive ill-formed (or, universally dis-preferred) clusters.

20 On the relationship between universals and processing preferences, and the "better predictions" obtainable through processing factors, see Hawkins (2001).

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4

Key Terms in the Field of Humor

Christian F. Hempelmann

1 Introduction

1.1 General

Not only is humor research a multidisciplinary field, but, at least in amateur form, it has been a multilingual endeavor over many centuries, before the field became dominated by English as the lingua franca of research, as in almost all other fields. For a long time before that, until the Middle Ages, it was Latin that served that role. Both sources, varying fields and different languages, have led to several sources of misalignment in key terminologies about humor. As an introduction, the history of the central term in English and many other languages, derived from Latin *(h)umor*, will serve as an orienting example. The main body of the chapter will summarize various approaches to pinning down and comparing key terms referring to core concepts in the study of language. The main methodological fields here are linguistic semantics, linguistic etymology, and the history and philosophy of science. The main tensions are the transition from the dominance of Latin to the dominance of English and how selected other European languages, like German and Spanish, as well as a few non-Indo-European languages, have contributed, or not, against this background.

Language is about transmitting and recording meaning, but the meaning of language is in principle unobservable. What can be scientifically observed are the audible or legible artifacts of language that carry the meaning, i.e., spoken or written text. To analyze the meaning of key terms in humor, which this chapter is about, we therefore need to rely on the classic linguistic method of comparison of comparable words, and analyzing why one might have been chosen over the other. This raises the question of what makes two words comparable. The answer is that given a language situation, a speaker/writer/language had the choice between either, and the choice makes a significant difference. For example, when I observe someone contracting certain facial muscles around their eyes and on their cheeks, raising the corner of their mouth, but I don't hear them make a sound, in English I could describe this behavior with the word *smile* or *grin*. But if in addition to the facial gestures, I also hear them make a certain characteristic vocalization, I would be more inclined to describe the behavior as *laugh*. Thus, English has comparable words that mark a significant difference. This general semiotic principle is called the principle of commutation (cf. Eco, 1976), meaningful substitution.

In this chapter we look at studies that have compared key terms in the field of humor meaningfully in three ways. First, one can compare how a language at one point in time used one word, but later or earlier used a different word, or several words. This is called an interlingual, diachronic approach; comparison of one language to itself at different points in time. Another type of intralingual comparison is, how the same language uses one word in one situation and another word in a comparable situation, as in the previous example. Third, one can compare how one language uses one word, while another language uses one, or more, words to describe the same situation. This is called a synchronic interlingual approach; comparison of one language against another at the same point in time.

For diachronic analyses, traditionally also called etymological studies, the relatedness of meanings of words that share a root to many people implies the steadiness or consistency of meaning over time. While this is a partially valid assumption, is not the only assumption in tracking meaning over time; on the contrary, meaning changes and meaning, unlike the sounds of words, can change unpredictably. This assumption of non-variance in meaning has led to the etymological fallacy, the assumption that the meaning of a word is necessarily related to the meanings of its ancestors. An extreme form of this fallacy assumes that the "true" meaning of a word is closest to the oldest retrievable meaning of an ancestor of the word. For example, someone operating under this fallacy could claim that present day use of *decimate* in the sense of "drastically reduce" is incorrect, or at least imprecise, because in Latin it meant to kill every 10th member of a military unit as a punishment. Rather than documenting that today's meaning is wrong, this example documents change in meaning, in this case in from one sense to a related, more general sense. If one applied the etymological fallacy to *humor*, one could claim that its true meaning is "fluid," as the next section will show. This would obviously an absurd argument.

1.2 The Etymology of Humor

Let us start with an overview of the diachronic development of the most important key term in the field of humor in English, *humor* itself. Schmidt-Hidding (1963b, pp. 91–160) is the main basis of this introduction and of several later sections. He summarizes the commonly described development as follows: in Latin, *humor* means fluid and enters Medieval medical language with that meaning, as part of the notion of humoral pathology, to denote the four main fluids in general and fluids of the human body in their relation to four types of temperament in particular. In this sense *humor* enters Middle English via French. The main early proponents of this humorism were Hippocrates (4th/3rd century BC) and Galen (born in 129 AD), but it is based on older conceptualizations of medicine also found in Aristotle. The four fluids (*humores*) as representing the four main elements, and their temperamental analogs are arranged as follows:

humor	classical term	element	quality	temperament
blood	*sanguis*	air	warm, moist	sanguine
yellow bile	*chole*	fire	warm, dry	choleric
phlegm	*phlegma*	water	cold, moist	phlegmatic
black bile	*melanchole*	earth	cold, dry	melancholic

The main idea, prevalent from classical times to the Middle Ages, and still in circulations as recently as the 19th century, is that the four fluids should be in harmony in a healthy human. But when one of the *humors* prevails, this fluid determines a pathologically imbalanced temperament.

Too much black bile and you are melancholic by humor. Balanced, you are good-humored; imbalanced, you are bad-humored.

In a crucial semantic change, proposed or promoted by Ben Jonson (1598), individuals who act in a bad-humored manner according to a humorous imbalance are considered the subject of comedy, i.e., they are *humors*. Competing senses of humor still existed at the time, and other writers emphasize that *humors* are individuals who are not naturally imbalanced and thus funny, but those who perform an affected peculiar temperament, i.e., mixture of fluids.

The Oxford English Dictionary (OED) summarizes the semantic change of *humor* in other European languages as parallel to the English development as follows:

> The Latin noun was borrowed into other Romance and Germanic languages at an early date. Compare Old Occitan *umor*, Catalan *humor* (12th cent.), Spanish *humor* (first half of the 13th cent.), Portuguese *humor* (14th cent.; 13th cent. as [. . .]umor), Italian *umore* (1306), and also Middle Dutch *humoor* [. . .], Middle Low German *hūmeres*, *hūmoren* (plural) bodily fluids collectively, German *Humor* (early 16th cent.). The course of the word's semantic development, from "fluid," "four cardinal humours," to senses relating to moods, temperaments, and caprices, and finally to amusement or comedy, is paralleled in all of these languages.

Apart from the history of the word *humor*, we need to keep in mind that its current use—by itself and in combination covers such diverse concepts as: the sense of humor, itself a complex construct (see in particular the foreword in Ruch, 1998a, but also the other contributions) involving individual and group differences, mainly as a personality trait; humor as a psychological state; humor as a quality of a symbolic event; humor as an emotion (see also section 2.3).

Wit, on the other hand, originates from the word field of wisdom and cleverness, the quick operation of the mind (Trier, 1931). In the collocation *wit and humor*, *wit* came to cover the more aggressive, cerebral aspects, while *humor* covers the benevolent, crude aspects. In German, these two key terms had similar histories to English in terms of origin and meaning changes (Schütz, 1963). With the rise of the influence of French on German in the late 17th century, *Witz* ("wit") became the standard translation of the newly fashionable loan *esprit*, and took on a connotation of elegance, witnessed by the collocation *Witz und Geist*, in which *Witz* stands for a lighter mode of thinking and *Geist* ("spirit") for a deeper mode. Two things need to be noted about this statement by Schütz. First, it contrasts in a disturbingly tendentious, "romantic" way French superficiality and German depth. Second, not all collocations are contrastive, they can also be mutually enhancing, as witnessed by his next examples of later uses of *Witz* in *Witz und Scherz*. Here, both words refer to lighter types of jokes, attesting to the contemporary second sense of German *Witz*, apart from "wittiness": it is the standard German word for what English refers to as a *joke*, not cerebral, but rather the everyday pedestrian concept of "canned joke." The cerebral sense has been on the wane in German since the 19th century. The development of German *Humor* parallels that of its English cousin not just by chance, but under direct English influence. As in English there is a tension between an earlier sense of a *humorist* as a person with an imbalanced temperament whom one laughs at with sympathy and a person with a feigned imbalanced character that they perform for the purpose of entertainment.

In the final chapter in Schmidt-Hidding's short collection (1963a), Hempel looks at the diachronic development of Spanish *humorismo* (1963; see also section 2.1). This endeavor is mainly literary in method and, again, motivated by an implicit aim to grasp a culture's essence by its literature, history, and language—also known as philology—than the previous chapters of the collection and does not warrant detailed summary here.

2 Case Studies on Key Terms in the Field of Humor

2.1 Humor *vs.* Wit

Already having served as the most important source for the introduction, Schmidt-Hidding's "Wit and Humour" (1963b) is the central publication on key terms in humor, especially on German and English. It is part of a large, multi-author, semantic project based on lexical field theory, edited by the same author and published in German (Schmidt-Hidding, 1963a; all translations are mine). Another lexical field study, partially inspired by Schmidt-Hidding (1963b) will be discussed later (see section 2.3).

Schmidt-Hidding's methodology is not fully explicit, especially in its initial steps, and seems inspired by (neo)romantic notions of the past telling us what the present means and the vocabulary of a nation telling us about its character. This is not unsurprising for an author ideologically involved with national socialist doctrine to the degree of requiring "denazification" after the war (Schuchard, 2006; Hausmann, 2007; 2014). Without going into the ideological ramifications of this kind of approach, the reader is referred to the still vibrant debate on the Sapir-Whorf hypothesis (e.g., Whorf & Carroll, 1956), or linguistic relativism, especially in its strong version. Simplifying its main claim, this hypothesis claims that we are trapped in our thinking in the language we are thinking in. For national chauvinists this can lead to the argument that a certain language can embody the superior way of thinking of a certain culture, a flaw already noted with some of the sources summarized here earlier.

The chapter discussing methodology is written in German, using somewhat idiosyncratic terminology. Mainly though, the opacity of the methodology seems to stem from the general problem of lexical field analyses where a hard notion of delimiting what is part of a field and what isn't can't be teased out theoretically in such a way that it will survive the attempt at practical application. Schmidt-Hidding (1963b, pp. 25–26) presents the following six relations between words as possible criteria for their inclusion in a common lexical field. The first two are formal, surface relations and the remaining four are semantic relations (my examples are added in italics): (1) shared word stem (etymology): *wit-unwittingly*; (2) compound words based on the same stem: *joke-jokesmith*; (3) concepts grouped by a shared property: *fool-mime*; (4) (near)synonyms: *laugh-smile*; (5) connotations: *laugh-mouth*; (6) lexical fields *per se*: (this category remains too undefined to furnish an example; presumably synonyms, antonyms, and other better-established semantic relationships; cf. Lyons [1977]). Despite these problems the study has found much attention, especially among German-speaking humor researchers (e.g., Ruch, 1998; but see also Attardo, 1994: 7), presumably not least because of the visualization of its main results (see Figure 4.1). The weakness of the linguistic method and the actual discussion of his results are usually ignored.

After advocating to ground all participants in a lexical field in contextualized tokens, i.e., uses of the word in the given sense in context, much in the style of the OED, Schmidt-Hidding proceeds to tackle the field relevant here in German and English with a synchronic and loosely comparative perspective. With German as his starting point, he identifies five subfields, partially according to how they are lexicalized in parts of speech, for no apparent reason but introspection, in German. Next he uses Roget's (1962) thesaurus to harvest the same inventory for English. The relation of the step for German to that of English remains implicit. Again, for merely introspective reasons, Schmidt-Hidding uses two dimensions to structure these five subfields. One is degree of aggression from aggressive *ridicule/mock* to non-aggressive *humour*, the other degree of cerebrality from cerebral *wit* to crude *fun*. These two dimensions create a two-dimensional plane on which he locates the terms from the field, resulting in a famous chart for the

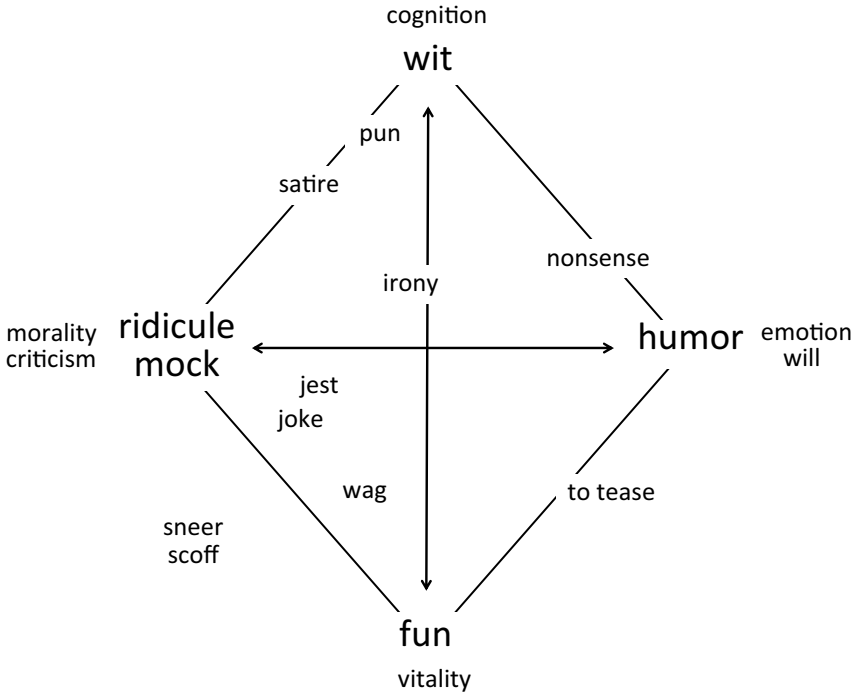

Figure 4.1 Illustration of the lexical field of humor with an aggressive/affiliative horizontal and a cognition/vitality vertical dimension

Adapted from Schmidt-Hidding (1963b, p. 48).

English field (1963: 48). The five subfields with extremes of the two dimensions in English are populated as follows, with the first example from Schmidt-Hidding given for each of the four dimensions: (1) humor as a facility ("Anlage"): *wit: wit, humour: humour, fun: fun, ridicule: mockery*; (2) humor as a trait ("Eigenschaft"): *wit: witty, humour: humourous, fun: funny, ridicule: laughable*; (3) terms for agents of humor ("Nomina agentis"): *wit: a wit, humour: humourist, fun: wag, ridicule: satirist*; (4) humorous actions ("der verbale Bereich") *wit: jest, humour: banter, fun: joke, ridicule: mock*; (5) objectifications ("Objektivierungen"): *wit: jest, humour: pleasantry, fun: joke, ridicule: sally*.

Schmidt-Hidding proceeds to sort the words by frequency based on the Thorndike English Dictionary (1948), which uses a 20 million word corpus. He sorts the words by lemma, basically words using the same stem, such as *laugh* and *laughable*, and finds the following order of descending frequencies, reproducing here the highest-count lemmata and omitting words that are only "partially used in the realm of humor" (1963b, p. 41). Schmidt-Hidding counts these as the innermost of three zones of the lexical field: *laugh, smile, wit, humour, joke, mock, amuse, grin, jest, ridicule* (1963b, pp. 41–42, 46).

After discussing key terms in humor in German and English synchronically, Schmidt-Hidding proceeds with a history of selected key terms, which has been discussed in the introduction. He argues that key terms should be studied primarily in the language from which they were loaned. Again, this is somewhat chauvinistic naïveté. Loan words can take on very different meanings in the languages that loan them; semantic change is unpredictable: etymology is a tool that needs to be used extremely carefully, as mentioned in the introduction. Yet, etymology is the

main tool of the romantic historical linguists. The remainder of this section will summarize the etymological observations from Schmidt-Hidding (1963b) that have not yet been outlined and two further central sources (Reinhold, 1953; Wahrig, 1955).

An early two-way contrast between the Germanic ancestors of *laugh*, open, triumphant laughter, and *smile*, inward, potentially aggressive behavior, was amended by Romance loans in the Middle English period (1066 to ca. 1450) as in all of the English vocabulary. Wahrig (1955) compares the "Germanic warrior democracy of the early Middle Ages and the feudal society of late medieval England" (1955, p. 277). Germanic warriors supposedly laugh like triumphant heroes, while later feudal English people like polite ladies-in-waiting. Note, again, the romantic, sometimes openly nationalistic, tone in the discussions of the German linguists. As in the English vocabulary in general, many French words are loaned during the Middle English period, e.g., *revile, jape*, and during the Renaissance, *irony, satire, comic, cynic, ridicule.* To determine their earliest known usage, Schmidt-Hidding uses the OED. Other words extend their meaning to humorous ones, e.g., *wag, jest, wit*, and *humor*. In general, raw Germanic laughter becomes courteous and can be referred to with a diversified vocabulary. This development is paralleled in German somewhat later, according to Schörle (2007). Reflecting the next waves of words entering the field in the 17th and 18th centuries are these examples: *pun, repartee*, *banter*. In a sense relevant to humor, both *quaint* and *pleasant* entered the field, but have since left it again. The OED cites 1670 as the year for the earliest account of *joke*, from Latin *jocus*, in English. *Fun* in a positive humorous sense is of the same period with a first citation for 1727. But it is not established as a key term until the 1850s (Schmidt-Hidding, 1963b, p. 60f).

Next, Schmidt-Hidding singles out from among the four main orienting terms of the field—*wit, humor, ridicule, fun* according to frequency of usage—what he considers the two key terms. To these—*wit* and *humor*—he devotes detailed analyses to them from their earliest use since the 17th century. These were summarized in the introduction.

2.2 German Humor *vs. Spanish* Gracia *(vs. English* Humor*)*

In her lexical field study grounded in translation research, Santana López (2006) aims to clarify what the hierarchies of key terms in the field of humor are in Spanish and German. This subsection is based on a book review of her dissertation (Hempelmann, 2011). From the translational perspective, her main issues is that English *hum[o]ur* has become the de facto generic term for the field, because of the status of English as the lingua franca of science (see Figure 1.1). In languages that have cognates of *hum[o]ur* this can lead to the false elevation of this cognate as the main term (cf. also Hempel, 1963). As mentioned, because a somewhat unified scientific community existed in Europe until the waning of Latin as the language of learning, this includes practically all languages spoken on that continent. This effect can also occur the other way around, as will be discussed. German researchers, for example, tend to speak of "the comic" as the generic term meaning humor, in analogy to German "das Komische," because they don't have a sense that "the comic" is a specific instance of a comedian.

The common flaw of confusing semantics and etymology also lies at the basis of the Santana López (cf. sections 1.1 and 2.3). Apart from this misunderstanding, she operates under the useful and somewhat novel assumption that longer texts can serve as more reliable material for humor studies than jokes (cf. also Attardo, 2001), as well as the motivation for her study, namely the dearth of literature on Spanish-German humor and its translation. Thus, her study represents an exemplary study in synchronic interlingual research on key terms in humor.

In the chapter that outlines her methodology, the one most relevant here, Santana analyzes the lexical fields of German *das Komische* and Spanish *gracia*. She correctly points out that most

researchers, while aware of the terminological mess in the field of humor, merely mention it before proceeding in their endeavors and commonly failing to produce results that withstand closer scrutiny. Rather than falling into the same trap, Santana addresses the matter substantively by analyzing the German lexical field in detail. She starts from the assumption that the archilexeme, the highest-level term, in German is *Humor*, to later conclude as the result of her analysis that the central term in this language it is actually *das Komische*. This neatly reflects the fact that German scholars, in reverse, have shown a tendency to use the false friend (Wandruszka, 1979) *the comic* as the central term in the field in the presentation of their studies when written in English (e.g., Ruch, 2001), as mentioned earlier.

Santana's main method uses three steps and is inspired by Schmidt-Hidding (1963b):

1. Identify archilexemes and create lists of synonyms using thesauri.
2. Identify relations of hyponymy and hypernymy (A is a type of B, B has subtype A).
3. Create a hierarchical chain of hyponymy (A is a type of B, B is s type of C).

Following this method, Santana sets up a list of 36 German synonyms, including *humor* itself. She looks of their definitions in selected dictionaries and determines which term B has another term A in its definition, which makes term A the more generic term. For example, if the definition of *Humor* ("humor") contains the term *Stimmung* ("mood") in its definition as the more generic term, then *Stimmung* is assumed to be a hypernym of Humor (*Humor ist eine Stimmung*, "humor is a mood"). If in addition another term C uses term A in the same way, this confirms the status of A as the generic umbrella term. This lexicographic approach identifies the following terms as hypernyms in the German field of 36 terms: *Heiterkeit* ("mirth"/"amusement" or "exhilaration"), *Humor* ("humor," "sense of humor"); *das Komische* ("humor" as per the result of her study, not "the comic," which is a false friend); *Lächerlichkeit* ("silliness," "playfulness," "ridiculousness"); *Witz* ("joke," "wit": in its two opposed senses a main misalignment between German and English as discussed earlier); *Lachen* ("laughter"); *Spott* ("mock").

Next, Santana sets up a matrix of terms according to how many other items in her list are used to define them as more generic terms and how many other items' definitions the term is used in. This matrix is divided into three areas, very similar to Schmidt-Hidding's approach (1963b). The resulting most generic terms in German are: *Heiterkeit, das Komische, Lächerlichkeit, Witz*, and *Spott* (for functional translations, see the previous paragraph). Among these more frequent terms, Santana calculates the same "hypernymy" relation ("if you are used in my definition, you are my hypernym," i.e., the more generic term) and ends up with *das Komische* as the most generic term in German. Curiously, *Humor* und *Lachen* are not among these central terms, as they end up in the zone of the matrix that contains items often used in other definitions, but not using many other items in their own. Disappointingly, Santana does not explain why she excluded this latter zone in her search for the most generic term. Santana's final step of mapping the original 36 occupants of the lexical field into the model of communication, e.g., *Heiterkeit* is mapped onto the speaker alone, while *Lachen* is mapped onto both the speaker and the overall situation is less relevant here.

What is more illuminating, but also controversial as far as personal communication with native speakers of Spanish has indicated to me, are Santana's results for Spanish as determined by the same method. She finds that the most generic term in the field is not based on the Latin root of *humor*, such as Spanish *humorismo* or *humor* itself, but rather *gracia*. In view of the present discussion this gives us the following key terms in English vs. German vs. Spanish: *humor* vs. *das Komische* vs. *gracia*. This contrasts strongly with the assumed uniform dominance of the key term

humor as assumed for all Indo-European languages since its loaning from Latin via French for the field in general.

2.3 The Lexical Field of Laugh

In a multilanguage study–synchronic and interlingual–using a parallel corpus of 13 translations of Ken Kesey's novel *One Flew Over the Cuckoo's Nest* (1962), we attempted to tease out semantic differences in the basic vocabulary describing the behavior of laughing in as many languages as were available to us (Hempelmann & Gironzetti, 2015). These languages are Arabic, Chinese, Danish, English, Estonian, Farsi, French, German, Italian, Japanese, Polish, Spanish, and Turkish. Key terms for this behavior were hypothesized to be central to the novel's major opposition between the main characters, the *smiling* Nurse Ratched, and the *laughing* new inmate of her psychiatric ward, McMurphy. This contrast was hypothesized to reflect the main confrontation between these characters, and indeed a large number of instances, tokens of these terms, and related forms, was found to be frequent in the short novel.

In the first of two steps, for each language into which the English text of the novel was translated, we arranged the main terms, *laugh, smile, giggle*, and *grin* from most frequent to least frequent in terms of tokens. Next, we checked the two most frequent lemmata to decide what meaningful feature distinguishes them most strongly. For example, in German, vocalization distinguishes the most frequent term *lachen* ("laugh"), in all its surface forms, from the second-most frequent *grinsen* ("grin"). This feature is sufficient and characteristic for their distinction. In general, these two factors for feature selection were applied, in that order: distinctiveness and descriptiveness, i.e., explanatory and descriptive adequacy (Chomsky, 1965). The next term in order of frequency for German is *lächeln* ("smile"). It is silent, like *grinsen* ("grin"). According to our method, the next binary feature has to distinguish these two non-vocalized behaviors *lächeln* and *grinsen*. While there can be non-aggressive *grinsen*, the dominant sense of the term carries an aggressive connotation, while *lächeln* does not.

Lächeln by itself thus appears to be used for behavior that is generally not aggressive. Checking *lachen* for this new feature of aggression resulted in the judgment that it is neutral, because *lachen* is so generally used in the corpus that there are aggressive and equally likely non-aggressive instances. Therefore *lachen* was marked with an empty cell for the feature of aggression. The next term *kichern* ("giggle") is vocalized and as such already distinguished from silent *lächeln* and *grinsen*. The next distinctive feature therefore had to contrast vocalized *kichern* and *lachen*. *Kichern* is characteristically higher-pitched than *lachen*, which is unmarked for most features as the central term of the field and is not high-pitched.

In this initial study, the alignment and subsequent comparison of the terms for *laugh* highlighted the existence of specific semantic features that the lexical field distinguishes across the languages under consideration, and several language-specific features. The general hypothesis used in the study was strongly informed by Berlin and Kay's color study (1969). This groundbreaking implementation of the linguistic relativity principle found that if a language has two basic color terms it will distinguish black and white, but if there are three basic color terms it will include red, and if the basic terms are four, either green or yellow will be added, etc. Similarly, for all languages in our corpus and following our method, it seems that if a language has only two lemmata to cover the field of terms for *laugh*, it will distinguish between a vocalized and a non-vocalized behavior (as in English *smile* vs. *laugh*). If the field has three terms in a given language, it tends to additionally concern aggressive from non-aggressive behavior (as in English *smile* vs. *grin*). Further distinctions are less clear-cut and include the pitch or volume of the behavior, whether the person is speaking or not, etc.

Additional specific results include the identification of a loan from Arabic, e.g., Spanish *carcajad*. These surfaced in the analysis of several languages formerly in contact with Arabic, and of course Arabic itself, during the expansion of that language across the areas of the Ottoman empire, namely, Spanish, Turkish, and Farsi (spoken in areas of Iran). The following example, taken from Hempelmann and Gironzetti (2015), illustrates the distinctive force of these terms as denoting a loud type of the laughing in a mismatching translation of an instance of *laugh* from the source text:

English–Spanish meaning mismatch:

Original:	*this strikes me [Bromden] so funny I almost laugh*
Spanish translation:	*suelto una carcajada* carcajad-a guffaw-SG.F 'to laugh out loud'

The original term used in this example is English *laugh*, which is neutral with respect to the notion of loudness, while *carcajad* is positively marked for loudness. As a result, the Spanish translation of this specific token characterizes the vocalized behavior as a very loud one, as opposed to the English original, which is not marked for loudness either way. However, the translation maintains the original marking for vocalized and unmarked aggressiveness as per the following matrix.

Feature analysis of the meaning mismatch in the translation of *laugh* to Spanish:

	[vocalized]	*[loud]*	*[aggressive]*
ENG *laugh*	+	/	
SPA *carcajad-*	+	+	

In the Arabic translation of *Cuckoo's Nest*, the cognate lemma *q-h-q-h* appears only three times, and is used to translate English *giggle*, thus maintaining the initial English feature of the lemma as vocalized, but adding a notion of loudness, similar to the Spanish translation. In this case, however, the translation is diverting further from the original because the original meaning marking covert vocalization of *giggle* is lost and substituted with the loudness of Arabic *q-h-q-h*. Similarly, the Turkish lemma *kahkaha*, which shares its Arabic origins with the Spanish *carcajad*, is used 35 times to translate English *laugh*, once to translate *giggle*, and once to translate *grin*. Therefore, *kahkaha*, besides adding the loudness feature to the translation of *laugh*, and supplementing the covert vocalization of *giggle* with the notion of loudness, also moves one step further and substitutes the inaudibleness of *grin* with the features with loud audibility, radically modifying the meaning conveyed in the translation. Given that the translated context in Arabic has no semantic cues to counterbalance the loudness, our study found that we probably have a mistranslation or, less likely, a forced variation in Arabic as per the following matrix.

Feature analysis of the meaning mismatch in the translation of *giggle* to Arabic and Turkish:

	[vocalized]	*[covert voc.]*	*[loud]*
ENG *giggle*	+	+	–
ARA *q-h-q-h*	+	–	+
TUR *kahkaha*	+	–	+

For comparison, the same instance of *grin* that was translated as *kahkaha* in Turkish, resulting in a mismatch across the vocalized dimension, was translated as *sonrisa* in Spanish, thus using a term that shares the same semantic features as the original *grin*, as shown in the following matrix.

Meaning mismatch between English (*grin*), Spanish (*sonris-*), and Turkish (*kahkaha*):

Original:	*. . . the wild grin . . .*
Spanish translation:	*terrible sonrisa* sonris-a grin-SG.F 'terrible grin'
Turkish translation:	*kahkaha üst-ü-n-e kahkaha taze-le-mek* laughter.N top.N-POSS.3SG-BUFF-DAT laughter.N fresh.ADJ-VBLZ-INF to put laughter on top of laughter

Over the last decade, information visualization and visual analytics have been successfully employed as heuristic tools in many fields (Thomas & Cook, 2005; Keim et al., 2010). The lexical field study on types of laughing also used a visualization called Circos (Krzywinski et al., 2009), which revealed the type of lexical misalignment leading to the discovery of the lexicalization of conceptual differences.

Figure 4.2 shows how the translations of the Spanish tokens correspond to the tokens of the four main lemmata in English. The ribbons between the lemmata clearly show the importance of the distinction between vocalized *laugh* and *giggle* corresponding to *re-* and non-vocalized *grin*, respectively, and *smile* corresponding to *sonre-*. The only other prominent correlation, between *laugh* and *carcajad-*, illustrates the latter as a vocalized behavior as a translation of *laugh*, with the difference accounting for higher-intensity vocalized behavior as the contexts of those tokens that were translated into *carcajad-* illustrate.

The visualization for Turkish, on the other hand, shows that this language is structurally and etymologically more different from English than Spanish or German. While the latter three belong to the same macro-family of Indo-European languages, Turkish is a Turkic language whose vocabulary shows overlap only accidentally with Indo-European or other languages through borrowing. One relevant item here has already been mentioned, namely *kahkaha*, which is borrowed from the same Arabic root as Spanish *carcajad-*. Dominant for the Turkish LAUGH field is the lemma *gül-*. It served to translate mostly the vocalized English terms (*laugh*), while the obviously related *gülüm-* translated another non-vocalized behavior, *smile* (Figure 4.3).

The main distinction between vocalized and non-vocalized behavior is established in the basic *laughter* vocabulary of Turkish as well with *gül-*, *kahkaha-*, and *kıkır-* as vocalized, while *gülüm-* and *sırıt-* are inaudible. Nevertheless, the nontrivial number of non-vocalized *grin* and *smile* tokens that were translated to *gül-* confirm the unity of the field as a paradigmatic chain, in other words, the continuity from laughing to smiling.

Similar to the significant non-alignment between *grin* and *sırıt-*, pointing to a semantic feature that *grin* does not distinguish, some of the *giggle* tokens being translated as *kıkır-* indicates that Turkish makes a further distinction, possibly representing more iconic onomatopoeia in *kıkır-* than in *giggle*, which is obscured in the basic vocabulary of English.

Using our new literature-based corpus and methodological refinements—centrally of lexical field theory, but also by reviving semantic features and introducing visual analytics methods into semantics—we have documented the value of these refinements for the study of paradigmatically delimited lexical fields and illustrated this with a substantial number of sample analyses. The key features of vocalization and aggression have been found to be near-universals in our

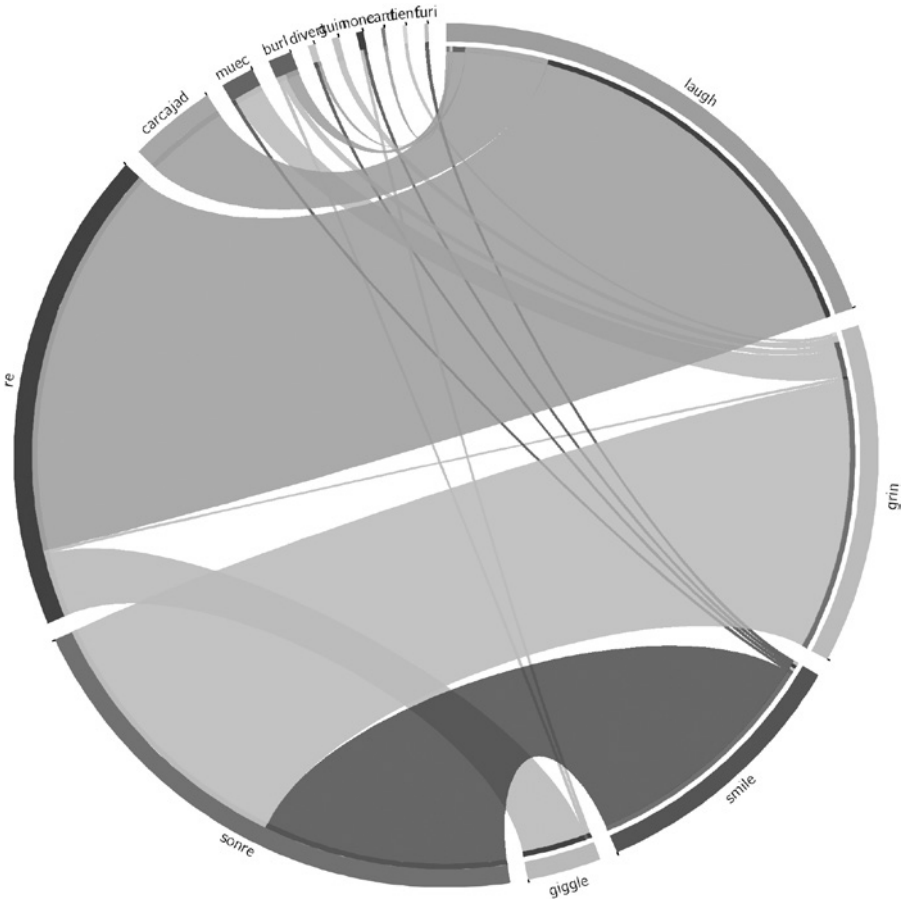

Figure 4.2 English-Spanish correspondences of the core lemmata in the field of LAUGH

corpus with respect to LAUGH. We have argued for context-insensitive lexical field theory as the basis for context-sensitive methods, rather than denying core meanings of lexical items and finding meaning in the context alone. Both the methods and their detailed documentation are submitted as hopefully valuable tools for semanticists and literary scholars.

2.4 Conflicting Terms and Scientific Neologisms: Exhilaration *vs.* Mirth*;* Katagelasticism

Another key concept that has been analyzed in detail is the immediately resulting emotion that may arise from an experience of a humorous stimulus, commonly called *amusement*. Its significance has been obscured by the fact that there is a dominant term for the audible reaction to humor that has since ancient times actually been used as a synonym for humor, namely *laughter.* Until *humor* entered the researchers' vocabulary, *laughter* was the dominant term covering all phenomena of the field as the archilexeme. Neither Latin nor Greek, for example, has a separate term for *humor* in the present sense in English (obviously, Latin has the word, but in a different

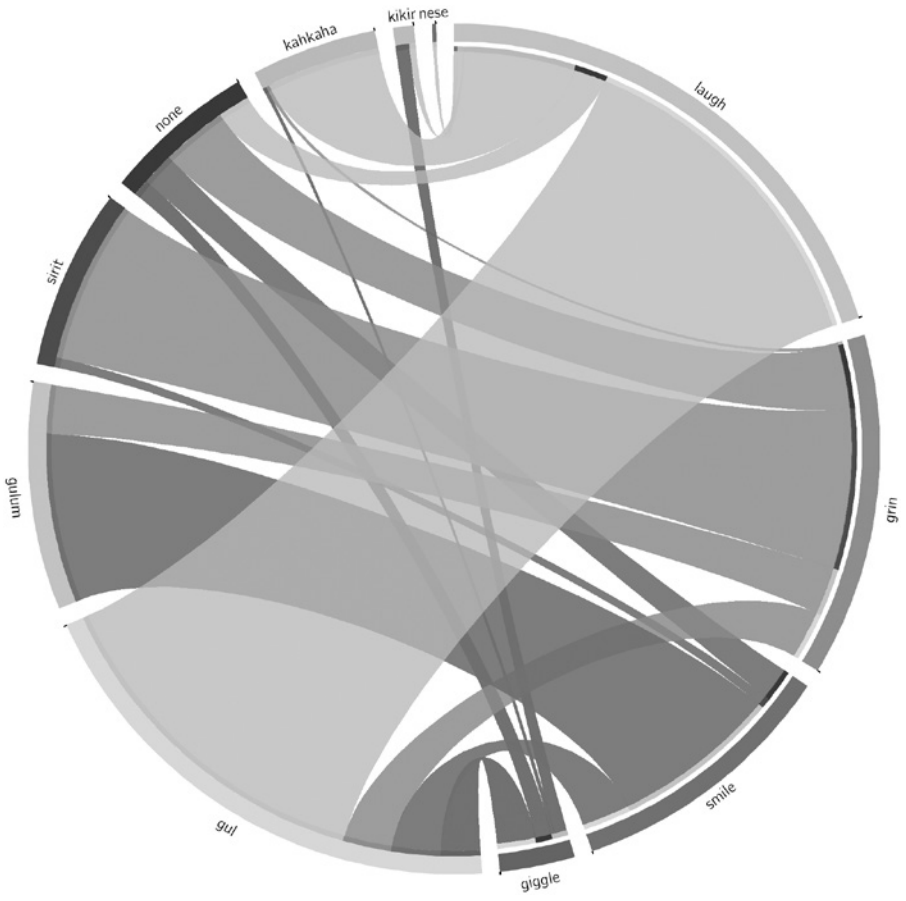

Figure 4.3 English-Turkish (non)correspondences of the core lemmata in the field of LAUGH

meaning). But Greek uses *gelos* and Latin *risus* to cover not just the behavior, but also most other related phenomena.

Psychologists have researched the emotion evoked by laughter in several studies and published extensively about it (e.g., Ruch, 1993; 1995; Martin, 2007 and studies cited there). Since his German-language habilitation on the topic (1990), Ruch proposed to use the term *exhilaration* for this emotion, a calque translation of German *Erheiterung* (1993). His reason for the terminological choice is a variant of the etymological fallacy (see Figure 1.1), which argues that the best translation of a term from one language into another is one that overlaps etymologically. The fallacy here operates not in a diachronic fashion, as in the original fallacy, but in an interlingual synchronic fashion, a mechanism that in its most straightforward form is captured by the concept of false friends (see Figure 1.1). One standard example is the root *sensible* meaning "within reason" in English, but a notion more close to "sensitive" in other languages that loaned this root like German or Spanish. Actually, *heiter*, from a Germanic root, shares no etymology with *hilarious*, from a Latin root. I assume that Ruch was motivated by the sound similarity. The prefixes *er-* and *ex-*, on the other hand, have similar intensifying functions. Ruch does caution in all of his defenses of this translation that the sense of *exhilaration* as a general—not specifically

humorous—state of excitement is dominant in common English usage. But he proposes this term to be restricted in the described use in humor research. This makes his choice an academic coinage, which is a legitimate proposal, yet one that Martin does not consider successful (2007, p. 8). Ruch points to McGhee as having argued for the shortcomings of *amusement* of *mirth* as better candidates than *exhilaration*, but the relevant brief passages there are impressionistic and prescriptive (1979, pp. 7–8).

Regardless of this linguistic misanalysis, which lead to a largely pointless debate about terminology not untypical for academia, Ruch's research on the emotion elicited by humor is central to the field. The distinction of a general *cheerful* mood from the specific response of what he calls *exhilaration*, for example, captures a very important distinction (Ruch, 1993).

The response of Martin to the proposal of calling the temporary emotional and general response to humor *exhilaration*, can be summarized by the index entry for the term in his textbook on the psychology of humor (2007, p. 423): "exhilaration: see mirth." Again, the struggle for appropriateness, etymological, connotational, in relation to common usage of a technical term, is ultimately futile in view of the arbitrariness of the linguistic sign: what sound sequence we use to denote a concept is merely a social convention. But the agreed-upon social conventions, i.e., existing meanings of words—vs. new coinage of a technical term—are of course not without effect. Why not use the closest common-usage term vs. why not coin a new term, a neologism, often calqued from Greek or Latin, to avoid contamination from the common usage.

The latter pattern of neologism can be illustrated for the field of humor by the relatively recent, and by now waning, research on the concept of "fear of being laughed at" and complementary concepts. Ruch et al. pioneered this area, claiming that this fear can be meaningfully distinguished from general social anxiety. Ruch coined the term *gelotophobia* for this phenomenon, as based on research by Titze (1996). As is common since Freud, the neologism uses Greek as the basis of the new term, with *gelos* being the Greek word for laughter and *phobia* the well-known term for fear at the trait level. The group of aligned terms to *gelotophobia* includes *gelotophilia*, the joy of laughing at others, and *katagelasticism*, a term co-coined by the present author and Harrigan in response to a request by Ruch (Ruch & Proyer, 2009). Taking the Greek root of *gelos* and the derivational prefix of *kata-*, roughly meaning completion of a destructive event, we coined a term, to some degree established in Ancient Greek as *katagelastes* ("mocker"), that has by now been accepted to denote the distinctive character trait.

3 Summary

The present chapter summarized the history of key terms in the field of humor research, mainly *humor* itself, based on the principle of discovering meaning by meaningful comparison. It also addresses related terms, including *wit* and terms denoting behavior of the *laughter* type and emotional responses, such as *amusement/mirth/exhilaration*. It followed the main languages used in research and science, from Latin to English, with brief notes on languages, in which contributions were made on humor, as in other disciplines of research between the Middle Ages and Modernity: French and German. It also remarked on the Spanish field, because it has been researched and illustrates that *humor* and its cognates do not by default dominate the field in all languages and are, as discussed, actually late arrivals to the field originally using terms referring to the behavior of laughter as the dominant term.

French was mentioned as helping to promote *humour* in its new sense detached from fluids and temperaments. Types of laughter behavior were distinguished with the comparative method of lexical fields (Weisgerber, 1951), which informed most of the studies surveyed. This method was found to be often abused in romantic, nationalistic fashion. Similarly, the false friends of

German *das Komische* ("humor") and English *the comic* ("comedian") were addressed. It should be noted that this confusion is also explicitly mentioned by Strachey, the editor and translator of Freud's incredibly influential work *Der Witz und seine Beziehung zum Unbewussten* (1905). He chose consistency over disentangling the misalignment for each use of the terms and translated *das Komische* as "the comic" and *die Komik* as "comicality" throughout (1960, p. xxxi). This has led many subsequent German researchers astray, who followed Strachey's consistency rather than analyzing the non-symmetry of terms between German and English. Similarly, Strachey chose to not choose between the conflicting senses of German *Witz* as "joke" (which can also metonymically refer to "humor" in general) and *Witz* as "wittiness," but consistently translated it as "joke." Many instances of *die Komik* would clearly be better translated as "humor" and many instances of *Witz* as "wittiness." Finally, an illustrative academic debate on *mirth* vs. *exhilaration* was summarized.

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5

Linguistics and Humor Theory

Salvatore Attardo and Victor Raskin

The purpose of this chapter is to locate the linguistic theories within the space of humor theory at large. As such, this chapter is largely meta-theoretical, i.e., it addresses theories as objects and attempts to provide elements of a meta-theory of the field, or at least of a description thereof. The descriptions of the theories should not be construed as treatments, even partial ones, of said theories. They are mere signposts, labels to facilitate the recognition of a given theory or approach. Readers are implicitly invited to refer to fuller treatments of each individual theory.

1 Historical Perspective

It is fair to say that the publication of Raskin (1985) impressed a profound change in the linguistics of humor. Prior to Raskin's book, the purview of the linguistics of humor, as represented for example by the synthesis of Pepicello and Weisberg (1983), was primarily verbal humor (i.e., puns, riddles, and the likes). The emphasis was primarily on taxonomy (e.g., Hausmann, 1974). This is not to say that semantics and pragmatics had always been ignored (see, e.g., the isotopy disjunction model; Aljared, 2017), but they were not the center of the research. Raskin's work set semantics and pragmatics front and center, a position from whence they have not retreated since; witness for example the developments in cognitive linguistics (Brône, 2017) and relevance theory (Yus, 2017) in the past decade.

This is not the place to review the structure of the Semantic-Script Theory of Humor and of the General Theory of Verbal Humor that followed it. Other chapters in the handbook provide the necessary background (Attardo, 2017; Raskin, 2017). However, the significance of Raskin's (1985) book did not only lie in the theory it presented, but also in the meta-theoretical discussion of his vast literature review. In it, Raskin (1985) groups the various humor theories in three families of theories: incongruity, superiority, and release. Attardo (1994, p. 47) provides a handy chart summing up the various terminologies. Of course there are many more theories of humor (cf. Piddington, 1933; Keith-Spiegel, 1972; Martin, 2007). That was not the point. It would be frivolous to try to capture, even in a clever taxonomy, all *possible* theories of humor. New theories of humor appear and disappear quite often, usually tied to the work on an individual scholar. More importantly, new advances in technology afford new tools that make previously impractical research possible (consider the work on the neurology of humor, made possible by

fMRI technology, for an example of a new approach to humor research that would have been literally impossible 30 years ago).

Raskin's point was that the three families of theories are not really at odds, as they address different aspects of the humor phenomena (the blind men and the elephant metaphor, used in the title of Berger's [1995] book). It is worth quoting Raskin's text in full, as it will be the starting point of the discussion.

> the three large groups of theories briefly discussed above are not at all incompatible [. . .] The three approaches actually characterize the complex phenomenon of humor from very different angles and do not at all contradict each other—rather they seem to supplement each other quite nicely. In our terms, the **incongruity**-based theories make a statement about the **stimulus**; the **superiority** theories characterize the **relations** or **attitudes** between the **speaker** and the **hearer**; and the **release/relief** theories comment on the feelings and psychology of the **hearer** only. [. . .] The script-based semantic theory of humor [. . .] is designed as neutral with respect to all of those theories and is, in fact, easily compatible with most, if not all of them, which is, of course, another way of saying that its goals, premises and terms are rather dramatically different from theirs.
>
> (1985: 40–41; emphasis in the original)

It is tempting to line up incongruity theories and release/relief theories on a stimulus–response vector—after all it is the hearer that provides the response to the stimulus produced by the speaker. Superiority theories would then logically provide the transition between the two, yielding the following "map" of humor theory (Figure 5.1).

Tempting as it may be, according to Raskin (1985) linguistics is either on another plane or better, spread across the board. So we will leave this exercise in metatheoretic mapping and move on to how linguistics was seen from the outside.

1.1 Humor Theory and Linguistics

So far, we have concerned ourselves with how linguistics addressed humor theories. We now turn the spotlight, so to speak, in the opposite direction. From the standpoint of humor research, linguistics was a marginal player. The leader in the field was and had always been psychology. It is no coincidence that all three of the sources on humor theories previously mentioned (Piddington, 1933; Keith-Spiegel, 1972; Martin, 2007) are written by psychologists.

Linguistics was allowed a place at the grown-ups' table largely because of the Nilsens's oversize role in starting and organizing the International Society of Humor Studies and because of

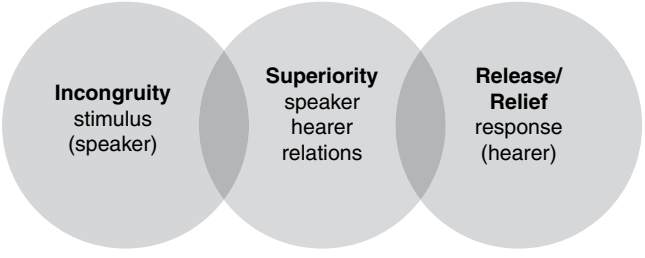

Figure 5.1 "Map" of humor theory

Raskin's influence and extended founding editorship of the journal of the society (*HUMOR: International Journal of Humor Research*). However, there is another reason why linguistics grew to be one of the leading disciplines in humor research when psychology safely led the race, albeit very non-vigorously. Linguistics came equipped with the first-ever theory that rose to the level of science and claimed universality. Raskin's very first paper in humor research (1979) had a profound impact at the 2nd International Conference on Humor in 1979, quite unexpectedly for the author: a theoretical linguist and a semanticist, he saw and formulated all of his research as developing a theory—but nobody else in the humor research community ever bothered. People did use the term informally in the sense of an explanation, as in "I have a theory why Wal-Mart is closed today." People did refer to aggression, liberation, and incongruity as theories of humor without going into any detail what they meant by the term.

A couple of decades earlier, Chomsky's triumphant entrance into linguistics was due also to the introduction of theory, most succinctly in chapter 1 of his *Aspects of the Theory of Syntax* (1965). Chomsky's notion of a system of syntactic rules underlying language formulated for the first time in history what the goal of linguistics is, namely, explicating these rules as internalized in the minds of the native speakers. This goal was explicit, it replaced nothing, and it has defined linguistics ever since. Ironically, Chomsky left the subject and lost control of the issues: the formalism variations and relabeling of various denominational spin-offs of each other and quarrels with those not on the same page not only stopped the development of linguistic theory but also have led to the emergence of two or three generations of linguists who do Chomskian linguistics but categorically deny being Chomskians. As a result, linguistic theory has stagnated.

The theory that convincingly—too much so, as demonstrated in Raskin (2017)—represented verbal jokes as formed by two opposed scripts has not been too quarrelsome and has remained solidly in the background of humor research. This does not mean that a whole bunch of humor researchers have rushed into developing humor theory further. It is fair to say that, while it is customary for articles to cite our work on linguistic theories of humor, most authors have barely read it and mostly pay lip service to them. Mercilessly criticized from the inside, most outside attempts to falsify them misfire because of the atheoretical nature of most humor research. The ensuing lack of interest in the components of a theory makes it impossible for the critics to identify the vulnerabilities or to aim the attacks accordingly.

Humor research is multidisciplinary, and many disciplines, such as psychology, sociology, communication, and literary studies, to name just a few, disdain theory and do without. It is rather tempting to do in a difficult field of human-related notions: we have never really defined humor just as love, life, emotion, society defy concise and universally accepted definitions. So, people proceed on "common sense" and promptly discover that nothing much is common about it. Chomsky claimed, historically, that people who are atheoretical operate on implicit and unconscious theory. It was a revelation for Willibald Ruch, a friend and an on-and-off collaborator, to hear from a series of long conversations with Raskin at the 1990 International Society for Humor Studies (ISHS) conference in Sheffield that, while practicing null theory and ostensibly getting general statements exclusively from factor analysis in brilliantly designed fail-proof experiments, he and his group have actually based all of their humor research on an unexamined and verified premise that all humor can be classified as sexual, absurd, and incongruous.

Traditionally anthropology and sociology reserved some space for linguistic concerns, but psychology was essentially uninterested in linguistics, as were literary scholars. Things changed rather dramatically after Raskin (1985) and Attardo and Raskin (1991). Soon after, one began hearing talk of "linguistic imperialism" (Raskin, 2008, p. 12), or to put it differently, an attempt, on the part of linguistics, to impose its methodologies onto other unsuspecting fields.

1.2 Structure of Theory

The questions that most researchers in all disciplines rarely ask and are not usually trained to think about are, What constitutes a theory?—and related to it, How to build a theory? The reason for that is that most scholars follow a methodology, try to perfect it, and get better results. As mentioned before, we were trying to build the General Theory of Verbal Humor (GTVH) when these questions hit us full blast. We felt, from Attardo's first thoughts on what became knowledge resources of a joke, that they must be hierarchically organized. With more experience in teaching the philosophy of language long before it descended into first-order logic and from his useful affiliation with the Department of the Philosophy of Science at the Hebrew University of Jerusalem almost two decades earlier, Raskin boldly went to that field, thinking naïvely that this must be a standard problem in sciences. He discovered nothing beyond issues of empirical verification, predominantly in physics, with an occasional venture into some psychology and, for some reason, vision, and so a DIY kit has to be tentatively deployed, resulting in a long and hard-to-read paper. Raskin developed this scholarship into a full-fledged chapter (chapter 2) on theory-building in Nirenburg and Raskin (2004). And this was further applied to humor theory in Raskin (2012a; 2012b; 2017) and still further built upon here.

It will not be an exaggeration to state that most research, in all fields, is method driven. A standard research paper mentions a method, cites its previous applications, and offers some improvements or modifications. There are whole disciplines or at least decades in their histories where there is no motivation for that dominant methodology nor a statement on what it does or does not do. As mentioned before, a naïve, implicit, unconscious theory usually underlies the methodology. A theory should and often does imply a methodology. An explicit theory always suggests and establishes it. The methodology results in what we call descriptions, and the format and substance of those are what a real theory defines.

In case of humor research, the descriptions are joke representations leading to explanations, and the methodology is for discovering and arranging the elements of such descriptions. In case of our linguistic theories of humor, the body of the theory includes the Main Hypothesis about the compatibility of the text of the jokes with two opposing scripts. But the body of the theory is just one most conspicuous component of a theory. Probably even more consequential are the underlying premises: just as defining, they usually remain invisible, often even to the authors and adepts of a theory. The main premise of our theories is that humor can be analyzed by the same tools that are necessary for representing the meaning of text, independently of humor. The body of the theory makes the semantic nature of the theory obvious but it is the premise that predetermines it.

Each theory comes with a purview, and it applies only to the phenomena within this purview. The original linguistic theory of humor was developed for short verbal jokes, and any extension of it required additional theoretical arsenal. None of the results of the original theory can be accepted as automatically transferrable. Thus, no short story can be believed to be funny if it involves two opposed scripts. That was the major reason Triezenberg's (2004) otherwise bold and brilliant critique of the theory because, she claimed, it would predict that an Agatha Christie story would be funny on the "X is/is not the murderer" opposition, was wrong: the story did not belong in the purview. It required a major development of the humor theory to expand the purview to larger texts over the next two decades (Chłopicki, 2000; 2017; Attardo, 2001; Ermida, 2008).

Humor theory is set up on the strictly Popperian view (1972) that every hypothesis must set up a reliable way to be falsified, in principle—otherwise, it is a faith. That a joke is based on Oring's appropriate ambiguity or McGraw's benign violation (McGraw & Warren, 2010) are,

therefore, acts of faith that no serious researcher shares. Humor theory, however, is falsified by any joke that is not based on a pair of opposing scripts, and the search for such a pair has been fully on since Raskin (1979). There are several additional properties that a mature, well-set theory proper should have. To quote from Raskin (2012b), a usable theory

> must be and actually is:
>
> - adequate, if it provides an accurate account of all the phenomena in its purview;
> - effective, if it comes with a methodology for its implementation;
> - formal, if it submits itself to logical rules, whether it does or does not use a specific formalism—confusing formality with formalism is one of the worst and unfortunately common offenses in discussing a formal theory;
> - constructive, if that implementation can be completed in finite time;
> - decidable, if there is an algorithm for its implementation in principle;
> - computable, if this algorithm can actually be demonstrated,
> - explicit, if it is fully aware of all of its components and provides a full account of each of them.
>
> (p. 63)

The formal, algorithmic, and ultimately, computational aspects of theories have to do with their cognitive value/explanatory power, which we will briefly touch upon next.

1.2.1 Cognitive Value/Explanatory Power

Theories are there to structure our knowledge by informing us what is what and how it all fits together. It is instinctive for humans to try and explain more complex things in terms of simpler previously known phenomena. Nobody was surprised when reading Lakoff and Johnson's (1980) explanations of metaphors in terms of physical phenomena because we think those are easy to represent. When an argument is metaphorized as war, we know a lot about wars and we easily apply the known selected aspects of it to a less tangible thing. When, on the other hand, we are told that humor is a matter of benign violation or appropriate incongruity we probably know less about the latter than we do about humor, and the explanatory power of the comparison is nil. *Obscurum per obscurius* . . .

Moreover, we do not know what benign violation or appropriate ambiguity is outside of its equation of humor. Is there malign violation? Neutral violation? How is the continuum quantified? To put it differently, no algorithm or methodology to duplicate the analysis is provided.

Basing itself on semantic scripts, script-based humor theory is an application of linguistics semantics, where scripts are a part of the theoretical apparatus of semantics independently of humor (e.g., Fillmore, 1982; 1985). Scripts are intuitively clear entities: they are important elements of our knowledge of the world that consists of a large number of routines on how we do and see things. It is our knowledge of scripts that allows us, in a decade-old example from Raskin (1986), to understand why the first of the two bulleted examples makes sense while the second does not:

(1)

- John was a dime short and had to do without milk.
- John was a dime short and had to do without family.

A simple script connects the possession and expenditure of a small amount of money with the purchase of an everyday commodity, but not with marrying and having children.

Postal (1971) established a theory-building principle of non-ad-hoc-ness that postulated that no transformation rule should be invented to explain a syntactic phenomenon if it is not independently used somewhere else. We can refer to this as the principle of at least double anchoring. So scripts are good for use in the linguistic theory of humor because they are—or should be—used in linguistic semantics independently of humor. What makes the remainder of this chapter valuable is that the thoughts on humor, within and around GTVH, are firmly anchored in the linguistic theory of humor. Scripts do not have to be addressed or researched explicitly for every statement to be firmly theoretically rooted, and any critique of it should share the rooting. The irresponsible European-style dismissal of theory on the grounds that there is much more to the joke that "just that" should be carefully explained in terms of what the theory is missing or how it should be expanded. The need to understand theory is crucial before addressing any aspect of it. That need provides a good defense from atheoretical looseness and irresponsibility, and it also allows a theory-based argumentation to be quite dynamic in varying the grain size of a description. In the following discourse, comments on and around the GTVH freely change levels of discussion and detailing without ever losing ground in the theory that explicitly underlies it.

2 Core Issues and Topics

We need to consider the placement of other linguistic theories in the general epistemological space.

2.1 Linguistic Theories and Other Theories of Humor

Raskin (1985) claims that the three major theories and the Semantic-Script Theory of Humor (SSTH) are orthogonal to each other and hence do not interact with the SSTH. However, this stance is the exception rather than the norm. Most theories are quite happy to "slot" themselves in a prior framework. This is certainly true of many theories. For example, while evolutionary theories and linguistic theories are in principle orthogonal, since the decision long ago to dismiss discussions of the origins of language as non-scientific, Chafe (2007) attempts to integrate an evolutionary aspect in a linguistic theory. Cognitive linguistics, at least in the work of Seana Coulson (e.g., Coulson and Kutas, 2001), throws its lot in with neuroscience. Many proponents of discourse analysis would probably not object to having their work described as concerning "the relations or attitudes between the speaker and the hearer," although they may be alarmed by being told they are "superiority" theorists.

2.2 The SSTH as an Incongruity Theory?

Raskin's (1985) claim of neutrality for the SSTH vis-à-vis the theories of humor of linguistic theories is clear and well defined. Attardo (1997) proposes to interpret that SSTH as a statement of the incongruity theory in semantic terms, or more precisely that the concept of incongruity presupposes semantics and hence that all incongruity theories are semantic. Are the claims in Raskin (1985) and Attardo (1997) at odds?

On the surface, yes, and many including Dynel (2009) have fallen into this trap. However, Raskin made it clear, in his extensive interview in Aymone (2007), that his objection to the classification of the SSTH as an incongruity theory had to do with the implementation of the

incongruity theory prevalent until the 1970s as an arousal model. Once stripped of this physiological ballast and turned into a cognitive theory, the objection was no longer there. Still Raskin maintains that the SSTH is "completely autonomous" and "neutral" in respect to the psychological, incongruity-resolution theories. What does Attardo (1997) claim? Attardo's claim is that the incongruity-resolution theories are semantic theories, not the other way around. How could this have been so profoundly misunderstood? The title of the article is "The Semantic Foundations of Cognitive Theories of Humor" (note, not "The Cognitive Foundations of the Semantic Theories of Humor") and in the second page of the article Attardo states, fairly unequivocally, that one of his goals in the article is "to argue for the logical primacy of a semantic concept of *opposition* defined within cognitive theories of humor (incongruity-resolution)" (1997, p. 396; emphasis in the original).

Attardo will also readily admit that some of his wording may have led to the confusion: for example, on page 403 Attardo states that "Seen in this perspective, the SSTH is an IR model." This looks like a statement that the SSTH would be a kind of IR theory. However, it should be noted that the claim is qualified by the initial modifier "seen in this perspective." The perspective is that of the linearity of the text, which causes scripts introduced at the beginning of the text to become part of the expectations that can then be violated by the opposition. Hence the SSTH is only an IR theory insofar as IR theories presuppose a linear processing of the stimuli. However confusing some of his wording may be, Attardo is elsewhere fairly blunt about his overall point: "I wish to argue that some components of the SSTH/GTVH are logically prior to such concepts as "incongruity" and [. . .] that the SSTH/GTVH model [. . .] precedes the other theories [= IR models] and is implicitly required by them" (1997, p. 414), and elsewhere "the investigation and definition of the concept of incongruity has to start from semantics" (p. 415) and "incongruity is a semantic concept."

So, both Raskin and Attardo claim a privileged status for the SSTH: Raskin argues it is independent of the psychological theories; Attardo argues that it is logically prior and underlies the psychological theories.

Let us consider then the notoriously broader GTVH. The GTVH incorporates an important element of the superiority theory when it postulates the (optional, but frequent) presence of a target in the text. The idea of "targeting" someone obviously presupposes hostility or aggression towards said target. Finally, the presence of the violation of the cooperative principle entails the opportunity for release from the strictures of society (defunctionalization; metamessage "this is play").

So, much like the three big theories address different levels of humor phenomena, the GTVH addresses different levels of the phenomena as well. However, that does not make the outcome relevant for linguistics: to find that the defunctionalization of language has a liberating effect on people is an interesting psychological fact, but not necessarily a fact at all in a linguistic perspective (that is unless there is a linguistic feedback mechanism whereby, say, after one is liberated one behaves differently linguistically in a manner that is relevant linguistically).

2.3 Notational Variants

Next, we need to address the issue of notational variants. It is not uncommon to see claims such as Krikmann's (2006) that Koestler's theory, Greimas's "isotopy disjunction" and the "script switch" of the SSTH would be notational variants. The difference between the three sets of terminologies lies in the fact that no direction is ever given by Koestler on how to identify "matrices," the definition of isotopy was problematic, as shown in Attardo (1994), whereas Raskin's scripts are operationally and theoretically well-defined. Aljared (2017) also discusses Krikmann's (2006) claim.

Let us consider another example, the notion of "frame shift" (Coulson, 2001). Coulson's definition is a true notational variant, because frames are the same as scripts. The claimed difference (frames would be "dynamic" whereas scripts would be "static," having been nullified by Attardo's (2001) dynamic definition of scripts (see Brône, 2017 for a similar point).

It should be stressed that "notational variants" are not neutral. There are better and worse notations. For one, being well-defined is important, with mathematical formalization at the end of a spectrum, but of course descriptive adequacy trumps everything else. To put it differently, if your theory is right, people are more willing to forgive definitional lapses.

2.4 Paradigms in Linguistics?

It is a matter of contention if there exist different paradigms (in Kuhn's [1962/2012] sense) within linguistics (Percival, 1976). Generally speaking, while there have been claims that, for example, functionalist theories would belong to a different paradigm than, say, structuralist theories, the consensus is the differences between theories are not significant enough to be truly paradigmatic. The only approach represented in this handbook that could aspire at representing a different paradigm than the others is the conversation analysis–based one. Because it is based in ethnomethodology, which is itself grounded in phenomenology, conversation analysis starts with pretty "different" assumptions. Witness the refusal to assume prior hypotheses (paralleling the phenomenological practice of "bracketing," i.e., suspending judgment in favor of the analysis of experience), the emphasis on naturally occurring conversational data, and the refusal of quantification and generalization, at least in a first phase of research. Indeed, Glenn and Holt (2017) reject the use of the concept of "humor" (which one would assume is not problematic) in favor of "laughable" which has the advantage of being directly observable (and the distinct disadvantage, as Attardo [2005] pointed out, of being unable to handle failed humor and of being essentially circular: a laughable is something that someone laughs at). In the end, though, despite all the methodological differences just discussed, we find that other approaches of discourse analysis easily bridge the gaps between conversation analysis and, say, a semantic theory. For example, other approaches to discourse rely fully on quantitative data.

The only other candidate for paradigmatic difference is cognitive linguistics. The stance of cognitive linguistics vis-à-vis semantic and pragmatic theories coming from the Chomskian paradigm has softened considerably: compare for example the pugnacious attitude in Brône et al. (2006) to Brône et al. (2015) and Brône (2017).

In conclusion then, more than competing paradigms, both in linguistics at large, and also in the field of humor research, we see different approaches that focus on different aspects of the field. It is possible that there are no unifying features that all approaches agree to. That is not a problem. We know that some categories are organized along family resemblances (Wittgenstein, 1953), so that while there may not be any single feature or aspect of the study of the linguistics of humor that all approaches acknowledge as valid and meaningful, there are enough overlaps between the adjacent areas that there are no "gaps," i.e., there are no isolated approaches or clusters of sub-approaches that cannot "talk to" or relate to the work of other approaches.

However, this does not mean that a complete coverage of the field or even a reasonable sampling has been achieved. Consider all the new genres that have appeared in the age of social media (see Weitz, 2017); only the barest surface has been scratched. Even within canned jokes, which have been historically the source of most examples, very few joke cycles (elephant jokes, knock-knock jokes, etc.) have been explored in any detail. Other areas, such as short stories or novels, have seen so little attention that the studies reviewed in Chłopicki (2017) can only be described as exploratory.

There is one aspect of linguistics that all its subfields agree on. Each field must have, not epistemologically, but sociologically a set of standards of proof that its proponents participate in. We turn to this aspect next.

2.5 Standards of Proof

Linguistics is not monolithic. The biggest distinction, reflected even in the professional societies in the field, is between theoretical and applied linguistics.

Whereas even widely different theories such as, say, cognitive linguistics and any of the generative-transformational linguistic theories offshoots, agree generally speaking on what their goals are or should be (describe language), there is no such agreement between approaches in applied and theoretical linguistics. Here we must tread carefully, as both the authors of the piece are trained as theoretical linguists and thus we may carry unconscious biases. (Unconscious? Who are we kidding?!) How can we then carry on discussions or even more ambitiously collaborations between the applied and the theoretical camps? How can we make statements that will "carry over" across the board?

This boils down to the issue of the standards of excellence. It can be articulated as a question: how does one know what is good work in a given discipline? In the sciences, it's relatively simple: have you followed accepted standards for data collection? Are your analyses sound? Are your results statistically valid? But take a field like postmodern literary criticism. None of these criteria is applicable or even intelligible from within a deconstructionist framework. So what to do? Here we will violate all the rules of positivist science and fess up a dirty secret of interdisciplinary work: essentially you trust the person doing the work. If you know them to be a good scholar, they are presumably doing good work.

The immediate question then becomes: "how does one know who is a good scholar?" Here, decades of experience in academe help us answer, with a stance that may surprise some: essentially it is a social construct. If the community of peers (constituted of respected scholars, publishers, acquisition editors, reviewers, editors, etc.) respects you, you are a good scholar. If not, you are not. Popularity (assessed today in citation counts) is part of it, but not a very significant one. The success of one's theories and approaches is much more significant. When other scholars start using your theory or model, or even just your terminology, then you are a good scholar and your work is therefore good. Note that at the foundation of all this is the necessity to produce good work. If your work is not good, people will not quote you, they will not invest time into testing or replicating your models, etc.

So, in conclusion, it is work that meets and demonstrates the standards of excellence of their respective fields that "rises to the surface" of knowledge and that eventually is engaged with by scholars in neighboring fields. A similar epistemological stance is present in applied linguistics.[1]

2.5.1 Warrants

Edge and Richards's (1998, p. 342) stark but effective challenge, "What warrant do you have for the statements that you make?," describes well the fundamental problem faced by those branches of applied linguistics that forgo the empirical, rationalist tradition of positivist science. If one cannot aspire at factual truth, what is the point of even writing up one's findings? Edge and Richards's answer is the idea that not anything goes in qualitative research, i.e., that good research has warrants that provide the reader with a presupposition of relevance, validity, etc. They go on to categorize three "routes which all seem to us to be perfectly well defensible, and each of which offers the basis for warranty which we seek" (p. 342).

Lincoln and Guba (1985) speak of "trustworthiness" and offer a list of techniques to establish credibility, replicability, transferability to other contexts (cf. double anchoring), and freedom from bias. One such technique is "member checking," which consists of asking the participants to check on the interpretation of the researchers (cf. Schnurr & Plester, 2017). Another is "replicability," used by Simpson and Bousfield (2017).

2.5.2 Competence vs. Performance; the Principle of Commutation

Perhaps the most overlooked and/or misunderstood aspect of the SSTH and GTVH is that they both are programmatically and in their implementations theories of competence and not performance. As such, they are concerned with the necessary and sufficient conditions for a text to be funny and not with whether a given person in a given situation will find a text more or less funny. This distinction is one of the most basic ones in linguistics and it parallels the one between phonemes and allophones, morphemes and allomorphs, etc. American structural linguists called this the emic/etic distinction. In a nutshell, the distinction is between the differences that are meaningful and those that are not. For example, the pronunciation of the [p] sound with an aspiration [p^h] is not meaningful in English, whereas it is in other languages.

The question is, of course, what counts as meaningful? The answer comes from another basic principle of linguistics: the principle of commutation.

The GTVH methodology is fundamentally predicated on replacing the values of the Knowledge Resources to check if that triggers significant changes. Ruch et al. (1993) is a prime example of that methodology at work, systematized for the psychological experiment. Raskin (2017) contains another pellucid example. Let us briefly consider one example here, before exploring the issue further.

(2) Q: How do you know if a Blonde has been working on your computer?

A: There's WHITE OUT on the screen. (http://www.blondesville.com/dumb-blonde-jokes/2/)

It is fairly clear that one can replace "Blonde" with any target from which the stereotype "dumb" exists, so we could easily have "How do you know if a Pole . . ." etc. So far, so good. Could we apply this methodology to any element in the text? The answer is yes and no. It depends on what you are trying to do.

The presence of a given linguistic phenomenon in a humorous text is not reason enough to assume that that phenomenon is responsible for the humorous nature of the text. I mentioned this in passing in Attardo (2006) using the example of articles. One can demonstrate very convincingly that all humorous texts contain articles. This is certainly true. However, one would need to demonstrate that the articles (or their absence) causes the text to be humorous. Failure to do so dooms the observation that all humorous texts contain articles to triviality (most sufficiently complex texts will contain articles). This is a familiar problem: Morin (1966) claimed that all jokes consisted of three "narrative functions." However, research reviewed in Attardo (1994) showed that all narratives share this characteristic. Thus Morin was merely stating a tautology: humorous narratives (*histoire drôles*) are organized as narratives.

Far from being a hypothetical issue, this is a very real concern: for example, in cognitive linguistics, the claim has been made that humor involves blending. However, there are non-humorous blends. So the significant issue is not whether blends occur in humor but whether those that do are different than those that occur in non-humorous texts. Needless to say, there may be other hypotheses as well: blends that occur in humor may be quantitatively different

(there may be more of them), or the presence of blends in humor is orthogonal to the humor (in other words, the blends are there but they do not cause the humor). The same can be said for the claim that Relevance accounts for humor. Needless to say, Relevance accounts also for non-humorous texts. So, the real problem is what is the difference between the humorous uses of relevance and the non-humorous ones?

Let us consider an example (with apologies to any economist and/or South Dakota resident):

(3) A woman hears from her doctor that she has only half a year to live. The doctor advises her to marry an economist and to live in South Dakota. The woman asks, "Will this cure my illness"? Answer of the doctor: "No, but the half year will seem pretty long." (http://www3.nd.edu/~jstiver/jokes.htm)

Without engaging in a full-blown analysis of the joke, it is clear that the characters in the text and the reader need to engage in some inferential work: doctors are supposed to attempt to cure diseases, hence the inference drawn by the woman, for which she seeks confirmation, that [1] marriage to an economist and moving to South Dakota would cure her illness (incidentally, advice to live in SD presupposes that she does not currently do so, hence that she would have to move). The doctor reveals that he or she was in fact not suggesting a cure (which is a violation of expectations, and hence incongruous) but merely suggesting a way of lengthening her subjective experience of the 6 months she has left to live. Here more inferential work is needed to establish that [2] if one cannot live longer one would prefer for the time to feel longer (probably reasoning analogically, along the lines that if one has a small house one would prefer to have it look larger, for example decorating with mirrors and windows, if one cannot enlarge the house or move to a larger one). More importantly, inferential work needs to conclude that [3] the reasons the 6 months would feel longer are that both being married to an economist and living in South Dakota would be boring. Note that more inferential work also takes place: that [4] the illness mentioned by the woman is the cause of her having only 6 months to live is also an inference. So far so good.

The question now is, which of these inferences is causing the humor, if any? How would we go about answering the question? Here one of the fundamental principle of linguistics, the principle of commutation, comes to the rescue. In this instance, one can test whether it is the inferential nature of the information that triggers the humor simply by removing the inferentiality (for example, by stating explicitly the information) and checking if the text is still humorous.

Based on this principle, it is clear that some inferences are not related to the humor, for example [4] is not connected to the humor. All we need to do is rephrase the text so that the woman says "Will this cure this illness that's causing me to only have a half year to live?" Granted, the text is a little more awkward, due to the repetition of the "only a half year to live," but we can easily see that the humorous nature of the text is preserved. [1] can be likewise eliminated by rephrasing the doctor's advice as "Well, this will not cure your disease, but you should marry an economist and move to South Dakota." [3] is trickier, because it is the punch line, but in fact the inferential nature of the conclusion can be eliminated by adding an "explanation" of the punch line: "No, but the half year will seem pretty long, because both being married to an economist and living in South Dakota are boring." [2] can be handled in similar fashion. One could argue that by introducing the formerly inferential information after the punch line we are still granting a special status to it. Indeed, that is true: the surprising aspect of the text punch line would be destroyed if some of the inferential information appeared before the punch line. However, that is a different claim than the one we are investigating (i.e., that it is the inferential nature of the information that causes the humor).

Ultimately, the repeated application of the principle of commutation will reveal that if the doctor's responses did not violate the expectation built in in the script that doctors should try to heal diseases, hence creating an opposition between good and bad doctor (a doctor that, rather than healing the patient, insults economists and South Dakota is not a good doctor), and if this incongruity were not partially resolved by the logical mechanism of analogical reasoning (if you cannot live longer, at least have the impression of your life being longer), there would be no joke. If the (mild) aggression towards economists and South Dakota were not present, the incongruity would not appear as funny. Likewise, if the information inferred were presented before the punch line the joke would also misfire. So, in conclusion, these characteristics of the text are what makes the text funny, whereas the inferential nature of some of the information per se is not responsible for the humor in the text.

From the abstract methodological choices of linguistics come some concrete methodological choices. For example, in discourses/conversation analysis the ecological validity of the data but also of their interpretations are paramount. Researchers will check with the speakers if the researcher's interpretation is valid ("member checking"). When applying the principle of commutation, the speakers are notoriously unreliable judges of what differences are meaningful and not. Specific methodologies have been devised to determine the significant changes without asking the speakers for their opinion. The idea is to tap in their intuition without tapping their judgments. It should be noted that we are not saying that the ethnomethodological principle of ecological validity of the data is false. We are just saying that the two belong to different approaches with different warrants.

3 New Debates

What are new and emerging approaches to the linguistics of humor? The work of Nancy Bell on failed humor (Bell, 2015; Bell, 2017) has finally opened the door to researching what happens when things do *not* go as planned in the humorous exchange, with the related fields of how speakers try to make sure it does go well: humor support (Whalen & Pexman, 2017), humor markers (van Mulken, 2017), and the burgeoning field of multimodality (Gironzetti, 2017).

Corpus-based approaches (Partington, 2017) are beginning to have an impact on the field, primarily within the subfield of functional discourse analysis, where a strong research program, tied to politeness and workplace research, has yielded some significant results (Schnurr & Plester, 2017) and is now being applied to multimodal studies (Gironzetti, 2017).

Relevance theoretic studies of humor have had somewhat of a renaissance (Yus, 2016; 2017), but the turn within pragmatics towards experimental pragmatics does not seem to have reached humor research. However, the research in the psycholinguistics of humor continues undeterred by its disconnection with humor research—with significant exceptions that include Vaid's own work (López & Vaid, 2017) and Rachel Giora's work on salience (Giora, 2003; and see Brône, 2017 for its integration in the cognitive linguistic paradigm). The neurolinguistics of humor (Chen et al., 2017) is now its own field, largely independent of humor research, but in a few cases scholars are utilizing theoretical foundations from humor research.

Finally, we have seen enough momentum in the application of humor to second language instruction that we should be seeing more interesting research on how humor can facilitate (or complicate) the job of teaching a second language.

But what about the GTVH? The trend of wanting to expand the theory with new knowledge resources continues (see Attardo, 2017 and Chłopicki, 2017) but mostly, more than 25 years after its publication, it is surprising (and quite gratifying to its authors) to see that it continues to serve as a point of reference and as outright theoretical background for many scholars in many

fields. Clearly, the GTVH provides a good foundation for many humor researchers. At the same time, it is not the final product in the line. In fact, Raskin (2017) demonstrates that the theoretical work is very much in progress. His own research focuses on improving the formal procedures for script detection and on computational humor as it is becoming clearer that research in artificial and robotic intelligence must account for humor.

Note

1 We gratefully acknowledge Lucy Pickering for making us aware of this discussion within applied linguistics.

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6

The Isotopy Disjunction Model

Amal Aljared

Historical Perspective

The early ideas of the isotopy disjunction model (IDM) originated in Europe in the 1960s in the work of Algirdas Julien Greimas, a semiotician of structuralist orientation. His theory of the narrative and the concept of isotopy inspired and influenced many scholars in structural semantics. Greimas (1966) is credited with proposing the foundations of the model when he described the structure of jokes in his book *Semantique structurale*. Greimas identifies two necessary parts in jokes: the narration/presentation and the dialogue. The narration/presentation part sets the background and establishes the first isotopy (sense) of the text. The dialogue part dramatizes the story causing a second isotopy to arise and oppose the first one. Finally the two isotopies, which are in collision with one another, are linked together by a connecting term. Greimas's observations on jokes attracted the attention of several scholars interested in humor, mostly in Europe. The first to be directly inspired by Greimas was Morin (1966, p. 108). She adopted Greimas's model but introduced the original idea of analyzing the texts of jokes in terms of three functions. Morin redefined Greimas's two-part subdivision of the text into a three-part division: normalization, interlocking, and disjunction.

First, **normalization** has the function of putting the characters in their situation and in general establishes the background of the text. Second, **interlocking** establishes the problem to be solved, or questions; this function creates expectations and introduces the need for a resolution in the story. In verbal humor, it often contains "the connector," which enables the switch between the two senses in the joke. Finally, **disjunction** occurs at the end of the text, and concludes the narration. It contains the disjunctor, which is the element that causes the passage from the serious to the humorous sense, and hence is responsible for the humorous effect itself. Morin's three functions are not specific to the joke, but are present in any narrative text. Her last two functions of interlocking and disjunction correspond to Greimas's dialogue.

Many scholars applied the IDM specifically to humor theory. Hausmann (1974) adopts the model as the theoretical foundation for his work and applies it to puns. He considers isotopies as a case of linguistic coherence; in his view, coherence is broken by a pun. Manetti and Violi (1977) analyze a type of linguistic puzzle, popular in Italy, that shares some characteristics with jokes, such as the presence of two isotopies and the disjunctor. Marfurt (1977) also adopts the

model; however, unlike Greimas, he claims that the humorous pleasure of a joke comes not as a result of the two isotopies, but rather to the discovery that stems from it of the inadequate reaction of the speaker compared to the norm. Landheer (1989) also applies the IDM in the context of translation.

Attardo (1989) and Attardo et al. (1994) further elaborated and systematized the model and called it the isotopy disjunction model. According to Attardo, the IDM is a text-processing model that is based on the idea that, in a joke, an otherwise normal linear processing of the text is disrupted by an anomalous element that is peculiar to a joke text. In other words, a joke text processing differs in some significant way from that of a non-humorous text. Specifically, as a hearer/reader processes a text linearly, he/she combines the appropriate word meanings encountered in the text to create the sense of the text, called S1. The anomalous element in a joke creates a passage from S1 to a different sense, opposed to the first one, S2. The passage from S1 to S2 must be unexpected and immediate. In the IDM, the element that causes the passage from S1 to S2 is called the disjunctor. Attardo also defines the term "connector," necessary in verbal humor, as "any segment of text that can be given two distinct readings" (1994, p. 96).

Among the studies that investigate the tripartite division of the IDM is Perner's (2002). He refers to the form of a prototypical joke, which consists of three textual segments (TS); each of the three segments consists of an individual function in connection with the other two segments and in regard to the semantic structure on a deeper level. TS^1 has two main functions, either to support an earlier text or as an introduction to the narrative. TS^2 is said to consist of a "complication" or "dramatization." TS^3, the punch line, has the function of the disjunction (Perner, 2002, pp. 45–53).

Perner (2002, p. 29) refers to Greimas's statement regarding ambiguous texts, in which the humorous effect doesn't lie in establishing just one isotopy (which would produce a coherent reading of the text), but rather two possible isotopies (bi-isotopy), which constitutes its potential humor. Perner rejects the use of the term "allotopy," which has been used in some structuralist treatments of figures of speech. For a review of other IDM inspired studies applied specifically to humor theory, see Attardo (1994).

The Components of the Isotopy Disjunction Model

This section will describe the four basic components of the IDM.

1 The Notion of Isotopy

Numerous definitions of the notion of isotopy exist. Greimas (1966) was the first to propose several definitions for the notion of isotopy. Greimas's own definitions changed over time (see Attardo, 1994, pp. 64–81). Greimas's first definition of isotopy, in 1966, was the repetition of classemes across parts of a text. In some of Greimas's essays collected in 1970, he presents a generally semantic definition of isotopy: "By isotopy we understand a redundant set of semantic categories which makes possible the uniform reading of the text" (p. 188). In other publications, Greimas (1972) defines isotopy as the "syntagmatic coherence of discourse" (p. 8). Significantly, in this definition, Greimas treats the repetition of elements at the phonemic level (hence devoid of meaning) also as an example of isotopy.

A broader definition, provided by Rastier (1972), is that "we call any iteration of a linguistic unit an isotopy" (p. 82). Attardo (1988, p. 362) adopts the notion of semantic isotopy, which he defines as simply referring to the semantic interpretation of text and ultimately overlapping with the idea of meaning or sense of a sentence/text. According to Krikmann (2006), Greimas's

isotopies are essentially nothing other than different readings of ambiguous expressions, and the transition from one alternative isotopy to another appears to be closely synonymous with Koestler's clash of bisociative matrices or Raskin's switch of opposed scripts.

2 Position of the Disjunctor

Implicitly, the IDM assumes that the disjunctor must necessarily follow the connector and that the position of the disjunctor is always final. Further research (Attardo, 1989; Attardo et al., 1994) has shown that there are some cases of jokes with non-final disjunctors. However, it has been shown that the linguistic material occurring after the punch line could be elliptic and/or eliminated altogether without ruining the integrity of the joke. This fact shows that whatever linguistic material occurs after the punch line, it is superfluous for the fruition of the text as a joke. Oring's (1989) study confirms the final position of the disjunctor. However, more recent research done by Bucaria (2004) has shown two new configurations for the processing of the disjunctor/connector order. In the first of these configurations, the disjunctor appears before the connector instead of being placed after or coinciding with the ambiguous element, while in the second one two ambiguous elements are present, each of which functions both as a connector and a disjunctor. Look at this example from Bucaria (2004, p. 299):

New study on obesity looks for larger test group.

The disjunctor "obesity" appears in the first part of the headline, whereas the connector "larger" appears in the second part, following the disjunctor.

Another example is taken from Attardo (1994, p. 97) to refer to the disjunctor in the final position preceded by the connector:

Q: Do you believe in clubs for young people?
A: Only when kindness fails.

In this joke, the connector "clubs" comes first followed by the disjunctor "Only when kindness fails."

Dynel (2012) introduces three joke categories, called Garden Paths, Red Lights and Crossroads. Dynel claims that the isotopy disjunction model can account for the Garden Path mechanism, which involves semantic ambiguity that needs a backtracking process to get an alternative sense and resolve the incongruity. This type of joke is similar to the IDM jokes, having distinct pairing of connector and disjunctor. The IDM can also handle the Red Lights jokes in which the incongruity or ambiguity is involved in the punch line. This type of joke can be compared to the IDM jokes having a non-distinct connector and disjunctor, as they coincide. However, Dynel (p. 21) claims that the Crossroad category of jokes is not discussed in the IDM because in this type the focal incongruity may emerge in the setup, causing incomprehensibility of the setup until the punch line is encountered. This type of joke resembles riddles in which the hearer is faced with a puzzling question that needs to be resolved. For example, "What do you call an anorexic with a yeast infection? A quarter-pounder with cheese." In this riddle, the question seems to be incongruous, for the interpreter is faced with a perplexing question that he/she is unable to answer. The incongruous answer that refers to a type of burger is resolved when the ambiguity in the reply (quarter-pounder) is realized through the semantic link (cheese) and (yeast infection).

3 Functional Sentence Perspective Theory

Attardo et al. (1994) connects the idea of the final position of the disjunctor to the Functional Sentence Perspective (FSP) theory. FSP is based on the notion of "communicative dynamism," i.e., the amount to which a given element of a sentence contributes to the advancing process of communication. In English, as well as in many other languages, the final position of the text is identified as the element with the highest communicative dynamism in the sentence, while the initial position has the lowest communicative dynamism. The elements in the middle are transitional. The notion of communicative dynamism is intimately linked with that of theme/rheme. According to Halliday (1970), the theme of a sentence is defined in the literature as the "old" information, about which something is said, and the rheme as the "new" information in the sentence, i.e., what is said about the theme. The position of the theme, in English, is sentence initial.

On the basis of the FSP notion of theme and rheme, Attardo et al. (1994) predict that the disjunctor will be the rheme of the last sentence of the text of the joke. There are some counterexamples of pre-final and non-final jokes but they are not problematic. The fact that the linguistic materials occurring after the punch line can be elliptic is a clear indication of the non-rhematicity of the material itself because elliptic material must be recoverable, and so cannot be new or at least cannot be the element of highest communicative dynamism. This matches Hockett's (1973) technique of "cutting off" the final part of the joke text in order to find the punch line; when the text is no longer funny, that last element to have been cut is the punch line.

4 Referential vs. Verbal Classification

While every joke text has some type of disjunctor, as Attardo (1994) explains, the disjunctive mechanisms for joke texts differ according to whether they are referential or verbal. The typical verbal joke text differs from the referential joke in that it presupposes a verbalized connector. As explained earlier, the connector is the ambiguous element in the text; it is found in verbal not referential jokes. The disjunctor plays off of this ambiguous element by causing the passage from one possible actualization of the connector to another, which had been previously discarded by the process of selection. Thus, verbal jokes need what is called a process of disambiguation in which the two senses of the connector are combined to make a meaningful interpretation.

When dealing with humor conveyed by means of language, numerous authors have acknowledged a classification that divides humor into two types: referential, relating to the meaning, and verbal, relating to the language itself. This general distinction first originates with Cicero in Classical Latin (106–43 BC). He declares that "jokes can be about what is said or about "the thing" (on the distinction, see Attardo, 1994). The referential vs. verbal dichotomy has been used by several humor researchers, among them Piddington (1933), Milner (1972), Todorov (1978), and Pepicello and Green (1984). The most comprehensive treatment of referential/verbal distinction occurs in Attardo (1994, p. 95). He defines referential jokes as those based exclusively on the meanings of the text and therefore do not make any reference to the phonological realization of the lexical items or other units in the text; verbal jokes, on the other hand, in addition to being based on the meaning of the text's elements, make reference to the phonological realization of the text. In many instances, the same distinction is used but with different terminology. For instance, Morin (1966) uses referential vs. semantic, Hockett (1973) prosaic vs. poetic, Eco (1983) situational play vs. play on words, and Ritchie (2004) linguistic vs. propositional. In his treatment of humor, Ritchie (2004, p. 14) defines a linguistic class of jokes as a class whose definition explicitly imposes conditions on the linguistic form of the joke, in phonetic,

orthographic, or syntactic terms, whereas a propositional class of jokes is a class that imposes conditions on the propositional content (meaning) of the joke, but not its linguistic form.

Literature Review

1 Studies on Joke Type Distribution

Attardo (1989) applied the IDM to American and Italian jokes. He classified jokes into referential and verbal; the latter were further classified into ambiguity-based and not ambiguity-based; the ambiguous category comprised lexical and syntactic, whereas the unambiguous jokes are of alliterative type. Attardo et al. (1994) shows that referential jokes are more numerous than verbal jokes; they also indicate that the joke text follows a linear order having the disjunctor placed at the end of the joke text and if there are materials occurring after the disjunctor, they are non-rhematic and deleting them wouldn't affect the integrity of the joke text. Moreover, regarding ambiguous jokes, the two studies show that lexical ambiguous jokes are more common than syntactic ambiguous jokes and alliterative jokes. The studies also found that jokes in which the disjunctor follows the connector outnumber those in which the disjunctor and connector coincide.

A recent study by Stelter (2011) provides a contrastive analysis of paronomastic jokes in German and English. One of the results of the study seems to substantiate one of the hypotheses tested in Attardo (1989) and Attardo et al. (1994), that non-punning jokes (referential) outnumber punning jokes (verbal). Of all the 2,400 jokes from the two languages, 31% were classified as paronomastic. She also finds that puns are more common in English than in German; this is due, as she claims, to the structural differences between the two languages. Stelter then provides a typology of linguistic mechanisms used for punning and finds that English shows a greater use of certain linguistic phenomena and devices such as homophony, syntactic and phrasemic ambiguity, and paronomy. Most puns in German, however, are often based on polysemy.

Aljared (2009) found some similarities in the structure of jokes, particularly based on Attardo's study on American and Italian jokes and Aljared's on Classical Arabic:

1. In Classical Arabic, referential jokes are found to largely exceed verbal jokes. Attardo (1994) discusses this marked preference for referential jokes and indicates that the reasons for this preference are still not clear. It could be due to the higher degree of sophistication of verbal jokes, which would make them more difficult to process and hence rarer (p. 103).
2. The majority of Classical Arabic jokes have the disjunctor in final position. Cases in which non-final position is preferred involve the presence of non-rhematic materials after the disjunctor. These findings confirm the linearity of the text; i.e., the text of the joke is found to be organized in a linear order where the disjunctor, the humorous incident, is kept till the end and placed at the end of the joke text.
3. Jokes based on lexical ambiguity largely exceed jokes based on syntactic ambiguity or alliteration. This leads Aljared to the conclusion that humor based on the lexicon is preferable to humor based on syntax or alliteration in Arabic.
4. Within the verbal jokes, jokes in which the disjunctor follows the connector outnumber the jokes in which the disjunctor and connector co-occur in final position. Thus, confirming hypothesis D would also substantiate the IDM's claim of the linearity of the joke text. The fact that the majority of the cases show a distinct disjunctor and connector indicates that the structure of the joke is ordered in such a way so as to have the connector introduced first, followed by the disjunctor. The rest of the cases show co-occurrence of the two

elements in the same linguistic unit, placed at the end of the joke text, thus confirming the linearity claim.

2 Specific Findings of the Application of the IDM on Classical Arabic

As observed earlier, there were some differences when the IDM was applied on Classical Arabic. Unlike Attardo's results on American and Italian jokes that show that unambiguous jokes are only of the alliterative type, unambiguous jokes in Classical Arabic are of two types: alliterative and a lexical type, which plays with archaic non-core words. Moreover, alliterative jokes are more common than syntactic in Classical Arabic. Also, because Attardo's study doesn't provide a taxonomy of puns, Aljared had to resort to Dutchaek's (1970) taxonomy on puns to describe the phenomena involved in Classical Arabic punning. The results show that the major phenomena used in Classical Arabic puns are homonymy, paronymy and homophony. Because Attardo's study on American and Italian jokes does not provide taxonomies on the linguistic phenomena used in the syntactic and alliterative jokes, Aljared (2009) tried to provide a description of the major phenomena exploited in Classical Arabic syntactic jokes such as ellipsis and referential ambiguity, in addition to providing a taxonomy on the major alliterative aspects such as repetition of phonemes, morphemes and morphological patterns. Stelter (2011) also provides a taxonomy of the major phenomena of punning in English and German. She finds that the most frequently used phenomenon is polysemy in both languages, followed by homonymy, homophony and paronymy.

Methodology and Sample Analysis

1 Data Collection

A corpus of jokes is categorized as referential and verbal. Collecting the data involved two stages. The first stage was to select the first 100 jokes, in order to avoid bias in testing the hypotheses. Three printed collections of jokes were selected as the source of the data. They were chosen on the basis of the number of jokes they contain, which is very large compared to other books that are not devoted to humor, but present some humorous incidents within a section in a book. The first collection contains the first 100 jokes taken from a book called *Alkhizanah fi Adab Alfukaha* by Al-Shareef (2000). The second collection also contains the first 100 jokes taken from a book called *Nawadir Aladab Alfukahi* by a group of researchers from the institute of literary studies (2001). The third collection comprises only the first 97 jokes, because this book contains fewer jokes. The jokes are taken from a book called *Mawsu'at Aladab Al-dahik* by Marwah (1987). All three books present jokes of classical Arabic times. The process yielded 297 jokes from Classical Arabic. The second stage was to concentrate only on verbal jokes in order to investigate the techniques of ambiguity used to achieve humor and provide a taxonomy on classical Arabic linguistic phenomenon; thus, a wide range of humor books containing Classical Arabic jokes were surveyed and any verbal joke was recorded for the sake of testing hypotheses C and D, which depend exclusively on verbal jokes. The process yielded 118 verbal jokes from Classical Arabic, which are all of the verbal jokes in the data.

2 Methods of Analysis

Jokes taken from the data are stated in the original Arabic and then translated into English. A transliterated form of each joke is also provided.

3 Validity of Hypothesis A and B

This section tests the validity of the two hypotheses of the IDM:

A—Referential jokes outnumber verbal jokes.

The analysis of the three collections of Classical Arabic jokes reveals that referential jokes outnumber verbal jokes in all of the three collections (Table 6.1).

Confirming hypothesis A leads us to notice a marked preference for referential jokes in the literature (Table 6.2). Stelter (2011) uses the words "non-punning" vs. "punning" jokes.

B—The position of the disjunctor is always final.

The analysis also shows that the majority of the data indicate a final position of the disjunctor. The cases of non-final disjunctors are few, as Table 6.3 indicates.

Table 6.4 illustrates the majority of the final disjunctors in Attardo (1989) and Attardo et al. (1994).

4 Examples Supporting Hypotheses A and B

Example of Final Position of the Disjunctor:

shahida rajulun ʿinda baʿḍ alquḍāt faqāl almashhūd ʿalayhi kayfa taqbal shahādatahu waʿindahu ʿishrūn alf dinār walam yaḥuj? Faqāl: balā qad ḥajajt! Gāl: fas'lhu ʿan zamzam! Faqāl: ḥajajtu qabla an tuḥfar!!

Table 6.1 Frequency of referential and verbal jokes in Aljared (2009)

	Referential	*Verbal*	*Total*
Collection 1	84	16	100
Collection 2	92	8	100
Collection 3	93	4	97

Table 6.2 Referential vs. verbal jokes

		Referential	*Verbal*	*Total*
Aljared, 2009	Arabic	269	28	297
Attardo, 1989	American	235	65	300
Attardo, 1989	Italian	262	38	300
Attardo et al., 1994	American	1,559	441	2,000
Stelter, 2011	English	697	503	1,200
Stelter, 2011	German	941	259	1,200

Table 6.3 The position of the disjunctor in Aljared (2009)

	Final	*Non-final*	*Total*
Collection 1	76	24	100
Collection 2	78	22	100
Collection 3	90	7	97

Table 6.4 The position of the disjunctor

		Distinct	*Non-distinct*	*Total*
Aljared, 2009	Arabic	48	28	76
Attardo, 1989	American	50	15	65
Attardo, 1989	Italian	33	5	38
Attardo et al., 1994	American	358	83	441

A man appeared as a witness and gave his testimony in front of some judges. The defendant said to the judge: "How can you accept his testimony when he has 20,000 Dinars and has never performed hajj?!" The witness replied: "I did perform hajj." The defendant said to the judge: "Ask him about zamzam?" The witness replied: "I performed hajj before it was dug."

شهد رجل عند بعض القضاة فقال المشهود عليه: كيف تقبل شهادته وعنده عشرون ألف دينار ولم يحج؟! فقال: بلى قد !!حججت! قال: فاسأله عن زمزم! فقال: حججت قبل أن تحفر

Morin's three-part division of joke text is applied to this joke as follows:

The normalization part is the background, which is set to introduce the characters, the witness, the defendant, and the judge, and the situation of a witness giving testimony in court against an accused man. The interlocking part establishes the question to be solved, which is that the defendant appeals to the judge to ask the witness about *zamzam*. The disjunctor in this joke is the sentence (*ḥajajtu qabla an tuḥfar!)*, "I performed hajj before it was dug," which is the last sentence in the joke text; i.e., it occurs in the final position.

This referential joke is a culture-specific joke and comprehending it requires knowledge of the Islamic culture and of the ritual of Hajj. The witness claims that he doesn't know about zamzam because he performed *hajj* before it was dug. However, any Muslim would know that zamzam had been in existence long before Islam and that it was part and parcel of the Hajj process (zamzam is a well located in Mecca, started thousands of years ago at the time of prophet Abraham, peace be upon him).

Example of Non-final Position of the Disjunctor:

waʿada Aḥmad ibin almudabbir abā alʿaynā' an yuʿṭiyahu baghlan thumma maḍat ayyām walaqiyahu fī al-ṭarīq māshiyan faqāla lahu: kayfa aṣbaḥta yā abā alʿaynā'? Qāl: bilā baghl. faḍaḥika wabaʿatha bihi ilayhi.

Ahmad bin Almudabbir promised Aba Al'aynaa to give him a mule. Many days then passed and he met him walking on the road. He greeted him: "How are you doing this morning, Aba A'aynaa?" He replied: "Without a mule." Ahmad laughed and sent the mule to him.

وعد أحمد ابن المدبر أبا العيناء أن يعطيه بغل؟؟ ثم مضت أيام ولقيه في الطريق ماشي؟؟ فقال له: كيف أصبحت يا .أبا العيناء؟ قال: بلا بغل. فضحك وبعث به إليه

The phrase *bilā baghl*, "without a mule," is the disjunctor and is placed before the last sentence in the joke text; i.e., it occurs in non-final position.

5 Type of Materials Occurring After the Disjunctor

Although the majority of the data indicates a final position of the disjunctor, the disjunctor is not always in the final position in the joke text as the hypothesis predicts; there are some instances in which the disjunctors appear in non-final position, as seen in the previous joke. Even though these cases are very few, they need to be carefully investigated to decide on the materials occurring after the disjunctor, whether they form an integral part of the joke text (i.e., if deleting these materials would ruin the integrity of the joke or not).

As seen, the IDM predicts that the disjunctor is the rheme of the last sentence of the text of the joke. It also predicts that any material occurring after the disjunctor should be non-rhematic because it could be ellipsed without ruining the joke.

Table 6.5 shows that the materials occurring after the disjunctor are either reinforcement/explanation of the disjunctor, or extra information related to the joke. All these materials, if deleted, wouldn't affect the interpretation of the joke. This confirms the non-rhematic aspect of the materials occurring after the punch line,

6 Classification of Verbal Jokes

The analysis of Classical Arabic reveals that verbal jokes are of two types: ambiguity-based and non-ambiguity based. The analysis also reveals that ambiguous jokes are more frequent than unambiguous jokes. Of all 118 verbal jokes investigated, 85 are ambiguity-based and 33 are non-ambiguity-based. This confirms Attardo's (1989) and Attardo's et al. (1994) studies.

In confirmation with Attardo's study on American and Italian jokes, ambiguous jokes in Classical Arabic also fall within two categories: lexical or syntactic. However, Aljared's study adds another category, namely puns, which were not classified in Attardo's study. Moreover, unambiguous jokes are either lexical or alliterative in Classical Arabic, whereas they are only alliterative in Attardo's study. Table 6.6 shows the classification of verbal jokes in Classical Arabic.

Table 6.6 shows that ambiguous jokes can be divided into three types: puns, lexical jokes, and syntactic jokes. Lexically ambiguous jokes are those whose ambiguity lies in words and the relations found between words; under this category puns may also be involved, because they are words interpreted as having similar or identical sounds but different meanings. Syntactically ambiguous jokes are those whose ambiguity lies in the structure of jokes, i.e., when a phrase or

Table 6.5 Type of materials after the disjunctor in all three collections

Type of Materials After the Disjunctor	*Total*
Explanation and reinforcement of the punch line	49
Extra info	4
Grand total	53

Table 6.6 Classifications of verbal jokes

Verbal Jokes				
Ambiguity-based			*Non-ambiguity-based*	
Puns	Lexical	Syntactic	Lexical	Alliterative

a sentence is interpreted in different ways. Unambiguous jokes are also classified into lexical and alliterative. Lexical jokes are those that exploit the lexicon to produce humor but no ambiguity is present. Alliterative jokes are those containing abnormal repetitions of phonemes, morphemes, or strings in the text.

Results reveal that the majority of jokes are of the lexical type. Alliterative and syntactic jokes are less common. The results substantiate hypothesis C in Arabic, that lexically ambiguous jokes outnumber syntactic ambiguous jokes as well as alliterative unambiguous jokes.

Table 6.7 reveals the percentage of jokes in each category in Classical Arabic compared to Attardo (1989; 1994).

Tables 6.6 and 6.7 show that lexical jokes comprise the largest number in the verbal category; alliterative and syntactic verbal jokes are found to be rarer than lexical.

7 Ambiguous Jokes

In this section, I will describe the three classes of ambiguous jokes: puns, lexical, and syntactic jokes.

7.1 Puns

Attardo (1994) indicates that beyond the attempts at providing taxonomies of puns, the most significant contribution of structuralist linguistics on the study of puns is to describe the relationship between the two senses involved in a pun. All linguistic and nonlinguistic analyses agree on the fact that puns involve two senses (pp. 127–128).

Aljared's analysis of puns in Classical Arabic reveals that, of all the phenomena described in Duchacek's (1970) taxonomy, the major categories that appear in the Classical Arabic data are homonymy, paronymy, and homophony. Table 6.8 shows the type of lexical relations found in Classical Arabic puns along with their percentage.

Stelter's (2011) taxonomy on German and English puns is similar to Aljared's. However, Stelter finds that the most frequently used phenomenon in both languages is polysemy.

Table 6.7 Comparison of classifications of verbal jokes

		Lexical	*Syntactic*	*Alliterative*	*Total*
Aljared, 2009	Arabic	80	9	29	118
Attardo, 1989	American	52	5	8	65
Attardo, 1989	Italian	29	6	3	38
Attardo et al., 1994	American	408	23	10	441

Table 6.8 Lexical relations observed in Arabic puns

Type of Lexical Relation	*Total 58*
Homonymy	29
Paronymy	17
Homophony	12

7.2 Lexical Jokes (Metaphor)

Besides punning, the data show few instances of words or phrases used ambiguously to achieve humor, such as the use of metaphors. Though the cases are few—only nine—they are worthy of mention because they demonstrate the significance of ambiguity in the creation of humor. It is important to note that no instances of metaphor were noted by either Attardo (1989) or Attardo et al (1994). This category is derived from our analysis of Classical Arabic jokes. Metaphor is defined by Lakoff and Johnson (1980, p. 388) as the expression of an understanding of one concept in terms of another concept, where there is some similarity or correlation between the two.

7.3 Syntactic Jokes

Syntactically ambiguous jokes are very scarce in the data. Only nine cases appear in the data revealing grammatical aspects of ellipsis and pronoun reference. One possible reason behind this is the fact that syntactic ambiguity is more difficult to process than lexical ambiguity (see Mackay & Bever, 1967; Attardo et al., 1994).

8 Configuration of Connector and Disjunctor

In this section, we look at verbal ambiguous jokes because only those can be described as having a connector. We will look at the connector disjunctor pairing to see whether the latter follows the former (form a distinct pairing) or whether they both coincide (form a non-distinct pairing).

Table 6.9 presents the frequency of the occurrence of distinct and non-distinct disjunctors and connectors in Classical Arabic compared to Attardo (1989) and Attardo et al. (1994).

The preceding tables show that the majority of the data investigated indicates distinct disjunctor and connector, thus substantiating hypothesis D. The validity of this hypothesis highlights the linearity claim of joke structuring.

8.1 Unambiguous Verbal Jokes

Unambiguous verbal jokes in Classical Arabic are of two types: either alliterative or lexical. The alliterative type appears to be larger in the data, 29 cases, whereas lexical jokes are 13. It is worth mentioning that Stelter (2011) did not find any alliterative jokes in her corpus.

The following sections describe the two types of unambiguous verbal jokes.

8.1.1 ALLITERATIVE JOKES

According to Attardo (1994, p. 104), alliterative jokes are those involving repetitions of phonemes/morphemes in the text of the joke. They don't involve ambiguity of any sort, but if we

Table 6.9 Distinct vs. non-distinct disjunctor

		Distinct	*Non-distinct*	*Total*
Aljared, 2009	Arabic	48	28	76
Attardo, 1989	American	50	15	65
Attardo, 1989	Italian	33	5	38
Attardo et al., 1994	American	358	83	441

need to apply the connector/disjunctor mechanisms on alliterative texts, Attardo suggests that the connector is the repetitions of sounds and the disjunctor is diffused. There is no unique disjunctor, but it may be triggered by the alliterative sequence leading to an effect incongruous to the content of the text in which the alliteration occurs.

Upon investigating alliterative jokes in Classical Arabic, the following taxonomy was developed that illustrates the type of alliteration that Arabic jokes involve: repetitions of phonemes, repetitions of morphemes, and repetitions of morphological patterns. The data of frequencies is as follows (Table 6.10).

Alliterative jokes that involve repetitions of phonemes constitute the largest number among the alliterative category.

8.1.2 LEXICAL ARCHAIC JOKES

The other type in the unambiguous category, which has no correspondence in Attardo's study, is purely lexical. This type of joke involves the use of difficult archaic lexicon by grammarians when addressing laymen who are not acquainted with these words. The result is misunderstanding and, hence, humor. Let's look at the following example:

dakhala abū ʿulqumah ʿala al-ṭabīb faqāla lahu: innanī akaltu min luḥūmi hādhihi aljawāzil faṭasi'tu ṭas'atan fa'ṣābanī waja ʿun bayna alwābilah ila da'abat al ʿunuq falam yazal yarbū wayanmū ḥatta khālaṭa allḥalb fa'alammat lahu al-sharāsif fahal ʿindaka dawā'? Faqāla lahu al-ṭabīb: khudh ḥazbaqan washalfaqan washabraqan fazahziqh wazaqziqh waghsilhu bimā'i rawthin washrabhu bimā'i almā' faqāla abu ʿulqumah: a ʿid ʿalayya wayḥuk fa'innī lam afham mink. Faqāla lahu al-ṭabīb: la ʿana Allāhu aqallunā ifhāman liṣāḥibihi wahal fahimtu minka shay'an mimmā qult?

Abu 'ulqumah went to the doctor complaining: "I ate some of this camel meat (aljawāzil) till I stuffed a stuffing (faṭasi'tu ṭas'atan). Then I felt pain in the area between my shoulder (alwābilah) and the nape of my neck (da'bat al ʿunuq). It started to grow till it reached the breast (alḥalb) and pained the ribs (al-sharāsif); so, do you have medicine?!" The doctor said: "Take (hazbaq), (shalfaq), and (shabraq)! Then (zahziq) and (zaqziq) them together! After that, wash them with dung water and drink them with the water of water!!" Abu 'ulqumah said: "Woe unto you! Repeat what you've said for I couldn't understand you!" The doctor said: "May Allah damn the one who is less able to make himself understood to his friend! Did I understand anything of what you said?!!"

دخل أبو علقمة على الطبيب فقال له: إنني أكلت من لحوم هذه الجوازل فطسئت طسأة فأصابني وجع بين الوابلة إلى دأبة العنق فلم يزل يربو وينمي حتى خالط الحلب فألمت له الشراسف فهل عندك دواء؟ فقال له الطبيب: خذ حزب؟؟ا وشلف؟؟ا وشبر؟؟ا فزهزقه وزقزقه واغسله بماء روث واشربه بماء الماء فقال أبو علقمة: أعد علي ويحك فإني لم أفهم منك. فقال له الطبيب: لعن الله أقلنا إفهاما لصاحبه وهل فهمت منك شي؟؟ا مما قلت؟!

Table 6.10 Types of alliterative jokes

Type of Alliteration	*Total 29*
Repetitions of phonemes	16
Repetitions of morphemes	7
Repetitions of morphological pattern	6

In regard to the divisions of the structure, this joke seems to have four parts. The normalization part is "Abu 'ulqumah went to the doctor complaining," which introduces the situation of Abu 'ulqumah falling sick and going to the doctor. The interlocking part is where Abu 'ulqumah describes his strange illness. The disjunctor is, "Take *Hazbaq*, *shalfaq*, and *shabraq*! Then *zahziq* and *zaqziq* them together! After that, wash them with dung water and drink them with the water of water!!"

In these sentences, the problem is solved by the doctor's humorous prescription of medicine. The closing part is:

> Abu 'ulqumah said: "Woe unto you! Repeat what you've said for I couldn't understand you!" The doctor said: "May Allah damn the one who is less able to make himself understood to his friend! Did I understand anything of what you said?!"

This part seems to provide closure to the joke. It serves to explain the doctor's reason for using the nonsensical prescription.

In the process of perceiving humor in the joke, there is an incongruous situation presented in the medieval grammarian's use of non-core difficult words, such as *aljawāzil*, *faṭasi'tu ṭas'atan*, *alwābilah*, *da'bat*, *allḥalb* and *al-sharāsif*, to describe his illness to the doctor. His description sounds funny, for only linguists would be able to understand his wordings. In addition, Abu 'ulqumah's description allows us to predict a reply from the doctor in which he declares his inability to understand Abu 'ulqumah. However, another element of incongruity is encountered when the doctor replies by inventing an archaic prescription to counteract the grammarian's description. The joke is, therefore, extended, for it seems to have two incongruous situations and not just one.

Finally, Tables 6.11 and 6.12 summarize the linguistic mechanisms exploited in Classical Arabic verbal jokes (ambiguous and unambiguous) in Aljared (2009) compared to Stelter (2011).

Aljared and Stelter show some common elements such as homophony and syntactic ambiguity. They also match in the paronymy and homonymy categories. However, different linguistic mechanisms appeared in Aljared's investigation of Classical Arabic, such as the use of metaphor and the unambiguous category that involves the lexical archaic type and the various alliterative types.

Table 6.11 Linguistic mechanisms in Aljared (2009)

Category	*Arabic*
Homonymy	29
Paronymy	17
Homophony	12
Metaphor	9
Syntactic ambiguity	9
Lexical unambiguous	13
Alliterative phonemes	16
Alliterative morphemes	7
Alliterative morphological patterns	6
Total	118

Table 6.12 Linguistic mechanisms in Stelter (2011)

Category	*English*	*German*
Polysemy	205	157
Lexemic decomposition	41	18
Phrasemic decomposition	49	48
Lexemic homonymy	40	13
Lexemic homophony	61	8
Lexemic paronymy	47	15
Grammatical homonymy	9	4
Partial homonymy	4	7
Phrasemic homonymy	15	0
Phrasemic homophony	61	7
Phrasemic paronymy	11	2
Syntactic ambiguity	24	6
Total	567	285

New Debates

Studies on the IDM currently have taken different discussions and debates. Among the studies that apply the IDM is Priego-Valverde's (1999). She applies the ideas of the IDM in the context of conversation. She describes the different characteristics interconnected to create humor, the most important of them is what is called incongruity revealed through the two elements of the connector and the disjunctor. What Priego-Valverde adds to the discussion of the IDM is Charaudeau's (1972) explanation of the disjunctor, which is that it allows a refreshing of the second isotopy without cancelling the first one. She also compares this function to Koestler's (1964) idea of bisociation, which allows the connector to "bisociate"; i.e., to be understood at times in one direction and in times in another, while both interpretations are to be taken into account. Charaudeau's work (2006; 2011) isn't an application of the structural IDM, but is a use of the ideas of the IDM such as the notion of isotopy to differentiate between various types and distinctions of humor. He provides a distinction between linguistic processes and discursive processes in humor. The linguistic processes fall within lexico-syntactic and semantic mechanisms such as puns, which allow the move from one isotopy to another. For example, the word "brick," meaning (construction material) or (million)—one can say: "It is not expensive to build a home, it is sufficient to have three bricks." The discursive processes fall within pragmatic mechanisms as they describe categories that result from a play between what is said (explicit) and what is left to hear (implicit), such as irony in "Bravo!" as you say to a child who has just done something stupid. Chabrol (2006) discusses humor in different genres of media. He explains that the humorous act is capable of multiplying semantic ambiguities by bringing together and relating isotopies that are normally unrelated and incomparable. Ahmed's study (2007) concentrates mainly on Gricean maxims in relation to humorous discourse, but his work is also an application of the processing of the IDM in the configuration of the punch line that involves a backtracking process to arrive at an alternative isotopy in order to resolve the incongruity. In his study, he provides some Arabic examples to discuss the disambiguation process as described in the script theory suggested by Raskin (1985) involving the idea of the imposition of a second "script" and in the IDM by Attardo (1994) proposing the discovery of a second "isotopy."

In Elzeer's study (2010) on translation of specific Lebanese humorous texts (Ziad Rahbani's theatre), she finds that Rahbani's jokes are totally dependent on language play, verbal jokes. In

her work, she provides an application of the IDM to the context of humor she investigates. She finds that the link between the two parts of the joke, "the connecting term," is language-specific; thus, translating them would be impossible according to Benjamin's model, where the translation should transparently preserve the light of the original language. This observation was earlier proposed in the IDM that verbal jokes are totally dependent on the language and cannot be translated to other languages. Pedrazzini (2010) investigates the construction of two presidential images in satirical press: Jacques Chirac and Carlos Menem. He doesn't apply the structure of the IDM, but he uses the notion of incongruity and surprise in a type of humor that is satire. One of the important investigations of the study is the type of humor manipulated in political cartoons. He finds that even though both verbal and visual interactions are used to produce humor, verbal humor predominates in humor generation. Another importance of the study lies in the investigation of the incongruity theory manifested in the satire of the two presidential images, because satire involves surprise, derivation from the standard and interpreting a hidden meaning. Varga (2010) reviews most of the contemporary linguistic theories on humor. She claims that the three linguistic theories by Koestler, Raskin and Attardo complement each other for accounting of humorous texts. She doesn't provide an original work to the IDM but refers to Attardo's development of the IDM as well as the reference to Greimas's definition of the notion of isotopy. She also refers to the foundation Attardo lays on the IDM, which attempts to preserve the linear syntagmatic organization of joke texts: the three functions of normalization, interlocking, and disjunction. She also investigates the two types of jokes proposed in the IDM as referential and verbal, and that the idea of translation in the humor field is a very limited process. In conclusion, studies on the structure of the IDM in the four languages of English, Italian, German, and Arabic reveal very similar results, in terms of the linear organization of joke text, referential vs. verbal frequencies, the connector/disjunctor mechanisms, and the position of the disjunctor. More research on the structure of other languages would substantiate other similarities or differences.

The preceding review of recent research on the IDM shows a substantive vitality on the field, as well as a change in its direction and trend, moving from structural to more functional perspectives, discussing areas in pragmatic, cognitive, and communicative fields. The most important ideas that the IDM proposes, such as the notion of isotopy, incongruity in the setup of jokes, ambiguous connectors, surprise, and deception of expectations, have all been used to investigate various humorous domains. Unfortunately, this vitality is also accompanied by a loss of specificity, as can be seen by authors who indiscriminately use the IDM terminology as synonymous with Koestler's or Raskin's approaches. While it is true that there are conceptual similarities in these approaches, the specifics (or lack thereof) of the theories should matter. If the technicalities do not matter and, for example, a bisociation is the same thing as a disjunction, then either or both terms are used metaphorically and not theoretically. One can only wish that more empirically oriented, theoretically grounded analyses, such as Aljared's and Stelter's, will appear in the future.

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7

Puns and Tacit Linguistic Knowledge

Debra Aarons

1 Historical Perspective

The pun is most minimally described as "a type of joke in which one sound sequence (e.g., a word) has two meanings and this similarity in sound creates a relationship for the two meanings from which humor is derived" (Hempelmann, 2014, p. 612).

The essential requirement for producing and understanding puns is linguistic knowledge, whether conscious or tacit. Attardo (1994, p. 142) warns that "the conscious nature of the use of puns should not be confused with an awareness of the mechanisms at play in the production and understanding of puns."

This claim marks a fundamental issue in the examination of puns as evidence of tacit linguistic knowledge. Other phenomena, such as speech errors, have been used to demonstrate that much of our knowledge of the rules of human language is tacit, and the mental representation of language is not usually accessible to consciousness. Fromkin (1980) has shown through an examination of speech errors that these are very often linguistically motivated. Thus, she claims, slips of the tongue—substitutions, spoonerisms and other forms of metathesis—reveal an underlying system of linguistic representation of which speakers appear to be unaware. Linguistic analysis, however, reveals the systematicity of the errors. As Attardo (1994) argues, with ample justification, the data provided by puns, although intentional and therefore consciously produced, nevertheless tap a similar system of linguistic knowledge in their processing. This chapter focuses specifically on the tacit knowledge of the rules of language structure and use that puns evoke.

The General Theory of Verbal Humor (GTVH) (Attardo & Raskin, 1991; Attardo et al., 2002; Hempelmann, 2003) provides a framework in which the nature and mechanisms of the pun may be understood. The mechanisms involved in the production and understanding of puns—the way the Logical Mechanism (LM) operates over the Script Overlap (SOv) and Script Oppositeness (SOp)—form part of the array of analytic tools that are used to investigate the processing of puns and indeed other forms of linguistic humor (e.g., jokes). These are the tools that are essential for analysis by the humor theorist; they are not necessary for the processing of puns by users.

Both ambiguity and incongruity are essential to the success of a humorous pun (Hempelmann, 2003). He claims that linguistic ambiguity alone is not enough to create humor, no matter

how weak. He contends that linguistic ambiguity, which in the framework of GTVH is activated by Script Overlap (SOv), and can be made conscious simply by recognition of the SOv, is insufficient in the making of a pun.[1] Crucial to the mechanism of the pun is that, in in addition to the recognition of SOv, the recognition of Script Oppositeness (SOp) is also necessary. It is the recognition of Script Oppositeness that reveals the incongruity involved in the two or more interpretations of the linguistic ambiguity.

Ambiguity is a crucial property of human language. It occurs at every level of the grammar. In fact, "every linguistic element out of context is ambiguous [. . .], only contextual disambiguation allows us to select one sense" (Attardo, 1994, p. 112). The basis of most linguistic pragmatic theories is that context is crucial in disambiguation and the reduction of uncertainty, as "the recognition of ambiguity (pragmatic or otherwise) is likely to be an innate feature of human cognition" (Boeckx, 2010). Thus, no matter how faulty the signal, humans incline towards an interpretation that makes sense in the context of utterance.

Not all linguistic ambiguity is humorous. Ambiguity is thus a necessary but not sufficient condition for a pun. When ambiguity in an utterance is recognized, but lacks the element of play, the source of ambiguity is identified and noted or rectified and normal communication continues unhindered. The source of ambiguity may be deliberate or unintended. If deliberate, the speaker has made a choice to communicate ambiguously for specific purposes, e.g., vagueness, desire not to be pinned down to a commitment, desire to obfuscate. These are easily accounted for within the Gricean Co-operative Principle and maxim flouting as strategies to generate implicatures. (Grice, 1975). Specifically, the sub-maxim of Manner ("avoid ambiguity"), when flouted, gives rise to a host of implicatures. If unintended, however, once the ambiguity is pointed out, it is normally resolved.

This is not the case in what Raskin (1985) has termed non–bona fide (NBF) communication. Once we agree to engage in humorous play, or the "defunctionalization of language" (Guiraud, 1976; 1981), we agree to follow different rules. NBF communication is usually signaled in some way. Occasionally, it is cued in discourse ("Have you heard the one about . . . ?" "Let me tell you a joke . . ."); sometimes the signal is the wordplay itself.

Part of the proposal made by Raskin (1985) for NBF communication contains the idea that there is a Co-operative Principle for humor, along with its own set of maxims. Whether or not this is the case, the relevant point, *per* Attardo, is that in puns the Gricean maxims are not flouted but actually violated. As a result of this violation, the clear imperative is for the hearer to suspend all inferencing. The processing of puns then follows according to a different set of rules. Essential to the success of a pun is the willing suspension of disbelief, and the agreement to play. Thus the activity is essentially a playful one, in which the usual rules of communication are suspended and local logic is employed.

"Local logic," a concept proposed by Ziv (1984), allows connections to be made on the basis on the constructed world of the humorous text. Thus the logic operates only within the restricted world of the text. Script oppositions, normally not evoked in bona fide communication are brought together for the purposes of the pun. If the connector, i.e., the Script overlap is not acknowledged, the operation of local logic cannot occur.

Vital to an understanding of the world of the pun and the way in which these overlaps are created is the idea that puns are based on a folk theory sometimes called Cratylism. This proposal (Attardo, 1994) derives from an idea in the Platonic dialogue (the *Kratylus*) in which the eponymous character propounds the view that there is a motivated relationship between the form of a sign and its meaning (Sedley, 2003). This is deeply contrary to the received view on which modern linguistics is based, that of De Saussure (1911/1993), which states that the relationship between the signifier (the form of a linguistic element) and the signified (its meaning)

is arbitrary. The Cratylic idea is, of course, false, as many well-rehearsed arguments show. The Cratylic theory is summarized in the paragraphs immediately following. (For a more comprehensive explication, see Attardo, 1994.) Strangely, there are linguistic theories that entertain fully motivated relationships between form and meaning, such as Mimology (see Genette, 1995), and less strangely, there is a good deal of anthropological evidence showing that people often behave as though performance of the form (phonological or graphological) evokes the referent itself. Thus, taboo, magic, superstition, as well as certain religious practices forbid, avoid, or exploit the naming of entities that are powerful. It is believed that saying the name of a powerful being conjures up the power of that being. Similarly, children or other naïve language users will claim that something looks like the way it sounds. An instance of this may be seen when a person says to another, "You look like a Dave. Are you sure you're not a Dave?" or when someone says something *sounds* like what it is. Leaving aside the issue of onomatopoeia, which is, in any event, language-specific, the entire system of human linguistic communication would be otherwise if Cratylism were an accurate account of language use.

In a Cratylic system of linguistic communication, no sense could be made of the idea of the existence of different languages, because if an entity sounded like a representation of its meaning, then there would only be one set of sounds, and therefore no language-specific phonology. Moving beyond this, conceding for the sake of charity that there is more than one language, even within that language there could be no homophony, because one set of sounds could be paired with only one meaning. Similarly, one meaning would have to be paired with one set of sounds only.

Nevertheless, humans tend to favor Cratylic ideas about language, even in their naming practices. We may put this down to a very early set of ideas about the power of the word, but pragmatic theory shows us unequivocally that power is in the user of language, not language itself.

The key to the explanation of the pun is found in its status as NBF communication, otherwise known as ludic language, or the defunctionalized use of language. Recourse to Cratylism is used to create conscious effects in the aesthetic use of language, such as in poetry and humorous texts, including visual texts. Puns, specifically, are essentially metalinguistic devices, because they ask the participants to pretend that language is other than it is. To do that, a metalinguistic understanding is required. Making and understanding puns therefore requires that users pretend that sound sequences (phonemes, morphemes, syllables, words) are Cratylic, i.e., that they reference something unique in the world. Any recurrence of a sequence, as a result of this attitude of mind, is regarded as referring to the unique referent. This is how the connector element brings the Script Overlap into play in a pun. Cratylistic practice is employed, continuing the assumption that there is no ambiguity, because there cannot be any, until the Script Oppositeness is highlighted by the Logical Mechanism. It is then that the incongruity between Cratylic and non-Cratylic use of language is brought to the forefront and resolved, as the hearer draws on her metalinguistic knowledge and returns to the non-Cratylic attitude, often with a greater awareness of the linguistic system than before the play.

Criticisms have been leveled against the GTVH's coverage of the hearer's contextual knowledge. These criticisms have in the main emerged from Relevance Theorists (particularly Solska, 2012). The essence of the criticism is based on an analysis of the way in which puns are processed. The main objection is that the GTVH does not allow for anything other than a minimal role for the contextual knowledge required in the processing of a pun. Solska, for instance, believes that the processing of puns requires a full acknowledgement of the Principle of Relevance as it applies in any given case. This would rely on the individual context available to the listener (the utterance, of course, being a guarantor of its own relevance on the part of the speaker) and a clear delineation of the cognitive processes involved. It remains to be confirmed on the basis of empirical research whether this hypothesis about the processing of puns is superior to that

proposed by the GTVH. The Relevance Theoretic account is not formulated in a testable way, and in that sense, this is a disagreement not about the understanding of puns, but the most accurate description of the processes of interpretation.

2 Core Issues and Topics

Leaving aside the mechanisms of the pun (see Hempelmann & Miller, 2017 for a full explication of these), this section addresses the linguistic knowledge that puns access. The remainder of the chapter presents evidence for the idea that tacit knowledge of language is recruited by puns[2] (Aarons, 2012).

Competent speakers of a language may not be able to analyze the structure of their language consciously and fully. Indeed, it is not necessary that they do so, and at some level, it is not possible. Thus, according to Pylyshyn:

> We should view it as a major discovery of twentieth-century cognitive science that most of what goes on when we act intelligently is not available to conscious inspection. And since what goes on is reasoning, we have every reason to believe that it takes place in a system of symbols—that's the only way we know of doing it without hiding a homunculus inside the machine.
>
> (Pylyshyn, 1984, p. 19)

The crucial element in the processing of a pun is that it relies for its humorous impact on listeners' competence, i.e., listeners' tacit knowledge of the rules of their language. Aarons (2012) has argued that puns and other such phenomena evoke a listener's competence, making an aspect of tacit linguistic knowledge conscious. The disruption to normal processing usually triggered by the incongruity alerts hearers to the ambiguity. This sudden consciousness of normally nonconscious or tacit knowledge causes the hearer to backtrack. It is when hearers are led to view the language used in a new and different way, rather than relating to it as an automatic and transparent means of communication and thought, that they are forced to examine the language rules that the pun has activated.

The minimal theoretical claims of such a proposal are that there are levels of linguistic representation (phonemic, morphological, semantic, syntactic, and lexical, and the knowledge of pragmatics) and that these are largely subconscious, unless we are made aware of them by some disruption to normal language processing (for example, a linguistic joke, a perceived ambiguity, a slip of the tongue). Aarons argues that these phenomena highlight a linguistic rule by causing the listener to call on hitherto subconscious linguistic knowledge, usually as a result of encountering an unresolved ambiguity, thereby making this knowledge conscious. Simply acknowledging the ambiguity is not enough for the success of a pun, though. It is the incongruity, usually a consequence of the resort to the dispreferred interpretation, that rouses the surprise and recognition of novelty on the part of the hearer. The defeat of expectations is set up by the linguistic ambiguity and the incongruity is resolved by recourse to the rules that underlie the ambiguity. If the scripts set up are noticeably unalike, the recognition of the incongruity and its linguistic origin is usually sufficient for the acknowledgement that the pun has been successfully received as a humorous text.

Puns are discussed in the next section in terms of the linguistic levels of grammatical knowledge that they recruit. Usually there is more than one kind of linguistic knowledge involved in a pun, so the types of linguistic knowledge evoked may not be pure example of the types. For an exhaustive catalog of sources of ambiguity in English, see Oaks (2010).

2.1 Methodology and Sample Analysis

2.1.1 The Phonological-Semantic Pun Type

The most identifiable pun type is based on complete homophony. Thus, an ambiguous lexical item is noted, its preferred reading is activated (a very clear one in a minimal context) and the remainder of the utterance surprises by revealing, at the very least, a perfectly appropriate lexical meaning.

Example 1

SPEAKER A: *Where's the rent?*
SPEAKER B: *In my trousers.*

(adapted from *The Goon Show*, 1959)

In Example 1, the ambiguous lexical item is *rent*. In the most minimal context, an enquiry about the rent is probably a precursor to a request that it be paid. *Rent* thus refers to the money for the hire of something, usually premises. The other, secondary, meaning of *rent* is a tear or a rip. Speaker B's response, however, sustains both ambiguous readings simultaneously: the *rent* (money) is in the speaker's trousers, and the *rent* (tear) is in the speaker's trousers. The syntax of the second utterance allows the ambiguity to be sustained, abetted by the use of the preposition *in*, slightly ambiguous as to *contained within a pocket of the trousers* or as *a break in the material of the trousers*. The linguistic exercise involved in processing this pun is in the recognition that *rent* is homophonous and therefore ambiguous, and nevertheless, despite being very different, both meanings are able to coexist in a perfectly ambiguous sentence and be equally meaningful, although one reading might initially have been preferred. However, the incongruity, resolved by the fact that either kind of rent (despite their obvious differences) could be in the trousers, is the cause for surprise. The hearer is assumed to have gained the insight that *rent* has two meanings (and probably that *in* has two meanings too).

Example 2 is based on the ambiguity in meaning of the phrase *outside* (*of*). Using a parallelism of phrasal structure, a pun is set up through the use of lexical antonymy.

Example 2

Outside of a dog, a book is man's best friend. Inside of a dog, it's too dark to read.

Groucho Marx (1890–1977)

The first sentence plays on the adage that a dog is man's best friend. The priming template is as follows: with the exception of a dog, a book is man's best friend. The preferred interpretation of *outside* is cued by reference to the adage. *Outside* is homophonous. The two meanings that are played on are "with the exception of" and "be external to." *Outside*, then, is the connector, setting up the Script Overlap. Thus the hearer is primed for the reading "with the exception of." In the second sentence, the parallelism explicitly states the Script Oppositeness: the contrast *outside of a dog/inside of a dog* is set up. Because the first sentence has led the hearer up the wrong path, there is an expectation of continuity with the "with the exception of" reading. However, the second sentence activates the "outside/inside" reading. This association with another sense of *outside*, the more literal one, highlights a profound and ridiculous incongruity (the idea of someone trying to read inside a dog). Additional incongruity is provided by the reason that one

cannot read inside of a dog: it's too dark, with the assumption that if it were illuminated, there'd be no problem. This is indeed, serious NBF logic.

The linguistic aspect on which the joke turns is, in fact, the ambiguity in the meaning of *outside.* In order to resolve the incongruity, the listener needs to access both meanings of *outside*, realize that they function in a similar way grammatically, but have entirely different semantics from each other. The use of *dog* is the animating principle of this pun. Using *inside of a dog* to set up the Script Oppositeness flags the particularly marked incongruity to come. The consequence is a recognition that seemingly innocuous prepositions, too, are a source of meaning ambiguity and the absurdity generated by their skillful juxtaposition is almost certain to lead to linguistic introspection.

Example 3, a fragment of repartee produced by Dorothy Parker, demonstrates a genuine ambiguity in a morphological construction, by punning on the meaning of the morpheme *out* as it occurs in *outgoing* or *outstanding* as opposed to the way it occurs in *outclassed* or *outwitted*.

Example 3

SPEAKER: *Mrs. Parker, you are outspoken.*
DOROTHY PARKER: *By whom?*

The pun in this case works in the following way. *Outspoken* (adjective) is understood to describe the frank, fearless and direct expression of opinions. Dorothy Parker was well known for such behavior. However, when told she was outspoken, she chose to interpret the term *outspoken* as a past participle meaning that she was defeated in a speaking contest, presumably by someone who spoke better, faster or more than she did. The connector, setting up the Script Overlap, is *outspoken*. The preferred meaning is certainly the normal use of the term in the phrase, *you are outspoken* (copula + attributive adjective). The Script Oppositeness, however, is activated by the question, which makes it quite clear that she has taken the dispreferred and far less common interpretation, that following the pattern of words like *outwitted* or *outclassed*. The question causes the hearer to backtrack, as *by whom* implies that there is an agent who has outspoken her. The Script Oppositeness is jarringly revealed. The incongruity in entertaining the script (BEING FORTHRIGHT) counterposed with (DEFEATING A CHAMPION) is activated by two words, *by whom?*, which apparently have no contextual relevance, unless one takes the highly dispreferred reading of outspoken (the passive form of *outspeak*). The only way to resolve this incongruity is by linguistic reflection. *Out-* as a morphological affix has two entirely different meanings, and moreover, linguistic knowledge is required to establish which use is at play in a lexical item.

2.1.2 The Phonological-Morphological-Syntactic Pun Type

Some puns come about as a result of a series of sounds that may stretch over more than one word. In this case, the new words that are created lead also to a difference in syntactic structure. In example 4, the string of sounds is in fact the name of a French Postimpressionist painter.

Example 4

TOULOUSE: *I'm Toulouse-Lautrec.*
GAUGUIN: *Oh? And where are you going to lose him?*

(*The Goon Show*, 1956)

The pun is created by Gauguin reanalyzing the sound sequence *Toulouse-Lautrec* into *to lose Lautrec*. The way it works is as follows. The connector is set up in the first utterance. Gauguin reanalyzes the sound sequence by simply reassigning the word boundaries into an unexceptional string of English words fitting smoothly into the syntactic frame, *And where are you. . .* ?, thus provoking the disruption. The ambiguity, then, is in the homophone (*Toulouse-Lautrec/to lose Lautrec*). This ambiguity is revealed through the assignment of phonemes in the morphological composition of new words that form a syntactic unit, an infinitive verb form. Gauguin very cleverly plays, as well, on the useful ambiguity of *am*, which in the first utterance functions predicatively (*I am Toulouse-Lautrec*) and in the second utterance forms part of the structure *are* (*you*) *to. . .* ? (syntactically equivalent to *am I to. . .* ?).

Another form of pun plays with the syllables of a word, granting them morphemic status. The NBF nature of this form of pun is based on the crucial linguistic fact that syllables per se are not meaning units. A morpheme is the smallest unit of linguistic meaning, and the structure of morphemes may consist of one phoneme, several phonemes, or a whole word. The linguistic status of a syllable is merely a formal one: in English a consonant-verb-consonant cluster, most typically. Puns such as those following exploit this fact by assigning independent meaning status to syllables, and as a result changing the syntactic structure of the utterance as well.

Example 5

BOY: *Do you like Kipling?*
GIRL: *Don't know, you naughty boy, I've never kippled.*

(Donald Fraser Gould McGill [1875–1962])

Rudyard Kipling was a British author who lived in the late 19th and early 20th centuries. *Kipling* is one meaning unit; it is simply the name of a particular person, picked out by the use of that name. The girl reanalyzes the word *kipling* into two morphemes, *kipple* (verb) + *-ing*, thereby changing the syntax of the sentence too. The pun is based, Cratylically, on this misanalysis. As it happens, there is no verb *kipple* in English, nor does the syllable *-ing* have any morphemic status in the name *Kipling* (although it does, of course, in the verb participle *eating*, for example). The pun works because our attention is drawn to the pseudo-ambiguity of the sound stream *kipling*. The girl chooses to play on its component syllabic parts, pretending they are morphemic. The use of *kipple* makes this clear. It is used as a verb, as the suffix *-ed* indicates. This play functions to highlight our knowledge that syllables may sometimes be meaningful, and at other times simply be sound sequences. The pun, thus, evokes the incongruity between the (AUTHOR) script, and the somewhat (NAUGHTY ACTIVITY) the girl thinks the boy is alluding to. It is a recourse to the underlying knowledge that syllables are not necessarily morphemic that allows the listener to resolve the incongruity and be tickled by the pun.

Similar kinds of puns may be found exploiting other syllables interpreted as morphemes (in this case, suffixes) in English. The name of the cognitive scientist, linguist and author, Steve Pinker, was the source of inspiration for this one.

Example 6

LIBRARIAN: *Do you want to borrow the Pinker?*
STUDENT: *No, I'll wait for the Pinkest.*

This example works on the same principle as Example 5. *Pink*, in the case of the linguistic meaning of the term, is an adjective of color. The word *pinker* is analyzed as an adjective stem morpheme, *pink*, plus suffix *-er*, thus forming a comparative adjective. *Pink*, however, is merely a syllable in *Pinker* (the name) and has no morphemic, and thus, no semantic status. However, for the purpose of the pun the syllable *pink* (in *Pinker*, the name) is considered Cratylically, i.e., it shares the morphemic status of *pink*. Thus, according to grammatical logic, where there is a comparative affix on an adjective, the is a superlative affix too (as in *great/ greater/ greatest*.) *Pinker* thus is the connector, the element that facilitates the Script Overlap. It is only when we hear *pinkest* that the Script Oppositeness is brought into play, and in order to resolve the incongruity, we have to consult our knowledge of language to bring to the surface the rule that, in English, adjectives may bear comparative and superlative affixal morphology, but also, that sometimes a sound sequence, e.g., *-er* is simply that: in this case, a syllable. The proper name *Pinker* has two syllables but is a representation of one meaning unit, referring to the bearer of the name. The pun opens up this area of knowledge to the hearer.

Example 7 is an illustration of a pun that involves only proper names that are reanalyzed into new morphemes.

Example 7

GREEK TAILOR: *Euripides?*
GREEK CUSTOMER: *Eumenides?*

Example 7 appears to contain the names of a Greek tragedian, Euripides, and the name of part of a Greek tragedy, *Eumenides*, by Aeschylus. None of this information is necessary. On reanalysis, the play on the sound sequence, *Euripides*, could be heard as "you rip-a dese" (you ripped these?). The response by the customer, *Eumenides*, gets reanalyzed as "you men-a dese" (you mend these?). The connector or Script Overlap is the word *tailor*. The playful setup is that the customer has ripped his trousers and wants the tailor to mend them. The additional piece of information is that the participants are Greek, but speaking English, which cues the hearer into expecting possibly comedic stereotypical foreigner pronunciation. The ambiguity is in the sound reassignment of the syllables into pseudo-morphemes of accented English. The incongruity is discovered when it is noted that the exchange involves two Greek proper names from classical antiquity referencing tragedy (ANCIENT GREEK TRAGEDY) and also a prosaic account of an interaction between a tailor and a customer (TAILORING). The difference between the two scripts is immense. The incongruity is resolved when the hearer realizes that these two Greek names can easily be reanalyzed into a form of English dialogue that is entirely plausible. It is likely that the sound reanalysis opens up a new avenue into the hearer's own knowledge of linguistic structure.

A common form of pun plays with the inviting but entirely unrelated sound streams that can be either morphemes (basic meaning bearing units) and syllables that are simple sound combinations, usually consonant-verb-consonant, or most minimally consisting in a vowel only. Affixes in English are generally made up of one syllable, so this overlap between syllable and affix is easily utilized in pun-making.

Example 8 is a purported notice from an electricity company.

Example 8

We would be delighted if you send in your bill. However, if you don't, you will be.

The play is on the sound sequence *delighted*, which is the connector facilitating the Script Overlap. The linguistic meaning of this participial adjective is "very pleased." However, the Script Oppositeness set up is between (VERY PLEASED) and (HAVING YOUR ELECTRICITY CUT OFF). The incongruity, thus, is based on two extremely unrelated scripts. The way it is resolved is by the hearer realizing that although *delighted* has only one root morpheme: *delight* and a participial suffix *-ed*, *de-lighted* apparently has a different root morpheme *light*. In the word *delight*, *light* has no independent status as a morpheme; it is simply a syllable. Reflecting further, however, to make some sense of this NBF and clearly Cratylically motivated utterance, the hearer is led to see that *delighted* might be analyzed as *de-* + *lighted*. (by analogy with *de-frock* or *de-frost*), thus proffering the idea that *light* is an independent morpheme, with the prefix *de-* and the suffix—*ed*. This is not acceptable in English, with the reading "remove the light." Presumably, then, the hearer has to consider this (illegal) linguistic move and wonder why *delight*, which has only one morpheme, can be reanalyzed as *de-light*, which has two. The pun is not heavy-handed, as it never actually uses the term "de-lighted," but leaves the hearer with no option but to come to that conclusion, based on the completion of the ellipsis. In this way the pun, playing on the sound sequence *delighted*, opens up to the hearer the difference between morphemes and syllables.

The same principle is used in what has been called "Inflationary Language" by Victor Borge (1909–2000). Borge takes a particular soundstream occurring in a word that is homophonous with a number. For instance, in the word *tennis*, we find the sound stream (a syllable, in this case) *ten*. Borge puns on this homophony and reckons that if you can have *tennis*, then you can have *elevennis*. His most famous utterance, demonstrating this Cratylism, by which part of a word's sound stream is given independent morphological status (as a number), is shown in Example 9.

Example 9

Anytwo five elevennis?

The puns in Example 9 are paradigmatic—that is, the words punned on do not appear in the utterance itself.[3] The hearer needs to reconstruct, from the utterance, the question, *Anyone for tennis*? The only clue is *any-*, appearing as it does, before *two*. Once the hearer cottons on to the trick, it is easy enough to process the utterance, which on the surface makes no sense at all, particularly because *anytwo* and *elevennis* are not recognizable English words. Recourse to tacit knowledge of language, however, allows the hearer to see that syllables are sometimes meaningful, and sometimes merely a simple string of sounds.

A strange phenomenon occurring in English word construction is that found in lexical gaps. An example of this somewhat atypical phenomenon may be found in the word *disgruntled*, which should, logically, have as its stem ⋆*gruntled*. This is an application of a similar process found in the relationship between *dislike* and *like*. Affixes have regular selectional properties, and in general, speakers know these tacitly. When apparent prefixes are removed from certain lexical items that are apparent antonyms, the resultant forms are generally illegitimate, or are simply lexical gaps in the existing lexicon of the language, as in ⋆*ept* from *inept*, ⋆*furled* from *unfurled*, ⋆*kempt* from *unkempt*, ⋆*consolate* from *disconsolate*.[4]

A related linguistic phenomenon is found in Example 10. In this case, however, the play requires the addition of syllables to existing words, in order to construct new words.

Example 10

My karma ran over my dogma.

(Bumper sticker, *circa* 1970)

Analyzing this, the hearer (or reader) may discover that this pun hinges on the componentiality of the English lexical items, *karma* and *dogma*. *Karma* (meaning destiny or fate), now a borrowed lexical item in English, but originating in Hindi, is a monomorphemic word; *-ma* is simply a syllable. In the word *dogma* (meaning a religious belief), *-ma* is a syllable, and non-morphemic in the context of this particular word. The pun works as follows.

The Script Overlap here is the syllable *-ma*. A parallelism is created between *karma* and *dogma* based on the repetition of *-ma* and facilitated by the two occurrences in the utterance structure of *my*. The Cratylism occurs because of the shape of the words, *karma* and *dogma*. They look like they have the same structure. Playing along, the hearer accepts this local logic. The incongruity is in the semantics. *Karma* (being non-human and intangible) cannot run anything over, and most certainly not in the sense that a vehicle could run over an animate being. *Dogma*, similarly, could not be run over based on the semantics of the term. The utterance, therefore, is patently nonsensical. The resolution is to be found in a recognition that there are two ways to proceed: the one is to consider the meaning of this potential metaphor; the other is to notice that there is something strange about two words ending with the syllable *-ma* occurring in the same short utterance. This is particularly noticeable because the occurrence of *-ma* as a final string in an English word is not frequent, nor is it all that likely that it should occur twice in near succession in an ordinary everyday utterance.

The hearer, in a process of sense making, albeit within the local logic of the utterance, may notice that if the syllable *-ma* were removed from each of the relevant items, the sentence would read, *My kar ran over my dog*, and thus, would sound like, "My car ran over my dog."

The syllable *-ma* is simply attached to the end of each of the two nouns in the example, to yield a result—meaningful, but entirely separate in meaning from the paradigmatic utterance, "My car ran over my dog," a simple, predictably familiar English sentence, with no particularly obvious communicative force as a bumper sticker.

The knowledge required both to produce and comprehend this joke is the knowledge that spelling is not uniquely matched with phonology; syllables can attach (inter alia) to the ends of words; and, there is no requirement that a phonological unit, the syllable, has any morphemic status. Crucially, as well as accessing this knowledge, the listener needs to recognize that the addition of this syllable in two separate places entirely affects the meaning of the paradigmatic sentence, even though the addition of the syllable is not a morphological process. The hearer needs, also, to know the conventional meanings of both *karma* and *dogma*, and realize, possibly drawing on tacit knowledge, that there is no morphological way in which *karma* is related to *car*, or *dogma* to *dog*. The resolution of the incongruity is thus based on rather sophisticated (quite likely, subconscious) knowledge that syllables and morphemes are different in kind. The pun evokes this linguistic knowledge.

2.1.3 The Phonological-Semantic-Syntactic Pun Type

The importance of the pun is much underplayed in many linguistic analyses of jokes. In jokes, or other humorous texts that play on linguistic humor, the recognition of ambiguity is fostered by other linguistic features that co-occur in the syntactic frame. It is the case that the pun is the

essence of these sorts of jokes, even though the humorous text itself may not be typed as a pun. In the exchange in Example 11, which is clearly marked as NBF, there are, in fact, two puns, but one is more prominent than the other.

Example 11

HITLER: *My dog has no nose.*
CROWD: *How does it smell?*
HITLER: *Terrible.*

(from the TV series *Monty Python's Flying Circus*)

The joke is embedded in a comic context, with Hitler bellowing at a full stadium of people, who bark obediently back at him. The linguistic joke itself is a fairly simple pun on the word *smell* and two of its senses: as a verb "to detect something by means of nerves in the nose" and "to produce an odor," in conjunction with the ambiguous syntactic structure triggered both by these meaning differences, and the question word *how*, which turns out to be ambiguous as well.

So, this humorous text works, first, because of the polysemy of *smell*. The Script Overlap is the word *smell*, and the Script Oppositeness is triggered by the extremely unpreferred interpretation triggered by the response, *Terrible*. On linguistic reflection, the incongruity of *terrible* as an answer to a question that seemed to be highlighting the olfactory disability of the dog is resolved by noticing that *smell* is polysemous and may also be interpreted in the sense of giving off an odor. Even this recognition is unsatisfactory in fully resolving the incongruity. Further reflection would reveal that the construction of this pun is underpinned by the interrogative *how*. *How*, too, is ambiguous between questioning the manner in which something is done (the way the dog uses its olfactory sense), and also in questioning the state of being that is predicated of some subject, in this case, the smelliness of the dog. This ambiguity is to be found in the subtle polysemy of *how*, which determines the syntactic category of the response to the question posed. The response is simply a predicate adjective; the dog smells terrible, whereas we might, on the preferred reading, expect an answer like *with difficulty*.

Other puns, be they phonological, morphological or syntactic, rely on play with idiom chunks. These vary, but are all based on an ambiguity in some part of the sound sequence. Example 12 is a remark made by the comedian, Woody Allen.

Example 12

I am at two with nature.

(Woody Allen, 1939–)

This remark exploits an idiom chunk, the cliché: *I am at one with nature*, which means, "I am perfectly comfortable in the physical world of natural phenomena and all living things." In order to understand the pun, the hearer has to have some acquaintance of the cliché, which is not stated but simply exploited. The entire original chunk is used paradigmatically as the pun is made. This is to say, the original connector is not present in the text, but is in mind. The procedure is simple: *one* can be understood as a number in a sequence. If we can use the word *one* in this reading, we should be able to use the word *two*, by the rules of local logic. Thus, if you can be *at one with nature*, you can be *at two with nature*, too. The meaning yielded by the utterance *at two* unfreezes the chunk and makes nonsense of the cliché. Once the hearer reconstructs the original cliché, it's clear that the use of blind logic yields ridiculous results. The game is Cratylic.

The incongruity is resolved by the recognition that words have meanings in a context of an utterance and that substitutions, although they are of the same semantic and syntactic class, do not necessarily lead to predictable and sensible interpretations. Being *at one* with nature makes sense in a metaphorical and conventional way; being *at two* casts doubt on the literal possibility of the first. The pun here allows the hearer, on reflection, to consider the non-compositional nature of the frozen chunks we use in everyday language.

As we have seen, puns are not limited to words. They may exploit very small linguistic units, such as phonemes, and units as big as a sentence. Another way in which puns are formed is by a process that is known in historical linguistics as "metanalysis," which exploits the morpho-phonological process, metathesis. The process of metathesis works as follows. In normal speech, parapraxes (or linguistic slips of the tongue) may occur; these are generally not conscious.

So, in puns of this type, sound sequences may be reassigned in order to yield several new words from the utterance that primes for them. Skillful wordplay is involved in reassigning sound sequences in such a way that new morphemes are formed, and this is particularly effective if, as a result, new syntactic structures, as well as an entirely different sense, can be created. The pun in Example 13 illustrates metathesis at the phonological, morphological and syntactic levels.

Example 13

I'd rather have a bottle in fronta me than a frontal lobotomy.

In Example 13, the connector phrase is *bottle in front of me*. The metathesis, or phonological rearrangement is the phrase, *a frontal lobotomy*. The sense of *a bottle in front of me* is clear in a NBF context: the speaker is talking about having a bottle of alcohol in front of her. The phrase, *a frontal lobotomy*, evokes a most surprising Script Oppositeness. A frontal lobotomy is a surgical procedure in which the pathways connecting the frontal lobe to the limbic system are deliberately damaged to reduce the patient's distress levels. This used to be the treatment of choice for certain kinds of mental illness. The distance of the scripts, (ALCOHOL) and (BRAIN SURGERY), is noticeable. However, the incongruity cannot be resolved until the hearer realizes that there has been some phoneme reassignment that has led to a change in morphology, semantics and syntactic category as well. This requires the hearer to note that sounds can be recombined to make an arbitrarily different set of words that may make up a sensible phrase.

In this witticism, the pun works on the whole phrase, *bottle in fronta me*. Syllables are shuffled in such a way that *frontal lobotomy* is derived from *bottle in front a me. A bottle in fronta me* is a Noun Phrase modified by a Prepositional Phrase, whereas *a frontal lobotomy* is a Noun Phrase incorporating an adjective. The reassignment of phonological, syllabic, morphological and syntactic structure is achieved in one phrase, easily reconstructed and recognized by the hearer, once the incongruity is triggered.

Example 14 puns on a surprising ambiguity in the phrase, *come quietly*.

Example 14

Are you going to come quietly or do I have to use earplugs?

(*The Goon Show*, 1958)

The phrase, *Are you going to come quietly?*, sets up a stereotypical utterance made by police officers when they arrest someone. This is normally followed by *or do I have to X?*, some kind of threat. However, there is an ambiguity here, set up by the connector *quietly*. The other meaning

of the phrase (highly dispreferred because of the frequency with which the first meaning is used) is that one might want to block out the noise, if someone else is not going to be quiet. The Script Overlap is set up, therefore, by the genuine ambiguity in *come quietly*. The Script Oppositeness is between (THREAT OF FORCE) and (TOO MUCH NOISE). The distance between these is very large. Incongruity is created by the perfectly plausible option, which is nevertheless totally unpredictable, *or do I have to use earplugs*? There is no absurdity in the idea that if someone is making noise, perception of the noise can be stopped by using earplugs. This is certainly not going to make the person stop making the noise, but it will solve the problem of hearing the noise. However, the illocutionary force of the standard utterance (as made by police officers and the like) is threat. *Or do I have to use earplugs*? is utterly surprising and completely incongruous.

This incongruity can only be resolved by the hearer noticing that the question about whether or not the person is going to come quietly is not a question about whether the person is going to turn down the volume, but a threat that if he/she does not co-operate some new and terrible thing will happen to make him/her co-operate. The less preferred reading of *come quietly* reduces the threat to a question equivalent in illocutionary status to *Is it going to stop raining or do I have to bring a raincoat?* The pun plays on the ambiguous semantic features of *come quietly* but also plays with illocutionary force. In order to resolve the incongruity completely, the hearer has to resort to both semantic and pragmatic knowledge, which might prove rather surprising.

Syntactic ambiguity is a major contributor to incongruity in humorous texts of the kind that involves puns. The ambiguity is usually triggered by a lexical item that allows play with different syntactic constructions. A common sort of pun using this construction is illustrated in Example 15.

Example 15

Would you hit a woman with a baby?
No, I'd hit her with a brick.

W.C. Fields

This pun template exploits a particular sort of syntactic ambiguity in the question part of the utterance. The Script Overlap is to be found in the phrase, *hit a woman with a baby*. There is an ambiguity here between (HIT A WOMAN HOLDING A BABY) and (HIT A WOMAN WITH A BRICK). The ambiguity is only made obvious once the answer part is articulated: *I'd hit her with a brick*. The ambiguity pivots on the two syntactic readings, both available in *hit a woman with a baby*. The answer, however, highlights the less preferred reading, that of what object the speaker would use to hit the woman who was holding the baby. The preferred reading setup is whether this person would hit a woman holding a baby. The incongruity illuminates the Script Oppositeness. The highlighted reading is designed to shock: the idea that someone would hit a woman, especially one holding a baby is surprising; the fact that one would do it with a brick is violent; the idea, conversely, that a baby could be used as the weapon is wildly incongruous. The incongruity is based on the ambiguous syntactic structures of the first utterance.

In the Script Oppositeness, then, the hearer is faced with the incongruity of the two readings. It is in processing the highlighted reading of the response according to the second structure that the hearer has to go back to the question part of the exchange.

Thus, it is the syntax of the question part that allows both readings. It is in the process of reflecting on the incongruity that hearers are made conscious of the potential ambiguity caused by the attachment of prepositional phrases in English.

Finally, Example 16 illustrates some complex reanalyses, involving semantic as well as syntactic ambiguity. The play, which involves two syntactic ambiguities triggered by two semantic ambiguities, is difficult to process.

Example 16

Time flies like an arrow. Fruit flies like a banana.

Groucho Marx (1890–1977)

The example works as follows. The first sentence primes the hearer to parse the second sentence in the same way as the first, i.e., by analogy with *time flies like an arrow: fruit* (Noun Phrase) *flies like a banana* (Verb Phrase); the Verb Phrase is made up of *flies* (Verb) and *like a banana* (Preposition Phrase); the Preposition Phrase is made up of *like* (Preposition) and *a banana* (Noun Phrase). The Script Overlap is to be found in the apparently identical surface structure of the two sentences. However, parsing the second sentence in parallel with the first yields baffling nonsense. Thus, in the first utterance, *Time flies like an arrow*, the cliché compares the passage of time to the swiftness of an arrow shot from a bow. On the other hand, it is not clear why fruit should fly in the same way as a banana does. The whole utterance is nonsensical.

The resolution hinges on picking up the ambiguities inherent in the relevant words that are then used in different syntactic categories. *Fruit* could be a noun phrase or the modifier of *flies; flies* could be a singular present tense verb or a plural noun; and *like* could function as a comparative preposition or a plural verb.

Realization of the ambiguities comes from recognizing that the second sentence should be understood as *Fruit flies* (Compound Noun Phrase subject) *like a banana* (Verb Phrase). In parsing the sentence this way it is possible to see the ambiguities in the first sentence. The second sentence is a simple descriptive fact about fruit flies, insects, which, acting in accord with their name, like to swarm around bananas.

The hearer can only resolve the extreme incongruity created by the Script Oppositeness (TIME FLIES STRAIGHT AND FAST) and (FRUIT-FLIES LIKE BANANAS) by reflecting on the essential ambiguities to be found in the semantic and syntactic rules of English.

3 New Debates

In this chapter, the fundamental mechanism of the pun is used in order to show that ambiguities at every level of the grammar are resolved by the hearer's resort to a usually inaccessible and generally tacit set of linguistic rules that make up an individual's linguistic competence. The pun and its resolution are shown to be vital in accessing this linguistic knowledge, common to all who share a language.

Whereas the fundamental linguistic mechanism of the pun has been isolated and analyzed extensively by linguists and humor scholars, there remain outstanding debates, crucially those regarding the processing of puns and the role of context. Although notable strides have been made to describe the fundamental requirements and resources in pun construction and reception, the empirical evaluation and comparison of different theoretical proposals is still in its infancy. Theoretical proposals as to how puns are processed cognitively have been made in the frameworks of Relevance Theory, The Generalized Theory of Verbal Humor, Cognitive Linguistics (especially the Graded Salience Hypothesis), Incongruity Theory, and Incongruity-Resolution Theory, among others. Empirical research has been conducted through the means of psycholinguistic and neuropsychological and neurological testing, using response time,

eye-tracking, MRI scans, as well as computational modeling and pun generation. However, although most linguistic researchers have reached some form of broad agreement on the basic linguistic processes involved in pun construction, and how these are triggered by mechanisms of ambiguity and incongruity, the psycholinguistic, cognitive, and neuropsychological results that might distinguish different theoretical frameworks from one another are not yet entirely clear.

Notes

1 Hempelmann (2003) distinguishes between puns and what he terms "wordplay." This is not a distinction accepted by all humor scholars, as some refer to humorous and non-humorous puns (cf. Solska, 2012), various traditions in literary criticism, etc.).
2 The sort of knowledge discussed here is sometimes referred to as "metalinguistic knowledge." Here the term "tacit" is preferred, as it serves to highlight the often less-than-conscious awareness of linguistic structure.
3 Paradigmatic puns are those in which the element to be punned upon is not present in the utterance itself. This is in contrast to syntagmatic puns, which do include the punned-upon element.
4 See Aarons (2012) for a deeper discussion of this phenomenon and many examples, provided by Jack Rivers in an article (1994) in the *New Yorker* magazine.

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8

Puns

Taxonomy and Phonology

Christian F. Hempelmann and Tristan Miller

1 Introduction

The present chapter presents two prominent and connected strands in research on puns. The first is the classification of different types according to taxonomies using a range of criteria. The second is the phonology of imperfect puns, where a punning word evokes a target that is slightly different in sound than the pun itself. It will not deal with the central phonosemantic mechanism of puns that is based on false logic (cf. Attardo, 1994, chap. 4; Hempelmann, 2003). According to this logic, described in the Platonic dialogue *Kratylos* (1961), the sounds of a word have a motivated relationship to the meaning of the concept that the word means. As is well known even outside linguistics and has been described succinctly by De Saussure (1983), the sounds of a linguistic sign, its signifier, have an arbitrary relationship to the meaning, the signifier. The relationship is merely a social contract adhered to by the speaker community of a language. This issue is comprehensively dealt with in another chapter of this handbook (Aarons, 2017).

But before we go into discussing the taxonomies of different types of puns and the phonology of imperfect puns, some general theoretical observations need to be made. From a very broad viewpoint, most humorous texts can actually be considered to contain a pun: the pun is that part of the humorous text, possibly an implied and not overtly expressed part, that is compatible with two meanings, possibly not with the same degree of compatibility to both of them, in the given context. Naturally, if the humorous overlap and opposition of a text reside in completely implied concepts that cannot be mapped to surface items with sound (aka "words"), then one cannot speak of a pun, as the cratylistic logic does not have sounds to operate with. This position is compatible with the assumption that the meaning of a text is not simply the combination of the meanings of its individual words, like building blocks. The meaning of a text is rather a much more rich composition created from the words in their interaction and as generated by specific speakers and hearers of the text in a given context.

Instead of the phonosemantics of puns, this chapter deals with two related issues that are more important in their linguistic rather than their humorologistic importance. First, taxonomies of puns are discussed, much in the vein of and based on Attardo's (1994) section 3.2.1. Taxonomies that operated with linguistic, rather than humorological criteria, use factors mainly from phonology and rhetoric. Much of the phonological issues, in particular the valid distinction

between homophonic and heterophonic puns, will be the focus of section 3. Section 2 will focus on taxonomies based on rhetorics and linguistics inspired by rhetorics. Taxonomies based on different languages and language families and their possibly varying inventories of pun types seem unnecessary in view of the universality of the phonological mechanisms of puns (Guidi, 2012). If one agrees on the universality of the semantics of humor, differences in pun mechanisms across languages would tell us something about the specific phonology of those languages, not about humor. Yet, it is phonosemantics, so they cannot be neatly separated. Again, most pun taxonomies tell us something about language, or maybe linguistics, but not about humor. But we will devote one subsection to attempts at distinguishing good puns from bad puns, clearly a humorological issue.

2 Taxonomies

2.1 From Classical Taxonomies to Linguistic Phenomena

In view of the rich taxonomies developed very early on in classical poetics and rhetoric, it seems helpful to have a brief look at medieval rhetoric as the revival of classical rhetoric, its epitome, clarifies the main terminological issues in puns. The *Rhetorica ad Herennium* (*Ad Her.*), long attributed to Cicero (1981), and the *Poetria Nova* (*PN*), attributed to Geoffrey of Vinsauf (1967) and based on the doctrine of *Ad Her.* (cf. Gallo, 1971), include the following relevant figures of wordplay:

1. *traductio*: the same sign, used twice (*Ad Her.* IV. xiv. 20–21, pp. 1104–1108)
2. *adnominatio*: slightly different signs, used twice (*Ad Her.* IV. xx. 29, pp. 1140–1144)
3. *significatio*: the same sign, used once (*Ad Her.* IV. liii. 67, pp. 1550–1553)

A special form of *traductio* is the *rime riche*. Ideally, a rime riche uses the same sign not only twice, but also in rhyming, usually in the end-rhyming, position. The signs should be identical in sound, or, less ideally, only similar. Rime riche, like the other figures of speech, need not necessarily have humorous intention, but can just serve as an ornament or a style-marker. The connection of two phonologically identical forms that stem from different words and have different meanings, i.e., are polysemous, are considered to be the purest form of the rich rhyme.

Medieval rhetoricians—as well as modern-day linguists as we will see in this section—put emphasis on the distinction between homonymous (mostly homophonic and possibly homographic) puns and heteronymous, heterophonic, paronomasic, or "imperfect puns." The former feature the same sign once or twice, in both cases with two unrelated meanings; the latter feature two slightly different signs, or one sign that triggers a slightly different one, both with different meanings.

Homophony and homography are subcategories of homonymy: Two homonyms share spelling and pronunciation (*table* as furniture vs. as text element), while homophones share only pronunciation (*weak* vs. *week*) and homographs only spelling (*bustier* as the comparative of *busty* vs. the loan word from French for an undergarment). Puns that are homographic but not homophonic are called eye puns. Before Caxton's introduction of the printing press we find no large-scale systematization of spellings in late Middle English, thus orthography lent itself to the molding hand of the inventive scribe, and homophony was more important as a criterion for potential puns than today. When a certain spelling indicated phonetic differences it could even be changed to some degree to function properly—for example, for end rhymes: *reaume, reawme, reame, realme, rewne* ("realm"). The distinction between *adnominatio* and *traductio* is so much at the mercy of the

Middle English author (or scribe) that an *adnominatio* can be turned into a *traductio* almost at will. The same goes for the distinction between pure heteronymous puns and *significatio*.

A further distinction can be made between puns relying on (lexicographic) homonymy, where formally coincidental words are etymologically distinct, and *polysemy* where they are not. However, this distinction does not appear to play a significant role in punning, except insofar as etymologically related terms tend to have subtler semantic differences. That is, perfect puns can be humorous irrespective of any etymological relation between the meanings involved, provided those two meanings are distinct enough to afford script opposition. For example, in enumerating the senses of the polysemous word "bank," some English dictionaries distinguish between the financial institution and the building in which it operates; it seems unlikely that a perfect pun hinging upon these two meanings could be constructed, let alone understood, because one sense always implies the other. Thus, for the present discussion, the distinction between homophony/heterophony and polysemy is not assumed to be a significant parameter. The reason is that few speakers have the etymological knowledge or, if they do, don't routinely activate it in everyday humor processing. But some authors use this criterion to distinguish pun types, e.g., Hammond and Hughes (1978), who call polysemous puns like the following one, "wordplay": *An architect in prison complained that the walls were not built to scale*. Note that both senses of *scale* derive from Latin *scala* (ladder). Their contrasting example of a homonymous pun is the following: *The excitement at the circus is intense/in tents*. Ironically, for their emphasis on the importance of the difference, the authors overlook that both senses are also derived from the same Latin word, namely *tendere* (stretch).

Table 8.1, reproduced from Hempelmann (2003), illustrates the interaction of the most relevant of these dimensions. The sexual content of the examples is not gratuitous, but works better than non-sexual examples because of the quasi-default nature of secondary meanings as sexual (cf. "that's what she said" reframing jokes):

In this table, types of pun are listed according to two main criteria and two intersecting additional criteria: heteronymous puns under A involve a pun and target that are not identical but similar in sound, while homonymical puns are a special case of this in that the similarity is perfect; that is, pun and target are identical in sound. Under each of these categories a distinction is made according to the presence or absence of the second sign, the target, as syntagmatically present in the actual joke text (2) or only paradigmatically triggered by its corresponding puns (1). A paradigmatic relationship holds between related members of a category—here, a pun and its implied target. A syntagmatic relationship holds between systematically related words in a grammatical chain, as the pun and target do when they're both present in the joke text.

Table 8.1 Main taxonomy of punning

A. heteronymy	*classical term*	*[horological instrument vs. male genitalia]*
1. single sign/ paradigmatic	(pure)	your clock is very big
2. double sign/ syntagmatic	*adnominatio*	his clock was bigger than his cock
B. homonymy		*[domesticated male bird vs. male genitalia]*
1. single sign/ paradigmatic	*significatio*/syllepsis	the farmer has a big cock
2. double sign/ syntagmatic	*traductio*/antanaclasis	the cock has a big cock

This distinction of paradigmatic and syntagmatic is the main distinction of Attardo's systematic taxonomies (1994, pp. 114–119), which was adopted by Ritchie (2003) and of which Milner (1972) and Hausmann (1974) are major examples.

In type A1 a single sign, the pun, is used to evoke a second similar sounding sign, which is thus paradigmatically present. A less frequent variant of this typical kind of paronomasia is illustrated in row A2, providing an example of *adnominatio* in which both the pun and the target are present in the text. Under B1 we find the corresponding variant of punning where only one sign is present in the joke text, but it evokes the second identical sign and both their meanings, and under B2 the variant that shows both identical signs present in the text. It should be clear why *significatio* (B1) is considered to be the prototypical, "pure" type of pun: using only one sign, two opposed meanings are denoted that share this sign completely. We will return to the central distinction between homonymous and heteronymous puns in section 3.

2.2 Miscellaneous Other Pun Types

Other types of puns that have been distinguished and afforded names are distinguished according to various heterogeneous criteria. These are described in this subsection.

The first prominent types of punning involving a specific interaction of linguistics features to be discussed here are malapropisms (Ritchie, 2003 pp. 116–119). This type of imperfect paradigmatic pun involves the supposed accidental use of one word instead of a similar sounding other word. The specific sociolinguistic feature of this class that distinguishes it from other puns is the high register of the substituted word, usually one of Romance origin and learned use, in contrast to the overall low register use of the accidental misuser. Unlike other puns, malapropisms are therefore ascribed to speakers or speaker classes, characterized as low-register speakers, who disclose their tenuous grasp of, but desperate urge to use, the high-register words as their tongues slip in their attempt to do so.

The term is epitomized by a character in an English comedy actually called Mrs. Malaprop (Sheridan, 1775), but the general mechanism has been used before, prominently by Shakespeare. Her first slip of the inappropriate type in the play is "illiterate him, I say, quite from his memory," referring to a person she considers should be forgotten, that is, obliterated from memory. Thus, the imperfect pun here is *illiterate* targeting *obliterate.*

A second subclass of puns that deserves mention is the spoonerism (Hammond & Hughes, 1978, chap. 20), a type of imperfect paradigmatic of syntagmatic pun that is often intentional in contrast to the supposedly accidental malapropism. It involves the switching, or metathesis, of the beginnings, or onsets, of two words in a phrase. It is again named after a person, this time real instead of fictional, namely the Oxford Reverend William Archibald Spooner whose tongue supposedly slipped, accidentally, in this specific way. Apocryphal examples include the famous "three cheers for our queer old dean!" instead of "dear old queen." In this paradigmatic example the [d] and [kw] onsets are switched between two words to turn the underlying intended *dear* into *queer* and *queen* into *dean*. The opposition thus created is of a (homo)sexual nature.

A syntagmatic example from a different language is the German "Sie zogen aus mit bunten Wimpeln und kehrten heim mit wunden Pimpeln." The switch here is between the phonologically close voiced stop [b] and voiceless fricative [v], turning *wunden* into *bunten* (note the additional voicing difference in [d] vs. [t]) and *Pimpeln* into *Wimpeln*. A functional translation of this spoonerism—the German term is *Schüttelreim*, or shaken-up rhyme—would be: they ventured out with colorful pennants, and returned home with sore peepees. Again, a simple sexual opposition.

Finally, a syntagmatic and commonly imperfect type pun type favored by American children as they develop the ability to play with the phonosemantics of language (McGhee, 1971) is the

knock-knock joke. They are usually feeble in that one of the senses of the pun is merely invoked in the knock-knock setup without any further semantic support, while the more substantial punch line ending of the joke unfolds a second sense, or vice versa. This makes for a bad pun according to the analyses discussed in the next subsection. A typical example that was used in Apple's OS 9 is:

(1) A: Knock knock
B: Who's there?
A: Orange.
B: Orange who?
A: Aren't you glad I didn't say banana?

Not only is there no support for the fruit senses in the setup of this pun, the opposition between "orange who" and "aren't you" is probably not funny unless one is just excited by the fact that words and phrases can have more than one meaning.

2.3 Good Puns vs. Bad Puns?

The question that a semantic theory can answer is whether it is potentially humor-carrying (Raskin, 1985). In other words, it should be able to discern a text that contains humor from one that does not. A more ambitious theory that can model further parts of a text processing, like a pragmatic theory including context or a psychological theory including states and traits of speakers and hearers, should also be able to tell which humor-containing text is funnier than another humor-containing text. Again, funniness of a text depends largely on individual humor preferences, both structurally and content-wise.

In general puns are assumed to be a lesser type of humorous text, groaners, or as Raskin (1985, p. 144) put it: "It is the easy availability of puns which makes them a cheap and somewhat despicable type of humor for many individuals and social groups." Despite this assumed low status of puns in the family of jokes, some researchers have tried to distinguish among puns those that are on average funnier than others. A theoretical attempt to make this distinction can be found in Hempelmann (2004); a computational operationalization partially of the former theoretical attempt, can be found in Kao et al. (2015).

Raskin suggests that the feebleness—and often plain non-humorousness—of what is called a "bad pun" in general, non-technical use is triggered by the incongruity between the two senses being based "on purely phonetical and not semantical relations between words" (1985, p. 116). It seems indeed that in bad puns—German *Kalauer*, French *calembour*—the resolution is achieved only through the phonological overlap in the text (SOv). What seems to be required, in addition to the overlap in sound of the pun-target segment, is on the one hand semantic opposition, if of the feeblest kind imaginable, to support the cratylistic LM. Otherwise the punning text will not be a joke.

(2) Magnet: To some, it is what you find in a bad apple (Crosbie, 1977, p. 145).

Notice the semantic script of APPLE triggered by the lexical item "apple," which supports the recovery of the target "maggot" as well as the lack of semantic oppositeness between any possible scripts that include the concepts "maggot" and "magnet." Thus, the cratylistic analogy is fully functional, but no joke is produced. As Stanford puts it: "Nothing is more futile than the irrelevant pun that is based on only a verbal similarity and brings out no contrast, innuendo, or congruity of meaning" (1972, p. 72).

On the other hand, according to Hempelmann (2004), there also needs to be support for each of the two meanings of the pun in the remainder of the joke text: punning includes "wordplay," but play with words cannot work at the sound level alone as mere play with sounds if it strives to be humor as well. But it must be accompanied by "Sinnspiel" (play with meaning; cf. Hausmann, 1974, p. 20) in order for the pun's weak cratylistic LM to support the opposite overlapping script constellation that would make it a joke. The near failure of this latter requirement, that is, the belief on the part of a joker that he or she can get away with pure "Klangspiel," is what earns bad puns a pariah status in the family of jokes. In general, punning is the prime example of verbal humor. But humor that is exclusively verbal is not possible and unfunny, because the essential requirement of SO includes the oppositeness and overlap of scripts. These scripts are referential and must be on the signified side of the linguistic sign.

In a similar vein, for telling funnier puns from less funny puns, Kao et al. (2015) present an interesting approach based on information-theoretic measures modeling humor-theoretic assumptions about puns (Raskin, 1985; Hempelmann, 2004). They operationalize ambiguity in terms of semantic "compatibility" vs. "distinctiveness." In their studies, distinctiveness distinguishes exceptionally funny puns, which have high distinctiveness, from mediocre puns, which have low distinctiveness. Their central example is:

(3) The magician got so mad she pulled her hare out.

The imperfect pun in this example is *hare/hair*. One of the important claims is that both senses have equally highly probable meanings in this context; that is, there is high ambiguity between these senses. More importantly, both meanings are supported by different words from the context, which means they have high distinctiveness. In other words, distinctiveness of the two senses means how strongly the joke text predicts two distinct meanings. This factor is calculated as the probability of a word meaning, given the text, in terms of how often the word, in that meaning, has been observed in the vicinity of other words. For example, how often has the word *hare* been seen near the word *magician* vs. how often has the word *hair* been seen near *magician* in a large corpus of texts. This value is combined with how often *hare* has been seen near *mad* vs. *hair* near *mad*, etc.

The studies found no significant difference between perfect (homophonic) and imperfect (heterophonic) puns in funniness, ambiguity ratings, or distinctiveness ratings, but a highly significant correlation between funniness, as reported by human subjects rating the puns, and distinctiveness, operationalized as described. This kind of taxonomy is very innovative and tentative, so further research will need to confirm it.

3 Phonology of Imperfect Puns

As the preceding sections have shown, there are a variety of ways in which puns have been defined and classified. The present section is primarily concerned with correspondences and differences in form—whether spoken or written—between puns and their targets. The study of such correspondences and differences is important not only for understanding the mechanisms of punning, but also because they provide evidence for the validity and psychological reality of linguistic analyses and phenomena, and for speakers' awareness of linguistic processes and how these processes interact (Lagerquist, 1980, p. 191; Attardo, 1994, pp. 141–142).

The simplest way of characterizing the formal relation between a pun and its target is the strictly binary opposition between identity and non-identity, as introduced earlier. For the phonological forms, this distinction is between *homophony* and *heterophony*, respectively, and for the orthographic

forms, between *homography* and *heterography*. As the following examples from Miller and Gurevych (2015, p. 720) demonstrate, puns can be homographic, homophonic, both, or neither:

(4)

	homophonic	*heterophonic*
homographic	A political prisoner is one who stands behind her convictions.	A lumberjack's world revolves on its axes.
heterographic	She fell through the window but felt no pane.	The sign at the nudist camp read, "Clothed until April."

The terms *homonymic* and *perfect* can be used as synonyms for *homophonic* or *homographic*, depending on the form under discussion. However, some reserve these terms for puns whose spelling *and* pronunciation (and possibly also part of speech) coincide with those of the target. Non-homonymic puns are variously referred to as *heteronymic*, *paronymic*, *paronomasic*, or *imperfect*.

3.1 Perfect Puns

As mentioned earlier, perfect puns are those that use the same spoken or written form with two different meanings. In phonographic writing systems, where spelling usually follows or approximates pronunciation, most homographic puns are also homophonic. Perhaps for this reason, perfect puns of any sort have attracted little or no phonological study. However, a couple of studies have investigated the orthographic, syntactic, and semantic properties of homographic or homophonic puns, with a view to producing cognitive or computational models for processing their humor.

Miller and Gurevych (2015, p. 724) examine a corpus of 1,607 homographic English puns, almost all of which are also homophonic. They adopt a somewhat looser definition of homography that disregards inflectional suffixes and particles of phrasal verbs. A significant observation of theirs is the propensity of puns to transcend distinctions of lexical class: about a quarter of their puns are found to have a different part of speech (noun, verb, adjective, or adverb) than the target. This finding is in accord with previous observations (e.g., Yokogawa, 2002; Hempelmann, 2003, pp. 123–129) on the grammatical imbalance of some puns. Just as phonological identity is violable in imperfect puns, then violation of syntactic or morphological rules is not an absolute impediment to recovery of a pun's target.

Takanashi (2007) proposes a cognitive model for processing humor in *kyōka*, a parodic subgenre of Japanese poetry. Puns in *kyōka* are often homophonic, with target recovery aided by the poet's conspicuous manipulation of orthographic forms. This manipulation relies on the fact that Japanese has two main forms of writing—logographic *kanji* and syllabic *kana*—which are used for different purposes; certain pairs of words may have the same pronunciation but be customarily written in different scripts. Takanashi shows that composers of *kyōka* write their puns in contextually unusual scripts, both to signal the presence of a pun and to preferentially activate an otherwise unexpected or implausible meaning. The secondary meaning, which would normally be written in the other script, becomes accessible only after the reader's resolution of the garden path effect.

3.2 Imperfect Puns

Again, imperfect puns are those whose forms resemble, but are not identical to, their targets. In this section we'll focus on the phonology of imperfect puns that differ in pronunciation rather than merely in spelling.

Any given pair of words can be characterized by their similarity, or perceived similarity, in terms of sound or pronunciation. Studying word pairs known to be related by some phonologically constrained process, such as punning, rhyming, erroneous production, or morphological or etymological derivation, can help us model the phonological rules at play in these processes, or in language generally. And conversely, a model that quantifies perceived sound differences between words can help us judge the likelihood or acceptability of a given relationship between them. For example, a model of sound similarity tuned to puns could be used to help detect or generate them computationally (Hempelmann, 2003, pp. 65, 135).

In the following two subsections, we review some notable attempts at analyzing or modeling phonological (i.e., phonemic, phonetic, or psychoacoustic) similarity. The models in the first subsection were not developed with paronomasia in mind, but many of their principles and findings are applicable to puns, and some of the models have indeed been adapted or validated by pun-based studies presented in the second subsection.

3.2.1 Similarity Models Not Based on Puns

An early and influential study on the sound similarity of words is that of Vitz and Winkler (1973). They start by producing an optimal alignment of phonemes between the two words, such that each phoneme is paired with either a single phoneme in the corresponding word, or else with a null segment:

(5)

#	ø	ø	ø	ø	ø	ɹ	ə	l	e	ʃ	n	#	*relation*
#	ʌ	n	d	ə	ɹ	ɹ	ɪ	ø	ø	t	n	#	*underwritten*

Vitz and Winkler, as well as most of the other authors of similarity metrics presented in this chapter, gloss over the specifics of how the phonemes or other segments are best aligned. This is actually a nontrivial problem that is closely linked to the segment comparison metric. Kondrak (2002) suggests using the well-known dynamic programming algorithm for string alignment by Wagner and Fischer (1974), though there are many others.

Vitz and Winkler's "predicted phonetic distance" (PPD) is then defined as the relative Hamming (1950) distance between the two strings—that is, the proportion of phoneme positions that do not match. Thus, in the previous example the PPD would be $9 \div 11 \approx 0.818$. The authors also test a more complex model that accounts for phonemic similarity in terms of the classic feature matrix (Chomsky & Halle, 1968). While both approaches correlate about equally well with human similarity judgments, a third metric that finds the mean PPD of phonemes in the syllable onset, nucleus, and coda proves to be much more accurate. The authors conclude from this that perceived similarity owes much more to syllable structure than to phonemic or subphonemic features. Among their other significant findings are that higher similarity is perceived when the onset of the first syllable, stressed syllable positions, and word rhyme are similar or identical, and that vowels, or at least some of them, are weighted more than consonants.

Zwicky (1976) studies semi-rhymes in popular music, which, like puns, seemingly favor minimal distance in sound. Though his work does not produce a formal distance metric, his study of 700 rhyming pairs reveals that certain pairs of phonemes are particularly likely to contrast with each other in semi-rhymes; it also suggests that syllabicity is rarely violated and that alveolar obstruents are especially susceptible to deletion.

There exists a considerable body of work in the measurement of phonological similarity for detecting cognates and dialectal variants. Early distance metrics for these tasks rely on hand-weighted differences between coarse-grained phonemic classes (vowel vs. consonant vs. glide) (Covington, 1996) or the Hamming distance of binary articulatory features (Gildea & Jurafsky, 1996; Nerbonne & Heeringa, 1997). While these sorts of systems are elegant and widely used, in practice, sounds judged by humans as similar often differ in a disproportionately large number of features. For example, in some feature spaces, [j] and [dʔʒ] would have nine contrasting feature values, even though the two sounds are close enough to be commonly confused by many speakers (Kondrak, 2002, p. 45). Moreover, they are not uncommonly contrasted in puns, as demonstrated by the following *yolk* → *joke* example from Crosbie (1977):

(6) Trying to preserve his *savoir faire* in a new restaurant, the guest looked down at the eggs the waiter had spilled in his lap and said brightly, "Well, I guess the yolk's on me!"

This problem is mitigated in the work of Ladefoged (1995), who compares phonemes using a multivalued feature system. In this system, each phoneme is represented as a combination of articulatory features whose values range from 0 to 1. Some features, such as "aspiration," are strict binary oppositions, whereas others, such as "place of articulation," take as many as 10 different values. A major flaw with this approach is that it considers all features to be equally salient; this results in such incongruous results as [p] and [k] being assigned a greater similarity value than [p] and [pʰ]. Kondrak (2002) addresses this issue by assigning "salience coefficients" to each feature, which he derives by trial and error from a set of aligned cognate pairs.

Lutz and Greene (2003) adapt the principles of Optimality Theory (OT) (Prince & Smolensky, 2004) to model sound similarity in the domain of personal names. In OT, phonology is conceived in terms of language-specific rankings of universal, defeasible output constraints. Lutz and Greene use these constraints to build a model that quantifies the cost associated with bridging the feature differences between phonemes. The model, whose cost table is based on the hierarchy of feature geometry (Kenstowicz, 1994), outperforms a similar one based on the classic feature matrix of generative phonology.

3.2.2 Similarity Models and Analyses of Puns

Hausmann (1974) is the first to quantify phonological distance of puns. Like Vitz and Winkler (1973), he classifies paronyms on the basis of the number of differing phonemes, though unlike PPD, his metric is not normalized to the number of aligned phoneme positions. Among the monolingual French puns in his corpus, the greatest distance he presents is that of four phonemes. Though he does not hold this to be an upper limit on the tolerable dissimilarity between a pun and its target, the existence of such threshold is later postulated by Attardo (1994, pp. 121–126).

Lagerquist (1980) examines a corpus of 771 English puns, of which 471 are paronymic. She classifies the 501 phonological differences in the latter as 472 "changes" (82 insertions, 82 deletions, and 308 mutations) and 29 "transpositions" (including transpositions of entire syllables or words). The majority of the insertions, deletions, and mutations involve consonants, and most of the mutations can be analyzed as a change in a single feature (voicing, continuance, etc.) of a segment. Lagerquist finds that only a quarter of the alterations are to the initial segment and suggests that preservation of initial identity plays a special role in the perception of homophony. It should be noted, however, that this proportion is not corrected for chance. Unless the puns

in her collection have on average fewer than four segments, it would be better to conclude that punning shows a preference for, rather than an aversion to, modifying the initial segment.

She tentatively concludes that punsters strive to preserve homophony, and that when it must be violated, the violation tends to affect only a single, preferably non-initial segment. Further findings of note in this part of her study are the resistance of vowels to insertion (observed in only 23% of her instances) and especially to deletion (6%—probably an artifact of syllable structure constraints). In contrast to consonants, whose changes can often be explained in terms of known linguistic processes such as flapping and assimilation, vowel mutations show very little patterning.

The second part of Lagerquist's study examines stress patterns in 596 puns, of which 349 are paronymic. She finds that stress changes position in only a small minority of cases (3%); in only 10 cases do the pun and target differ by stress alone. She takes this as further evidence for the proclivity of puns for homophony. Nonetheless, she finds that the vast majority of puns (92%) coincide with some point of stress in the target word or phrase. From this she revises her earlier conclusion:

> The fact that pun and stress coincide so frequently suggests that while puns may indeed strive for homophony, in some sense they must not try *too* hard. That is, the success of a pun seems to depend not only on identifying the form punned on but also on getting the result recognized as a pun. It is as if the pun must announce itself to gain recognition, and one way for the pun to accomplish this is to occur at a point of stress.
>
> (Lagerquist, 1980, p. 189)

Zwicky and Zwicky (1986) study phonological differences in a collection of 2,140 English puns. While they do not apply or devise a distance metric, they do identify a number of patterns of contrasting sounds. Significantly, they observe that certain segments do not appear equally often in puns and targets, and dub this phenomenon *ousting*. That is, Y "ousts" X when Y appears as a pun substitute for the latent target X significantly more often than the reverse. Their analysis suggests a tendency for marked features to oust unmarked ones. As Attardo (1994, p. 124) observes, this finding can be interpreted as evidence against the theory (Aubouin, 1948) that puns imply an error of judgment by the speaker, because in genuine errors we would expect unmarked features to substitute for marked ones.

Sobkowiak (1991) is the first book-length study on the phonology of puns. His work, which starts from Vitz and Winkler's notion of PPD, presents a major quantificational application of sound similarity based on distinctive features, employing a corpus of 3,850 puns. His phoneme-by-phoneme analysis confirms Zwicky and Zwicky's "marked ousts unmarked" hypothesis, but only in the case of stops; other classes of sounds give incompatible results. His prediction algorithm also confirms Lagerquist's finding that consonants are more susceptible than vowels to deletion and extends her investigations on the location of contrasting pairs, finding that they preferentially occur at or near the word-initial and word-final positions. Another major conclusion of his is that the understandability of a pun is maximized when the consonantal skeleton is kept largely intact; vowels carry a lower information load and are therefore more freely mutable.

Fleischhacker (2005) discusses certain types of paronyms as evidence supporting her observations on reduplicative processes. Like that of Lutz and Greene, her study is conducted within the framework of Optimality Theory. She selects four types of pun–target pairs differing in their onsets in a fashion compatible to the reduplication patterns that are her primary focus. She then calculates the observed frequency of each class in a pun corpus, and compares it to the expected frequency of word pairs (from a large lexical database) with the same segment contrast. The

calculations are used to produce a ranked list of correspondence constraints that, rather than treating contrasting segments in isolation, capture similarity in relation to the *environment* of the segments—an adoption of Steriade's (2008) P-map mechanism. A major flaw in her approach, however, is that it does not take into account the asymmetry of the pun–target relationship.

Hempelmann (2003) builds primarily upon the work of Sobkowiak and an earlier, unpublished version of Fleischhacker (2005). Like Fleischhacker, Hempelmann hierarchically orders a set of pun-specific constraints that capture context-sensitive similarity of corresponding segments. His model analyzes affected segments at the phonemic level (adapting the autosegmental feature tree to account for acoustic rather than articulatory dimensions), while the surrounding contexts are analyzed at the coarser level of natural phonemic class. The model is characterized by two major deviations from traditional OT: first, it introduces into the constraint hierarchy a cutoff point such that output forms violating only those constraints below it are allowed to surface; second, for ease of programmatic implementation, the entire hierarchy is modeled as a cost function that employs a table of phoneme-to-phoneme distance values (derived from a subset of Sobkowiak's corpus). These innovations were adopted with a view to using the model as a component in an automatic pun generator.

Kawahara and Shinohara (2009) investigate the phonological similarity of *dajare*, a type of Japanese wordplay involving the creation of double-sign puns. In a corpus of 2,371 *adnominationes*, the authors compare the observed (O) frequency of mismatched consonant pairs to the frequencies expected (E) for random combination. While they observe positive, statistically significant correlations between O/E ratios and the number of shared distinctive features, and between O/E ratios and the proportion of shared natural classes, many individual consonantal pairs have O/E ratios that cannot be explained by featural similarity. The authors posit that punsters must actually exploit a conscious knowledge of *psychoacoustic* similarity, because different features have different perceptual saliences (cf. Kondrak, 2002, p. 49), because perceptual salience of the same feature varies across contexts (cf. Hempelmann, 2003, chap. 5) and because segments most likely to be deleted are those that have a tendency to coarticulate with their surroundings (cf. Lagerquist, 1980, p. 188). Many of the phonological patterns the authors see reflected in *dajare* occur not just in Japanese but also cross-lingually.

Guidi (2012) holds that punning can be defined, in part, by a set of phonological criteria concerning the permissible processes (addition, deletion, substitution, transposition), positions (initial/onset, central/nucleus, final/coda), domains (phoneme, syllable, word boundaries, stress or tone patterns), and degree of manipulation (i.e., the number of affected elements) involved in transforming the target. She tests the universality of each of these criteria against a corpus of 209 puns spanning 12 typologically diverse language families. On a general level, she finds that no processes, positions, and domains can be conclusively excluded from a cross-lingual definition of punning, but that manipulation is tendentially realized within an absolute threshold of five elements.

3.2.3 Summary

Though the analyses and models of phonological similarity presented here differ in their scope, methods, and findings, we can observe a few general trends. First, it seems clear that standard distinctive features, at least insofar as they are articulatory and not acoustic, are by themselves inadequate for modeling sound similarity. Perception of sound similarity works rather on a psychoacoustic level. While all studies confirm the phoneme as the main subunit of corresponding pairs, some contrasts can be explained only by models that account for the phoneme's environment (in terms of its surrounding sounds or its position within the word

or syllable) and for the fact that feature salience depends on both the feature in question and its phonemic context.

When looking specifically at pun–target contrasts in English, there is a general consensus that the quality of vowels is more violable than that of consonants, with vowel substitutes usually having similar height and backness. There is an overwhelming preference to maintain the number of syllables, and in light of phonotactic constraints on syllable structure, this makes vowels resistant to both insertion and deletion. Any change in lexical stress is extremely rare. Contrasting segments are most likely to be found at or near the pun's extremities, with a slight preference for the beginning. Among consonants, stops have the highest interchangeability, followed by stops and fricatives sharing the same place of articulation. In both English and Japanese puns, voicing is often substitutable in otherwise identical consonants; changing the place or manner of articulation incurs a greater cost.

4 Conclusion and Current Debates

Pun taxonomies are easy to conceive at the surface level, given well-established linguistic tools. Deeper distinctions, like those between better and worse puns, are at the cutting edge of current research, especially where empirical. For example, the debate around homonymous vs. polysemous puns as in principle differing in funniness has not been determined to be futile, but neither has it been empirically operationalized and tested sufficiently to be considered understood.

A principal contribution of this chapter has been to describe the variety of phonological factors at play in the creation and comprehension of imperfect puns. We have introduced the concept of phonological similarity and surveyed some notable attempts at modeling and quantifying it. We have also covered a number of corpus-based studies of puns that have sought to capture the phonological processes and constraints involved.

In general, as discussed elsewhere in this handbook (Aarons, 2017), a pun must also be semantically well-formed, having two opposed and overlapping scripts that the listener (or reader) recognizes as humorously ambiguous. However, semantic incongruity and phonological similarity are not the only factors affecting the recoverability of a pun's target. A number of the studies we cover (Lagerquist, 1980, pp. 188–191; Hempelmann, 2003, chap. 6; Takanashi, 2007) point out that target recovery may also aided by some combination of orthographic, morphological, syntactic, and pragmatic cues, and by the listener's real-world non-linguistic knowledge.

The present state of the art suggests a number of avenues for possible future work. In particular, it is not yet definitively established to what extent the individual phonological constraints and processes observed in punning are universal vs. language- or language family–specific. Broad-coverage and in-depth corpus analyses have so far been carried out only for English and Japanese; Guidi's cross-lingual study, while ambitious in its scope, does not employ a statistically representative data set. Another partly open research question is the phonological distinctions between puns, other forms of wordplay, and phonological-lexical errors. A phoneme- and feature-based comparison of puns with malapropisms and spoonerisms is presented in Sobkowiak (1991), but there is considerable room for extension here in terms of scope and methodology.

From the perspective of implementation, two of the most important applications are the computational generation and detection of puns, which have use cases in human–computer interaction, machine-assisted translation, and the digital humanities (Hempelmann, 2008, pp. 336–337; Miller & Gurevych, 2015, pp. 719–720). Existing pun generators can produce only homophonic puns (e.g., Binsted & Ritchie, 1997) or else use simple, paronomasically ignorant models of phonological similarity (e.g., Hong & Ong, 2009). The integration of a phonological distance function tuned on puns, such as Hempelmann's (2003), could allow such generators to evaluate

and select phonologically plausible paronyms. The situation with pun detection algorithms is similar; current systems rely largely on syntactic cues or else deal only with homographic puns (Miller & Gurevych, 2015). Here again, implementing and integrating a phonological model of punning could help such systems recognize heterophonic puns and recover their targets.

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9

Script-Based Semantic and Ontological Semantic Theories of Humor

Victor Raskin

Introduction

This chapter deals with two of the three major linguistic theory of humor, the script-based Semantic-Script Theory of Humor, or SSTH, and the Ontological Semantic Theory of Humor, or OSTH. Normally, all the three theories are mentioned together, but there is a very good reason to discuss the General Theory of Verbal Humor separately, and we do—in a separate chapter. SSTH, the first generation of the linguistic theory of humor, was a purely linguistic application of semantics to verbal jokes. OSTH, the latest, continues the enterprise on the advanced foundation of the latest theory of linguistic semantics. But the General Theory of Verbal Humor (GTVH) was an attempt of an interdisciplinary theory, including linguistics but not limited to it. The linguistic component of GTVH has evolved from initial script semantics to the full-fledged ontological without necessarily modifying the relations between the linguistic components of GTVH, mostly Script Opposition and Language, and the other four—even though, as ontological semantics expands to cover more and more information, this may change as well.

This chapter will address a number of issues, and the transitions may be sharp. We will start, unavoidably, with the doctor–lover joke, discussing it informally and transitioning into treating it theoretically, within SSTH. We will then address the issue of what the theory is and how it goes about its business, from SSTH and up. We will address the theory and practice of ontological semantics without humor and, following that, its application to humor. We will then address more complexity in humor, analyzing another joke informally and then theoretically. Space permitting, we will finally address the currently hot issue of detecting scripts computationally on the basis of their formal definition. We will have addressed the issue of formality a number of times by then.

Script-Based Semantic Theory of Humor (SSTH)

Most active humor researchers are SSTH-aware and cite it whenever convenient. For most, it is a matter of politeness rather than of intellectual necessity, and they hardly ever need to go beyond

SSTH. So it is a matter of common knowledge that a joke is formed by an opposition of two scripts. Most find it easy enough to identify the scripts forming a joke, but some are stumped.

So, here is the joke:

> "Is the doctor in?" the patient asked in his bronchial whisper. "No," the doctor's young and pretty wife whispered back, "Come right in!"

Taken from an ordinary American joke collection of the 1930s, it was an excellent example to analyze: it is not sophisticated or too subtly organized, it is easy to get, it shows the seams. It is also not excessively funny but that comes with the territory. Unimportantly perhaps, it is medically incorrect: patients lose their voice not from bronchitis but rather from pharyngitis, the inflammation of the pharynx, which is where the vocal chords are. It is an interesting fact that will be ignored by SSTH that the use of the correct adjective would actually kill whatever is funny in the joke.

So, the joke starts, rather elliptically, from a question asked by a patient, apparently after the doctor's wife opens the door, responding to his ringing the doorbell. The patient, whose gender is conveniently pointed out by the personal possessive pronoun, needs a health service. His inquiry about the doctor's availability is answered in the negative. End of story? If it did end there no humor would occur. But, incongruously, the doctor's wife invites the patient to come in. Any explanation for that, such as the doctor's imminent return or an unrelated request to help her with the light bulb, would remove the incongruity but she is not helping.

The incongruity, then, needs to be removed by the patient and hearers/readers of the joke by themselves. The first, the seemingly obvious script, or situation, is a man with a health problem who appropriately seeks help by attempting to see the doctor for his condition. There, the patient is defeated. Then he—or at least, the consumer of the joke—realizes that the situation can be seen differently: there is a man in the company of a young and beautiful woman whose husband is not home and who invites the man to join him without stating the purpose for doing so. Adultery seems to assert itself as a definite possibility, probably encouraged by her possible misunderstanding his whisper as a sign of intimacy rather than that of an illness. The words *doctor, patient*, and *bronchial* strongly evoke the health service situation while *young, pretty*, and *come right in* suggest a sexual situation, as does *wife*. Think the 1930s!

An explanation of the joke that is quite similar to this one can be elicited from any number of ordinary humor customers, probably both producers and consumers. A different joke would generate a different story. A theory is about generalization. So, SSTH claimed that any joke, like this one, is fully or partially compatible with two different scripts, and those scripts are opposed in a certain way. Scripts are presented as structured chunks of information about the world. Going to a doctor is an organized sequence of actions, complete with preconditions and effects, and including a sequence of actions (in the joke, calling ahead was, obviously, omitted). Similarly, having or starting an affair with a married woman also involves a series of actions, including the secrecy from her husband.

Scripts may be presented in a number of ways, including the simplified format from my early SSTH writings (1979; 1985):

Doctor
Subject: [+Human] [+Adult]
Activity: > Study medicine
= Receive patients: patient comes or doctor visits

doctor listens to complaints
doctor examines patient
= Cure disease: doctor diagnoses disease
doctor prescribes treatment
Place: > Medical School
= Hospital or doctor's office
Time: > Many years
= Every day
= Immediately
Condition: Physical contact
Lover
Subject: [+Human] [+Adult]
Activity: Make love
Object: [+Human] [+Adult]
Place: Secluded
Time: > At least once
= Regularly
Condition: If subject or object married, spouse(s) should not know

(When first launched, the second script included gender specifications, the opposite for the two adults, thus limiting the script to heterosexual relationships and marriages.)

First, SSTH launches an ordinary script-based analysis of a text (see Raskin, 1985, pp. 80–93) on the text of a potential joke and determines whether the first condition in (4) is met.

The SSTH Main Hypothesis:

(i) The text is compatible, fully or in part, with two distinct scripts;
(ii) The two distinct scripts are opposite in a special predefined sense.

Thus, the script-semantic analysis of (iii), a version of the joke, will yield two distinct scripts pretty much like the ones in the Main Hypothesis. The first script will be strongly suggested and reinforced. But after the last sentence, it has to be rejected and replaced by the second one, for which the evidence has been surreptitiously accumulated already. Note that this repeat explanation of the joke does not mention any specific scripts, so it describes the next four jokes as well. It is a theoretical generalization. The other texts are also all jokes, and the beginning of this paragraph explains them just as well. The distinct scripts each of them is compatible with increase both in their sophistication (reaching the level of a prestigious cultural allusion to "Swan Lake" in (v)) and in the manner in which they are introduced and in which the switch from Script 1 to Script 2 is triggered.

(i) He is a man of letters: he works in the Post Office.
(ii) The first thing that strikes a visitor to New York is a car.
(iii) "Is the doctor at home?" the patient asked in his bronchial whisper.

"No," the doctor's young and pretty wife whispered in reply. "Come right in."

(iv) What do you call it when a blonde dyes her hair brown? Artificial intelligence.
(v) Sigmund is astounded to see that she is part swan and part woman—unfortunately, divided lengthwise.

The special script oppositions are given in the representative list in (6), and it turns out that there are very few basic types of them (Raskin, 1987 lists under 20 of them rather exhaustively):

(6)

If Script 1 is:	**then Script 2 is:**
actual	non-actual
normal	abnormal
possible	impossible
good	bad
life	death
non-sex	sex
money	non-money
high stature	low stature

Because a list like this was not needed in or used in linguistic semantics then, its use as a resource in SSTH made the latter not a rigorous application of linguistic semantics but rather a legitimate and carefully defined metaphorical extension of it (cf. Raskin & Weiser, 1987, pp. 260–261). Ontological semantics would change all that.

SSTH would have probably not hit the theoretically and linguistically naïve humor research community (the term "linguistic humor" meant puns for most!) if it did not come as firmly established as it did. First, the nature of an application of one field to another was introduced, with an emphasis on linguistic applications to other fields, e.g., to humor research, and it brought its specific dos and don'ts. Then a humorless script-based semantic theory was presented without any humor in sight. And then it was applied full blast to humor, resulting in human-like explanations. The readers were challenged to produce counterexamples to the Main Hypothesis, and this has not happened yet. Theory was back in with a vengeance, and it was not easy to dismiss. To some distinguished colleagues' dismay, "linguistic imperialism" was in (Giselinde Kuipers, public statement, ISHS at Forli, 2002).

Over the years, Raskin (1999; 2001; 2012; & now Attardo & Raskin, 2017) established a number of metatheoretical statements about theory. Every theory is a set of statements, divided into six subsets. The main subset is a set of statements that define the body of the theory. It is the body that people normally associate with a specific theory. Thus, Sir Isaac Newton's theory of gravity is known primarily for the number *g* and Einstein's stolen theory of relativity as $E = mc^2$. No theoretical body can be understood correctly, however, without explicitly addressing the five other subsets of statements, namely:

- The purview, or the phenomena that the theory takes on itself to deal with—or what it is the theory of;
- The premises, the implicit axiomatic statements that the theory takes for granted—these are not stated clearly by many theories and cause most misunderstanding;
- The goals, or the final results of the successful formulation of a theory;
- The methods of falsification, or the clearly stated hypothetical situation that would prove the theory wrong, a counterexample—we follow here Karl Popper's (1972) view that a hypothesis that is unfalsifiable in principle is not only not a theory but is actually a faith, a religion: this includes Marxism, phenomenology, and the European conviction that everything coming from America is all great (or disgusting);
- The methods of justification/evaluation, or a set of statements on how to check the veracity of the body statements and, wherever possible, on how to compare the theory to its competition, if any.

A well-developed, mature, self-aware, and therefore usable theory is characterized by the following properties—it must be and actually is:

- Adequate, if it provides an accurate account of all the phenomena in its purview;
- Effective, if it comes with a methodology for its implementation;
- Formal, if it submits itself to logical rules, whether it does or does not use a specific formalism—confusing formality with formalism is one of the worst and unfortunately common offenses in discussing a formal theory;
- Constructive, if that implementation can be completed in finite time;
- Decidable, if there is an algorithm for its implementation in principle;
- Computable, if this algorithm can actually be demonstrated;
- Explicit, if it is fully aware of all of its components and provides a full account of each of them.

We will need to address the formal/computational qualities of theory later, in connection with computationally savvy ontological semantics, which is computationally ready. At this point, humor theory can be described as having the following components:

- Body: the main hypothesis that the text of a (potential) joke is compatible, in full or in part, with two opposing scripts;
- Purview: textual humor, most easily applicable to short, canned jokes;
- Premises: mostly that a text can be recognized as humor-carrying in the process of normal linguistic semantic analysis within a certain approach and understood the way humans do;
- Goals: mostly to account for how each joke works, which amounts to understanding it the way people do and going beyond that to a full explanation, the way people don't;
- Falsification: a joke that is not based on overlapping and opposed scripts—not yet produced, it appears;
- Justification: see Ruch et al. (1993) on a successful psychological experiment that bore out most of the GTVH claims.

Ontological Semantic Technology (OST)

Ontological Semantic Technology, the much improved development of the Ontological Semantics of the 1990s (Nirenburg & Raskin, 2004) is a theory, methodology and technology for representing natural language meaning, automatic transposition of text into the formatted text-meaning representation (TMR), and further manipulation with TMRs for reasoning, and inferencing, both theoretically and in a growing variety of applications. Information about the world comes from the OST ontology, a constructed model of reality, a theory of the world. It is a highly structured system of concepts covering the processes and objects, linked by properties in all of their pertinent complex relations, to the grain size determined by an application or considerations of computational complexity. The OST ontology divides the root concept into events, properties and objects, as shown in Figure 9.1; EVENTs as in Figure 9.2; OBJECTs as in Figure 9.3; PROPERTYs as in Figure 9.4.

Figure 9.1 Top level of Ontological Semantic Technology ontology

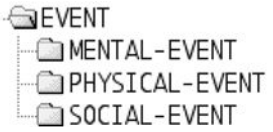

Figure 9.2 The event hierarchy in Ontological Semantic Technology

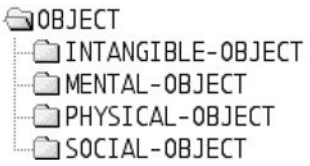

Figure 9.3 The object hierarchy in Ontological Semantic Technology

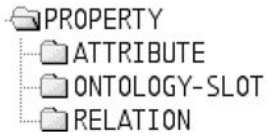

Figure 9.4 The property hierarchy in Ontological Semantic Technology

And it goes many levels down, dozens in the well-studied domains.

Formally, then, the ontology is a lattice of conceptual nodes, each of which can be represented as:

concept-name

(property (facet(property-filler))$^{+}$)$^{+}$

property-filler

concept-name | literal value | defined entry from a proper name dictionary

In other words, a concept has one or (usually) more properties. The OST ontology is not a mere taxonomy: concepts are connected to each other through properties that are not necessarily of the IS-A type. Every concept but the root ALL has the property IS-A, and the value of the property is the parent of this concept, the higher node—so the concept MENTAL-EVENT, a child of EVENT, is, on partial view, as follows:

mental-event

is-a event
(property (facet(property-filler)$^{+}$)$^{+}$)$^{+}$

Here is a typical, albeit simplified, example of an ontological concept with its properties:

go

is-a motion-event
agent animal

instrument	body-part, vehicle
source	location
destination	location
start-time	temporal-unit
end-time	temporal unit

The ontology is property-rich, for a huge descriptive and explanatory power, but parsimonious, staying comfortably under 10,000 concepts. The comprehensive coverage claim and the numbers game of taxonomies posing as ontologies are borne out by the lexicon, which is supposed to have tens or even hundreds of thousands of entries, even though it does not store all multi-word expressions as entries but rather only those whose meanings are not compositional, i.e., not directly combinable from the meanings of the components. The OST ontology contains the minimum number of conceptual nodes that is sufficient to represent the meanings of all lexical entries in these terms. Consequently and highly desirably, it has a couple of orders of magnitude of fewer entries—usually, in the single digits of thousands. The OST ontology is, then, in an important sense, a hybrid actual and virtual (potential) ontology, with a built-in descriptive/explanatory mechanism, based on a rich inventory of properties.

A lexical entry, much simplified, with all but syntactic and semantic information omitted, anchored in the concept GO, will look like this:

[engl] drive-V1

]

syn-struc

subject	
root	*$var1*
cat	*np*
root	*$var0*
cat	*v*
directobject	
root	*$var2*
cat	*np*
opt(+)	

sem-struc

go	
agent	^*$var1* human & adult
instrument	^*$var2* car

A SYN-STRUC provides syntactic and normalized order of the words in the sentence relative to the defined word. SYN-STRUCs are used in processing when the SEM-STRUCs by themselves do not contain enough information to select the best senses of the words and the intended meaning of the sentence. A SYN-STRUC, then, provides auxiliary clues to the automatic understanding of the sentence. For example, in the sentence *A mouse ate a cat* (unlikely as it seems), it is the SYN-STRUC that helps determining that the cat was consumed by the mouse, and not the other way around, as the SEM-STRUC may actually suggest. The variables indicate words or phrases in the sentence or clause and are connected to the SEM-STRUC, which binds them to their meanings.

A simplified TMR for the following sentence may be represented as
Mary drove from Boston to New York on Wednesday

go

agent	*Mary*
instrument	*car*
source	*Boston*
destination	*New York*
start-time	*Wednesday*
end-time	*Wednesday*

It should be noted that both SEM-STRUC and SYN-STRUC contain only essential information for the lexical entry. For example, for the sense of *eat*, it is important to know who ate and, possibly, what was eaten. For the sense of *drive*, it is important to know who drove. The time, the origin and the destination are not necessary for the definition of *drive*, and therefore absent from the definition of the lexical entry.

Also notice that there is no information about the car in the sentence. The car is implied from the knowledge stored in the ontology: we assume that a person drives a car, unless it is otherwise specified. Such assumptions are marked with default facet in the ontology. The facets, which we will not discuss here any further, establish a hierarchy of property fillers from defaults to marginal.

The central component of computing text meaning representation (TMR) is an analyzer that uses the lexicon and ontology to interpret natural language text. The depth and breadth of representation may vary from near-human to whatever is required by an application. For humor, the breadth and depth will go well beyond material reality to include a three-legged chicken, talking animals, returning from the dead, flying to Jupiter, and any other elements of joke reality. This may sound daunting but, in real fact, expanding reality that way is akin to expanding the general OST ontology to any specific application, such as the area of the human genome, for which the shallow Gene Ontology (actually, a flat taxonomy) includes almost a million and a half chemical compounds.

The lexicon consists of senses of words and phrases of the natural language that were used in the input text. While the lexicon contains morphological, syntactic, and semantic information, we only concentrate here on the semantic part, as it is this part that is mapped to the ontology. Suppose we are trying to interpret a sentence, *A cat ate a mouse*. As easy as it seems for a human, the computer has to consider all senses of *eat, cat* and *mouse*. According to the OST English lexicon, there are several senses of eat (including phrasals): to gradually erode, to eat outside home, to ingest for nourishment, to fear, and to swallow. There are only 2 senses of mouse: a computer input/output device and a rodent, and just one sense of cat. The semantic structures of the senses are as follows:

```
(eat
       (eat-v1
       [. . .]
              (sem-struc
              (eat
                     (agent(value(^$var1)))
                     (theme(value(^$var2))))))
```

```
        (eat-v2
        [. . .]
              (sem-struc
                    (meal
                          (agent(value(^$var1)))
                          (location(sem(restaurant))))))
        (eat-v3
        [. . .]
              (sem-struc
                    (dissolve
                          (precondition(value(^$var1)))
                          (theme(value(^$var2))))))
        (eat-v4
        [. . .]
              (sem-struc
                    (swallow
                          (agent(value(^$var1)))
                          (theme(value(^$var2))))))
        (eat-v5
        [. . .]
        (sem-struc
              (fear
                    (precondition(value(^$var1)))
                    (experiencer(value(^$var2)))))))
(mouse
        (mouse-n1
        [. . .]
              (sem-struc
                    (computer-mouse)))
        (mouse-n2
        [. . .]
              (sem-struc
                    (rodentia))))
(cat
        (cat-n1
        [. . .]
              (sem-struc
                    (cat))))
```

Using the syntactic information in syn-struc (which is not shown), the variables from the sem-struc are mapped to words in the sentence according to their syntactic constraints. Additionally, sense-v2 is discarded, as it does not contain the second part of the phrasal, namely the word out, which is needed to activate the sense. We are left with four senses of *eat*, two senses of *mouse*, and the one sense of *cat*. Combining the syn-struc and sem-struc information, we have the following hypotheses for the simplified interpretations of the sentence:

1. eat(agent(cat))(theme(rodentia))
2. eat(agent(cat))(theme(computer-mouse))

3. dissolve(precondition(cat))(theme(rodentia))
4. dissolve(precondition(cat))(theme(computer-mouse))
5. swallow(agent(cat))(theme(rodentia))
6. swallow(agent(cat))(theme(computer-mouse))
7. fear(precondition(cat))(experiencer(rodentia))
8. fear(precondition(cat))(experiencer(computer-mouse))

The definitions of concepts EAT and SWALLOW are shown next. The concepts FEAR and DISSOLVE are omitted as, according to the ontology, CAT is not an acceptable PRECONDITION of either of them. In other words, PRECONDITION(FEAR1, CAT1) = 0. The concept EAT is, of course, represented, in the English lexicon, by the word *eat3*.

```
(eat3
      (definition(value("to eat and drink")))
      (is-a(hier(survival-event)))
      (agent [inherited from parent concept] (sem(animal, human)
      (effect(sem(defecate)))
      (theme(default(food))
            (sem(animal plant)))
      (has-event-as-part(sem(bite chew digest swallow)))))
(swallow
      (definition(value("to swallow")))
      (is-a(hier(immerse)))
      (end-location(sem(stomach)))
      (path(sem(esophagus)))
      (part-of-event(sem(eat)))
      (agent(sem(animal)))
      (start-location(sem(mouth)))
      (theme(default(food))(sem(animal plant))
      (relaxable-to(physical-object))))
```

To an ontological semanticist, there are technical problems here that may not be visible to a humor researcher who is not attuned to weights and fuzzy membership values. What should be clear to all, however, is that some interpretations of sentences are much less likely than others, ranging from the values 0 to 1. These are important to calculate in order to weed out the least probable TMRs representing their meanings. If a reader is satisfied with this general explanation, the next three paragraphs can be ignored. But understanding them will indicate a better penetration into the powerful computational mechanism of the theory.

It is interesting that the THEME of EAT is not in linear ordering: neither ANIMAL nor PLANT subsumes FOOD, thus there are no objects with membership value range of (0.75, 1), calculated according to the fuzzy semantics formula of Raskin and Taylor (2009). While it was unclear yet what the best solution was then, we included FOOD in SEM, along with ANIMAL and PLANT, thus subsuming DEFAULT in SEM, and we declare their common subsumer as RELAXABLE-TO. Another promising direction in reducing non-linear ordering to the simple subsumption case for the three facets can be illustrated on the same example as follows. Let A be the set of all possible agents of EAT, T the set of all its possible themes, and A × T the Cartesian product of these two sets. For each agent a ∈ A the DEFAULT facet of EAT will correspond to the smallest subset

of <a, t> pairs, where t ∈ T, subsumed by the SEM subset, subsumed in turn by the entire A × T for RELAXABLE-TO.

To test the first of the eight TMR hypotheses, we need to check the membership value of RODENTIA as a THEME of EAT and the membership value of CAT as an AGENT of EAT. It can be easily seen from the definition of the concept EAT, that ANIMAL is a legitimate THEME with a facet SEM, and because RODENTIA is a descendant of ANIMAL, EAT, (THEME (ANIMAL))] (rodentia1) ≥ 0.75. ANIMAL is inherited as an agent, therefore, EAT (AGENT (ANIMAL))] (cat1) ≥ 0.75. Thus, the first hypothesis holds, and the membership value is determined based on the minimum of both interpretations.

To test the second hypothesis, we need to check if COMPUTER-MOUSE is an allowed THEME of EAT and if CAT is an allowed AGENT of EAT. We already know that the latter is true; [EAT (THEME (FOOD ANIMAL PLANT))](computer-mouse1) = 0.

Thus, the second hypothesis returns 0, and this interpretation is not valid. The same calculation is used for the fifth and sixth hypotheses:

```
min    {I [SWALLOW (AGENT (PLANT))] (cat1),
       I [swallow (theme (animal physical-object plant
       FOOD))] (rodentia1)}≥ 0.75
min    {I [SWALLOW (AGENT (ANIMAL))] (cat1),
       I [swallow (theme (animal physical-object plant
       FOOD))](computer-mouse1)}≥ 0.1
```

The exact membership value is not important here but can be easily calculated based on the hierarchy. Thus, only three interpretations out of six are acceptable, with swallowing the computer-mouse having the least degree of membership.

This is about as technical as we can go here, with huge apologies to those with a lower mathematical tolerance. Let us see now what OSTH can do with this apparatus and what it should add to humorless OST.

Ontological Semantic Theory of Humor (OSTH)

OSTH is still nascent (Raskin et al., 2009), and some of its components are not yet developed and tested—at least not computationally—in detail. What is important to understand is what OSTH adds to the premises and body of humor theory. The powerful premise is that it aspires to model and represent the entire understanding of text by humans rather than trying to avoid that by capturing some non-semantic properties of text, such as the hidden statistics in machine learning. We strongly believe that the real understanding of humor is possible only on top of complete and comprehensive understanding of text. This belief is shared by very few scholars as of now, because most are daunted by the prospect of defining and representing all meaning. We assume, however, that the computational applications will continue to be driven by the urgent need in massive text analytics, where reducing the degree of understanding text to syntax, parts of speech, and similar low-hanging fruit fails the task of text analytics that is essential for the government, military, and industry.

There are several important items in the body of OSTH. First, it introduces a technique for a comprehensive meaning representation for text. This includes a complete TMR for each sentence pretty much along the lines of the previous section, and I made the difficult decision not to list it here because of the difficulty, for humans, of its graphic iterative representation, which is, of course, no problem for the computer. This is the best-developed part of OST, as it

currently stands. The progress in this direction, while inevitable and imminent, depends, pretty mechanically, on the amount of manpower and, thus, on the funding support. As with all other parts of OST and OSTH, what is established is the algorithmic feasibility of the program; that is, it is known that it is doable and exactly how it is to be implemented. Moreover, we can count the cost and, according to it, the timetable as dependent on the available funding.

When every sentence is TMR-ed, a small suprasegmental reasoning module takes over. For the initial joke, it gathers the incongruity element: the patient is invited to come in, while this will not ensure the attainment of his goal because the doctor is not in. What is not yet developed in OST and, thus, unavailable to OSTH, is the enablement of the search for another script that is compatible with this element and, therefore, loses its incongruity. If this brings up the memories of incongruity resolution in the psychology of humor circa 1950–1960s, there is not much harm in that as long as it is suitably quickly forgotten. Otherwise, again, it is doable, especially if we start with an inventory of the most popular types of script in the OST-revealing form of representation. The other script will emerge as requiring the absence of a certain person for realization: other than in the sophisticated modern world can the presence of the other spouse be allowed for the script to realize. Even the Ashley Madison website attempted to secure the information from the cheated-upon spouses.

Humans need the entire knowledge of the world to understand language. Humor adds unreal things to the material reality. To analyze and represent humor, the agent of this process cannot miss any element. The semantic challenge is, therefore, quite ambitious, and it induces fear of semantics. The anti-semantic zeal of the largely non-linguistic and pretty completely non-semantic community is fed by the lack of knowledge and understanding of what meaning is, but a large part is different: it is the culture of the robotic arm at the 1920s' conveyor belt, where a purely mechanical emulation fulfills a human action. For many, this is what engineering is about, and this steals from the real notion of computer intelligence: intelligence cannot and should not be emulated mechanically. The nascent cognitive computing is attempting to change that. OST is an advanced realization of this approach and neither it nor OSTH will ever see anything that humans know or do too complicated to handle.

Two generations ago, before the computers made much more knowledge attainable, the first theoretical semanticists worthy of the term (Katz & Fodor, 1963) backed away from the task of representing and "structuring" human knowledge of the word and thus denied their semantic theory the substantive, empirical basis, without which it remains a re-labeling exercise. A generation later, the former co-founder of one of the least intelligent, barely high-tech giants made an extremely ambitious attempt to do exactly that (it failed only because of the math-genius founder's inability to process language material). A little later, this enterprise was, equally ineptly, open to crowdsourcing. But it is coming, and humor research is an excellent testing ground for it—as long as we have the know-how, and we do. Expanding ontology to any application is no more than a six-person-month affair at under $20,000 for graduate-student labor, and everything has to be done only once for everybody else to use.

A Little More Complexity

Most jokes are probably as or more simple as the joke earlier in this chapter. But others may be more complex. Let us look at one of those and see what difficulties OSTH may encounter there. We will, again, start the discussion from an informal analysis.

Three American men, a Pole, a Jew, and a WASP, found a bottle with a genie in it on the beach. The genie offered them each a wish. The Pole said that he would like to move to Poland but not the way it was then (the 1970s), wrecked by communism, but a free and prosperous

Poland. And he was gone. The Jew said that he would like to move to Israel but not to the besieged, endangered place it was but rather to a safe, peaceful place, in good relations with its neighbors, and stable economically, politically, and in every other respect. And he was gone instantly as well. "How about you?" asked the genie impatiently, "I must be off, you know." "Is the Pole really in a kind of Poland that he wanted?" the WASP asked. "Yes, of course," answered the genie. "And the Jew in a peaceful Israel?" "Yes!" "Are they really gone?" "Yes, they are," answered the genie angrily. "Give me your wish, please!" "Okay," said the WASP, "May I have a diet Coke?"

What happens in this joke is slightly more complicated than in the joke where the doctor's wife, incongruously, invited the male patient, seeking to see her husband for his health problem, to "come right in" while her husband is away. Related in the American favorite three-stroke narrative, the diet Coke joke gives us the first man's wish that requires the change of his (or his ancestors') native country from ruined to prosperous. It is followed by the second man's wish that requires peace in the Middle East, a standard in Western humor for an impossible task. The wishes are granted, and the two men are gone to those much-improved countries.

We have been set up for the third man's wish: we are led to expect to involve, by analogy, a serious transformation for his country. Will he ask for ridding it of crime, drugs, cancer, poverty? He is taking his time and then making sure that his Polish and Jewish countrymen are gone. Reassured on that count, he surprises us by asking for a diet Coke, something he can get for a tiny amount of pocket change around the corner (it is, of course, a beach with a corner).

The surprise element in humor has been noticed at least since Kant, who also talked about the juxtaposition of two very different situations as the cause of this surprise, and all the components of that are present in the joke: the third man's wish is different than that of his two friends' in content and especially in scope. So is this what constitutes the joke or is there anything else? With this juxtaposition and its surprise alone, we may still conclude that what is implied—the "message" of the joke—is that the American's country does not need any improvement for him to stay in it, and this is why he chooses a trivial request. But there is something else in the text: while seeing for himself that his friends are gone, he demands reassurance from the genie that it is indeed so, and the trivial request follows immediately after he is satisfied that the Pole and Jew are gone. We "get" the additional implication that America does not need improvement after it is rid of those "ethnics." The joke comes through then as an anti-immigrant one—at least hostile or rejectionist with regard to more recent, less established immigrants than the *Mayflower* descendants or those who like to think of themselves as such.

What else does the joke evoke? The mention of a Pole brings forth, in an experienced humor consumer's mind, the ethnic jokes about Polish Americans, who are standardly, though factually incorrectly, represented as dumb (see Davies, 1990). This parallel is actually rather unhelpful here: the Pole is doing nothing dumb, and this is a dead end. In a similar joke, the Pole goes last and, after his friends have their wishes to be elsewhere satisfied by a genie, the Pole says that he misses them already and wishes them to be back with him on the uninhabited island. In fact, the diet Coke joke is clearly not optimized: while the American is essential for it, the choice of ethnics is not fully justified—a Jew may be a perennial outsider but the "Jewish question" is much more of a European than American phenomenon, and the American in the joke must be a skinhead in order to count the Jewish presence in America to be crucial for its being a desirable place to live, and a Pole is simply anachronistic. Speaking of which, putting the joke in the pre-1960s time frame, the ethnics should have been a Black and a Jew, while bringing it closer to the present time; the Pole and Poland should have been replaced by a Mexican and Mexico, given the intensity of the Hispanic immigration conundrum in American politics of the recent decades.

Even more remotely, the joke may evoke a whole layer of three-nationality jokes that all share the three-stroke narrative structure and use the well-established ethnic stereotypes for mostly West Europeans (British, formally polite; French, lovers; German, literally methodic; Italian, foodies) and an occasional Central (Romanian, will do anything for money) and East European (Russian, heavy drinker [male], inept in love choices [female]). This will probably underscore the perception that none of the three characters in the diet Coke joke relies on any customary stereotypes, thus lowering the quality of the joke or at least of its verbalization for a demanding and experienced consumer.

With all of these dead-end analyses around, how can OSTH do it right? The answer depends on whether humans get it right, and if they do, OSTH must make the same knowledge represented in the humor expansion of the OST ontology. The unexpanded serious ontology knows that WASP is the acronym for white Anglo-Saxon Protestants in America, not the first but pretty early inhabitants of the white colonial settlements. The founders of the country used to have a lot of advantages, including the early great fortunes, now with all of that in decline. The humor expansion will add the condescending attitude to all us "ethnics" that may survive the exclusion of Blacks and Jews from clubs and neighborhoods. It would not be that hard at all to add that to the ontology, and the system will get it. Basically, one should go over a large corpus of diverse jokes and capture, in the ontology, all these pieces of knowledge and pseudo-knowledge that humans possess and activate in getting these jokes. This will definitely include such false stereotypes as the dumbness of Polish Americans or the giant genitals of Texans (cf. Raskin, 1985, chaps. 5–6).

Scripts

The transition from SSTH to OSTH and from a simple script-based theory to formal and computational ontological semantics was correlated to establishing a connection between human and artificial intelligence. To represent and simulate human knowledge in and for the computer, we needed to understand what and how people know things. And then the real challenge is to represent that knowledge, in all of its connections, rather than replace the most visible actions with mechanical motions. The *New York Times* Tuesday Science section does not know and understand the difference, and dumb, non-meaning-based techniques like machine learning encourage that, but more and more senior scholars lament the loss of big issues in cognitive science and artificial intelligence.

The first consumers of SSTH easily accepted the notion of scripts and started using the approach to their benefit. It was not until the 1997 ISHS meeting in Edmonds, Oklahoma, that Christie Davies and I, sitting together at an eager SSTH adept's paper, realized that he could not identify the easily detectable opposing scripts in his joke example. Later, it was reported to us that Neal Norrick had reported difficulties with that. It was then that I realized that I was not sure I could help people who did not seem to know the correct scripts: my expertise consisted of "y'knows."

When working on a commercial implementation of the first version of OST, we paid particular attention to TMR failures. When the TMR fails the human engineer initiates the blame-assignment procedure, and that often diagnoses a common-sense failure, in which case a common-sense rule may be added to the Resource block. The rule may state, for instance, that one gets dressed before leaving home, and the rule, thus, supports an inference that people are dressed outside of their homes. The common-Common-Sense Rules block is, thus, the only place in OST where a whole sentence may—and does—typically appear. This is probably where scripts belong because they are also of that nature: if not common-sense rules, they are also part of our knowledge of the world.

It was rather amazing to realize in the 1970s, when frames and scripts were introduced (Minsky, 1975; Schank & Abelson, 1977), that it had not happened much earlier because human users definitely manipulate them all the time. As Schank could rely on his readers' knowledge of the script for attending a mid-to-upscale restaurant, people fully dispose of a large number of ordinary scripts as well as developing scripts for shared experience, personally or professionally. Many scripts are culture-specific: thus the US morning routine differs from the continental European morning routine in a number of ways, perhaps, but most notably in the huge distinction between an American and continental breakfast. Couples develop sex routines. Colleagues establish meeting routines, sometimes confusing the two. There are fender bender routines, shopping routines, bill-paying routines, and so and so forth.

The most obvious way of handling a script is to present it as a set of sentences, each describing an individual attempt that is part of a script. This is what I must have felt intuitively when I invented a semi-formal presentation for the doctor and lover scripts when analyzing (1) in section 1.2: a doctor was an adult human, who spent a considerable time at a medical school in the past and now sees patients, diagnoses them, and prescribes medication. A lover was an adult person, who has had sex at least once to a person of the (then) opposite sex, to whom he or she was not married. A bit more formally, something like the sequence of events may be set up to establish X as a doctor and Y as a lover (Figure 9.5).

Figure 9.6 shows an abortive attempt to incorporate scripts into pre-OST Ontological Semantics (Raskin et al., 2003) that OST has not yet picked up and incorporated. The if/then, and, and or logical operators had not, however, been actually incorporated into the system, even though Nirenburg and Raskin (2004) semi-tacitly allowed for them.

The scripts were developed for use in an application that would crawl the web and inform the officers of a company about the state of financial health of their partner companies, both suppliers and buyers. To my knowledge, such an application has not yet been implemented, and an expensive horde of human analysts provides an imperfect service. Obviously, an Ontological Semantic implementation would process the phrases and sentences into TMRs and develop a TMR-manipulating calculus for using scripts for inferencing and, more broadly, for reasoning.

Developing a TMR-manipulating calculus technically is a trivial algorithmic and programming task. Yet, inferencing and reasoning in NL, rather than in first-order logic as description

X is a doctor if and only if:

1. X went to an accredited medical school and graduated from it.
2. X passed an extended internship.
3. X was licensed as a physician.
4. X has opened or joined a medical practice or a hospital.
5. X treats patients on a regular basis by examining or listening to them, diagnosing their condition and sending them to tests or specialists and/or prescribing them medication.

Y is a lover if and only if:

1. Y is a teenager or older.
2. There is a Z of the opposite sex who is a teenager or older.
3. Y and Z are not married to each other.
4. Y and Z have had sex at least once.

Figure 9.5 "Script" for lover

APPROACH-BANKRUPTCY		
If	Or	company has cash problems
		company can't meet payroll
		company misses loan payment
		company seeks loan
Then		company may near bankruptcy
DECLARE-BANKRUPTCY		
If		company declares bankruptcy
	And	company files for Chapter 11
	Or	court appoints receiver for company
Then	And	company officers lose control
		company operates under receiver
	Or	company stops operating
		company liquidates assets
		creditors get partial payment

Figure 9.6 Two bankruptcy scripts

logic does (Baader et al., 2003), is not simple, and the difficult part, as far as scripts are concerned, is script operations. What are they?

Obviously, it is a question whose significance goes far beyond computational humor but, almost equally obviously, for people in computational humor, this field can help to establish some helpful prompts for script-using fields. One obvious exploitation of scripts in humor is the ability to mention scripts and to pretend to establish scripts, as in these two jokes, respectively.

(i) It was such a hurried morning for me that I almost burned the truffle lasagna for the kids.
(ii) Two Russian peasants chat over the fence between their outhouses early in the morning. "Ouch," one of them says. "The sun is almost up, and my cow has not been milked yet." "Nor has my woman been fucked yet," adds the other.

Similarly, in the financial world, a casual remark that a company applied for an unusual loan will bring up the much-feared specter of bankruptcy. But, then again, this may turn out to be the wrong conclusion. In spite of this and other difficulties with script operations, the initial problem is script acquisition. In Nirenburg and Raskin (2004), the complex event of TEACH is analyzed at length, setting up various sub-events. My co-author insisted on avoiding the notion of script there, and the legitimate part of his reservation was the finer grain size of that script. I had panicked when my over-enthusiastic PhD students on the soft side started talking about the scripts of life or of poetry—that was much too coarse. The fact that just about any event can be analyzed into sub-events arouses the fear of infinite regress. Not only does the joke punch line, largely lacking a counterpart in non-humorous text, help to focus on the main script opposition in a joke (Taylor, 2015), but it also establishes the appropriate grain size of the scripts.

The definition of scripts and their computed detection are a very active research field for me, and I expect more progress on it in my own work soon. But I also hope that the acute need in clarifying the notion of script in many fields will accelerate the process. And once again, humor research shows the way, if not actually leading it.

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10

The General Theory of Verbal Humor

Salvatore Attardo

Historical Perspective

The General Theory of Verbal Humor (GTVH) and the Semantic-Script Theory of Humor (SSTH) have been defined as the "two most influential linguistic humor theories of the last two decades" (Brône et al., 2006, p. 203). The GTVH was first presented in 1991, with the publication of Attardo and Raskin (1991). In 1993, Raskin and Attardo joined forces with Willibald Ruch for a study that confirmed empirically some of the predictions of the GTVH (Ruch et al., 1993). Finally, in 2001 Attardo published a monograph that expands the GTVH's scope to all types of texts. The GTVH is an expansion of Raskin's (1985) SSTH, but it is also a part of Attardo's taxonomy of textual relationships. In Attardo's taxonomy, jokes (or any other type of texts) could entertain relationships with other texts based on resemblance at the textual level, but also in relation to other texts. This finding was later published as part of Attardo (2001). These publications describe the "canonical" texts of the GTVH. Other articles, most notably in collaboration with Christian Hempelmann, as well as his solo work, expanded the GTVH further (see the "New Debates" section of this chapter).

The GTVH as a theory was elaborated using jokes as examples, for obvious reasons of ease of manipulation and collection. The adjective "general" referred to the fact that, unlike the purely semantic[1] SSTH, the GTVH incorporated phonological, morphological, etc. information (in the Language knowledge resource), text-level organization (in the Narrative Strategy knowledge resource), sociological information (in the Target knowledge resource), cognitive information (in the Logical Mechanism knowledge resource), etc. Many have erroneously taken this categorization to mean that the GTVH was limited to jokes, despite the obvious fact that Attardo (2001) expanded the coverage to many types of texts and programmatically to all types of texts, including non-linguistic ones.

The most common and unfortunate misconception has been that the GTVH presented a final say on the matter it covered. As I explained, nothing could have been further from the intentions of the authors who saw their work as staking out a research space, and openly called for research from various disciplines to explore these.[2] For example, we envisioned the narrative strategy knowledge resource as a collection of studies on various genres of humorous texts (knock-knock jokes, pseudo-riddles, single cartoon, three- to four-panel cartoons, graphic

novels, etc. spanning modalities, historical periods, means of dissemination, and whatever else anyone could think of). Instead, the common reaction has been to look at the lists of examples in the 1991 article as the complete list of all possibilities. Even when we explicitly warned that the list of logical mechanisms presented in Attardo et al. (2002) was not complete, but merely a list of those that had been postulated as of the date of writing of that article, it has been taken as the complete list of logical mechanisms.

What follows is a presentation of the GTVH and some of the work developed within its framework.

The GTVH was born out of the observation that the SSTH, despite its obvious advantages over other linguistic theories of humor, was not a complete theory. This claim was motivated by two facts. First, the SSTH does not differentiate between verbal and referential humor (simplifying, between puns and non-puns, respectively). This observation is correct, as far as the SSTH goes, because both verbal and referential jokes have the same script opposition and overlap, but verbal jokes may be characterized by their recourse to specific patterns of the signifier (the phonological/morphological/syntactic, etc. form of the utterance). These patterns do not occur in referential jokes. Hence, the SSTH misses a potential generalization. Second, there exists a relationship of similarity among jokes, such that two jokes will be perceived as more or less similar to another joke. For example, the following pair of jokes is obviously more similar to each other than to the doctor's wife joke, famously examined by Raskin (1985).

(1)

Q: What do you get when you cross a cow and a lawnmower?
A: A lawnmooer.

(2)

Q: What do you get when you cross a lemon and a cat?
A: A sourpuss.

(http://www.funology.com/mix-match-jokes/)

Once more, then, the SSTH misses a potential generalization. The GTVH was created to address these two issues, with a heavy emphasis on the second one. This solution was accomplished by the introduction of four other parameters, which, along with the script opposition, rounded up the six knowledge resources. That the knowledge resources should be six and not, say, nine, was a purely empirical matter. Quite simply, we found that we only needed six resources to account for the similarity of jokes, and for the differences between puns and non-puns. For a discussion of the proposals to add more knowledge resources, see below.

So, the main claim of the GTVH is that jokes may resemble each other along the lines of six parameters. These parameters are the resources upon which someone wishing to construct a joke from scratch would have to draw. For this reason they were called Knowledge Resources. We noted that while some of these were already quite elaborate, others were more or less new, or required the contribution of other disciplines (hence, the call-to-action aspect of the theory).

Attardo and Raskin's (1991) text is somewhat notorious due to its length and relative complexity. Much of that length and complexity come from the observation that the knowledge resources are not an unordered set, but are in fact organized hierarchically and that to the order in the hierarchy corresponds the degree of similarity perceived by the speakers. Table 10.1 presents the list of the knowledge resources and their hierarchical organization.

Table 10.1 The hierarchy of knowledge resources

Script Opposition
Logical Mechanism
Situation
Target
Narrative Strategy
Language

The connection between the hierarchy of knowledge resources and the degree of similarity was tested empirically by Ruch et al. (1993). Essentially, the degree of similarity among the jokes reflects the hierarchy of the knowledge resources, so that if two jokes differ only in Language, they are perceived as very similar, whereas if they differ in Script Opposition, they are perceived as very different. Ruch et al. (1993) make an assumption of linearity among the knowledge resources and the degree of similarity, which needs to be discussed, because it has heretofore been ignored. Essentially, and without getting into the mathematical details, a linear graph can be represented as a straight line in Cartesian coordinates (i.e., it is a linear equation). The basic assumption is that the increment from point to point is the same, if the intervals are the same. For example, if one plots a graph that has its first point at (1,1), the point at (2,2) will have the same distance from the previous point as the point at (4,4) will have from (5,5). However, outside of the mathematical representation, there is no reason to assume that the degree of difference in two jokes differing at the Language knowledge resource and two jokes differing at the Logical Mechanism knowledge resource would be the same. In fact, prima facie, one would assume the opposite (namely that some differences would be felt more significantly by speakers than others).

Then, if that is the case, why did Ruch et al. (1993) make the assumption of linearity? This is known as a simplifying assumption. The difference between a simplifying assumption and a critical one is that the phenomenon being described should not be affected by a simplifying assumption. Indeed, it is the case that the simplifying assumption on which Ruch et al. (1993) is based is benign and does not affect the conclusion. However, simplifications are still simplifications and it would be interesting to conduct studies to determine if the pair-wise differences between the knowledge resources are quantitatively the same.

The heuristic power of the hierarchy is well exemplified by Hempelmann (2003) who found that the class of "Christian" jokes was determined by very "low-level" knowledge resources, such as target and language. In other words, these are shallow classes, unlike, for example, stupidity jokes, which share a script opposition.

Core Issues and Topics

In the following sections, we will review the knowledge resources.

Language

The Language knowledge resource contains, at the very minimum, a full phonological, morphological, syntactic and lexical description of the text. It also contains statistical information about the frequency of occurrence of units and clusters of units at each linguistic level (i.e., phonemes and clusters of phonemes, as well as the frequency of occurrence of morphemes, phrases, etc.).

The minimal contents, which are what most readers will be familiar with, i.e., the phonological description is obviously motivated by the existence of puns, so that if a text includes a string of phones [rɛd] the knowledge resource needs to be able to describe this fact but also accept that it maps to two different morphemes /red/ and /read/ as in the following example:

(3) "What is black and white and [rɛd] all over?"

The knowledge resource must also handle paronymic puns, i.e., imperfect puns; see Chapters 7 and 8 on puns for a detailed discussion.

Some puns rely on morphological ambiguities, such as the following headline:

(4) Teacher strikes idle kids (Oaks, 2010, p. 97).

As Oaks notes, the suffix [-s] following the morpheme /strike/ is ambiguous between the third-person singular present tense, or the plural marker, thus giving rise to two opposite readings: the strikes of teachers force children to be idle, or a teacher hits children who happen to be idle. Note that "idle" is also categorically ambiguous (verb vs. adjective, respectively), and "teacher" is ambiguous between two interpretations, both indefinite, but one singular (a teacher) and one plural.

Likewise, jokes may hinge on syntactic ambiguity, such as

(5) A woman walks in a store and says to the clerk: "I'd like to try the red dress in the window." And the clerk says: "But, Ma'am, we have dressing rooms for that."

There are many more cases of ambiguity that are accounted for on the Language knowledge resource; see Oaks (1994; 2010) and Bucaria (2004) and references therein.

Puns of all sorts and all configurations are handled by the Language knowledge resource, but this is not all that the knowledge resource handles. As we saw, statistical information about the frequency of occurrence and co-occurrence of each linguistic unit is stored in the knowledge resource. This allows the hearer to recognize the highly marked nature of the repetition of the diphthong /ay/ in the following one-liner:

(6) Today's tabloid biography: High chair, high school, high stool, high finance, high hat—hi, warden! (Meiers & Knapp, 1980, p. 21).

As we pointed out in Attardo et al. (1994), these alliterative jokes are relatively rare (less than 1% in our sample of canned jokes) but are nonetheless part of the verbal humor family, because they are based on a manipulation of the signifier (the form) of the linguistic expressions.[3]

Finally, in Attardo (2009), I pointed out that the GTVH had had very little to say about stylistic humor because the type of texts analyzed (mostly jokes, but in the later works by Attardo [e.g., 2001] and also literary texts such as short stories, novellas, etc.) were not the type of texts that depend heavily on stylistic humor, such as, for example, Will Self's description of a rabbit as a "lapine quarry."[4] However, once frequency counts, interlinguistic puns, allusions to other literary works, and the apophtegmatic quality of the expression are taken into account, the Language knowledge resource could presumably handle this hyper-sophisticated play on words. One could of course argue that a linguistic theory should not meddle with Joyce-grade verbal play. The point here is that the GTVH could in principle handle it, not that it should.

Narrative Strategy

The narrative strategy describes the way the text is organized in terms of the distribution of its parts as well as the placement of the humor (Tsakona, 2017). For example, it is a well-known fact that many jokes consist of a narrative closed by a dialogical part, which contains the punch line. In this respect, the term "narrative" strategy was a misnomer, as it might have given the impression that the GTVH was trying to handle narratological concerns, which are mostly beyond its scope.

The narrative strategy within the original formulation of the GTVH was fairly limited in scope, because jokes tend to be short and simple texts. The kinds of examples that we used to exemplify the subject matter covered by the Narrative strategy knowledge resource were whether the joke was in a question/answer format (riddle, pseudo-riddle) and whether it included a three-step sequence frequently used in jokes because it is the smallest number of repetitions necessary to set a pattern of expectations and breaking it. The famous fellatio joke analyzed in Sacks is an excellent example of this (see Glenn & Holt, 2017).

The only study that I am aware of on one of the narrative strategies is Rozin et al. (2006), which deals precisely with the 1–2–3 pattern, which they call the AAB pattern. Rozin et al. examined a corpus of 1,157 jokes and found that 72.2% of the jokes fit the AAB pattern, whereas 20.5% displayed an AB pattern (simple opposition) and a mere 7.3% an AAAB pattern. Rozin et al. also tested for the degree of funniness of the three patterns and found that the ranking was as follows: AAB, AAAB, AB, and the differences were statistically significant. Thus, according to Rozin and others' results, not only is the AAB pattern the most economical (because two instances establish a pattern and the third instance violates it) but it would also be the funniest.

However, a very important aspect of jokes, and namely the position of the punch line, belongs properly to this knowledge resource, because, for example, Oring (1989) has claimed that the absence of a punch line in final position in the text is the defining difference between jokes and anecdotes. Strictly speaking the actual position of the punch line in the text is, of course, a matter of language, insofar as it depends on the morphosyntax of the language and is thus best handled by the Language knowledge resource. Narrative strategy is interested only in the functional position (i.e., at the end of the unit) and not in the actual placement, which is determined in part by linguistic peculiarities of word order.

In the subsequent versions of the GTVH, beginning with Attardo (2001), I introduced several concepts that also pertained to narrative strategy: the distinction between jab and punch lines, the distribution of the humor along the textual vector, and the typology of humorous texts based on the presence or absence of a narrative disruption and the presence of a humorous central complication.

Most of these concepts are more "literary" in nature so I will focus briefly on the distinction between punch and jab lines, which has been shown (Tsakona, 2003) to occur also in jokes. Essentially, a jab line and a punch line differ in their placement within the text: a punch line occurs at the end of the text, whereas a jab line occurs anywhere else. They also differ in terms of their functions: jab lines are not disruptive of the development of the main interpretation of the text, whereas punch lines often force a reinterpretation of said interpretation. Semantically, they are indistinguishable, as they both involve a script opposition.

Finally, other issues handled by the Narrative Strategy knowledge resource involve the role of narratives in conversation. Narratives, being produced as single turns, disrupt the turn-based flow of conversation. Studies have focused on ways to negotiate and secure the floor for the extended narrative turn as well as the reactions to it. GTVH-based analyses of conversational humor should take this into account (see Glenn & Holt, 2017; Schnurr & Plester, 2017).

Target

The Target knowledge resource is probably the least sophisticated one and the easiest to understand. Essentially, it addresses the fact that many and perhaps most jokes are aggressive and the aggression has a target. This is known in common parlance as the "butt" of the joke. Targets generally are human or related to human activity (institutions, practices, beliefs, etc.).

Significantly, the target is an optional knowledge resource, in the sense that it may be empty if the joke happens to be what Freud (1905) would call a "non-tendentious" joke, or, more simply, a non-aggressive joke. For example, in this joke from earlier in this chapter,

(7) Q: What do you get when you cross a cow and a lawnmower?
A: A lawnmooer.

it is hard to imagine what the target of the joke could even be: Cows? Lawnmowers? People who mow the lawn?[5] It is a far more reasonable hypothesis that the joke is non-aggressive and that the humor is associated with coincidental resemblance between the sound made by cows enriched by the derivative morpheme -er ("moo" + "er" = [muwr]) and the lexeme "mower" [mowr].

Situation

The Situation is essentially the overall macroscript that describes the background in which the events of the text of the joke take place. It should be clarified that "Situation" has nothing to do with the context of the telling of the joke. The GTVH is a theory of competence, so it logically could not encompass contextual factors, which are by definition part of performance.

So, if a joke begins with "a(n) [agent] walks into a bar . . .," the semantic storage area that collects all available information and turns it into a text world representation (Attardo, 2001, pp. 47–60) would activate the script for BAR and try to accommodate all the events in the text to the BAR script. Thus, for example, ordering drinks would fit in easily, as would the presence of a bartender, etc. Consider a non-humorous text that begins as follows:

(8) A guy walks into a bar and asks the bartender for a beer.

The (macro)script PATRONIZING A BAR is activated inferentially by the presence of the lexeme "bar" which activates directly the script BAR and by the scripts for GUY and WALK INTO something, so that the text of the first clause can be represented in a simplified form as

(WALK INTO

(agent GUY)
(location BAR)
(time present 0))

and the second clause can be represented as

(ASK

(agent GUY)
(patient BARTENDER)

(object (BEER)
(time present +1)).

The fact that the asking for the beer follows the entering the bar is both an implicature, as per Grice (1989), and follows from the macroscript PATRONIZING A BAR, which will need to specify that a bar is an establishment that is typically enclosed (hence the need to walk *into* it[6]). A very simplified macroscript for PATRONIZING A BAR will look like this:

(PATRONIZING A BAR

(agent human)
(goal1 drink

(agent human)
(object alcohol))

(goal2 socialize

(agent human)
(patient human))

(goal3 seek entertainment

(agent human))).

A full-blown macroscript would need to specify that goal1 is usually achieved by purchasing the alcoholic beverages, whereas purchasing of companionship is only achieved in a special kind of establishment not typically described as a bar. Conversely, the purchase of entertainment may or may not take place in a bar. Moreover, the facts that one pays the bartender for one's drinks, that one tips either the bartender or the waitstaff that delivers one's drinks, and so on, would also be listed in the macroscript.

Consider now the following joke:

(9) A skeleton walks into a bar and says, "I'll have a beer and a mop."

The situation is clearly PATRONIZING A BAR, which explains the fact that the agent orders a beer, because ordering an alcoholic drink is an activity performed in bars. Needless to say, the backgrounded incongruity of a walking, talking, drinking skeleton is completely unrelated to the situation. The script opposition lies in the opposition between the expected activity in a bar (drinking) vs. what is implied in the text: i.e., mopping floors (normal vs. abnormal). The logical mechanism lies in the abduction that skeletons do not have stomachs; hence the beer poured in the mouth would fall through on the floor and when a liquid is on the floor it is advisable to mop it up, lest someone slip and fall.

The situation script is a background; thus, generally speaking, it either will not be involved in the script opposition or it will provide the "normal" side of the opposition. On occasion, a joke will play precisely on the selection of the situation. Consider the following example:

(10) A guy walks into a bar and says "Ouch!"

Needless to say, this is a meta-joke that plays on the fact that the setup of the joke is completely compatible with the delivery of a standard "guy walks into a bar" joke, but the punch line reveals

an ambiguity of the phrase "walk into" (enter vs. hit) so that, combined with the ambiguity of *bar*, the *guy walks into a bar* joke is not delivered. For a more formal analysis of this joke, see Taylor (2010).

Logical Mechanism

The Logical Mechanism is the part of the GTVH that accounts for the resolution of the incongruity (script opposition and overlap). The resolution is not complete and/or real. It is a partial, playful, non-serious resolution. In fact, the Logical Mechanism may introduce other incongruities itself. Furthermore, the Logical Mechanism is the other knowledge resource that is optional. Absurd humor is usually regarded as having no resolution.

In simple terms, the Logical Mechanism is the attempt by the text to explain away the incongruity by justifying it (once more, playfully and non-seriously). Consider the following joke:

(11) Three kids are bragging about their fathers. "My father is the fastest, says the first kid; he can run a mile in 4 minutes."

"That's nothing, says the second; my father can run a mile in 3 minutes."
"You don't understand what fast means, says the third one; my father's work ends at five and he's home by 3:45."

Here the Logical Mechanism works as follows: if shorter times mean faster speed, then negative times mean even faster speeds; therefore, because the third kid's father is home an hour and 15 minutes before quitting time, he must be extremely fast. Needless to say, another inferential path is also possible and namely that the third kid's father is home before quitting time because he does not work hard and cheats his employer out of more than one hour and 15 minutes of work time. Note how the resolution (shorter times mean faster speed *hence* negative time is even faster) is partial and non-serious.

More work on Logical Mechanisms, including a list of Logical Mechanisms known so far (no claim is made that these lists are exhaustive, a common misconception) and an attempt at classification, can be found in Attardo et al. (2002) and Hempelmann and Attardo (2011). The latter article introduces the notion of backgrounded incongruity (i.e., an incongruity that is not addressed and not resolved in the text).

Script Opposition

The concept of Script Opposition and overlap was defined and discussed in detail in Raskin (1985). Attardo and Raskin (1991) did not update the original definition. Script Opposition was discussed in detail in Attardo (1997). In Attardo (1994, pp. 203–205), I pointed out that simple oppositeness of two scripts and/or simple overlap of two scripts in a text do not result in humor. Both conditions must hold simultaneously. For further discussion of script opposition, see chapter 9 on the SSTH. All that needs to be added in this context is a short discussion of the various levels of generality of the Script Opposition.

Raskin (1985) reduces all Script Oppositions to three extremely high level (abstract) oppositions: good/bad, normal/abnormal, and actual/non-actual. Many researchers get confused because they try to identify the very abstract Script Opposition, without first identifying the text-specific Script Opposition. Obviously, each text instantiates these high-level Script Oppositions into text-specific local oppositions. Di Maio's (2000) unpublished PhD dissertation, which

was used in Attardo et al. (2002) introduced a third (intermediate) level of abstraction (e.g., sex/no sex, excrement/non-excrement), which we found useful to bridge the step from the concrete instantiation in the text and the very abstract opposition.

For example, consider the following joke, which circulated during former President Clinton's impeachment proceedings:

(12) Do you know what was the Secret Service's code name for Monica Lewinsky? Humidor.

Clearly there exists an intermediate, mid-level opposition between sex (FELLATIO) and no-sex (CIGAR). Obviously, it does not help that there is a complex chain of inferential and abductive reasoning triggered by the occurrence of the lexeme "humidor." The dictionary definition of "humidor" is a follows:

(13) a case or enclosure (as for storing cigars) in which the air is kept properly humidified (Webster).

So, assuming the hearer has access to the definition, he/she would reason as follows: a humidor is a case or enclosure used to store cigars and keep them humidified. Cigars are shaped like penises; hence, we have a parallelism between a humidor and Monica Lewinsky's mouth (an enclosed space, with humidity, i.e., saliva). The abstract Script Opposition is between good and bad, or possibly normal and abnormal behavior whereas the local, textual instantiation is between the humidor and Lewinsky. It should be noted that there are any number of intermediate scripts that are also activated, for example, MOUTH, FELLATIO, etc., which never occur in the text, but are activated inferentially, according to the ideologies, beliefs, moral systems, encyclopedic knowledge, etc. of the reader. For example, one could see Lewinsky as an empowered woman, comfortable with her sexuality, who chooses to bestow her favors upon whom she chooses, or as a victim of female subservient roles, etc. One's choices of high level Script Oppositions would then correspondingly change (especially for the good/bad opposition, in this case).

Summing up, each humorous text will instantiate one very abstract Script Opposition in a very concrete text-specific opposition, which will generally require at least one of the scripts in the opposition to be explicitly stated in the text and the other to be directly or at least easily retrievable inferentially/abductively from the text. There may be any number of intermediate scripts, increasingly abstract, bridging the distance between the scripts occurring in the text and the very abstract oppositions identified by Raskin (1985).

The 2001 Version of the GTVH

The GTVH was elaborated on jokes simply because jokes are easier to manipulate, simpler, and therefore usually easier to analyze. However, we were always aware of the fact that in order to apply the GTVH to any kind of text, it would have to be broadened. For example, repetition, which plays a minor role in jokes, turns out to be very significant in long texts. Therefore, in Attardo (2001), I presented a version of the GTVH that programmatically was extended to all texts, regardless of length and type. In this context, it is impossible to go into the details of the 2001 version of the GTVH, which is moreover easily available, so I will only address the major themes of the book, with the exception of the distinction between jab and punch lines, which was already addressed earlier.

No Cherry Picking

Given a sufficiently large corpus of data, instances of any phenomenon may be found. If the analyst focuses only on those examples that support his/her hypothesis, he/she will draw conclusions that are unwarranted and entirely misleading.[7] Therefore, it is essential that long texts be analyzed in their entirety, or that corpora be representative.[8] This aspect of the GTVH was perhaps the least explicit in Attardo (2001). I have, however, come to believe that methodologically it is perhaps the most important one. In a nutshell, cherry picking of examples is a deleterious practice that can lead to meaningless generalizations.

Text as Vector and Position of Humor

Jokes tend to be fairly short, which is one of the reasons why they were selected to elaborate the 1991 GTVH. Even when very short, the location of the components of the joke is not random. One of the results of an analysis of a corpus of 2,000 jokes (Attardo et al., 1994) was that the punch line (and specifically the disjunctor, the element that causes the passage from the first script to the second, aka the script-switch trigger) tended to occur in final position.[9]

When we deal with longer texts, such as novellas, novels, plays, etc., the position of jab lines and punch lines within the text (seen as a directed line, i.e., a vector[10]) becomes particularly significant. Corduas et al. (2008) proved statistically that the distribution (location) of humor along the text vector in two novels is not random. Taken together, the vector-based analysis and the no-cherry-picking rule are a very strong methodological standpoint, as they prevent impressionistic and subjective analyses that plague other approaches to long texts.

Repetition

The repeated occurrence of the same material, within the humorous context, has marginal importance within jokes. In longer texts, it becomes far more significant. Jab and punch lines may be related on formal or semantic grounds. These relations obviously create dimensions other than the single vector of the text[11] because they refer to other occurrences of humor elsewhere in the text. The 2001 GTVH introduces several graphical representations of the connections between repeated features used for humor, thus charting visually the complex interplay of the jab lines, and their connections (called strands and stacks). An exemplary application of the GTVH to a long Latin text can be found in Vincent (2010), which showcases the heuristic power of the GTVH's apparatus.

A Realistic Psycholinguistic Model of Text

Finally, one aspect that has also been completely neglected in the reception of the 2001 GTVH is the deliberate and extensive effort to integrate a psychologically aware and realistic version of text processing in the model. For example, Hurley et al. (2011, p. 97) contrast theories based on scripts, which they see as static, with theories based on mental spaces, which are constructed on the fly. Unfortunately for that line of argument, in Attardo (2001, pp. 6–7) I argue that scripts are activated dynamically, along with the then current views of psycholinguistics. I also introduce the concept of Text World Representation, explicitly modeled on mental spaces. Hence the claim (Ruiz-Gurillo, 2012, p. 36) that mental-spaces approaches propounded by cognitive linguists would be "much more flexible" is questionable, at best.

Criticisms of the GTVH

For all the success the GTVH may have had, it has not lacked for critics. Two special issues of HUMOR contain most of the major critics: the anti-festschrift for Raskin's 60th birthday and the issue on cognitive linguistics, which appeared in 2006. Attardo (2006) addresses the cognitive criticisms of the GTVH. Krikmann (2004; 2006; 2009) and Ruiz-Gurillo (2012) examine also these criticisms and add their own considerations. Most criticisms concern the Logical Mechanisms (Davies, 2011; Oring, 2011). Other criticisms range from the claim that the GTVH is not formal enough (Ritchie, 2004; see Attardo, 2006 for a response) to the claim that it is too complex and formalized (various colleagues, mostly privately). Incidentally, this is the reason why I have abandoned the two-letter acronyms for the knowledge resources. Many of the criticisms of the GTVH amount to differences in focus (for example, the GTVH is only marginally concerned with aggression, as part of the Target knowledge resource) or to the assumption that if a given genre was not analyzed in Attardo and Raskin (1991) this means that it cannot be analyzed (e.g., conversational humor). Others are simply mistaken: for example, Coulson's (2001) "frame shifting," touted as a significant improvement over the "script switch" of the GTVH, is a mere notational variant thereof.

Methodology and Sample Analysis

The Triangulation Method

Generally speaking, the identification of humor has not been a central problem in humor studies. This was due to the fact that researchers often used jokes or other texts that are clearly identified as humorous, or when they used conversational data they were often participant observers and therefore could rely on their insider status to identify the humorous turns. However, with the turn towards the use of corpora (see Attardo, 2015) in the linguistics of humor there has been an increased need for a reliable criterion or set of criteria to identify humor. Historically, laughter has been the prime such criterion, despite the well-established research showing that it is an unreliable marker of humor. Moreover, the research on failed humor has definitely established that laughter cannot *in principle* identify the instances of *failed* humor. The research on markers of humor is still in its infancy (see Burgers & van Mulken, 2017) but nonetheless some progress has been made. For example, Archakis and Tsakona state that "the *combination* of incongruity and laughter is a relatively safe criterion for identifying humor" (2012, pp. 77–78).

Attardo (2012) presented a simple triangulation method to determine the probability of the presence of humor in a text. Essentially, all available information is brought to bear: the presence of laughter or increased smiling, metalinguistic comments by the speakers and/or the corpus collector(s) (for example, tags such as "laughter" or "smiling voice"), post hoc interviews with the speakers, and, last but not least, a full GTVH analysis, with emphasis on the script opposition and overlap. If all these clues (and any others not listed, but available) concur, then the analyst can safely assume the presence of humor. If the clues conflict, they must be weighed, keeping in mind that even the opinion of the speakers may be unreliable. For example, Jodi Nelms (Eisterhold) reported, in a personal communication, that some of her subjects denied that an otherwise obviously sarcastic remark had been intended as such in the post-interview. Needless to say, even the GTVH analysis may be unreliable: it could have been performed incorrectly (false positive) or the text may contain an instance of humor that falsifies the theory (false negative).[12]

Sample Analysis

Because there are numerous easily available examples of analyses using the GTVH, the reader is invited to consult sources, such as Attardo (2001, pp. 10–16), for a painfully detailed example in which the first sentence (17 words long) of a humorous text is *partially* analyzed. This is significant because, due to space limitations, often only the conclusions of the analysis are presented and this has led to misguided interpretations, such as Weber (2004), who claims that the GTVH is not scientific because he thinks that one just reads the text and identifies the humor by opining on its presence. On the contrary, a full semantic analysis of the *entire* text is performed and those passages that reveal script oppositions are then subjected to further analysis. The analysis of the entire text is necessary both to prevent cherry picking and to be able to chart the location and hence frequency of humor within the text.

New Debates

The GTVH and Discourse Analysis

In Attardo (2001), I pointed out that the GTVH could be used to analyze humor occurring in conversations. Antonopoulou and Sifianou (2004), Archakis and Tsakona (2005, 2012), Tsakona (2003, 2009, 2013, 2015), and Alvarado Ortega (2013) have done so extensively, with useful results. However, these results have not been incorporated outside of humor studies per se, in the broader literature on humor and laughter in conversational data; see Attardo (2015) for a review.

More on Logical Mechanisms

Hempelmann (2004) re-introduces the distinction, present in Raskin (1985), but largely overlooked in the GTVH between the overlap and the opposition proper of the scripts. The overlap is the compatibility of a lexical item (or other semantic unit) with two scripts, whereas the logico-semantic relation between the scripts is the opposition. The exact nature of the opposition is discussed in Attardo (1997).

Attardo et al. (2002) re-ignited the debate about the Logical Mechanism parameter by showing that logical mechanisms can be given a formal description in terms of graph theory. Hempelmann and Attardo (2011) introduce a distinction between foregrounded, backgrounded, and completely backgrounded incongruities as well as the mechanism of "incongruity shifting."

Remarkably, neurolinguistic evidence is emerging in support of the Logical Mechanisms. Samson et al. (2008; 2009) provided the first empirical evidence for the existence of Logical Mechanisms, by showing that different kinds of Logical Mechanisms are processed differently by the brain and that jokes that lack a Logical Mechanism (nonsense humor) are also processed differently than those that have one. Chan and Lavallee (2015) also showed that three different Logical Mechanisms had "distinct neural substrates underlying processing" (pp. 9–10).

More Knowledge Resources

As we have seen, originally the GTVH included the six knowledge resources. There have been attempts to add more knowledge resources, but, besides calls by some who did not like the idea of Logical Mechanisms (Davies, 2011 and *passim*) to jettison it, I am not aware of calls to eliminate knowledge resources.

Canestrari (2010), Ruiz-Gurillo (2012), and Tsakona (2013) argue in favor of broadening the GTVH by incorporating new knowledge resources that would account for performance aspects. Elsewhere I have argued for the development of a separate theory of humor performance (see Chapter 28, "Prosodic and Multimodal Markers of Humor").

Translation

Much to this author's surprise, one of the areas in which the GTVH has been used most extensively has been the field of translation. In part, this is due to the fact that in 2002 I published a small article in which I made the somewhat obvious (in my mind) observation that the GTVH contained an implicit theory of translation because it allows the comparison of two jokes, all other things being equal, when they differ by one knowledge resource, so that two jokes that differ only in language can be said to be the translation of one another. Moreover, a translator could then check how distant his/her translation was, depending on how many changes he/she had made to the underlying hierarchy of knowledge resources, so that, for example, if a translation changed the logical mechanism, it would be a more distant translation than one that changed merely the target. I offered this observation, much like one would offer a gardener a rake, as a tool, which translators may use. The reaction from the field was not entirely appreciative. Zabalbeascoa (2005) contends that translators' practices cannot be reduced to the limited contribution of the GTVH. Chiaro (2005) and Zanettin (2010) seem to believe that the GTVH cannot be used intersemiotically, despite Attardo (2002) and the fact that there are plenty of examples of authors using the GTVH as an intersemiotic tool; see, for example El-Arousy (2007), who changes the "language" knowledge resource to a "semiotic strategy," Paolillo's (1998) analyses of cartoons using the GTVH, or Weitz's (2016, p. 15) proposal to "extrapolate" the GTVH's resources for a theory encompassing "dramatic discourse."

Besides Jaskanen (1999), an excellent and overlooked work on humor translation, more positive reactions include Koponen (2004), an application of the GTVH to the translation of wordplay in Finnish, and Asimakoulas (2004), a wide ranging approach on English–Greek translation that takes as a starting point the GTVH. Antonopoulou (2002; 2004) is applied to literary translation. Shipley (2007) proposes a "checklist" of items translators should attend to, including the knowledge resources of the GTVH, but also broadening the scope to such "external" aspects as the time of production of the text, socio-economic issues, etc. Dore (2002; 2008) is concerned with dubbing. Robson (2011) is dedicated to the translation of Aristophanes's humor.

Conclusion

The spirit in which the GTVH was presented, 25 years ago, was that of creating a hub of research to describe the structure and nature of humorous texts, beginning with the simpler ones (jokes) and building up to larger, more complex ones. Clearly, as the catalyst of interdisciplinary research, the GTVH's program was largely disattended (but see Hempelmann & Ruch, 2005 for a psychology example; and Samson et al. 2008; 2009; and Chan & Lavallee, 2015 for neuropsychology examples). However, despite various criticisms, the six knowledge resources have resisted a quarter century of scrutiny and have been applied to a wide gamut of languages, mostly in theses and dissertations. I think it is fair to say that there is a consensus that those six parameters are the significant factors determining the constitutive elements of humorous texts. More studies are certainly needed in most of the knowledge resources. Some disciplines or subdisciplines are ideally positioned to contribute to this research (consider, for example, the potential contribution of cognitive linguistics to the study of logical mechanisms). More knowledge

resources may be added or an independent theory of performance may be devised. I personally think that the latter is the way of the future, but the marketplace of ideas is ultimately the judge of what survives and what gets forgotten.

Notes

1 It should be recalled that Raskin's conception of semantics incorporates pragmatics as well; witness, for example, the claim that jokes are non-bona-fide communication.
2 Raskin (1992, 91) is very clear on the fact that the GTVH was not conceived to be the final word on jokes, let alone humorous texts. Raskin asks explicitly for the help of other disciplines: "GTVH is interested in having considerable input from dozens of disciplines and subdisciplines bearing on the 6 K[nowledge] R[esources] it postulates."
3 The joke is hyperdetermined (Attardo, 1994, p. 261 and *passim*), i.e., has more than one source of humor, in that there is a pun between "high" and "hi."
4 Will Self, *Great Apes*, 1997, p. 71. "She heard the yelps and drummings as the paws of lapine quarry bursting from a sandy burrow." The "she" opening the quote is a dog that mistakes the sounds of two characters having sex for a rabbit running away. A "lapine" is a female rabbit (from the French *lapin*) but also the fictional language used by the characters in *Watership Down*. A quarry is a fairly obsolete word for game being hunted. Antonopoulou (2004) provides numerous analyses of proper nouns used for humorous purposes, another example of this kind of humor.
5 One can also always argue that the joke is really aggressive toward the audience (Gruner, 1997). I find this kind of argument unconvincing, since no evidence can be provided for it, besides the assumption that all jokes are aggressive.
6 There exist bars in geographical locations that are warm enough that are effectively open to passers-by. These cases are non-prototypical.
7 For example, Coates (2007, p. 47) states "Laughter makes us feel good and it also demonstrates our togetherness with our fellow speakers." A charitable interpretation would be that she meant the statement to be limited to "playful talk," which Coates defines as strictly positive humor. It remains that one can make this generalization only by excluding aggressive and negative humor from consideration.
8 Unless, of course, one merely wants to document the existence or possibility of a given phenomenon.
9 Technically, 92% of the disjunctors occur in the last phrase of the last sentence.
10 A text is a vector because it is normally spoken/read in a linear fashion, since it is a linguistic product and language is produced/experienced linearly.
11 Pace Ermida (2008).
12 In the latter case, the analyst is invited to immediately write up the results for publication.

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11
Humor and Narrative

Władysław Chłopicki

Introduction

Dealing with narratives, especially narratives longer and more complex than jokes, and their interrelation with humor has been an issue of great interest to humor scholars, not only linguists of many persuasions (structural linguists, cognitive linguists, semanticians, pragmaticians, semioticians, stylisticians, discourse theorists, rhetoricians, and others) but also literary scholars, folklorists, and philosophers. Mainstream humor research, however, has centered on the study of jokes as a principally oral form (printed or online versions of jokes usually appeared later), which is clearly and solely aimed at amusing the target audience (see Raskin, 2017). Indeed, Raskin (1985) went even as far as to claim that his semantic theory of humor applied to simple jokes only and that he was pessimistic as to the likelihood of it being applied to anything more sophisticated than that. In contrast, the ambition of various humor scholars over the ages, philosophers, linguists, literary scholars, and many others has been to account for the presence and role of humor in *any* form of text or genre (see also Tsakona, 2017 on genres), thus to develop an all-encompassing, comprehensive theory of how humor works in any context.

Linguists have risen to the challenge and attempted to reach out towards other scholars and ask them to contribute to the General Theory of Verbal Humor (GTVH, see Attardo, 2017), with the response not being overwhelming (see Ruch et al., 1993, however). Regardless of the degree of success of this particular theory, the fact is that humor occurs in narratives in various forms and roles and the major question is what to include and what not to consider worth incorporating into a feasible humor-focused study of narrative. What is more, the study of narratives is a study that cuts across both humanities and social sciences, as the common wisdom claims: "everything is a story" (not to mention that there is "a story of everything" as Steven Hawking would like us to believe). But then so does the study of humor, although it focuses not so much on the form as on the desired effect, at least potential funniness of the stimulus text. Thus the two worlds, that of narrative—broadly seen here as a temporal sequence of events linked by a series of actions undertaken by characters—and humor—broadly defined in terms of contextually opposed meanings (scripts) which are perceived as funny by listeners, readers or observers—overlap in interesting ways and this is the subject of the present chapter.

Historical Perspective

This short section is not the "story of everything" (although it perhaps deserves to be, because narratology is an all-encompassing discipline in the humanities, embracing cognition, pragmatics, humor, stylistics, literary motives, and ideology[1]), thus I can only touch upon the surface of the history of approaches to narrative, preliminary to dealing with approaches to humor in narrative. Interested readers are encouraged to read through the excellent *Cambridge Introduction to Narrative* (Abbott, 2002), which deals with the central concepts and issues, and then continue and browse through the Routledge *Narrative Reader* (McQuillan, 2000) to become acquainted with the most influential texts on narrative.

Briefly speaking, the reflection on narrative starts with the Greeks: Plato's allegory of the cave was one of the first famous narratives, and Aristotle, in his *Poetics*, developed the all-important concept of the plot and the categories of simple and complex plots (cf. McQuillan, 2000, pp. 41–44). The concepts of story and plot and their interrelations (the plot being roughly the chronological sequence of events being told in a story; see Forster, 1963 in McQuillan, 2000, pp. 44–46) perplexed 20th-century researchers, including the Russian school of formalists and structural linguists in general, who were keen to identify the recurring plots, veiled in different stories.[2] The folklorists' efforts should be emphasized here, with the Russian scholar Vladimir Propp identifying hundreds of standard plots in folk narratives (Propp, 1928), where typical functions and roles of characters recurred. The structuralists focused on the rule of broadly conceived structure: Lévi-Strauss (1955) identified cultural myths in stories, while narratologists such as Mieke Bal (1997), Seymour Chatman (1978), Gerald Prince (1982), or Jonathan Culler (1975) attempted to describe stock features of stories and plots, including the concepts of action, character (often referred to as *actant*, *existent*, or *logical participant* to stress its typicality), point of view, narrator and narratee or ideal reader, all often set in an ideological perspective.

Generally, structuralists and formalists, such as Shklovsky (1929/1991), considered action more important than characters in a story, as this approach made it easier to think of stories in terms of repetitive, cultural myths or stock plots. Chatman's theory seems to be the most balanced and at the same time least structuralist in spirit of all narratological theories. He disagrees with the Greeks (esp. Aristotle), the structuralists and the formalists, who considered action primary and more important than characters, and who also wished "to analyze only what characters do in a story, not what they are" (Chatman, 1978, p. 111). He claims that

> stories only exist where both events and existents occur. There cannot be events without existents. And though it is true that a text can have existents without events (a portrait, a descriptive essay), no one would think of calling it a narrative.
>
> (Chatman, 1978, p. 113)

Thus "plot and character are independently memorable" (Chatman, 1978, p. 118). Unlike Bal and others, he argues that the essence of characters (esp. in modern narratives where "nothing happens") is not their typicality (cf. Chatman, 1978, p. 112). The behavior of round characters, in his opinion, is hardly predictable: they often possess conflicting or contradictory traits, and we can speculate about their possible future. Michael Toolan (1988, p. 97) also stresses the importance of what characters are *like* as opposed to the role they play; he does admit that events are essential in narrative and they involve characters as merely role fillers, but what we are really interested and emotionally involved in as readers are characters and their motivations. Abbott

(2002) stresses that characters in fictional narratives are just mental constructions and interestingly argues as follows:

> There neither is nor was a real Madame Bovary, only marks in the page. These marks do not so much *refer* to Madame Bovary as stimulate or catalyze a representation of Madame Bovary in the mind of the reader. She does not exist *before* the marks but *after* them, and repeatedly, with many variations big and small, in mind after mind.
>
> (p. 127)

One could argue here that the characters are in fact what they *do*, what we see them *do* or *think*, what we see as their motivations or reactions, thus in the final account they stem from actions. This is a persuasive argument, still characters do not come into being as a result of actions and thoughts only; from the very start, each character quickly forms a gestalt, a unity represented by their name and a series of features of their personality, which starts to live a life of its own and helps predict and explain the character's subsequent actions and behaviors in general (see the *character frame* in Figure 11.1).

In this connection it is worth mentioning the complex way the reader comprehends the narrative. A pertinent concept of "monitoring" events, characters and objects has been developed by Catherine Emmott (1997) in her interesting study. What she broadly claims, uncontroversially but still usefully, is that readers follow the course of events in presented narrative and construct the scenes in their minds; when the action moves from one location to another they fill the missing links (e.g., finding out what pronouns refer to) and monitor the circumstances concerned, aiding the narrator in telling the story. She thus postulates a form of representing the text in the readers' minds, which involves what she calls *text-specific entities*. At the same time she recognizes the problem of the limited memory of the readers, who can only monitor what is essential, concluding that

> presumably, there is a certain minimum threshold of information which the average reader might be expected to retain, such as key facts about the major characters and the locus of a particular stretch of action.
>
> (Emmott, 1997, pp. 6–7)

The *text world*, as envisioned by Paul Werth (1989) to mean a representation created in the reader's mind and then inhabited by characters, events, scenes, etc., appears relevant too. In this connection Attardo (2001) postulates the text world representation (TWR) of a text that is

> a mental representation, not (necessarily) propositional, of the state of affairs that holds within the text. The TWR is significant in the discussion of humorous texts, because the realistic illusion whereby you have to be coherent to your world is obviously based not on the "real" world but on the TWR of [the] text.
>
> (p. 58)[3]

Other aspects of essence from the perspective of humor research, apart from actions and characters, include that of closure of the narrative/story. It is always easier to start a story than to finish it. Still, stories may bring the closure of the narrative sequence as we expect it to or may fail to bring it and still remain stories. Abbott (2002) argues that

> the promise of closure has great rhetorical power in narrative. Closure brings satisfaction to desire, relief to suspense, and clarity to confusion. It normalizes. It confirms the masterplot.

> At the same time, we don't want closure too quickly. We seem to like the experience of remaining in doubt while moving toward closure.
>
> (p. 60)

Still he also adds that different readers have different preferences as to the presence and form of closure, and some like stories that do not bring closure.

The question of interpretation of narratives has been central to the debates on narratives too, and various levels of narration and reception have been postulated, which included at least the following levels: writer and reader, narrator and narratee, as well as characters, some also discussing the extra level of implied reader and implied writer. These levels are inextricably connected with the issue of point of view in narrative, which has been tackled by many scholars under many guises: *focalization* (Prince, 1982), *voice*, *free indirect style* (cf. Booth, 1964 for classical treatment of the narrator), all trying to account for various direct and indirect ways in which the reader is given to understand that somebody's individual point of view is expressed in the story, often via somebody else's eyes or words (e.g., narrator's or character's).

It is against the background of such debates that the study of humor in narrative must be seen. The humor researchers started their considerations from the broad acknowledgement of the issue of identifying the role of humor in narratives—it doubtless does contribute to the stories, but the nature of its presence is the subject of debate. From among many approaches, Ermida (2008, pp. 99–110) lists the six most influential ones. Among them is Morin's (1966) early analysis of French narratives, one that discovers in them three functions: normalization (roughly equaling setup), triggering (problem introducing) and disjunction (problem solving). She also discusses the views of Nash (1985), who analyzes the humorous act on the cultural, interpersonal and linguist levels and sees a broad resemblance between comic stories and jokes. Ermida also mentions Chłopicki's (1987) approach, where three major tendencies in humor development in short stories are discussed: escalation, variation, and accumulation, and his notions of *shadow opposition* and hierarchical organization or scripts are brought to bear, too. Palmer's (1988) perspective focuses on film comedy, and he sees comic narrative as a series of individual jokes, although this approach fails to demonstrate the way they are structured into a text, while a more general perspective he also accepts fails to perceive the comic nature of the whole narrative. Holcomb's (1992) script-based contribution deals with the crucial issue of how to connect the basic level oppositions into the network of oppositions structuring the text as a whole and introduces an interesting concept of *nodal points*, which serve to "foster" the narrative. Finally Attardo's (2001) linear model consists in identifying all the humorous lines in a story and placing them on a *vector*, which then illustrates how they are distributed in its course.

Attardo himself (2001, pp. 37–45) lists two schools of thought within linguistics: the expansionists and the revisionists. The former group of scholars attempts to extend the linguistic analyses of jokes to longer humorous texts, while the latter tends to revise the joke theory in order to make it applicable to these longer texts. Among the former, he mentions Chłopicki and Kolek (1985). The latter argues that jokes are the basic unit of comic texts and discusses various possibilities of their incorporation into stories (e.g., as forming sequences, a motif or the basis of a story, or as contributing to an image of a character) as well as frequency and other patterns of their occurrence. The revisionists include Holcomb and Palmer as well as Wenzel (1988), who sees jokes only as examples of the broader category of *"pointed" narratives* (like science fiction stories), sharing their setup/incongruity/resolution pattern. He reformulates the humor in such narratives in terms of breaking and reestablishing of frames of reference, the joke punch line bringing the semantic opposition of frames, which is absent in other stories.

Attardo developed the methodological apparatus of analyzing humor in narratives much further by postulating concepts such as *jab lines, strands, stacks, bridges* and *combs*, all of which were to account for the humor as it appears *within* the text, as opposed to being placed as the final element of it, to which we are used to when analyzing jokes and which was, perhaps not unexpectedly, confirmed in the analysis of the corpus of 2,000 jokes by Attardo et al. (1994). Attardo (2001) has also developed a unique quantitative methodology whereby humorous lines can be counted in narratives, and this can contribute to the analysis of the role of humor there via the linear *vector analysis* (cf. Attardo's [2001] analysis of an Oscar Wilde's story). Line by line humor is identified and analyzed and then the whole narrative is shown as a segmentation chart (Attardo, 2001, p. 204). This can explain the phenomenon called *serious relief*, particularly in stories that abound in humorous lines and have only such limited stretches deprived of any jab lines.

The concept of *hyperdermination* of the text (Attardo, 2001, p. 100), in turn, referring to "the presence of more than one active source of humor at the same time," either at a certain point of text (*punctual* hyperdetermination) or running simultaneously as strands (*textual* hyperdetermination), should be mentioned here too, as this was an important step on the way towards understanding the humorous nature of a certain type of narrative. The notion is supplemented by that of *register humor*, which is concerned with the narrative or its portion referring to different registers at the same time. Register humor is also related to the idea of *dissipated triggers* or *disjunctors* (cf. Chłopicki, 1987, p. 14; Attardo, 1994, p. 139), which is another guise serving the purpose of accounting for groups of humorous lines that function best as sequences in stories, not individually. Such triggers or disjunctors are not individual words, but expressions or longer stretches of text through which a humorous effect may be evoked.

Ermida (2008) offers her own view on the analysis of humor in narratives and it is rather eclectic in nature. What she proposes is first that the comic narrative should be regarded as a process, i.e., "a course of action in which interdependent meanings are built in partnerships" (2008, p. 171) rather than a final product. It is a communicative act: "The written comic narrative is a form of discourse, an utterance act that involves the two poles—production and reception—of the communicative axis" (2008, p. 136). In her approach to the humorous stories she takes a restrictive view: she excludes those she considered essentially serious (with a serious message) and she also overemphasizes the undersupply of information as the feature of all stories she considers comic (following Giora, 1991). This seems to be the feature of many non-humorous stories too, just as their unpredictability, which she again attributes as a defining feature of humorous ones. In her central hypothesis she puts forward five defining principles of humorous narratives: opposition, hierarchy, recurrence, informativeness, and cooperation (Ermida, 2008, p. 172). On the one hand, the theory seems to be too powerful and would apply to many literary and non-literary narratives deprived of humor, while on the other hand some humorous stories would not display all the principles she predicts. Given the variety of comic narratives, it seems appropriate to drop the structuralist requirement of listing the necessary and sufficient conditions and to treat these principles as applying to prototypical humorous stories. "The Lunatic's Tale" by Woody Allen, which is claimed by Ermida to be "a perfect illustration of the principles guiding the present work" (2008, p. 173), could be close to such a prototype, just as Poe's "The System of Dr Tarr and Dr Fethers" analyzed by Attardo (1994, pp. 255–261). Another problem in Ermida's analysis is her focus on the hierarchical structure of oppositions, divided into suprascript and infrascript oppositions, all under the umbrella of macro-script opposition of the story: PERFECTION vs. IMPERFECTION. What is missing in my view is the reference to text-specific entities in the narratives, as oppositions are not abstract notions and must be grounded in the text-specific entities such as characters and events. The detailed issues connected with the

mid-narrative lines and their relations with characters, events and/or other text-specific objects are the focus of the next section.

Narrative and Humor

As we have seen from the preceding overview of research, the analysis of longer humorous texts has been a major challenge for humor researchers, and Raskin's (1985) stand that only simple jokes are applicable for script analysis has been criticized by many scholars, who showed that such analysis is indeed possible. Even the theory that directly followed and expanded Semantic-Script Theory of Humor (SSTH), the multidisciplinary General Theory of Verbal Humor, incorporated narrative-related Knowledge Resources: Narrative Strategy and Situation, although neither of these parameters dealt with the type of story, or the genre, which appears highly relevant to the methodology of analyzing humorous narratives. Still, specific classifications were later offered by Attardo (2001) and Tsakona (2007) (see the discussion of the classifications in Tsakona, 2017 on genre) as well as Chłopicki (2001). We will skip the detailed discussions of the classifications here and will just mention that Tsakona rightly argues for the continuum of humorous genres—from those where humor is normal and expected to whose where its presence is surprising and untypical. In my own analysis (e.g., Chłopicki, 2001), I claimed that what matters is the essential nature of the plot—either comic or serious—as well as the number of humorous lines in particular types of stories, whether strictly narrative, meta-narrative or dramatic.[4] Naturally, these categories are envisaged as non-discrete too, with an assumed continuum from prototypically serious stories (e.g., "The German Boy" by Roy Butlin analyzed in Chłopicki, 2001) to the prototypically comic stories (e.g., "The Kugelmass Episode" by Woody Allen—see the section "Methodology and a Sample Analysis"), from the complete lack of humorous lines to their abundance, from typically narrative to typically meta-narrative stories with many variants in between. In my work I also postulated the existence of *humorous diversions* as opposed to humorous lines, to account for the fact that humorous stories with a relatively serious plot at some level of abstraction tend to have elements that are non-essential for the development of the story or plot and tend to divert the readers' attention just to amuse them in this way. In contrast, humorous lines do support the development of the narrative as well as provide entertainment.

All in all, the question remains: what it is that makes or can make a narrative humorous? It is perhaps a good idea to treat major issues in the relation of narrative to humor in terms of just a few key dichotomies, admittedly overlapping with each other, although the overlaps do contribute to the overall complex picture of the field:

- The humorous vs. the serious, or in other words—the potentially, likely funny vs. the unlikely funny;
- The aesthetic vs. the entertaining, or in other words—the literary vs. the humorous;
- The revealed vs. the concealed, or in other words—the openly juxtaposed or recurring vs. the allusively referred to (the unsaid, the intertextual);
- The linguistic vs. the humorous, or in other words—the conventional vs. the cognitively refreshing, creative and thus amusing;
- The text-specific vs. the stereotypical, or in other words—the local, anchored in the narrative vs. the generally perceived, outside of the narrative.

In the present chapter we are going to focus on the latter two dichotomies, which broadly deal with the role in humor of unconventional language and specific narrative elements. The

cognitive aspect of humorous processing has been subject of study mainly at the level of jokes and cartoons, as cognitive analyses are highly detailed and time-consuming. Brône, Feyearts and Veale (e.g., 2015), for instance, researched the working of humor from the cognitive point of view; they especially analyzed the role of metaphor and metonymies in jokes and cartoons as well as advertising texts for comparison. Chłopicki (2009) investigated the role of perceptual imagery in text processing as a fundamental point of reference for humorous oppositions, which sometimes overlapped with the image schemas in question (e.g., figure vs. ground). Such cognitive phenomena are involved in the processing of humorous lines, and as such they do contribute to the final humorous effect due to the specific nature of language processing involved. Nonetheless, it could be argued that taking such phenomena into account in the text analysis could only fine-tune the analysis, but does not determine its quality.

Chłopicki's (2001; 2002) study of humorous frames could also be subsumed under the general label of cognitive research. It is assumed that humor is related to or even dependent on text-specific entities such as characters, events, or objects. It is also assumed that this relationship helps explain why oppositions identified in the story can be considered humorous by readers. The problem of the relationship of frames to humor will be the focus of the next section.

Text-Specific Frames in Humor Analysis

Chłopicki (2000) defined the notion of *text-specific frames*, such as character frames. Frame structures (after such scholars as Charles Fillmore and Marvin Minsky) emphasize the stability of meaning while allowing for dynamism and inferences produced by frame structures themselves. At the same time, they meet the demand for the flexibility that is indispensable in the comprehension of humor, immediate and spontaneous by nature, which tends to be particularly "localized," i.e., it requires access to a few selected slots only, the rest of the frame remaining latent and available if called for by the ensuing discourse. Figure 11.1 shows the character frame with all its slots.

This is a fictional character frame, but with very few changes it might be postulated for real characters too—without Narrator slot and with Reader Assessment changed to General Assessment. What is important to point out is that most of the numerous slots in the frame are potentially present (including default values) when a character appears in a discourse; what must be filled immediately is usually only the Gender slot (if it is not, the narrative becomes marked for its absence), while the Concerns slot must always be filled with all default fillers (unless indicated otherwise). What is interesting about the latter slot is that some concerns may become salient in the course of the story and thus they are actually included in the frame, while others remain in the background unless evoked or contradicted. The Reader's Assessment slot is usually filled in very early as well, as soon as contextual information allows it, the value being easily altered, whenever necessary, at a later stage. The Personality Traits are also filled in as soon as the narrative allows for it—we as readers or hearers of the story have a need to simplify all the detailed character-related information into a few specific traits of character as well as to assess him or her.

Moreover, as an important role in narrative study is played by the category of point of view, I assume that particular slot fillers that are included in the frame (notably, those of Belief, Attitude, or Relations with Characters) offer links to those characters whose viewpoint they represent (if it is not the default viewpoint of the character in question), which provides the analysis with the essential textual anchoring and accounts for relations between characters. Thus the character frame is a highly flexible structure, which can—but does not have to—include all possible information about characters. I also postulate place, event and object frames, but there is no room in this chapter to discuss them (see, e.g., Chłopicki, 2002 for more details).

READER'S ASSESSMENT SCALE *good……bad*
NAME.....-> GENDER M/F
AGE.....
BIRTH DATE.....
NATIONALITY.....
FAMILY STATUS.....
CHILDREN.....
PROFESSION/OCCUPATION.....
SOCIAL/FINANCIAL STATUS.....
POSSESSIONS.....
ASSOCIATED LOCATIONS (links to PLACE FRAMES).....
APPEARANCE general.....
features not controlled: HEIGHT.....
features under control: BODY SHAPE.....-> WEIGHT
HAIRSTYLE.....
FACIAL EXPRESSION.....
CLOTHES.....
CONCERNS (defaults) need to be fed, to quench thirst
need to satisfy sexual urge
need to feel safe, be healthy and live long
need to be accepted (loved) by others, esp.family
need to be happy with oneself, and be moral
need to be important, wealthy and hold power
need to know the truth about the world
need to experience diversity, emotions, beauty
OTHER.....
RELATIONS TO OTHER CHARACTERS (links to other CHARACTER FRAMES)
FAMILY: FATHER.....
MOTHER.....
SIBLINGS.....
SPOUSE.....
CHILDREN.....
OTHER.....
OTHER CHARACTERS/ASSOCIATES/COMPANIONS.....
NARRATOR.....
COGNITIVE FEATURES
BASIC FEATURES (attention.perception, motor control, memory etc.).....
SPEECH (THINKING) CHARACTERISTICS.....
AWARENESS (of EVENTS, CHARACTERS' ATTITUDES, BELIEFS -
appropriate links)
INTENTIONS/GOALS/PLANS.....
OBSTACLES.....
BELIEFS/OPINIONS/ASSUMPTIONS.....
IDEOLOGY/WORLDVIEW
ATTITUDES/WISHES.....
EMOTIONS.....
ESTHETIC RESPONSES.....
VALUES/MORALS.....
MOTIVATION/DRIVES.....
LIFESTYLE.....
PERSONALITY TRAITS.....
PAST (links to SIGNIFICANT EVENT FRAMES).....

Figure 11.1 Character frame

The question now arises how these general frames are related to humor analysis. The major difference between these and the frames that represent humorous stories is that humorous oppositions are attached to particular active slots. What is more, it is important to notice that some salient elements of the text (these are not to be mixed with text-specific entities discussed earlier) are quoted verbatim in the frames, representing the general insight that certain passages of the text are particularly remembered by recipients, especially when repeated (this applies to some humor-generating passages too). This is meant to emphasize the insight that humorous effects depend on the mutual relations of humorous oppositions, language, and text-specific frames—in other words, that humor is essentially context dependent. The next section demonstrates how text-specific frames are applied in narrative humor analysis.

Methodology and a Sample Analysis

One of the problems that was clearly present in GTVH analysis of humorous stories, such as Attardo's analysis of "Lord Arthur Savile's Crime" (2001, pp. 163–201), is that more often than not, some Knowledge Resources seem irrelevant to particular humorous lines. This was particularly true about Situation (which was either the same, given the fact that the point in the narrative was the same, or irrelevant for linguistic humor, puns, etc.) and Narrative Structure (which was often non-applicable as the lines were not set in any specific structures, such as dialogues), but also often about Language (in the cases of situational humor) and even occasionally about Logical Mechanisms. Disregarding specific reasons for the non-applicability of the Knowledge Resources, it is worth emphasizing the need for better defined and systematic interrelations between humorous oppositions and text-specific entities. Such systematic interrelations would allow us to avoid non-applicability to the humorous narratives of the tools developed for the sake of joke analysis.

In the present section I will demonstrate the sample analysis of perceptual imagery and character frames in short stories, as both of these types of analyses seem to be missing from the mainstream humor research and, in my opinion, both supplement the script-based and other analyses advanced in this volume. The examples are drawn upon Woody Allen's "The Kugelmass Episode" (Coren, 1983, pp. 15–27). Here is the attempt at its summary:

> A bald middle-aged professor needs romance and resorts to a magician to get one: through a magic cabinet he gets into the novel entitled *Madame Bovary* and falls in love with the main character, brings her to New York, goes through great difficulties sending her back to the book, and finally, because of the magic cabinet's malfunction gets thrown into the Remedial Spanish textbook and cannot return, because the magician dies of heart attack in the meantime.

This is a comic story in itself: most of its humorous elements (including sensory imagery and characters) support the plot development (not all, because there are humorous diversions here as well; cf. examples 8 and 9), and the "serious" meaning of the story can be reduced to "A middle man needs romance and acts recklessly to achieve it, without considering the consequences." This borders on the trivial as the "serious" withdraws to such level of abstraction that it ignores the specificity of the plot and becomes uninteresting.

Most of the extracts here emphasize the visual and at the same time are central to the story line; this is why the story serves as a good example for the prototypical humorous story and illustrates the significant role of perceptual imagery in humor.[5] The magic cabinet itself is first verbally presented (Coren, 1983, p. 17).

The analysis by means of Knowledge Resources could be as follows:

Script opposition: UGLY/TASTEFUL, CHEAP/SOPHISTICATED, RELIABLE/UNRELIABLE
Logical Mechanism: Inferring consequences
Situation: Description of the magic cabinet
Target: Persky
Language: auditory (*squeaky*), visual (*roller-skate wheels, badly lacquered, ugly, glued, raw*),

while image schemas involved include (commonsensically) CONTAINER, FIGURE–GROUND, NEAR–FAR, SURFACE, OBJECT as well as AUDITORY.[6] Please note that Narrative structure does not seem applicable here, while the Target is arguably Persky as the owner of the cabinet.[7] The narrator's description serves the purpose of emphasizing the unreliable nature of the cabinet without saying as much. The accumulation of image schemas shows the presence of multiple spatial aspects in the Situation, which—through the implied contrast with the expected sophistication of the cabinet—leads to the emergence of more abstract script oppositions listed earlier (via the Inferring consequences LM). Still it is clear that no single word in the text is solely responsible for the funniness of this passage.

In another passage (Coren, 1983, p. 17), the dynamic description of the workings of the cabinet with many motion verbs (utilizing motor imagery) and one strong auditory verb help create the comical FICTION/REALITY opposition for the reader, which plays the central role in the story (and thus forms a macro-script) and keeps recurring under various guises.

The Knowledge Resources and image schemas analysis is as follows:

SO: FICTION/REALITY, REAL/FICTIONAL DISTANCE, POSSIBLE/IMPOSSIBLE
LM: Ignoring the obvious
SI: Transfer into a novel, short story, play, poem
LA: motor (*throw, shut, tap, project, a split second*), auditory (*yell*)
IS: PATH, MOMENTUM, MERGING (space/time), TRANSFER, AUDITORY

The image schemas are strongly present and help trigger and process the Situation, while the Logical mechanism seems to operate on a more abstract level, close to that of the oppositions and could be interpreted as: Ignoring the obvious distinction between fiction and reality. The visuality and dynamism of the expressions listed under Language helps raise tension and prepare the ground for the UNSUCCESSFUL OPERATION OF THE CABINET script, which is developed further in the two following examples: in the first one the machine malfunctions, but the magician manages to repair it (Coren, 1983, pp. 25–26).

The analysis by means of Knowledge resources and image schemas is as follows:

SO: FICTION/REALITY, BODY/MIND, CAR/MAGIC CABINET, TRUE/FALSE REASON
LM: Implicit parallelism, Potency mapping[8]
SI: Repairing the magic cabinet, expressing gratitude
LA: motor (*crawl, bang with large wrench, heart leaped, licked, transmission, tap the box, pump the hand*) and auditory (*reassuring popping noise*)
IS: UP-DOWN, AUDITORY, SUPERIMPOSITION, ITERATION, CONTAINMENT, LINK

This example prepares the reader for the climax of the story with motor words (*crawl, bang, leap, tap, pump the hand*) and auditory focus (*bang, tap, reassuring popping noise*).

In the culmination of the story, in which Persky throws a copy of *Portnoy's Complaint* in the machine, which causes it to explode, whereby Kugelmass finds himself inside a Spanish grammar book (Coren, 1983, p. 27), the script of the UNSUCCESSFUL OPERATION of the cabinet now involves the highly visual explosion, crackling noises, a shower of sparks, flames, fire, death of the operator, and consequently the irreversible disruption of the FICTION/REALITY opposition for the sake of NON-FICTION (textbook), where no romantic characters are to be encountered (a meta-joke on the narrative as such and the final extended punch line). The regular features of the successful operation of the magic cabinet are emphasized (*thrust, project*), while the quick motion verbs and the visually evocative words stress the drama of the climax (*ran for his life, barren, rocky terrain, large and hairy irregular verb, race, spindly legs*)

The analysis follows:

SO: FICTION/REALITY, FICTION/NON-FICTION, REAL/FICTIONAL DISTANCE, POSSIBLE/IMPOSSIBLE, LIFE/DEATH, SUCCESSFUL/UNSUCCESSFUL OPERATION, ACTUAL/NON-ACTUAL REMEDIAL LANGUAGE BOOK
LM: Parallelism
SI: Being transferred into a textbook via the magic cabinet
LA: visual/motor (*toss, thrust, project, run for life, shower of sparks, leaped, seized, drop dead, burst into flames, burn down, barren, rocky terrain, large, hairy, race, spindly legs*), auditory (*rap, popping noise, crackling noises, dull explosion*)
IS: MOMENTUM, ITERATION, PATH, UP-DOWN, REMOVAL, COMPULSION, BOUNDED SPACE

The closure is highly visual, and the comic effects depend on the allusion to the traditional graphic form of remedial textbooks. In particular, the comic opposition is enhanced by the image of a large, hairy (and seemingly dangerous) irregular verb *tener* on its spindly legs, which—for an unknown reason—chases the visitor from outside reality with a hostile intent. Thus the contrast arises between the intended romantic vision of a beautiful female character and the obtained dangerous liaison with the spindly monster. The chain of image schemas helps trigger the numerous oppositions listed in the foregoing analysis, although only one Logical mechanism is postulated, supporting the basic FICTION/REALITY and FICTION/NON-FICTION parallelism, prevalent in the story as the macro-script opposition.

What is striking from the analyses is the accumulation of major scripts, which is facilitated by the presence of visual or auditory stimuli evoked by the appropriate lexical choices. The details of the relations between image schemas and language used requires a larger study, but the kinship is visible at first sight. It is significant to perceive the kinship between image schemas and language due to the fact that the classifications of image schemas result from empirical research in cognitive science, and therefore, if humorous texts were to be analyzed in a way that would be at least compatible with both, this analysis would avoid the charge of subjectivity often leveled against humor analysis. What is also self-evident is that this kind of story depends to a large extent on an oversupply of exaggerated sensory details, which leads to comic effects—a large number of descriptions following each other quickly contribute to the overall impression of fast comedy.

The analysis of humorous stories by means of character frames and other frames has the advantage of being well entrenched in the specific narrative under analysis, although the disadvantage, compared to the analysis such as the one here, appears to be its focus on scripts and language only, and not on other Knowledge Resources, such as Logical Mechanisms, Situations,

Narrative Structures or even Targets. Still, given the practical difficulties in applying the Knowledge Resources to longer texts, maybe it is more convincing to focus on those Knowledge Resources that are clearly relevant and applicable in all cases.

Now let us have a look at the character frames involved in the story and their relation to humor. The title character in "The Kugelmass Episode" is a rather cynical figure who is endowed with mocking language, and the readers are likely to understand his reactions and appreciate his practical approach to romance. His final undoing in the Spanish textbook seems to be a humorous trick played on readers to close the story with a bang (an absurd punch line) and at the same time—"seriously"—with the punishment for his cynicism. Examples of Kugelmass's comic power are listed here and their numbers refer to the frame quoted in Figure 11.2: upon meeting Persky, Kugelmass says: (1) **"You're Persky the Great?"** Later he addresses him as a madman ("outpatient") (2) (Coren, 1983, p. 17). When he makes love to Madame Bovary, he says to himself (and the narrator reports it) (3) that he failed freshman English and yet he is making love to Emma Bovary (Coren, 1983, p. 20).

When the machine breaks down and Persky cannot repair it and send Madame Bovary back to the book, Kugelmass comes to him drunk and says that he has "a fictional character" hidden in a hotel room, he is being followed by a private investigator hired by his wife and that his bill at the hotel "reads like a defense budget" (Coren, 1983, p. 21) (5).

But the narrator and the Great Persky are equipped with comic power too, which complicates the picture. The narrator tells jokes such as the following, which are clearly external to the main plot (comic as it may be) and go beyond the main narrative line:

> After having jumped into Madame Bovary, Kugelmass met Emma, fell in love and returned to New York. However, he is not aware of the fact that students who are reading the book are asking their teachers what is going on: (6) "A bald Jew is kissing Madame Bovary?"
>
> (Coren, 1983, p. 20)

KUGELMASS'S FRAME
READER'S ASSESSMENT SCALE bad
NAME Kugelmass -> **GENDER M**
AGE middle-aged [earlier information]
NATIONALITY *Jew* (6)
FAMILY STATUS married to Daphne, *a troglodyte* (7) ->MALE/FEMALE, PRIMITIVE/
SOPHISTICATED ->Narrator
APPEARANCE *bald* (6) -> UGLY/HANDSOME
CONCERNS need to satisfy sexual urge
need to be loved by women
need to experience diversity (romance), emotions, beauty
RELATIONS TO
DAPHNE contempt (7, *troglodyte*)
EMMA love (8,9 *playful implications, telling meaningful things with their eyes*)
SPEECH (THINKING) CHARACTERISTICS vivid comparisons: 1 KING/MAGICIAN ->
Persky, 2 MAGICIAN/MADMAN (*outpatient*) -> Persky, 3 MAKING LOVE/
PASSING EXAM (*failed freshman English* -> cynical) ->Narrator, 4 FICTION/
REALITY (*fictional character*), 5 REASONABLE/UNREASONABLE EXPENSE
(*defense budget*)-> practical; slang (*tab, shamus*)-> primitive
INTENTIONS have one love affair after another [earlier information]->cynical, send Emma back
to the book as he cannot afford the hotel (4,5) ->practical, cynical
BELIEFS Daphne is *a troglodyte* (7) ->cynical, Persky is an outpatient (2) ->practical
PERSONALITY TRAITS ugly, cynical, practical, primitive

Figure 11.2 Frames—"The Kugelmass Episode"

What signals a separate joke is the fact that suddenly new characters (students and teachers) emerge, and the main character of the story, Kugelmass, momentarily becomes a fictional character for them. This is followed by the second punch line, with a new character, a teacher in South Dakota who dismisses the possibility as a hallucination brought about by the students' use of drugs (Coren, 1983, p. 20).

Interestingly, the seemingly irrelevant information about where exactly the event took place is included here. It increases the humorous effect because it evokes the stereotypical Native American (unemployed, drinking alcohol, taking drugs), who is comically incongruous with a bald Jew from New York and Emma Bovary, and because comically wrong beliefs are ascribed first to students and then to the teacher.

The narrator also expresses Kugelmass's thoughts and otherwise ironically comments on the characters' behavior, e.g., Kugelmass's thought that Daphne Kugelmass is a "troglodyte" (7) or the mention that Emma's voice is charged with "playful implications" (8) or that she and Kugelmass share silently "deeply meaningful things" (9) (Coren, 1983, p. 19).

Let us have a look at the resulting frame and the way humorous oppositions (in capitals) and humorous language (verbatim quotes in italics) are incorporated into it. Underlined are references to frames of other characters.

There is no room to show other character frames and the narrator frame here, but what is visible is the complexity of the network of text-specific references in the story and of the evoked humorous oppositions.

New Debates

In the present chapter I have attempted to overview research on humor in narratives and also outline a number of problematic areas that have been at the core of the scholarly debate. Generally speaking, a number of competing, but not incompatible linguistic paradigms have expanded into the area of narrative humor research, thus far occupied by literary scholars, including the structuralist and the cognitivist. The effect of the expansion was the enrichment of the research area, but also the creation of new issues. The structuralist discrete categorizations have not been entirely successful in handling the data (doubtless orderliness was their virtue, yet they struggled to deal with the natural chaos of things[9]), and thus the cognitivist pattern of continuum of categories moved in, e.g., in classifications of humorous stories, in patterns of imagery and in the flexibility in the treatment of frames, which started to be treated as multidimensional networks. The same type of thinking has been visible in the narratologist attitudes to characters and events—after the period of structuralist zeal in the mid-20th century, narratology has returned to its age-old tradition of flexibility in categorization. In contrast, the broadly structuralist tradition is discernible in the script theory of humor and its follow-ups, e.g., in Raskin's (1985) insistence on specifying the necessary and sufficient conditions for funniness to occur in jokes. A similar attitude is arguably present in Attardo's methodology of vector analysis of humorous stories and the attempt to identify all the humorous lines in a story—such research is no doubt revealing, but then one could ask: what if humor resides among the dissipated triggers concealed somewhere in between the lines, as demonstrated in the analysis of language imagery examples? The vector analyses of different types of stories from various cultures and languages would lead to the discovery of the most common and diverging patterns, but I am not convinced that the conglomerate of such analyses would lend themselves to generalizable conclusions, given the plethora of factors that should be taken into consideration. A hypertextual methodology and technology might be indeed useful, however, to demonstrate the complexity of the interrelations involved in text-specific frames of particular humorous stories as well as richness of the

sensory imagery, and thus to track even more convincingly the connections between humor and narrative.

Another possible line of research would be non-verbal narratives with elements of humor, as those used in sign languages by the deaf community. Along these lines, a recent debate was started by a special issue of the online *European Journal of Humour Research* on art and activism (2015), where an interesting novel perspective on humor in loosely narrative, largely non-verbal discourse was adopted. The discourses involved "humorous interventions"—happenings in the street, where demonstrators held various humorous placards to respond to sociopolitical conflict situations (cf. Shepard, 2015), or where clowns parodied the intervening police or demonstrated they were emotionally attracted to them (cf. Ramsden, 2015), or where artists just used mild humor in everyday life to demonstrate that enemies can live together (cf. Gil & Moti, 2015). What is interesting is the role of art in that humor—a fascinating perspective on new ways to create public, open, persuasive discourses—ready for spectators to turn them into narratives, retelling them to others, with humor being a central aspect to the recounted stories.

Notes

1 Ideology is the subject of discussion by such schools of research as Critical Discourse Analysis or feminist criticism.
2 There were other concepts which played a role in the discussion, such as narrative discourse, fabula or sjuzhet, but they will we omitted from the discussion to simplify matters (cf. e.g. Abbott, 2002, pp. 13–24).
3 See also Raskin (2017) on the Ontological Semantic Theory of Humor, or OSTH.
4 This type of story was postulated given the realization that many collections of humorous stories included those where hardly any narration was present and they were based mainly on dialogue of characters (such as Dorothy Parker's stories, to take the most obvious example).
5 The more complete analysis is available from Chłopicki (2009). The text of the story is available online at http://www.woodyallen.art.pl/eng/kugelmass_episode.php.
6 Lists of image schemas are widely available, although they differ depending on the researcher. A good, representative list can be found in Croft and Cruse (2004, p. 45).
7 My argument is that targets in stories are individuals not stock characters, even though naturally the affinity between these is often intended.
8 Persky seems to be assuming that banging on the cabinet with a wrench will fix its magical function.
9 This is a gross generalization of course. There were many different structuralist approaches just like there are many different cognitivist schools nowadays.

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12
Humor and Stylistics

Paul Simpson and Derek Bousfield

Historical Perspective

Stylistics is a tradition of research that explores literature using the models, methods, and techniques of contemporary linguistics. The underpinning postulate of all stylistic research is that literature is creative expression in discourse, and, by imputation, that frameworks in language and linguistics are pre-eminently well suited to the exploration of both the compositional aspects of literature and the intersection between patterns of style and the ways in which readers interact with, and respond to, these patterns. Enabled by the whole panoply of methods in linguistics, a stylistic analysis can stretch from detailed investigation of, say, phonetic patterning in a single poem to a large scale, corpus-assisted exploration of an entire movement in literary history. There has of course been, since antiquity, much scholarly and philosophical interest in the latent power of patterns in style and language, from the classical Rhetoricians (Cockcroft & Cockcroft, 2005), through the Russian Formalist movement and thence to the Prague School Structuralists (Cook, 1994). Yet it was largely in the last three decades of the 20th century, under the stimulus of new and ever more refined developments in linguistic theory and analysis, that the recognizably contemporary discipline of stylistics took shape. In these years, numerous academic publications appeared where the unifying principle was that primacy of place be assigned to the *language* of literature. Among these early outputs were general book-length treatments by Widdowson (1975), Cluysenaar (1976), Traugott and Pratt (1980), Carter (1982) and Fowler (1986). This body of work was ably supplemented by more specific studies on, for example, poetry (Leech, 1969; Verdonk, 1993), prose (Leech & Short, 1981; Toolan, 1988) and drama (Burton, 1980; Culpeper et al., 1998).

While the focus of such analysis, as noted, is steadfastly on the creative expression of the system of language, stylistics has never sought to deny other approaches to understanding literature, nor has it sought to over-emphasize the formal properties of a text at the expense of its social and cultural context of production. On the contrary, stylistic methods are frequently enriched and enabled by theories of discourse, culture, and society. For instance, three well-established branches of contemporary stylistics are feminist stylistics, cognitive stylistics, and discourse stylistics, all of which have been sustained by insights from, respectively (and rather obviously), feminist theory (e.g., Mills, 1995), cognitive psychology (e.g., Semino & Culpeper, 2002), and discourse analysis (Carter & Simpson, 1989). Furthermore, creativity and innovation in language use have never

been cast as the exclusive preserve of literary writing. Many forms of discourse, such as advertising, journalism, popular music, or even casual conversation, often display a high degree of stylistic creativity, such that it would be wrong to view dexterity in language use as exclusive to canonical literature. Therefore, in the analyses that follow, examples from literary discourse are situated against the wider backdrop of different genres and registers of language. In our specific case, verbal humor and linguistic impoliteness, which form the core of our sample analysis, are tracked and interpreted through examples from literary, dramatic, and so-called telecinematic discourses.

A defining characteristic of the body of research that is commonly understood to be "stylistic" is that its methods of analysis should be sufficiently transparent as to allow other stylisticians to verify them, either by testing them on the same text or by applying them beyond that text. Thus, the conclusions and interpretations reached are principled only if the pathway followed by the analysis is accessible and replicable. It is this aspect of stylistics that perhaps more than any other sets the discipline in counterpoint to approaches to literature where interpretation comes solely from impressionistic commentary or untested (or untestable) intuition. Unsurprisingly, this methodological standpoint has induced much interest, in stylistics, in the expression of verbal humor in literature. In the absence of robust justification within a framework of language and discourse, it is simply not enough for the critic-analyst to decree that a passage of writing is humorous; nor is it enough to reiterate a received wisdom about certain genres of writing being "comic" or to assume that all readers will find aspects of the prose style of, say, Jane Austen or Laurence Sterne inherently funny. A stylistic perspective on verbal humor argues that while linguistic features of a text do not of themselves constitute a text's "humor," an account of linguistic features nonetheless serves to ground the stylistic interpretation and explain why, for the analyst, certain types of humor are possible.

Core Issues

Two key theoretical principles underpin the stylistic approach to the analysis of humor. In line with many contributions to this handbook, the first principle is that that humor requires some form of stylistic incongruity. More narrowly, the incongruity can be engendered by any kind of stylistic twist in a pattern of language or any situation where there is a mismatch between what is asserted and what is meant. The second principle is that the incongruity can be situated in any layer of linguistic structure. That is to say, the humor mechanism can operate at any level of language and discourse, and, as we shall seek to demonstrate in our sample analyses, it can even play off one level against another. A large part of the stylistic analysis of humor therefore involves identifying an incongruity in a text and pinpointing where in the language system it occurs. Of course, not all incongruities are funny or humorous, and some of the issues that this raises for stylistic analysis are explored later in this chapter (see also Attardo, 2001).

Unsurprisingly, one of the most commonly used stylistic devices for creating humor in literary texts is the pun. As a form of wordplay in which some feature of linguistic structure simultaneously combines two unrelated meanings, many puns cut across different levels of linguistic organization such that their formal properties are quite variable. Clearly, the pun is an important part of the stylistic arsenal of writers because it allows a controlled "double meaning" to be located in what is in effect a chance connection between two elements of language. Punning in literary discourse is illustrated by the following lines from the fourth book of Alexander Pope's *The Dunciad* ([1743/1986], p. 2292):

> Where Bentley late tempestuous wont to sport
> In troubled waters, but now sleeps in port.

Although an isolated example from many possibilities in literary discourse, the couplet does illustrate well the basic principle of punning. The form *port* embraces two lexical items: both obvious, one refers to a harbor and the other an alcoholic beverage. In the context of Pope's couplet, Bentley (a boisterous Cambridge critic) is described through a nautical metaphor, as someone who has crossed turbulent seas to reach a tranquil safe haven. Yet the second sense of "port" makes for a disjunctive reading, which, suggesting a perhaps drunken sleep, tends to undercut comically the travails of Bentley. In other words, the double treading is projected by balancing two otherwise unrelated elements of linguistic structure. Staying with Alexander Pope, here is a line from the second canto of *Rape of the Lock* ([1714/1986], p. 2233), where the spirit Ariel seeks to protect the poem's "heroine" Belinda. Threatened by the "dire disaster" and "black omens" that might challenge her otherwise impeccable appearance, she attempts to avoid any peril that might

> stain her honour, or her new brocade.

Here the rhetorical device of zeugma is carried by a single governing verb that conjoins two nouns: one expressing a lofty ideal and the other, rather more prosaically, Belinda's new embroidered garment. This technique in *high burlesque*, where trivial subject matter is presented in an ornate or formalized style, is also at work, nearly three centuries later, in the opening lines of Michael Longley's poem "Level Pegging":

> After a whole day shore fishing off Allaran point
> And Tonkeera you brought back one mackerel
> Which I cooked with reverence and mustard sauce.
>
> (Longley, 2004, p. 30)

Again, the zeugma is expressed through the conjoining of introspective reflection on the one hand with the more worldly culinary accompaniment required for the lone mackerel. Discussing the semantics of coordinated noun phrases like these, Attardo invokes the concepts of "script opposition" and the "logic mechanism" to describe the way text processors process the incongruity of such constructions. Referring to simple, playful juxtapositions like "strawberries and zeitgeist" or "asparagus and the immortality of the soul," Attardo highlights the obvious incongruity derived from the opposition between the left and right-hand sides of the coordination, suggesting that the resolution works on the assumption that because the two noun phrases occur as members of a coordinating construction, it follows that they are equivalent and that therefore it should be acceptable to equate them (1997, p. 412).

There is one stylistic feature of verbal humor that in some respects subsumes both the rhetorical trope of zeugma and the technique in pastiche of high burlesque. This is the concept of *register humor* (Attardo, 1994, pp. 230–253; Alexander, 1997, pp. 190–192). Whereas a dialect is a variety defined according to the user of language, a register, by contrast, is a variety defined according to the *use* to which language is being put. In other words, a register is characterized by a fixed (and recognizable) pattern in vocabulary and grammar; a cookery recipe, a university essay in physics or a journalistic report of a sporting event are all distinguishable as registers because of the function these forms of discourse are required to carry out. Context, so most theories argue, is an important determinant of register, although this predictive aspect is more about likelihood or general tendencies than about absolutely fixed patterns in grammar and style. Where the humor mechanism comes into play is when, as Attardo points out (1994, p. 239), speakers subvert predictions about the appropriateness of certain registers in context,

and the resulting mismatches lead to the type of incongruity we identified early on as being at the heart of humor. Simply put, specific subject matter requires specific terms, but there is great comic potential in the mixing of these levels, styles, and registers (Alexander, 1997, p. 191).

Simpson (2014, pp. 110–116) examines register humor in a passage from Irvine Welsh's novel *Trainspotting* (1993). In this episode, the novel's first person narrator, Renton, finds himself in a magistrate's court defending a charge of shoplifting, having stolen books to support his heroin addiction. Renton's utterances in front of the court are sullen and monosyllabic, and are couched in the low-status Edinburgh vernacular that permeates the bulk of the novel ("Sell fuckin books. Ma fuckin erse" [p. 165]). However, when the magistrate facetiously challenges Renton on his seeming penchant for the philosopher Kierkegaard (the author of one of the stolen books), the defendant offers this astonishing riposte:

> —So you read Kierkegaard. Tell us about him, Mr Renton, the patronizing cunt sais.
>
> —I'm interested in his concepts of subjectivity and truth, and particularly his ideas concerning choice; the notion that genuine choice is made out of doubt and uncertainty, and without recourse to the advice and experience of others. It could be argued, with some justification, that it's primarily a bourgeois, existential philosophy.
>
> (Welsh, 1993, pp. 165–166)

Here, the switch in register, from a non-standard vernacular infused with swear words and taboo language to an eloquent academic disquisition on moral philosophy, could not be more stark. Yet this suddenly elevated turn of phrase does more than simply engender comic effect. For one thing, the magistrate is taken aback by the erudition, such that Renton is later released; for another, this is a knowing authorial gesture to the reader that the novel's seemingly indolent and drug-addled narrator is a more formidable intellectual presence in the story than he first appears.

Other stylistic treatments of humor in literature have quite naturally focused on parody and satire, forms that draw on a particular kind of irony for the design of their stylistic incongruity (Simpson, 2003). In very basic terms, irony is situated in the space between what you say and what you mean, as embodied in an utterance like "You're a fine friend!" when said to someone who has just let you down. Additionally, irony may be engendered by the echoing of other utterances and forms of discourse. So in an exchange like the following

A: I'm really fed up with this washing up.
B: *You're fed up!* Who do you think's been doing it all week?

the proposition about being "fed up" is used in a non-ironic way by the first speaker, but in an ironic way by the second. In other words, the status of the proposition when echoed by speaker B lacks the sincerity of when it is used for the first time by speaker A.

This principle of "ironic echo" is absolutely central to the concept of parody. Once echoed, a text becomes part of a new discourse context so it no longer has the interpretative status it once had in its original context of use. Parody can take any particular anterior text as its model, as well as importing more general characteristics of other genres of discourse, making parody, in Nash's words, a "discourse of allusion" (Nash, 1985, pp. 74–99). For instance, Dorothy Parker's poem "One Perfect Rose" (1923) opens with a knowingly parodic echo of the lyric love poem of the 17th or 18th century: "A single flow'r he sent me, since we met." The last of the poem's three quatrains, however, subverts this anachronistic pattern of vocabulary and syntax through its comical expression of an altogether more contemporaneous desire: "Why is it no one ever sent me yet / One perfect limousine, do you suppose?" (9–10)

The distinction between parody and satire is not an easy one to draw, but it is commonly assumed that satire has an aggressive or critical element that is not necessarily present in parody. One stylistic approach to satire (Simpson, 2003, *passim*) has argued that satirical discourse, as well as having an echoic element, requires a further kind of ironic twist or distortion in its textual makeup. This additional distortion means that while parodies can remain affectionate to their source, satire can never be so. Consider, for example, Jonathan Swift's famous satirical piece "A Modest Proposal" (1729). Swift's text echoes the genre of the early 18th-century pamphlet, and more narrowly the proliferation of pamphlets offering economic solutions to what was then perceived as the "Irish problem." The opening of the Proposal reviews various schemes and recommendations to alleviate poverty and starvation, but it is only after about 900 words of text that its mild-mannered speaker eventually details his "proposal":

> I shall now therefore humbly propose my own thoughts, which I hope will not be liable to the least objection. I have been assured by a very knowing American of my acquaintance in London, that a young healthy child well nursed is at a year old a most delicious, nourishing, and wholesome food, whether stewed, roasted, baked, or boiled; and I make no doubt that it will equally serve in a fricassee or a ragout.
>
> (Swift, 1729)

While Swift's "proposal" echoes ironically the convention of a particular genre of discourse, it simultaneously distorts this convention through its startling suggestion to alleviate the burden of overpopulation in Ireland by eating that country's children. In this sense, the satire is created through both an echo of another discourse and a stylistic distortion within its own internal composition. That said, a question remains as to genuinely how "humorous" this particular brand of satire is, a point that will be taken up later.

As observed in the introductory part of this chapter, stylistic approaches to humor are not restricted by the type of linguistic framework employed or by the type of literary genre explored. All kinds of suitable models may be pressed into service depending on the type of literary text under scrutiny. For instance, Attardo draws on models in cognitive linguistics for his cognitive-stylistic analysis of humor-inducing strategies in prose fiction (Attardo, 2002). Focusing on Oscar Wilde's *Lord Arthur Savile's Crime* (1891), Attardo applies the General Theory of Verbal Humor to the short story, differentiating among other things between Wilde's use of *punch lines* and *jab lines*. While the former category indicates the occurrence of a humor device at the end of the text, the jab line signals a humorous occurrence anywhere else in the text. A punch line (underlined) closes the following quip:

Do you believe in clubs for young men?
Only when *kindness fails*.

Whereas the punch line inheres in a simple pun around the lexeme *club*, a rather more complex pattern of jab lines permeates the following excerpt from the story:

> at the end of the picture gallery stood the Princess Sophia of Carlsruhe, a heavy *Tartar*-looking lady, with *tiny black eyes and wonderful emeralds*, talking *bad French* at the *top of her voice*.
>
> (after Attardo, 2002, p. 235; emphasis in original)

Expanding on the italicized units in this fragment from Wilde's text, Attardo argues that the lexeme "Princess" activates certain stereotypical predictions about the direction the story is likely

to take. However, the incongruity is delivered through the non-stereotypically princess-like characteristics that follow (Attardo, 2002, pp. 235–236). And, of course, these jab lines include the coordinated noun phrases "tiny black eyes" and "wonderful emeralds," another illustration of the rhetorical trope of zeugma covered earlier.

There is a long and established tradition of stylistic research on the pragmatic characteristics of dialogue, whether that dialogue is realized in plays (Burton, 1980; Culpeper et al., 1998; Mandala, 2007) or in film and television (Richardson, 2010; Piazza, Bednarek & Rossi, 2011). In the sample analyses that follow, we intend to probe further issues around the interconnections between humor and dialogue. Although dramatic dialogue is a genre of discourse that has been consistently and much-favored in stylistic research over the years, in spite of some notable exceptions, little of this work has focused directly or systematically on humor. Furthermore, and echoing the position stated at the start of this chapter, creativity in language use transcends literature such that the analysis of fictional dialogue, for instance, may be carried out both on literary texts or on the kinds of dialogue found in television and film. Selecting the pragmatics of impoliteness as its preferred model of analysis, the stylistic analysis that follows embraces forms of literary and non-literary discourse alike.

Methodology and Sample Analysis

Humor and Stylistics Meet the Linguistics of Impoliteness

The concepts of humor and impoliteness when present in fiction, drama, and even real life, can be natural bedfellows. From the irascibly insulting Dr. House in *House MD*, and the creatively offensive character of Malcolm Tucker's spin doctor in *In the Thick of It* and *In the Loop*, not forgetting Tyrion Lannister in *Game of Thrones* jocularly "confessing" the sins of his early life, when first accused of treason and murder (see later in this section); to the real-life, albeit edited portrayals of chef–chef interactions in *Boiling Point*, *Ramsay's Kitchen Nightmares*, and *Hell's Kitchen*; to police–public encounters in *Motorway Life* and *Raw Blues*, the sheer popularity of these shows indicates a sure attraction towards and fundamental appetite for the socially disruptive nature of what has been termed, in academic circles, as rudeness, aggression, and impoliteness.

In each case, the appearance and production of situations representing the construction and communication of impoliteness essentially indicate a break from the norms of expectation either within the text world created (in fiction, and drama), or within real life. But then, the same is true of humor. The combination of both impoliteness and humor, therefore, can compound the effect. After all, one often crucial aspect of humor is that of incongruity. Incongruent humor is that which breaks the expected or schematic norms of everyday situations. Ranging from the ridiculousness of pratfalls and slapstick humor, to the sublime of cunning and willful social transgressions wrapped up in the linguistic dexterity of an able character's verbal humor, the main point to be made here is that humor is similar, in the respect of social transgression, at least, to impoliteness. As Mills (2003) argues, impoliteness is a break from the norms of interactional expectation. So, too, is humor through the approach to the concept known as incongruity theory (see Attardo, 2001; Vandaele, 2002). Impoliteness, and the communication of linguistic offense, is based on notions of power and, hence, on superiority (see Bousfield & Locher, 2008), but then, so too, is humor's superiority theory (see Attardo, 2001; Vandaele, 2002). Finally, impoliteness can be constructed and communicated as a means of socio-cognitive relief (see Bousfield, 2008) from pressure, stress or other perceived tension, but again so too does humor have its relief theory (see Spencer, 1864; Attardo, 1994).

Within the remainder of this analytic section, therefore, we explore the historical perspectives of both "verbal humour" and "linguistic impoliteness," including how the two have recently come to be theorized together in the works of Culpeper (2005), Dynel (2016) and Toddington (2008). Next, we explore core issues and topics in the analysis of humor and impoliteness, exploring the role and impact of what Lorenzo-Dus (2009) calls the "double articulation" effect of most TV-mediated productions, which would include dramatic representations of impoliteness. We explore methodologies for analysis of humor and impoliteness and provide a sample analysis. We explore new debates in both impoliteness theorizing and humor studies, indicating new issues, new challenges, and new potential ways of illuminating stretches of discourse involving impoliteness and humor from contemporary linguistic perspectives. All this, however, raises the question of how the study of impoliteness and the study of humor relate to stylistics.

As we argued, it is the role of the stylistician to show the mechanisms and models behind the verbal humor, and, in this case, therefore, behind the *linguistic impoliteness* to show how the attempt at humor (or at impoliteness, or both) has been made. To this end, we now explore the models and theories of impoliteness.

In defining impoliteness we may turn to any of the following. Bousfield (2010) has argued that

> Impoliteness constitutes the issuing of intentionally gratuitous and conflictive face-threatening acts that are purposefully performed either:
>
> (i) unmitigated in contexts where mitigation (i.e. politeness) is required and/or
> (ii) with deliberate aggression, that is, with the face threat exacerbated, "boosted," or maximized in some way to heighten the face damage inflicted.
>
> Furthermore, for impoliteness to be considered successful impoliteness, the intention of the speaker (or "author") to "offend" (threaten/damage face) must be understood by someone in a receiver role.
>
> (Bousfield, 2010, p. 112)

The lowest common denominator in the definitions of impoliteness is a (set of) behavior(s) that is face-aggravating in a particular context (Locher & Bousfield, 2008). Culpeper (2011, p. 23) suggests that impoliteness

> is a negative attitude towards specific behaviours occurring in specific contexts. It is sustained by expectations, desires and/or beliefs about social organization, including, in particular, how one person's or group's identities are mediated by others in interaction. Situated behaviours are viewed negatively—considered "impolite"—when they conflict with how one expects them to be, how one wants them to be and/or how one thinks they ought to be.

Culpeper's approach, here, is crucial for our analyses in examples [1] and [2] that follow.

Impoliteness, however, has been described, somewhat contentiously, as being "parasitic" on politeness (Culpeper, 1996). Culpeper's observation operates along multiple axes, two of which are pertinent here: impoliteness as a parasitic concept, and impoliteness as a parasitic model for analysis. In terms of impoliteness as a parasitic concept: Locher and Watts (2008) have argued that politeness, not impoliteness (or "rudeness" as they label the concept we, here, understand as

"impoliteness"; see also Terkourafi, 2008, though cf. Bousfield, 2008, and Culpeper, 2005; 2011), is the unmarked, or expected, default "norm" in and across human-human interactions, all other things being equal. Hence, as Mills (2003) argues, *impoliteness* is a transgression, or break from the schematically expected norms of politeness. Hence impoliteness is, as a human concept, parasitic on the "default" understanding and expectation of human-human interaction of politeness. In terms of impoliteness as a parasitic approach or model of analysis, historically, the most prevalent and broadly applied models of impoliteness are those which are derived—parasitically—from the classic model of politeness espoused by Brown and Levinson (1987) which draws upon Goffman's notion of *face*.

> The term *face* may be defined as the positive social value a person effectively claims for himself by the line others assume he is taking during a particular contact.
>
> (Goffman, 1967, p. 5)

Brown and Levinson argue that every individual in a society has two aspects of Goffmanian face, being:

> Positive face: An individual's desire to be liked and for his or her actions to be approved of.
> Negative face: An individual's desire to be unimpeded in his or her actions.
>
> (Brown & Levinson, 1987, pp. 17–18)

They further argue that every communication between two or more individuals has the potential to impact upon, or threaten one (or, we can say, both) aspect of face. These they (Brown & Levinson, 1987) term as face-threatening acts (FTAs). These *threats* to face are unavoidable, for as Scollon and Scollon (2001) argue, there can be no communication without face.

The key, therefore, contend Brown and Levinson (1987), is to find a form of words through which any FTA can be mitigated: the threat obviated, or reduced; the damage done, lessened or atoned for. This is done by choosing a form of words attending to one's interlocutors' face wants or needs. This can be done by using linguistic politeness, which attends to either the hearer's (or receiver's) positive face needs (the desire to be approved of) or negative face needs (the desire to be unimpeded). For example, thanking someone for a gift attends to the gift-giver's positive face needs (to be approved of, as for providing the gift); whereas apologizing for accidentally knocking into someone ameliorates the threat to the offended person's negative face (the desire to be unimpeded, as by being knocked around during the normal course of their movements of the day). As fiction, including prose and drama, exist primarily to comment on the human condition, and (re)present situations and settings in life in a foregrounded way, it stands to reason that characters that are human, or human-like, can be expected (unless there are signals to the contrary within the text) to have the same identical, or similar face needs to humans in real-life—otherwise fictional characters' own inevitable struggles with life, society or the environment would have little meaning or resonance for us as consumers of literature beyond being an autonomous artifact or even mere abstract *objet d'art*.

Where this becomes particularly relevant for us in our theses in this chapter is when characters engage in, are faced with, or respond to impoliteness. In almost direct contrast to politeness, impoliteness is where individuals, or—in the case of literary stylistics—characters, engage in attacking or exacerbating the threats to the face(s) of others—as per the definitions provided earlier for impoliteness—rather than mitigating those threats to face, as in politeness.

An example of a character responding to threats to her own face, with intentional threats to her interlocutor's, can be found in Jane Austen's *Pride and Prejudice* (1813).

[1a] *In this scene Darcy has arrived to propose to Elizabeth Bennett (a main character through whom much of the third person narrative is focalized). This proposal of marriage is shortly after he has worked furiously to ensure his friend Charles Bingley does not marry Elizabeth's sister, Jane Bennett, adjudging—in his prejudice—that the Bennett family is "beneath" that of Charles Bingley. Darcy is evidently agitated as he arrives as, it transpires, he is struggling to reconcile his love of Elizabeth with her relatively lower social status compared to his own. Despite her own emerging feelings, Elizabeth nurses a dislike of Darcy's haughty pride and adherence to class-based distinctions. All this results in an incongruent proposal and response indeed*:

> He sat down for a few moments, and then getting up, walked about the room. Elizabeth was surprised, but said not a word. After a silence of several minutes, he [Mr Darcy] came towards her in an agitated manner, and thus began,
>
> "In vain have I struggled. It will not do. My feelings will not be repressed. You must allow me to tell you how ardently I admire and love you."
>
> Elizabeth's astonishment was beyond expression. She stared, coloured, doubted, and was silent. This he considered sufficient encouragement, and the avowal of all that he felt and had long felt for her immediately followed. He spoke well, but there were feelings besides those of the heart to be detailed, and he was not more eloquent on the subject of tenderness than of pride. His sense of her inferiority—of its being a degradation—of the family obstacles which judgment had always opposed to inclination, were dwelt on with a warmth which seemed due to the consequence he was wounding, but was very unlikely to recommend his suit.
>
> In spite of her deeply-rooted dislike, she could not be insensible to the compliment of such a man's affection, and though her intentions did not vary for an instant, she was at first sorry for the pain he was to receive; till, roused to resentment by his subsequent language, she lost all compassion in anger. She tried, however, to compose herself to answer him with patience, when he should have don**e.** He concluded with representing to her the strength of that attachment which, in spite of all his endeavours, he had found impossible to conquer**;** and with expressing his hope that it would now be rewarded by her acceptance of his hand. As he said this, she could easily see that he had no doubt of a favourable answer.
>
> (Austen, 1813, chap. 34)

While Elizabeth's surprise, and Darcy's conflict within himself, are readily evident, what is of particular note here is the fact that Darcy's speech after his admission of love, and incorporating his actual proposal, is represented as indirect speech (see Leech & Short, 1981). The back-shifted tense, and the use of third-person pronouns clearly indicate this to be the case here: *He concluded with representing to her the strength of that attachment which, in spite of all his endeavours, he had found impossible to conquer; and with expressing his hope that it would now be rewarded by her acceptance of his hand*. As Leech and Short have argued (1981), the use of indirect speech as well as the use of Narrator's Representation of Speech Act evident in *in spite of all his endeavours*, produces a distancing effect on the reader. As this is focalized through Elizabeth we may well take this to mean she is lost in her astonishment as depicted in the preceding paragraph. Equally though, the indirectness of the way Darcy's speech is presented represents the off-handed way in which he describes his inner conflict between love and position. This adds to Elizabeth's, and our, sense of affront at the threat to Elizabeth's positive face (desire to be approved of) when faced (Darcy's compliments aside) with his rather distant and off-handed comments regarding her social rank and class being inferior to his own. We argue that this adds to our sense of affront as our access to the narrative is focalized through Elizabeth, meaning we share her emotional origo. What we

mean here is that, given the locus, or center of the narrative chapter's point of view is told from Elizabeth's perspective, we share the temporal, spatial and, as we are experiencing the narrative with her, aspects of her emotional point of view. What she sees, hears and feels, we get a sense of, certainly more than that of any other character at this point in the narrative. Hence, when she has her aspects of face threatened, we can understand and appreciate it more keenly, precisely because we share her origo.

Indeed, it is this feeling of threat to positive face that leads Elizabeth to respond with her own, this time, intentional threats to Darcy's face in a way in which the reader may find not only humorous, but, given the reasons for her impolite response, cathartic. This scene also lends itself towards an understanding of the psychological release that impoliteness (and indeed humor) in certain circumstances can provide, as we see in the immediately following extract:

[1b] This extract continues immediately after the one in [1a]:

> He spoke of apprehension and anxiety, but his countenance expressed real security. Such a circumstance could only exasperate farther, and when he ceased, the colour rose into her [Elizabeth's] cheeks, and she said,
>
> "In such cases as this, it is, I believe, the established mode to express a sense of obligation for the sentiments avowed, however unequally they may be returned. It is natural that obligation should be felt, and if I could feel gratitude, I would now thank you. But I cannot—I have never desired your good opinion, and you have certainly bestowed it most unwillingly. I am sorry to have occasioned pain to any one. It has been most unconsciously done, however, and I hope will be of short duration. The feelings which, you tell me, have long prevented the acknowledgment of your regard, can have little difficulty in overcoming it after this explanation."
>
> Mr. Darcy, who was leaning against the mantle-piece with his eyes fixed on her face, seemed to catch her words with no less resentment than surprise. His complexion became pale with anger, and the disturbance of his mind was visible in every feature. He was struggling for the appearance of composure, and would not open his lips, till he believed himself to have attained it. The pause was to Elizabeth's feelings dreadful. At length, in a voice of forced calmness, he said,
>
> "And this is all the reply which I am to have the honour of expecting! I might, perhaps, wish to be informed why, with so little endeavour at civility, I am thus rejected. But it is of small importance."
>
> "I might as well enquire," replied she, "why, with so evident a design of offending and insulting me, you chose to tell me that you liked me against your will, against your reason, and even against your character? Was not this some excuse for incivility, if I was uncivil? But I have other provocations. You know I have. Had not my own feelings decided against you, had they been indifferent, or had they even been favourable, do you think that any consideration would tempt me to accept the man, who has been the means of ruining, perhaps for ever, the happiness of a most beloved sister?"

In the fifth paragraph of extract [1b] here, despite the very formal, structural properties of their words, the function of Elizabeth's criticisms of Mr. Darcy is to clearly, via Direct Speech representation, present her withering face attack on him in retaliation for his own insults towards her. Her comments of "*why, with so evident a design of offending and insulting me, you chose to tell me that you liked me against your will, against your reason, and even against your character? Was not this some excuse for incivility, if I was uncivil?*" represent attacks to his positive face (his desire to be approved of) as she is clearly and intentionally reproving him for his earlier, off-handed and

distant remarks. Further, her following comments, "*But I have other provocations. You know I have. Had not my own feelings decided against you, had they been indifferent, or had they even been favourable, do you think that any consideration would tempt me to accept the man, who has been the means of ruining, perhaps for ever, the happiness of a most beloved sister?*" further reprove him constituting another impolite-functioning positive face attack. This also clearly limits his negative face (his desire to be unimpeded) by clearly outlining, in a damaging way, that he will not get what he desires, precisely because he has denied those desires. It is evident that her comments have hit home in [1c]:

[1c]

As she pronounced these words, Mr. Darcy changed colour; but the emotion was short, and he listened without attempting to interrupt her.

His color change appears to demonstrate not only has she attempted a face attack, but she has also succeeded in impoliteness given the definition we adopted earlier. Indeed, all in all these and other instances within this extract of Elizabeth's skillful destruction of Darcy's aspects of face constitute a more global attack from which he ultimately withdraws, as evident in [1d]:

[1d]

And with these words he hastily left the room, and Elizabeth heard him the next moment open the front door and quit the house.

(Austen, 1813, chap. 11)

Given Elizabeth's skillful handling of Darcy's off-handed offense when proposing to her, and given that we are clearly focalized *through* her—thereby sharing aspects of her spatial, temporal and emotional origo—we are likely to find her behavior humorous, or at the very least psychologically satisfying (cf. relief theory mentioned earlier) at having seen her take him down a proverbial peg or two. It clearly marks her character out as well-rounded, fearless, controlled, and strong-minded. Heady traits given the 18th-century period, and the society depicted in *Pride and Prejudice*, and the assumed role and nature of women within the same. This link between the communication and construction of impoliteness and of humor in characterization is not limited to Austen's prose, nor even to fictional narrative. Note the following extract in which the character of Tyrion Lannister in the dramatic adaptation of *Game of Thrones* moves from just another point of view character, to main protagonist, purely through his skillful, and exceptionally humorous use of impolite language.

[2] *TYRION LANNISTER a nobleman, born with dwarfism, has been captured and put on trial for the murder of Jon Arryn, and the attempted murder of Brandon Stark. Crimes for which he is entirely innocent (other members of House Lannister were guilty of the crimes for which Tyrion is on trial). He has spent an uncomfortable night in LYSSA ARRYN'S "sky cells"—cells with a sloping floor and only three walls—where the fourth wall should be there is only sky and a three-hundred foot fall to the valley floor. Having woken up dangling over the edge of his sky cell and fearing he will not survive another night, TYRION has bribed MORD, the jailer, to take him to LYSSA ARRYN, Lady of the Vale, and her sickly, overcoddled, weak-minded 10-year-old son, ROBERT, in order to apparently confess. TYRION claims he wishes to confess his crimes to the assembled LORDS and LADIES of the Vale—this is a calculated move of Tyrion's to escape his cell. The crimes to which he is confessing are not the ones his captors LYSSA ARRYN and CATELYN STARK, wife of Jon Arryn, and mother*

of Brandon Stark, respectively, were expecting to hear—much to the amusement of the LORDS and LADIES of the Vale (and the TV viewing audience), but much to the apparent offense of LYSSA and CATELYN.

1. LYSSA: You wish to confess your crimes?
2. TYRION: Yes, milady. I do, milady.
3. LYSSA: (to CATELYN) The sky cells always break them. (To TYRION) Speak, Imp! And meet your gods as an honest man.
4. TYRION: Where do I begin? I'm a vile man. I confess it. My crimes and sins are beyond counting. I've lied and cheated, gambled and whored. I'm not particularly good at violence, but I am good at convincing others to do violence for me. You want specifics, I suppose? When I was seven I saw a maid, bathing in a river. I stole her robe. She was forced to return to the castle, naked and in tears. If I close my eyes, I can still see her tits bouncing.

The assembled LORDS *and* LADIES *of the Vale gasp collectively. Some smile and laugh. Lyssa Arryn looks around the court, unsure as to their response.*

5. TYRION: When I was 10 I stuffed my uncle's boots with goat shit. When confronted with my crime I blamed the squire. Poor boy was flogged. I escaped justice. When I was twelve, I milked my eel into a pot of turtle stew. I flogged the one-eyed snake, I skinned my sausage (TYRION is miming masturbatory motions with his hands), I made the bald man cry into the turtle stew. Which I do believe my sister ate. At least, I hope she did.

There is growing laughter around the courtroom from the LORDS *and* LADIES *of the Vale.*

6. TYRION: I once brought a jackass and a honeycomb into a brothel—
7. LYSSA: (*Standing up suddenly*) SILENCE!
8. ROBERT: (*Leaning forward. To* TYRION) What happened next?
9. LYSSA: What do you think you're doing?
10. TYRION: (*puzzled*) Confessing my crimes!
11. CATELYN: Lord Tyrion, you are accused of hiring a man to slay my son, Bran, in his bed. And of conspiring to murder my sister's husband, Lord Jon Arryn, The Hand of the King.
12. TYRION: I'm very sorry, I don't know anything about all that.
13. LYSSA: You've had your little joke. I trust you enjoyed it. Mord! Take him back to the dungeon. This time in a smaller cell, with a steeper floor! (Espenson et al. (2011). "A Golden Crown," *Game of Thrones*, Season 1, Episode 6)

This extract is replete with impoliteness. Some direct and evidently intentional, other parts indirect, and less evidently intentional at the level of character-to-character discourse. Despite Tyrion's apparent politeness in turn 2, where he calls his social equal, "milady," this is a *give deference* positive politeness marker (Brown & Levinson, 1987), and one that, incidentally, Lyssa denies Tyrion in return. Indeed, we see explicit impoliteness begin from turn 3 with Lyssa's calling Tyrion, "*Imp!*" This is a combination of the "call the hearer names," and the "use inappropriate identity markers" linguistic output strategies for impoliteness (see Culpeper, 1996), which, together, constitute a positive face attack through an insulting reference to Tyrion's dwarfism.

Within the same turn she further communicates the impolite albeit implied *threat* (Culpeper, 1996) to kill him with "*and meet your gods as an honest man*," with this being an extreme threat to Tyrion's negative face as she is intending to end and impose on his presumed desire to stay alive. So far, the impoliteness she communicates, while evidence of power role assumptions she has as his judge and sole juror, is not at this stage humorous. Tyrion's indirect face-attacks on Lyssa and Catelyn begin with his apparent confessions in turn 4 onwards, and this is where the humor begins.

Tyrion's apparent self, face-damaging admissions that he is a "*vile man*" and his "*sins are beyond counting*" appear to damage his own sense of seeking approval (his own positive face), especially when he admits to lying, cheating, gambling, and whoring. However, the first specific "sin" he confesses to, from when he was seven years of age, is little more than childlike mischief. His use of the taboo word "tits," and the later "shit," is highly incongruent with that of either a noble of high birth, or a genuine, remorseful confession. In fact, Tyrion's introduction of the lexical items, "tits" and "goat shit" arguably comprise representations of register humor insofar as they clearly do not belong in the confession of crimes by a nobleman of high birth and standing.

Furthermore, the use of this incongruent lexical token appears to be the trigger for at first astonishment, and then some scattered laughter in the assembled court, but also apparent and eventually evident rising offense that Lyssa takes. She takes this precisely as Culpeper (2011) predicted, given the use of such taboo and hence incongruent words, as their use is not how one expects or thinks behavior in a confession ought to be. Their use, while obviously incongruent, contributes to an undercurrent of power challenge that Tyrion is so skillful at producing.

Continuing with his confession, Tyrion's admission of having another person punished for his crime of putting goat's feces in his uncle's footwear is followed by the incongruous and repeated (through elegant variation) admission that he masturbated into food ("I milked my eel into a pot of turtle stew; I flogged the one-eyed snake; I skinned my sausage; I made the bald man cry into the turtle stew") that his sister (whom he hates) then ate. There are multiple points to make here in support of the argument being made. First, the sheer repetition of his admission of masturbating, using different metaphors as a way of elegantly varying the point he is making, is doubly foregrounded. The repetition of the propositional content is one aspect of foregrounding, which is, by definition, incongruent, and the use of such metaphors, when literal language would have sufficed, is yet another instance of foregrounding, and hence, again, incongruity. Indeed, the sheer confluence of foregrounding/incongruity in the self-effacing admission of "guilt" contributes to the generation of humor for the text-world's audience and the TV-viewing audience, as, indeed, does the fact that in turn 7, Lyssa shouts for Tyrion to stop—evidently offended by the confession taking a turn that she did not expect or anticipate (remember her satisfying comment to her sister, Catelyn, "The sky cells always break them" at the start of the scene). This directive for Tyrion to "STOP!" appears to show she has not anticipated his type of confession, and the incongruity therein challenges her position, power, and hence her aspects of negative and positive face. Negative face, as her authority to put Tyrion to death as she desires, is being limited by his non-confessing to crimes requiring a death penalty, and positive face, as he is evidently not taking the confession Activity Type (Levinson, 1979) seriously.

Lyssa's directive demand for him to stop threatens both Tyrion's positive face—by showing she does not approve of his "confession"—and his negative face, by forcing him to stop and not continue with his incongruent and increasingly funny "confessions." Indeed, evidence in turn 8 suggests Robert's interrogative implies that he wants Tyrion to continue. However, with Lyssa's turn 9—where she demands Tyrion to explain his linguistic behavior to that point, it is now evident that she is offended by his style and content of admission and confessions. That offense has been taken, by Lyssa, appears further evident in her turn 13 where she criticizes him for his

"*little joke*" (criticisms representing both positive and negative face impoliteness—positive face, as criticisms indicate disapproval for that which has triggered the criticism, and negative face as they imply that such behavior should not be repeated). She further offends him when she instructs the jailer, Mord, to take him to a smaller cell with a steeper floor (the implied threat being that he will likely fall to his death from a smaller, steeper-floored sky cell shows further positive face attacks on Tyrion by Lyssa. These, however, as less likely to be deemed humorous).

As fans of the show will know, we still don't know what happened when Tyrion took a jackass and a honeycomb into the brothel. Such linguistic behavior, evidently offending the character of Lyssa Arryn, clearly entertained the TV-watching audience who found Tyrion's confessions hilarious—much has been written online by tens of thousands of fans of the character and the show. Beyond being merely entertaining, however, we should note that as with our observations on the process of characterization made earlier regarding Elizabeth Bennett, such impoliteness used for humorous purposes acts as evidence of Tyrion having a cunning, clever, and sarcastic mind—thereby adding to the broadening arguments for impoliteness and humor as being characterization traits (cf. Culpeper, 2001).

New Debates

A perennial debate around the stylistic analyses of humor and, one imagines, around the linguistic analysis of humor more generally, is the relationship between formal patterns in text and the capacity of these patterns to induce a humorous reaction in readers, viewers, or listeners. In other words, what kind of constituency separates readers who draw a humorous reading from a particular literary text from those who do not? Clearly, stylistics can here draw much from social science research and especially from empirical work on reading strategies and on reader response patterns. Related to this, and as suggested earlier in this chapter, some parodies and satirical texts draw much impetus from specific cultural reference points, but over time, these reference points become dislocated or invisible to a contemporary readership, bringing about what Nash has called "instances of red-hot topicality gone stone-cold" (Nash, 1985, p. xii). Moreover, there are even questions regarding the comedic status of texts in their original period of production. Bex has called into question the assumption among many contemporary analysts that (all) 18th-century satires were designed to be funny (Bex, 2006). Probing other aspects of Jonathan Swift's writing (including the writer's own reflections on his technique), Bex argues that there is nothing comic in the style of the "Proposal"; rather, the bitterness and savagery in Swift's satire might, at best, induce "a despairing sneer" (Bex, 2006, pp. 119–120).

Other challenges for the stylistic analysis of humor include the development of a theoretically more "joined up" approach to the relationship between comic writing and other genres of discourse, especially genres of discourse that comprise or embrace certain types of stylistic incongruity. The language of both Surrealism and the Absurd are cases in point, although recent ground-breaking accounts of these two genres by, respectively, Stockwell (forthcoming) and Gavins (2013), go a long way to isolating the key features of language and discourse that could enable a full-blown account of the humor mechanism in both artistic movements. Another challenge for stylistics is the development of better corpus tools for detecting the presence of potential humor-inducing features across whole swathes of text. Again, work by corpus stylisticians like Mahlberg (2013), which charts recurring typologies in style across the entire output of the novelist Charles Dickens, offers the opportunity to circumvent localized or *ad hoc* commentary about humor in favor of compelling descriptions of humorous techniques across *all* of a writer's work. Although no more than a snapshot of a blossoming area of inquiry, the present chapter has sought nonetheless to demonstrate both how techniques in stylistics are well suited

to the exploration of verbal humor and why stylisticians have shown a continued interested over the years in this area of study.

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13
Humor and Pragmatics

Salvatore Attardo

Properly considered the scope of a chapter titled "humor and pragmatics" would encompass so much material, under the expansionist definitions of pragmatics dominant in the field, as to render it moot, as its contents would be duplicated by most of the entries in the sociolinguistics and applied linguistics chapters. Therefore, this chapter will be limited, for practical reasons only, to the relationship between humor and the principle of cooperation, on the one hand, and the more general category of the "implicit" on the other hand. Readers interested in the social, variationist, conversational, discursive, etc. aspects of the subject should consult the relevant chapters.

1 Historical Perspective

Herbert Paul Grice was an Oxford-trained philosopher. He moved to Berkeley, California, in 1967 and taught there until his death in 1988. Grice published on a wide array of topics, but we will only concern ourselves with the *principle of co-operation* (CP) and its connections with humor research.

Grice's work germane to the topic at hand appeared first in his 1967 William James lectures, transcripts of which circulated widely in mimeographs. Then in 1975, Grice let himself be convinced to publish one of the lectures, "Logic and Conversation," as Grice (1975). A second lecture was later published as Grice (1978). The entirety of the lectures was eventually published in the posthumous *Studies in the Way of Words* (1989). For ease of reference, I will quote Grice's work from the latter publication.

That Grice had to be convinced to publish work that had already been circulating for a decade is telling of his reluctance to publish, almost as much as the appearance of two more posthumous works: *The Conception of Value* (1991) and *Aspects of Reason* (2001). Grice's work is best understood as a system, but this is not the place to present it as such.

Grice was a good writer. His examples are vivid and memorable. The example of the letter of recommendation ("testimonial" in the original) for the student applying for a philosophy job is a delightful vignette. He had a great sense of humor, which led him to incorporate inside jokes and witticisms in his academic writing. Moreover, he favored a cyclical presentation of ideas, in which a thought is presented and set aside, to be returned to later for a more precise or specific definition. Finally, he was acutely aware of the novelty of some of his ideas and of

how preliminary the treatment of the ideas was. Taken together, his reluctance to publish and his complex style have been a serious hindrance to the understanding of his work. A good example is the very presentation of the CP, to which we turn next.

1.1 The CP and the Maxims

The CP is worded as follows: "Make your contribution such as it is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged" (Grice, 1989, p. 26).

The CP essentially consists of four maxims, some of which have sub-maxims. Grice introduces these as follows:

> On the assumption that some such general principle as this [= the CP] is acceptable, one may perhaps distinguish four categories [. . .] Echoing Kant, I call these categories Quantity, Quality, Relation, and Manner.
>
> (p. 26)

In Kant's system, categories are abstract characteristics that can be predicated (understood) of objects, and so far I have yet to come across any truly convincing explanation of why Grice felt that there was a connection between the maxims, or the CP, and these Kantian notions. Alwood (2000) "surmises" that Grice "wished to suggest a connection between categories of understanding and categories of communication" (p. 53) and this explanation may well be correct. Be that as it may, it would have been nice for Grice to explain why he felt there was a connection and what readers were supposed to do with it. Note also that Grice affects to undermine his own presentation: after having presented the CP he claims to proceed only on "the assumption" that "such [. . .] principle is acceptable" and "perhaps" move forward to the four categories. Note that this is the final presentation of his ideas introduced more than 20 years before. So, it is not as if Grice just thought of the CP a few hours before writing the text . . . Conversely, Grice was obviously happy with the essays or he would not have included them in his final opus.

In the general understanding of Grice's work and in most presentations of his thought, the unnecessary, mostly unmentioned thereafter, Kantian categories are subsumed under the names of maxims and submaxims they include, which gives us a schema as follows:

> *Maxim of Quantity*
>
> Make your contribution as informative as is required (for the current purposes of the exchange).
> Do not make your contribution more informative than is required.
>
> (1989, p. 26)

> *Maxim of Quality*
>
> Supermaxim: Try to make your contribution one that is true
> Submaxims:
>
> Do not say what you believe to be false.
> Do not say that for which you lack adequate evidence.
>
> (1989, p. 27)

Maxim of Relevance (Relation)

Be Relevant

(1989, p. 27)

Maxim of Manner

Supermaxim: Be perspicuous
Submaxims:

Avoid obscurity of expression.
Avoid ambiguity.
Be brief (avoid unnecessary prolixity).
Be orderly.

(1989, p. 27)

1.2 Relationship Between the CP and the Maxims

As we saw, Grice's reticent style, his unwillingness to present his work as final, and his sense of humor have hampered the understanding of his work. The CP's wording is a case in point. Due to Grice's infelicitous wording many readers have misunderstood the relationship between the maxims and the CP and come to believe the logically impossible idea that one could violate a given maxim while still following the CP. It is clear and beyond discussion that the maxims are instances of the CP, i.e., concrete cases of a more abstract principle. It is logically impossible therefore to violate a maxim while not violating the CP. A clearer example may help. Suppose that we have a principle of Righteous Behavior, which states "Behave righteously in your interactions with people; specifically, do not commit crimes." The maxims are: (1) do not kill; (2) do not steal or rob; (3) do not assault people; etc. It clearly makes no sense to say that an assassin was still following the principle of Righteous Behavior because he/she did not steal anything from the person he/she killed.

1.3 Implicatures

The maxims and the CP have a peculiar status in Grice's opus. In the Gricean *vulgata* they are usually presented in isolation. However, this is misleading, in the sense that Grice presents the CP and the maxims as essentially a side note meant to explain the fact that logical connectors[1] (such as "and" and "or") have different meanings in logic and in natural language. This is due, Grice says, to "inadequate attention to [. . .] the conditions governing conversations" (1989, p. 24). One of these conditions are implicatures.

Implicatures can be derived by the following of the maxims and the CP as well as by their non-observance. We will focus first on implicatures generated by following the CP. Grice's example is

(1) A: I am out of petrol.
B: There is a garage round the corner.

(Grice, 1989, p. 32)

His choice is a little unfortunate because, as shown in Attardo (1997 and cf. references therein), there are two distinct "levels" of cooperation, which may not coincide: in (1) the speaker may cooperate at the discursive level, i.e., answering clearly, concisely, truthfully, and to the point that

the closest place that sells gas (petrol) is around the corner, however, there is a second level at which speaker B must also cooperate, i.e., as Grice says, one would not be relevant "unless he thinks, or thinks it possible, that the garage is open, and has petrol to sell" (Grice, 1989, p. 32). This level is the achievement of the practical non-discursive goals of the speaker. In Grice's example, the two levels happen to coincide, and so there is no problem. Consider now example (2):

(2) A: From what platform does the train for Paris leave?
B: There's a strike. You'd better rent a car.

Here speaker B is literally refusing to answer A, clearly a non-cooperative move at the conversational level. However, no perception of uncooperativeness arises because B is helping A achieve his/her putative non-conversational goal of getting to Paris. Note that if B answered fully abiding by the CP "Platform 1," B would not be seen as being cooperative (even assuming that truly the train would have departed from platform 1, hadn't it been canceled). Note in passing that, because the question is posed in the present tense, there is a grammatical reason for the question to be interpreted as an habitual event and not a punctual one, which eliminates a possible counter-argument that A was asking about the specific train departing closest to the time of speaking.

A better example, in which the speaker's goals and the conversational goals coincide, would be two students talking before class:

(3) A: What time is it?
B: 8:50.

A will assume that B's statement is true and it is in fact 8:50 (or at least close enough to that time for the difference from the actual time not to matter) based on the fact that B seems to be cooperating fully. Note how B is also concise, clear, and to the point.

Another example, which does not involve the maxim of quality is (4):

(4) A: Do you have any children?
B: I have two.

From B's answer and the assumption that B is following the CP we can infer that B does not have three or four children, because the maxim of quantity would require B to say if he had more than two children. Likewise, if a speaker says

(5) I have read some of Grice's papers.

we can assume, by the maxim of quantity that he/she has not read them all.

Hence, it follows that the mere assumption of observance of the CP on the part of speakers allows other interactants to derive implicatures from the speakers' utterances. We now turn to the other cases of implicature production, which involve non-observance of the CP. Before we do so, however, we need to review what happens if speakers do not follow the CP.

1.4 Non-observance/Violation

Grice states very clearly that speakers may "fail to fulfill" maxims (and hence the CP) in various ways:

1. Violating: "he[/she] may quietly and unostentatiously violate a maxim; if so, in some cases, he[/she] will be liable to mislead" (Grice, 1989, p. 30).

2. Opting out: this case covers situations in which the speaker, for whatever reason, chooses to not to cooperate and lets it be known. For example, the Family Educational Rights and Privacy Act (FERPA) prevents university officials from discussing a student's record with anyone but the student. Thus I have had on occasion to say to annoyed parents that FERPA prevented me from disclosing the record of the student whose bills they were paying. Other cases are responding "no comment" to journalists, taking the fifth amendment in a trial, or just saying "I cannot say more."
3. Facing a clash between two or more maxims: Grice's example is a situation in which one wants to be as informative as possible (Quantity) but lacks the evidence (Quality) to do so.
4. Flouting: the speaker may "blatantly fail to fulfill" a maxim.

Thomas's (1995, p. 72) taxonomy classifies non-observance (i.e., not following) of the CP in five classes:

1. Flouting
2. Violating
3. Opting out
4. Infringing
5. Suspending.

This complexity perhaps justifies some of the annoyance that creeps in the discussion of Grice work: "Having made all these distinctions, it is extremely irritating to note that Grice himself does not always use the terms consistently" (Thomas, 1995, p. 72). However, the annoyance level will diminish when one realizes that Grice is simply using "violation" in the sense of non-observance. Thomas's taxonomy leaves out clashes, because Thomas sees clashes as generating flouts (pp. 65–66). Infringements are involuntary violations due to "imperfect command of the language" (p. 74) such as in children and second language learners.[2]

The idea of suspension is not in Grice. Thomas says explicitly so. Suspension is defined as

> there are occasions when there is no need to opt out of observing the maxims because there are certain events in which there is no expectation of the part of any participant that they will be fulfilled (hence the non-fulfillment does not generate any implicature).
>
> (Thomas, 1995, p. 76)

Thomas quotes questioning in a court of law, in which speakers are not expected to self-incriminate; eulogies and obituaries, which will generally omit negative information about the deceased; the maxim of manner for poetry; the maxim of quantity for telegrams; and all the maxims except relevance for humor. Let us briefly note that Thomas is definitely wrong about telegrams (younger generations may replace this example with tweets): a telegram does not license the omission of information. It requires providing the information in a concise way. Imagine the following telegram:

(6) Father arriving 5:16 train tomorrow.

which failed to mention that father was deceased. My poet friends would probably riot at the mere suggestion that poetry is deliberately obscure. Concerning humor, the idea of suspension is a non-starter: consider deadpan humor, which consists of incongruity in relation to expectations. If the expectations were suspended, there would be no incongruity. Furthermore, how

would we know to suspend the expectations? We would only find out post hoc, and if the humor has already occurred, what's the point of suspending the maxims and/or CP? Let us note in passing that van Raemdonck (1986) found that all jokes violated the maxim of relevance, and some violated one or more other maxims as well. This is not the place for a full discussion of this important issue, as it is true and important that in many situations other factors supersede the CP, such as rational motivation (see Attardo, 2003 for some discussion).

Having disposed of the idea of suspending the maxims and the CP, let us return to the core point of this section, and namely the difference between implicature-generating flouts and violations. Grice insists, and for once his terminology is very clear, the flouts are done openly ("blatantly") whereas violations are covert ("quietly and unostentatiously"). This is because flouts crucially rely on the mutual knowledge that the speaker is non-observant (violating) of one or more of the maxims and hence the CP, and the hearer knows this and knows that the speaker wants him/her to know this. Consider now a variant of example (3). Assume further that the speakers are familiar with the convention, at their institution, that a bell rings to indicate the beginning and end of classes.

(7) A: What time is it?
B: The bell hasn't rung yet.

The line of reasoning licensed by the CP is as follows: B's answer is not relevant to the question, because it does not provide a time, such as 4:30 pm. Hence it is a violation/non-observance of the maxim of relevance. However, B is blatantly non-observant, hence he/she must want A to become aware of the violation/non-observance. What could be the motivation for B's behavior? Because he is not incapacitated or otherwise impaired in his/her knowledge of the conventions of English communication, it follows that he/she must have a reason to do so. Assuming that he/she is still wanting to be cooperative, he/she must be trying to communicate something. Using the CP as our guide, and primarily relevance, what could be the cooperative point B is trying to convey indirectly (we have seen that at the direct level the answer is non-cooperative)? It must be time-related. Because I know that bells ring at the beginning of class, and we are having this conversation before class, and because we are students we presumably want to attend class,[3] therefore I conclude that because, let's say, our next class is Intro to Linguistics, which starts at 9:00 am, it must be 8:50 or 8:55 am, give or take a few minutes.

Flouts are said to exploit a maxim (Grice, 1989, p. 30). Flouts may exploit any maxim. Grice provides a wealth of examples (pp. 33–37). Two are particularly interesting: one is a complex multilingual pun, the other is an example of irony, which we will consider first:

(8) X is a fine friend (Grice, 1989, p. 34)

Grice returns to the discussion of irony as a flout in the next lecture (chapter 3 of Grice, 1989). Irony exceeds the boundaries of this account, but let me note that regardless of any other aspects of his discussion of irony, Grice ignores a minor but crucial detail: why choose to express whatever the implicature of the flout is, say "he is not a fine friend," through irony rather than stating directly the implicature? Insofar as there is no pragmatic justification along the lines of avoiding offense or some other such motivation, i.e., if the purpose is to be humorous, then there is a small but real violation of the CP, which I have called a residual violation.

Returning now to the pun, Grice dedicates a couple of paragraphs to this very short story:

(9) [A] British General who captured the province of Sind and sent back the message *Peccavi* (Grice, 1989, p. 36).

the solution lies in the translation of the Latin word *Peccavi*, which is "I have sinned." This expression is similar in sound to "I have Sind." Grice's discussion ignores entirely the fact that the text is supposed to be humorous and focuses instead on the fact that the "I have Sind" interpretation is much less straightforward than the other. I refer the reader to Hempelmann & Miller (2017) for a discussion of the incongruity in puns. In conclusion, all maxims can be flouted, and flouts generate implicatures. Grice's analysis of two mildly humorous examples ignores the humorous nature of the examples entirely and does not address their status qua humor vis-à-vis the CP.

One last example deserves discussion, because of the potential for confusion:

(10) At a genteel tea party, A says *Mrs X is an old bag*. There is a moment of appalled silence, and then B says *The weather has been quite delightful this summer, hasn't it?* (Grice, 1989, p. 35).

Grice glosses this example as "an implicature is achieved by real, as distinct from apparent, violation of the maxim of Relation" (p. 35; the original is in italics, SA). The first potential confusion is that the implicature is generated by B's response, not by A's faux pas. The second confusing aspect is that here Grice is using violation as the umbrella term for non-observance, as Thomas complained about. Indeed, if we look the rest of the explanation, Grice says that "B has blatantly refused to make what he says relevant to A's preceding remark." From the preceding definition, this is a flout, because it is blatant, and not a violation.

Finally, a caveat is necessary at the end of this necessarily short discussion of Grice's views on the CP, implicatures, and non-observance of the maxims: as Davis (2014) rightly says, "The literature on implicature is enormous and growing. This entry, regrettably, had to ignore many valuable contributions." Davis (2014) itself is a good place to start, as well as Levinson (1983).

2 Core Issues and Topics

2.1 Jokes as Violation of the CP

The idea that humor and jokes are a violation of the CP has a widespread literature, reviewed and systematized in Attardo (1990; 1994). It is reviewed very quickly in this section.

One of the earliest mentions of the violation of the CP comes from Violi and Manetti (1979, pp. 132–133). Hancher (1980; 1981; 1982; 1983), speaks of intentional violations of felicity conditions and the "related conversational maxims proposed by Grice" (1980, p. 20). Eco (1981) discusses the violation of Grice's maxims "without reason" and provides examples for three maxims, but not for the maxim of manner, claiming that it is unnecessary to provide examples because involuntary examples are very common. Eco stresses that the violation must be present but that it also needs to be "presupposed as implicit." Martinich (1981) analyzes some exchanges from *Alice in Wonderland*. He states clearly that, Humpty Dumpty can be blamed for "violating the maxim of relevance" (1981, p. 25), for example.

Morreall (1983, pp. 79–82) speaks of "incongruity based on violation of the general principles governing conversation" (p. 79) specifically mentioning Grice's CP and the maxims and presenting eight "guidelines" to produce humor by violating the CP, such as "ambiguity can be used deliberately" (p. 81). Leech (1983, pp. 98–99) speaks of "implicature failure" (i.e., violation without implicature) as the source of jokes such as

(11) "There's a fly in my soup!" Waiter: "Don't make a fuss, sir—they'll all want one."

Incidentally, Leech here is guilty of the same fallacy as Yamaguchi, i.e., attributing a misunderstanding to the character, when the text is simply playing with the principle.

Hunter (1983) examines cases of deliberate misunderstanding in which the hearer affects to interpret an utterance literally, to mock or tease the speaker, as in (12):

(12) Jay: "Ben isn't the smartest guy in the world."

Susan (ironically): "Not when the world has you in it." (Hunter, 1983, p. 197)

Hunter glosses: "[t]he respondent [. . .] pretends to assume that the speaker is following all the maxims meticulously, and thereby pretends to understand" that Jay was not using an understatement but was establishing a scale of smartness, in which Susan locates Jay lower than Ben (p. 197). Hunter characterizes his sort of exchange as "uncooperative discourse" (p. 201).

Since Attardo's (1990; 1994) discussion, the number of articles discussing the violation of the maxims to generate humor has grown exponentially. A Google search yields more than 9,000 hits. Needless to say, this does not constitute an endorsement of those papers, rather merely an acknowledgment that it would be impossible to cover the entirety of the literature.

2.2 Jokes and Non-Bona-Fide Language

Raskin (1985) introduces the term *bona fide* (Latin for "good faith") to indicate the "ordinary" information-conveying mode of language (p. 89) and the term *non-bona-fide*, to indicate other modes of communication not entirely dedicated to information-conveying, along the lines of Austin (1962, p. 22) and Searle's (1969, p. 57) definition of humor as a "parasitic" mode (Austin lists play acting, reciting poems and soliloquies; other parasitic modes, according to Searle include joke telling, teaching language, and practicing pronunciation).

Raskin introduces, only to dismiss it as uninteresting, a principle of cooperation for joke telling, essentially by relativizing each of the maxims to the situation of joke telling (e.g., "say only what is relevant to the joke" (Raskin, 1985, p. 103). More interesting for Raskin is that, if the speaker/hearer is going to leave bona-fide communication, at least in American culture, the "next immediate hypothesis" (p. 104) is that the speaker must be engaging in humor. Raskin goes so far as hypothesizing an "extended form of bona-fide communication" (p. 104), but never provides any specifics on how this would function. Raskin states that humor, unlike lying, another non-bona-fide mode of communication is cooperative and likens it to play.

Raskin (1992) further problematizes the category of non-bona-fide, first by suggesting it should be replaced by the cooperation and non-cooperation opposition, and second, by suggesting that even bona-fide communication is not as adamantly committed to the transmission of information as Austin and Searle would have had us believe. Raskin sees cooperation as ranging on a continuum with absolute bona-fide communication on one side, say a manual on how to operate heavy machinery, and complete non-bona-fide on the other side, with lying as the quintessential non-bona-fide mode. In fact, Raskin goes so far as claiming that all intermediate modes, except lying are to be considered bona fine.

Attardo (1994, pp. 286–288) reports this discussion and anticipates further discussion of a hierarchy of principles that eventually appeared as Attardo (1997). The issues are too complex to discuss in this context and they concern humor only marginally,[4] so I will only say that Attardo (1997) moves completely away from the idea of having different CPs dedicated to different modes of communication and instead rely on a hierarchy of principles, including an overarching rationality principle (cf. Kasher, 1976; Attardo, 2003) and a principle of non-cooperation, partially presented in Eisterhold et al. (2006). In conclusion, it would be futile to try to reconcile Raskin's (1992) and Attardo's post-1994 views on cooperation and humor, as their respective models seem to have developed in opposite directions.

2.3 Attempts to Deny the Violation

There have been a few attempts to claim that humor is not a "real" violation of the CP, either by claiming that the violation is merely mentioned, or attributed to a character in the text. Attardo (1994) notes that there are two logically possible "mention" accounts of humor: a weak theory (which only allows explicit mentions, as in Yamaguchi, 1988) and a strong theory that allows implicit mentions (Sperber & Wilson, 1981a). It should be noted that Sperber and Wilson only discuss mention theory as a theory of irony and not of humor. Since then, Relevance Theory has moved away from the "mention" terminology (see Yus, 2017). Yamaguchi's "character did it" hypothesis (also based on mention theory) is discussed and refuted in Attardo (1994, pp. 278–282). To be fair, Yamaguchi himself noted that at least in one class of cases the character-did-it theory failed. A strong mention attempt at denying the reality of the violation is also refuted in Attardo (1994, pp. 283–286) because of the infinite regression caused by the possibility of silent mentions (how would one know that this parenthetical is not a mention of a parenthetical, which itself could be a mention, ad infinitum) but also because some jokes and other humorous texts directly target the hearer, which makes it difficult to ensconce the violation of the CP in the safety of metalanguage.

Other approaches have been presented that likewise claim that humor does not violate the principle of relevance (as presented by Relevance Theory). This should not be interpreted as saying that humor may violate the other three maxims, but not relevance. Relevance Theory assumes that the principle of relevance is inviolable (Sperber & Wilson, 1986, p. 162). Because Relevance Theoretic accounts are discussed in Yus (2017), I will not present them here, except for noting that they emphasize the use of the principle of relevance in reaching inferentially both senses in the humor process. An obvious problem, which none of the accounts based on Relevance Theory addresses, is how to account for the surprising presence of the incongruity: if the text suddenly switches from one maximally relevant interpretation to another one, how can we avoid the conclusion that the first interpretation suggested by the text was not truly maximally relevant and hence the supposedly inviolable principle had been violated?

Other accounts have been presented in which the violation of the CP is otherwise normalized, for example, by turning it into an implicature (Klungervik-Greenall, 2003, Dynel, 2009; Nemesi, 2015). Mooney (2004, p. 915) claims that humor is a non-successful violation and that therefore implicatures follow from it. All of these accounts suffer from serious methodological shortcomings and/or misunderstandings of Grice's theory. Finally, Goatly (2012) has presented a new hypothesis, also seeking to deny the actual violation of the CP in humor, which will be discussed in the "New Debates" section later in this chapter.

To conclude this discussion, I would like to speculate on why so much effort has been expended in the vain attempt to deny the fairly obvious fact that humor and jokes are texts built, like magic acts and detective stories, precisely to mislead the hearer/reader into believing one thing, only to switch that interpretation around at the right time. I suspect that the term "non-cooperative" is to blame in this case, in the sense that the non-technical meaning of non-cooperative "colors" the understanding of what is being claimed. Somehow, non-cooperative is interpreted as aggressive or disruptive, as in "an uncooperative subject," or worse as antisocial, as in someone not helping out. The term "non-bona-fide" might not have helped either as the connotation of "bad faith" (*bona fide* is Latin for "good faith") would also go in the same direction. This is why I avoided the term "non-cooperative" and ultimately "violation" and prefer the use of "non-observance," which has less negative connotations. I must stress, however, that I still maintain that humor is a violation of the CP and not some other form of non-observance.

3 Methodology and Sample Analysis

Grice was a philosopher. His theory was presented as a philosophical theory. No doubt, he would have been surprised and possibly amused by the many attempts to refute a philosophical model with processing data. The fundamental flaw of such an approach is to assume that Grice's model was intended as a model of how people process information. However Grice explicitly (or at least, as explicit as Grice gets) states that the paraphrases of reasoning he outlines are not psychologically real models. Consider how Grice talk about the "working out" of the implicatures: "The presence of a conversational implicature must be capable of being worked out" (Grice, 1989, p. 31) "the way in which what was what is putatively implicated could have come to be implicated (by a derivation of it from conversational principles and other data)" (p. 43). It is clear that the working out of the implicatures is not done by the speakers here, but by the philosophers: it's not about how do people actually work out the implicatures but how they *could* have worked them out.

Grice does however, does provide a "general pattern" for the working out of implicatures:

> He has said that *p*; there is no reason to suppose that he is not observing the maxims or at least the Cooperative Principle; he could not be doing this unless he thought that *q*; he knows (and knows that I know that he knows) that I can see that the supposition that he thinks that *q* is required; he has done nothing to stop me thinking that *q*; he intends me to think. or is at least willing to allow me to think, that *q*; and so he has implicated that *q*.
>
> (Grice, 1989, p. 31, emphasis in the original)

While providing some direction, this remain frustratingly vague and unhelpful to someone who has never worked out explicitly an implicature. In particular, the third step ("he could not be doing this unless he thought that *q*") seems unjustified by either inductive or deductive reasoning. That is not a coincidence or a slip by Grice: implicatures are fundamentally abductive, i.e., they are based on a mode of reasoning that is neither inductive or deductive, or to put it differently that neither goes from many facts to a generalization that explains them, nor from a general rule to a number of more specific facts that instantiate it, respectively. Abduction, as per the definition that Peirce gave when he introduced the concept (Peirce, 1955), takes as input several apparently unrelated facts and then finds an explanation that, if it were true would explain them, and concludes that said explanation is therefore true.

> The surprising fact, C, is observed;
> But if A were true, C would be a matter of course,
> Hence, there is reason to suspect that A is true.
>
> (Peirce, 1955, 5.189, p. 151)[5]

We cannot go much beyond the basic statement that implicatures are abductive and probabilistic, unlike inferences and presuppositions, which follow inductive and deductive logical paths. However, a fuller discussion of the connections between abduction and implicature can be found in Attardo (2003).

Where does that leave someone wanting to implement a Gricean analysis of implicatures? As stated earlier, definitely not with a psychologically realistic model of the reasoning followed by speakers. It was never Grice's intention to provide that sort of model. Moreover, recent work in psycho- and neurolinguistics has shown that decisions, such as how to answer a question, are made below the threshold of consciousness, i.e., 500 milliseconds (Libet, 2004). In other words,

there is no possibility, however remote, that a model such as the one presented by Grice in which a speaker consciously follows a line of thought as complex as the one presented earlier, could be psychologically real. The processing of implicatures, the finding of the abductive rule is done subconsciously, below the threshold of consciousness. Because of this it is obviously unavailable to introspection.

There are two options that present themselves to a would be analyst at this point: the first is to pursue instrumental analysis, which allows us to see which parts of the brain are activated, with resolutions down to milliseconds, using electroencephalography (EEG) or using response times, for example. The drawbacks of these approaches are that they are complex and require extensive training, they are often expensive to operate (PET scans cost over $1,000 per scan), and they require extensive time to collect statistically significant data. The second is to pursue a "thought experiment" approach similar to Grice's general pattern and try to reconstruct a posteriori what the subconscious thought process might have been. In this approach, the crucial, if almost unspoken, rule is adherence to Occam's razor.

Consider for example the following situation:

(13) Husband to wife: "Mary looks great."

Wife: "She really does."

The analyst may wonder if the wife in (13) takes the husband to be following the maxim of quality (i.e., the husband believes that Mary looks great) or takes him to be violating it or flouting it. Indeed, this could be a flout in which the husband blatantly violates the maxim and hence the CP, to generate the implicature that he does not think that Mary looks great. However, nothing in the data we have (realistically, only the two lines of text) points in the direction of a flout or a flat out violation (e.g., the husband is looking at, say, Jane and deceiving his wife about the identity of the woman). Therefore, by Occam's razor we must adopt the simplest explanation fitting the facts, i.e., that husband and wife agree that Mary looks great.

This caveat may seem obvious, but it should be kept in mind that humor analysts are investigating a mode of communication in which the rules of communication are deliberately breached. When looking for violations it becomes very easy to see them everywhere. Hence the need to show hermeneutical restraint.[6]

3.1 Tests for Conversational Implicatures

To wrap up the section on methodology, it is worth noting that Grice provided us with a battery of tests, to help determine if a meaning is a conversational implicature or not. We will review them in what follows.

Grice's tests are as follows:

1. Conversational implicatures may be canceled by opting out (Grice, 1989, p. 39). An example might be:

   (14) "Mary is very close to Jane, but I don't mean to imply anything romantic."

2. Non-detachability is defined as "it will not be possible to find another way of saying the same thing, which [. . .] lacks the implicature in question" (p. 39). Any paraphrase of the first clause of (14) will carry the same potential implicature that Mary and Jane have a romantic relationship.

3. Non-conventionality: The implicature is not part of the conventional meaning (p. 39). For example, in the utterance

   (15) Bob is a bachelor.

   the possible assumption that Bob is living it up is not an implicature, as the meaning is part of the conventional meaning of the word "bachelor" and is non-detachable (Bob is single; Bob is unmarried; etc.).

4. Non-truth-conditional: the truth of the implicature is independent from the truth of what is said. Again, in the case of (11) Mary and Jane may be very close, but they still may not be romantically involved, despite the implicature, which we needed to neutralize in the second clause.
5. It may be open-ended and indeterminate.
6. Calculability: "The presence of a conversational implicature must be capable of being worked out; for even if it can be intuitively grasped, unless the intuition is replaceable by an argument, the implicature (if present at all) will not count as a conversational implicature; it will be a conventional implicature" (Grice, 1989, p. 31).
7. Reinforceability (this test was proposed by Sadock, 1978, not by Grice); it consists of making explicit the implicature.

The significance of being able to determine if a given meaning in the text is an implicature or not should be obvious: because flouts generate implicatures and violations do not, beyond what is implied by the violation, if a given non-observance in the text is found to produce implicatures it will likely be a flout and not a violation. Conversely, if a non-observance does not produce implicatures, it will likely be a violation. Consider (16):

(16) Bob: "I had chicken tikka masala for lunch" (Bob is lying, in fact he had McDonald's).

(16) will generate some implicatures, such as "Bob likes Indian food," "Bob went to an Indian restaurant," etc. However, because the hearer is not aware, for the sake of the argument, of the violation no implicature can come from the fact that he had lunch at McDonald's (e.g., "Bob likes hamburgers").

4 New Debates

4.1 Goatly's Short-Term Violation

Goatly (2012, p. 235) proposes to consider humor as a short-term violation (or as he puts it "a flout delayed by violation"). Goatly states that "the breaking [= violation] of the maxims must be recognized almost immediately, at least within the next couple of turns of the discourse for the joke to work" (p. 235). There is a problem with this idea, which Goatly acknowledges (p. 339): the "flouts" are not defeasible and they do not generate implicatures. Even more damaging to the idea is that the violation of the CP is not meant to be recognized immediately, at the time of the first processing of the text, as it is in flouts, so whatever its nature the non-observance/violation is not a flout.

Goatly is correct that the violation of the CP in jokes lasts for a very short time, in contrast with lies, for example, whose duration is indeterminate. However, the violation/non-observance is not a flout: it is not recognized at the time of first processing, which means it is not blatant and hence fails the central test for flouts.

Violations of the CP do not generate implicatures, qua violations. They may generate implicatures because the hearer is deceived by the speaker's violation and takes it as truthful, relevant, etc. but those implicatures are just the normal ones that a serious non-deceptive utterance would have produced. As I pointed out in Attardo (1993), the recognition of the violation causes a breakdown in communication: why believe someone who has just demonstrated to be untrustworthy? If the CP is not operational, no implicatures can be drawn. The recognition of the violation and the attribution to the speaker of the pro-social intention to amuse will cause the interlocutors to recognize the metamessage "this is play" and they may start keying the situation for humor or sanction it as an unwarranted use of humor. In other words they may or may not enter the humor mode. However, none of that is an implicature. They are social and cultural practices, triggered by the violation.

4.2 Humor and the Implicit

It has been commonly known that some aspects of the text of humorous exchanges must be left implicit (unsaid). The explanation of the punch line is considered traditionally to ruin a joke. For example, Koestler (1964, p. 36) states that "two conventional rules [. . .] collide in a given situation [. . .] the conflicting rules were merely implied in the text; by making them explicit I have destroyed the story's comic effect." Eco (1981) noted that the rules left implicit must be violated in the text. Mizzau (1982) elaborates that because the rule violated in the text must be left implicit the text cannot tell the whole story and therefore will "mislead" the hearer/reader.

Dolitsky (1983) points out that the reveal of the hidden context must come at the end of a text. Her example is a cartoon strip in which the characters are onboard a ship where they converse and one of them gets seasick. The text is not humorous until it is revealed in the last cartoon that the scene took place at a boat show and the boat is in a dry dock. If the cartoonist had organized the strip differently, for example showing the "boat show" sign earlier, the humor would not have been triggered. Dolitsky also considers other situations in which the audience or some of the characters in the text are privy to information that is not shared by all of the participants (i.e., is part of their mutual knowledge). Dolitsky also points out that there are three kinds of information that will be left unsaid: what is in the common ground, and is thus assumed as known, what is not relevant to the exchange, and what is "too-pertinent" (1983, p. 40), i.e., what they do not wish the others to know. She further notes "In such cases, the base of the choice is not what merits saying, but what merits not saying." Thus it is clear that for Dolitsky the speaker is deliberately withholding information from the interlocutors.

Ferrar (1993, p. 244) goes so far as to claim that the implicit/explicit dynamic is the crucial factor for the creation of humor: "in non-humorously intended utterances speakers leave implicit material that can be taken for granted (in order to save hearers from unnecessary processing) but that in humorously intended utterances it is the less easily accessible assumptions which are left implicit."

Attardo (1994, p. 290) mentions the fact that often the incongruity in humor is described as a "surprise," which necessarily entails that it be kept unsaid until the punch line. He also notes that not only explicit mentions of the upcoming second script in the joke but also other elements that may activate inferentially the script must be withheld, as in the joke

(17) "Doctor, will my scar show?"

"That's entirely up to you."

in which the surprise activation of the script for nudity would have been nullified if the joke had mentioned earlier the word "nudist" (as in "A nudist asks the doctor . . .").

In a recent study, Guagnano (2013) shows that the difference between jokes and humorous anecdotes lies, among other things, in the fact that whereas jokes keep implicit both the second script and the resolution of the incongruity it brings about, humorous narratives present both scripts and the resolution more or less explicitly within the text. It should be noted that this refutes Ferrar's claim that the implicitness is the crucial aspect of humor, because humorous anecdotes are explicit and still humorous.

Notes

1 In what is perhaps another inside joke, Grice never mentions that the list of connectives and operators comes from Strawson (1952).
2 The latter claim seems dubious, at best, but this is not the place to pursue a discussion of interlanguage and English as a lingua franca.
3 One can dream, right?
4 Those interested may consult Attardo (2008) and Attardo (2009a; 2009b).
5 References to Peirce's work are given, as is customary, by volume and paragraph of Peirce (1960–1966).
6 It may be noted that this idea of hermeneutical restrain may be likened to the processing cost factored in in the Relevance Theoretic accounts of inferencing.

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14

Relevance-Theoretic Treatments of Humor

Francisco Yus

1 Historical Perspective

Relevance theory (henceforth RT) is a cognitive pragmatics theory of communication by Sperber & Wilson (1986; 1995) that aims to identify "underlying mechanisms, rooted in human psychology, which explain how humans communicate with one another" (Sperber & Wilson, 1986, p. 32). It inherits some of Grice's ideas, while departing substantially from them (Grice, 1975; Attardo, 2017). As a cognitive pragmatics theory, it is interested in the inferences that the hearer makes when trying to identify the speaker's communicative intentions (his/her intended interpretation of the utterance) based on what the speaker has coded verbally (i.e., spoken, written, typed) or nonverbally (e.g., gestures, facial expressions). The theory also addresses the predictions of relevance that speakers make when choosing an utterance or text for transferring their thoughts to other people within interactions. Finally, RT is also interested in the mental representations that underlie communication and in the mental processes that are at work in communication.

This theory has made substantial progress in a number of pragmatic issues and debates. Lack of space prevents me from providing a more in-depth description of this cognitive theory. Instead, I will list here some relevance-theoretic claims that are important to understand how this theory can be applied to the interpretation and effects of humorous texts.

1. Human cognition is geared to the maximization of relevance. We have an evolved psychological capacity to focus our attention on what might be relevant, and dismiss what is bound to demand excessive effort in exchange for little reward. This is covered by the so-called *cognitive principle of relevance*. There is also a sub-principle at work, specifically concerning verbal human communication, stating that every utterance conveys a presumption of its eventual relevance (*communicative principle of relevance*). In other words, every time that an individual says an utterance, the interlocutor expects that interpreting it is going to be worth the effort and that it will turn out relevant (which, of course, is not always the case due to irrelevant information provided, but the expectation of relevance always applies). In the case of humor, for instance when a person tells us a joke, expectations of relevance make listening to the joke worth the attention and the mental effort involved. Although we

know that the joke is going to be irrelevant in informational terms and that we are bound to expend supplementary effort (e.g., in order to make sense of ambiguities, alternative referents, punning configurations, etc. that are set up for the sake of generating humorous effects), we still expect a reward in exchange for the effort demanded, this time in the shape of amusement, entertainment, and the like.

2. We cannot enter other people's minds, but we can mind-read their inferential strategies and accessibility to contextual information. In a nutshell, when we tell a joke, we can hold more or less precise expectations about which inferential strategies and steps the hearer is going to perform or go through, and what kind of contextual information he/she is bound to access in order to understand the text of the joke and turn it into a contextualized, relevant interpretation. Due to the aforementioned psychologically rooted ability to search for the most relevant and effort-relieving information, the speaker can hold expectations that a certain situation for the joke is going to be set up by the hearer, that one sense of an ambiguous word is going to be selected, that a specific referent for an indexical is bound to be chosen, etc. This is crucial for humorous communication because, even though it does not entail a different kind of inference (we have one single ability to turn coded inputs into fully contextualized and relevant interpretations, not a specific ability for humorous communication), the speaker exerts a great deal of control on how inferences are made, what contextual information is retrieved, what implications are derived, etc. in the course of the interpretation of the joke.
3. We have a cognitive ability to assess candidate interpretations for the same input in a specific context and rank them in terms of relevance. Upon listening to an utterance, it has several possible interpretations, all compatible with that utterance in the specific context in which it is uttered. However, not all of these interpretations are equally relevant and accessible, because they are ranked in their balances of the interest that they provide (*positive cognitive effects* in relevance-theoretic terminology) and the mental effort that their processing demands. RT claims that the mind is capable of assessing competing interpretations for the same utterance and opt for the most relevant one, dismissing at the same time the other interpretations. We perform this assessment at an unconscious level: we just cannot be aware of all the possible interpretations of an utterance and then opt for one; instead, we automatically opt for the most relevant one without even noticing that alternative interpretations were also possible. This is frequently exploited in humorous communication, in which hearers are often led to select an initially relevant interpretation. This choice turns out to be inadequate and has to be replaced with an initially more unlikely but eventually correct interpretation.
4. There is a substantial gap between what the speaker says and what the speaker intends to communicate (and between what the interlocutor hears and what the interlocutor eventually interprets). This gap is filled by inference. RT pictures comprehension as two phases: one of *decoding*, in which we simply identify a grammatical string of words (called *logical form*) but ascribe no communicative meaning to it (this is a context-free phase), and one of *inferring*, in which we turn the schematic output of the first phase and turn it into a fully contextualized and relevant interpretation. In this sense, the underlying claim is that utterances always underdetermine (i.e., are less informative than) the eventual interpretation that is obtained from them. Among the inferential strategies applied to the logical form in order to obtain a relevant interpretation, we can list reference assignment (especially for indexicals such as pronouns), as in [1a], disambiguation, [1b] free enrichment (when the utterance is apparently complete but there is still an unarticulated slot that has to be filled with meaning, as in [1c]), and conceptual adjustment, because normally the concepts coded

by the utterance are not relevant enough to fit the expectations of relevance and have to be adjusted, yielding a so-called *ad hoc concept* that is similar, but not identical, to the one literally coded in the utterance. This adjustment can work in two directions: (a) sometimes the intended concept is broader (i.e., less exact) than the concept literally coded (as in [1d]; and (b) sometimes the intended concept is narrower (i.e., more exact) than the concept literally coded (as in [1e]:

(1) a. She was there with her and with Thomas. [*Mary was at the party with Helen and Thomas Smith*].
b. I saw John by the bank [river bank / financial institution].
c. Louise is a better candidate [*than whom?*] [*for what?*].
d. We entered the pub but we left since it was *empty*.

[not literally empty; rather, with few people, including the waiter].

e. I am worried about Jim . . . He *drinks* too much.

[specifically, Jim drinks too much alcohol].

The outcome of these inferential strategies is the proposition expressed by the utterance that, if communicated, is called the *explicature* of the utterance. This explicature can further be used as one of the premises for the derivation of an *implicature*. An example would be Ann's reply in (2), which communicates the explicature in (3) and also the implicature in (4):

(2) Tom: So . . . Did you buy that table I told you about?

Ann: It is too wide and uneven.

(3) *Explicature*: The table that you told me about is too wide to go through the bedroom door and its surface is uneven.
(4) *Implicature*: Ann didn't buy the table that I told her about.

The important fact for humor research is that all of these inferential strategies (and even the *coding* phase) may be exploited for the sake of generating humorous effects (Yus, 2012a).

2 Core Issues and Topics

RT has addressed a number of typical objects of humor research. Initially, RT-based analyses fitted the incongruity-resolution pattern, but other research areas have also been analyzed. Some of them are summarized in this section.

2.1 RT and Clashes During Interpretation

Initial applications of RT to humor focused on the stretch-by-stretch comprehension procedure and how the speaker can create clashes with the interpretation brought to bear so far in the interpretation of part of the utterance. These clashes generate incongruities that the hearer has to solve by adding extra inferencing that will (hopefully) be compensated for by an offset of cognitive effects (specifically humorous ones). Yus's (1997a, 2003) and Jodłowiec's (1991) applications explain humor as it is generated during the cumulative processing (decoding plus inference) of the different parts that the utterance is made of (e.g., setup plus punch line), for example how

the hearer invariably selects one relevant interpretation of an initial stretch of discourse that is later disconfirmed in a subsequent part. These publications also fit the incongruity-resolution model (Suls, 1972), according to which in the course of interpreting the joke some kind of incongruity turns up that has to be reconciled so as to make sense of it and obtain the expected humorous effects.

An example of this incongruity plus resolution pattern is Yus's (2003) MGI/SCI joke schema. It applies mainly to utterances with an initial part (multiple graded interpretations [MGI] part) that leads to a first accessible interpretation. The speaker knows that other possible interpretations will not be taken into account due to our cognitive ability to unconsciously rule out any other competing interpretations. Then, the speaker provokes an incongruity with the subsequent part of the joke with a covert, more unlikely interpretation (in the single covert interpretation [SCI] part), compatible with the whole joke but not with the hearer's chosen interpretation for the initial part of the joke. This latent interpretation is not taken into consideration until the speaker humorously foregrounds it in the second part of the joke. Such manipulation is possible because, as RT claims, the hearer retrieves or constructs and then processes a number of assumptions in a linear, cumulative way. An example is (5):

(5) The newlywed wife said to her husband when he returned from work, "I have great news for you. Pretty soon, we're going to be three in this house instead of two." Her husband ran to her with a smile on his face and delight in his eyes. He was glowing with happiness and kissing his wife when she said, "I'm glad that you feel this way since tomorrow morning, my mother moves in with us."

Overt accessible interpretation in the MGI part: The wife is expecting a baby.
Covert unlikely interpretation fitting MGI/SCI parts: The wife's mother is moving in.

Finally, Curcó's (1995) analysis also focuses on interpretive clashes. Her analysis shows how the speaker leads the hearer to entertain two contradictory propositional contents: one is a strongly implicated premise (which Curcó labels *key assumption*). This premise clashes with an accessible (though so far unaccessed) assumption in the context of interpretation (which Curcó labels *target assumption*), but not from a subsequent part of the text of the joke. In this respect, her analysis is different from as the studies mentioned earlier. She analyzes examples such as (6):

(6) There is something tragic about the enormous number of young men there are in England at the present moment who start life with a perfect profile and end up by adopting some useful profession (Oscar Wilde).

Target assumption: A useful profession is a cause for congratulation (from the hearer's encyclopedic knowledge).
Key assumption: A useful profession is a cause for commiseration (strongly implicated from [6]).

2.2 Joke Classifications: The Intersecting Circles Model

Within the relevance-theoretic framework, several attempts at classifying jokes have been undertaken. In one of them (Yus, 2012a), a broad differentiation was made between, on the one hand, jokes whose humorous effects lie in the manipulation of the hearer's inferential steps towards an explicit interpretation (explicature) or an implicated one (implicature) together with his/her access to contextual information; and, on the other hand, jokes that merely play with social or cultural information (collective representations), often of a stereotypical quality. However, this

division does not really reflect what is at stake when jokes are devised, because often cultural representations and interpretive steps are combined in the generation of humorous effects. This is why a more recent classification was proposed: the *Intersecting Circles Model* (Yus, 2013). In a nutshell, seven types of jokes are created out of the intersection of three categories generically labeled *Circles*:

1. Utterance interpretation. The aforementioned manipulation of the inferential strategies carried out to get an interpretation of the utterance (reference assignment, disambiguation, concept adjustment, etc.).
2. Make-sense frame. It basically refers to the effort-saving construction of a suitable situation or scenario for the interpretation of the joke. This term comprises similar labels typically used in previous research for how the hearer builds up a mental situation for the utterance being processed, such as *frame, schema* or *script*.
3. Cultural frame. Collective representations regarding society or culture, typically made of stereotypical information about one's nation, sex roles, professions, etc.

The combination of these three *Circles* yields seven types of jokes: (1) make-sense frame + cultural frame + utterance interpretation; (2) make-sense frame + cultural frame; (3) make-sense frame + utterance interpretation; (4) make-sense frame; (5) cultural frame + utterance interpretation; (6) cultural frame; and (7) utterance interpretation (see Figure 14.1). The main idea underlying this classification is that often several *Circles* are used in conjunction to generate the desired effects. An example of the combination of make-sense frame and utterance interpretation (joke type 3) would be (7):

(7) A policeman in Washington, DC, stops a lady and asks for her license. He says "Lady, it says here that you should be wearing glasses." The woman answers "Well, I have contacts." The policeman replies "I don't care who you know! You're getting a ticket!"

In this example, the speaker predicts that the hearer will build up an appropriate mental scenario of the joke (make-sense frame, Circle 2). Within this make-sense frame, the word *glasses* will be disambiguated as *eyeglasses* and retained in the short-term memory store, aiding the hearer (and saving mental effort) in disambiguating the subsequent word *contacts* (part of utterance interpretation, Circle 1). This *contact lenses* meaning of *contacts* is highly relevant and accessible (it produces sufficient positive cognitive effects in exchange for a very small amount of mental effort, producing a better balance than any other sense of the word) and the hearer will not even be aware that any other sense of *contacts* was possible. When the policeman says "I don't care who you know!," an incongruity arises with the assumptions brought to bear so far in the interpretation of the joke, because the other sense of *contacts* (i.e., influential people the woman knows) had not even been noticed (it is incompatible with the make-sense frame constructed so far). The hearer is then forced to select this second sense despite its being less relevant in the initial context of the joke. The hearer will be amused when he/she discovers the other sense of *contacts*, entertains both senses humorously and resolves the initial incongruity.

2.3 Punning

RT has also done extensive research on punning, as part of lexical pragmatics and especially involving either disambiguation or concept adjustment of punning words (Aarons, 2014; Hempelmann & Miller, 2017). Solska (2012a, 2012b) suggests five possible pairings of concepts made

possible by the punning element in the utterance: puns based on homonymy, as in (8a); based on polysemy (8b); juxtaposing metaphorical and literal reading (8c); based on perfect homophony (8d); based on imperfect homophony (8e); based on paronymy (8f); and based on homography (8g):

(8) a. Being in politics is just like playing golf: you are trapped in one bad *lie* after another.
b. There was a sign on the lawn at a drug rehab center that said "Keep Off The *Grass*."
c. Never invest in funerals, it's a *dying* industry.
d. Everybody *kneads* it (An advertising slogan for Pillsbury flour) [kneads/needs].
e. *Mud*, Sweat and *Gears* (The name of a bicycle repair shop) [mud/blood, gears/tears].
f. The Crime of *Pun-ishment* (Title of an essay on puns).
g. Poland *Polishes* Off US Volleyball Team (*Daily Herald*, June 17, 2011).

In Yus (2016), a review of existing proposals of classifications for punning is provided, and the conclusion is that punning configurations are too heterogeneous to be given a single label. Therefore, it is proposed that each pun should be given three labels so that it is uniquely delimited. The three labels refer to three possible classifications:

Label 1: *Punning structure*. How are the two pun-related senses arranged within the utterance containing them? Four possibilities can be isolated: (a) two possible senses (entertained in parallel); (b) one sense, then another (in this structure, one sense is activated and, at a later stage during the interpretation of the utterance, another sense is activated); (c) one sense, the other sense absent (in this kind of pun, one of the senses is accessible, but the other is absent, and the hearer has to look for this additional meaning as part of the relevance-seeking interpretive); and (d) both senses absent. There is a possibility that both senses of the pun are missing from the coded input of the joke, and the hearer has to devote additional cognitive resources to work out which pun was intended in the first place, and also the relationship bearing between the two absent senses. The joke in (9) is an example, in which the ambiguous *come* in *Who comes first?* is not even mentioned in the joke, but has to be sought by the hearer in his/her search for a relevant interpretation of the joke:

(9) A chicken and an egg are lying in bed. The chicken is leaning against the headboard smoking a cigarette with a satisfied smile on its face. The egg, looking decidedly unhappy, grabs the sheet and rolls over and says, "Well, I guess we finally know the answer to THAT question!"

Label 2: *Sense relationship*. What relationship exists between the two senses that make the pun possible? In this case, traditional labels such as homophony, homonymy, polysemy, homography, paronymy, etc. would be typical relationships involved in punning.

Label 3: *Inferential strategy*. What is the inferential strategy involved in the identification (and resolution) of the punning elements? In this case, relevance-oriented inferential operations such as logical form, disambiguation, reference assignment, concept adjustment, etc. would apply.

Two examples of pun and their three labels are provided next:

(10) [Label 1: two possible senses in parallel] [Label 2: polysemy] [Label 3: disambiguation]

Q: How do you embarrass an archaeologist?
A: Give him a used tampon and ask him which period it came from.

In (10), the two senses of *period* are entertained in parallel (label 1), one applied to women and one applied to archeology. The punning element involves polysemy (label 2) and hence demands

inferential disambiguation (label 3). The setup of the joke facilitates this simultaneity of the senses, so that both are equally relevant and likely.

(11) [Label 1: two possible senses in parallel] [Label 2: polysemy] [Label 3: concept adjustment]

Q: What's the similarity between a penis and Rubik's cube?
A: They both get harder the longer you play with them.

In this joke, two senses of *harder* and *play* are activated simultaneously (label 1). Although the sense relationship is polysemy (label 2), in reality the hearer has to engage in a conceptual adjustment of both senses (label 3), so that the encoded concepts *harder* and *play* can be applied to both a penis and the cube.

2.4 Stand-Up Comedy

RT has also addressed stand-up comedy performances (e.g., Yus, 2004). The monologues told therein seem to base their effectiveness not so much on manipulations of discourse-specific inferential strategies (though they are also used), but rather on a strategy regarding the *personal* vs. *collective* status of the audience's mental representations. In short, the comedian stirs the audience's stored beliefs and mental representations in a number of ways. Sometimes they strengthen or challenge typical social issues such as professions or sex roles stereotypes, which overlap, to a greater or lesser extent, with the personal beliefs of every member of the audience. On other occasions, what the comedian does is remind the audience that some beliefs (or habits or activities) that the audience previously regarded as personal, are actually collective, carried out by everyone in the audience, and in this personal to collective shift, the audience ends up amused. The *mutual manifestness* of certain representations leads to a change of attitude towards them: representations that the audience regarded as essentially private or personal are now treated as public, and eventually undoubtedly social or cultural.

Therefore, much of the enjoyment from stand-up performances comes from the *individual* vs. *collective* interface. Laughter triggers a realization in the audience that the representations regarding these issues are public, collective, and (mutually) manifest to the whole audience. The immediate effect is a cultural status for these public representations. An example is Dave Allen's monologue regarding Christmas in (12):

(12) If it's difficult to get a Christmas tree, it's even more difficult to get rid of the bloody thing! The dustman won't take it . . . You can't burn it . . . [. . .] And you find yourself . . . creeping around your neighbourhood trying to find a builder's skip, and you can't find one, so you *dump* it in somebody's garden . . . and think "*Thank Christ! Got rid of it!!*" Come back to your own house and there's *two* Christmas trees there!

2.5 Humor and Translation

In Yus (2012b) it was claimed that there are degrees of translatability of jokes depending on how close the translation is to the content of the joke and, especially, to the inferential strategies that the source-language speaker expected his/her source-language interlocutor to carry out in order to obtain the intended humorous effects (Bucaria, 2017). A 16-case chart of possible cases for the translation of jokes was proposed under RT (see Table 14.1).

Table 14.1 Cases of translatability in the translation of jokes (Yus, 2012b)

	Cultural Scenario	*Semantic Scenario*	*Pragmatic Scenario (A) Inferential Steps (as Predicted)*	*Pragmatic Scenario (B) Balance of Effects and Effort*
1	YES	YES	YES	YES
2	YES	YES	YES	NO
3	YES	YES	NO	YES
4	YES	YES	NO	NO
5	YES	NO	YES	YES
6	YES	NO	YES	NO
7	YES	NO	NO	YES
8	YES	NO	NO	NO
9	NO	YES	YES	YES
10	NO	YES	YES	NO
11	NO	YES	NO	YES
12	NO	YES	NO	NO
13	NO	NO	YES	YES
14	NO	NO	YES	NO
15	NO	NO	NO	YES
16	NO	NO	NO	NO

These cases result from the combination of four parameters generically called *scenarios* (for translation):

(a) *Cultural scenario*. All the members of a community share a number of cultural assumptions, with greater or lesser stereotypical quality, that belong to their mutual cultural environment. However, different audiences from different cultural backgrounds may obtain different degrees of humor or even fail to get the point of the joke. This is why culture-related humor often relies on schemas, stereotypes, etc. that have intercultural validity.

(b) *Semantic scenario*. This scenario refers to whether the source language and the target language exhibit similar ways of coding the information, parallel ways of coding idioms, metaphors, etc. and similar options in the language for generating humorous effects.

(c) *Pragmatic scenario*. This scenario is, obviously, utterly important and the translator should do the utmost to preserve this scenario, even if that involves radically changing the semantic scenario and also, perhaps, the cultural one. Overall, this scenario has to do with all the inferential strategies leading to a relevant interpretation of the joke as intended by the communicator of the source-language joke. For practical reasons, in Yus (2012b) this important scenario was divided into two areas: *inferential steps* and *balance of effects and effort*. This dichotomy aims at capturing the intuition that sometimes the inferential steps are replicated in the translation but, for some reason, the resulting balance of cognitive effects and mental effort is different from the one obtained by the source-language audience and, vice versa, sometimes the translator changes the inferential steps or strategies, but the resulting balance of effects and effort is, paradoxically, similar to the one obtained by the source-language audience.

An example of translation is provided in (13) (SL = source language; TL = target language):

(13) a. SL Joke.

Q: I'm two months pregnant now. When will my baby move?
A: With any luck, right after he finishes college.

b. TL Translation.

Q: Estoy embarazada de un mes. ¿Cuándo lo sentiré?
A: Dentro de ocho meses, cuando le dé la factura.

c. Back translation (of TL joke).

Q: I'm 1 month pregnant now. When will I feel it/regret it?
A: In 8 months, when I give you my bill.

d. Case in chart: 5.

Cultural scenario = yes; Semantic scenario = no; Pragmatic scenario (inferential steps) = yes; Pragmatic scenario (balance of effects and effort) = yes

This is an example of a joke whose semantic content has been altered in order to reproduce the inferential strategies, as intended by the source-language communicator, to generate humorous effects. This joke plays with two senses of *to move*: *physical movement* and *changing residence*. The hearer, by following the relevance-seeking inferential procedure, is bound to select the meaning of *physical movement* due to the processing of the previous stretch of discourse and the medical make-sense frame that the joke depicts (pregnancy). The resolution of this incongruity, together with the humorous entertainment of two parallel senses of *move*, generates the desired effects. The translation maintains the inferential steps and balance of effects and effort by replacing the polysemous *move* with the polysemous *sentir* (*feel* vs. *regret*), even if the text of the joke had been altered, thus fitting Case 5 in the table.

2.6 Propositional vs. Non-propositional Constraints and Effects

When judging the effectiveness of a humorous text, RT has mainly focused on which inferential steps and access to contextual information the hearer is bound to perform in his/her search for relevance (cognitive effects vs. mental effort). These strategies are predicted by the speaker and manipulated so as to generate humorous effects. However, the (un)successful outcome of a humorous intent also depends on other variables that are not propositional (i.e., are not tied to the actual sense-making of the humorous text) but that, nevertheless, play an important part in whether the humorous intention ends up successful or not. This is why in Yus (2016), a proposal is made to enrich the default relevance formula (highest possible cognitive effects in exchange for least mental effort) with a new pair of terms. This new terminology focuses on non-propositional aspects of communication (such as feelings and emotions) and make the formula more explanatory for humorous communication. Because non-propositional qualities are also at work in many other instances of communication, these pairs of terms should also aid in explaining non-humorous interactions.

A clear example would be phatic communication, in which the social connotation and implications of the utterances are relevant but the content itself (its informational quality) is not, as in the utterance *You had a haircut!*, whose content is pretty obvious and irrelevant to the hearer but is nevertheless relevant in its phatic qualities. And humor is often devoid of informative quality but its impact in its personal (e.g., laughter, amusement, entertainment), interactive (e.g., camaraderie, strengthening of friendship, identity shaping) and social (e.g., social bonding, community building, strengthening of cultural values) sides is worth the hearer's attention.

In a nutshell, a first dichotomy is that between *positive* and *negative contextual constraints*, restricted to aspects that *underlie* or *frame* communication and interaction and *constrain* its eventual

(un)successful outcome. A second pair of terms is *positive non-propositional effect* and *negative non-propositional effect*, which refers to feelings, emotions, impressions, etc. that result from processing information or interacting with others, and which play a part in the eventual (un)satisfactory outcome of this relevance-theoretic formula. The general RT formula would now be pictured as follows:

the cognitive effects generated from the interpretation of an utterance
[+] the existence of positive contextual constraints
[+] the generation of positive non-propositional effects

SHOULD EXCEED . . .

the mental effort needed to process this utterance
[+] the existence of negative contextual constraints
[+] the generation of negative non-propositional effects

From this proposal of extending the relevance formula with constraints and/or non-propositional effects, successful humorous communication (that resulting in laughter, entertainment, pleasurable feelings, amusement, and so on) should be pictured as an extremely slippery endeavor in which many negative constraints and negative non-propositional effects threaten an effective humorous outcome (and in parallel, positive constraints and positive non-propositional effects facilitate successful humorous communication). Among others, the following (positive or negative) constraints can be listed: (1) suitability (e.g., of uttering a joke), (2) hearer's background knowledge and beliefs, (3) interlocutor's sex, (4) interlocutor's sense of humor, (5) relationship between interlocutors, (6) group size, (7) interlocutor's mood, (8) culture and ethnicity, and (9) situational factors (e.g., telling a joke in a very serious meeting).

Besides, when considering non-propositional aspects such as the ones listed in (1) through (9), it should be stressed that the same aspect can become *both* a constraint *and* a non-propositional effect. Take ethnic origin, for instance. The ethnic origin of the interlocutor may be a major constraint when telling an utterly racist joke, which will undoubtedly affect the eventual generation of humorous effects. At the same time, ethnic origin can be a positive non-propositional effect, because certain jokes can enhance communal feelings of ethnicity-related identity. Besides, certain interlocutors obtain an offset of positive non-propositional effects simply by making fun of a different ethnic group, which at the same time reinforces the specificity of these interlocutors' own ethnicity as a positive non-propositional effect.

3 New Debates

There are some areas of research that RT has also addressed, even if less intensely, while others remain mainly unexplored. Some of them are briefly described in this section.

3.1 Humorous Ironies

RT makes very specific claims about what ingredients play a substantial part in irony comprehension: (1) it is a variety of interpretive use in which the proposition expressed by the utterance represents a belief implicitly attributed by the speaker to someone other than herself at the time of utterance, (2) it is echoic (i.e., it implicitly expresses the speaker's attitude to the beliefs being represented), and (3) the attitude involved in the echo is one of dissociation from the thoughts echoed (Curcó, 2000). The task of the hearer is to determine the (implicated) interpretation that the speaker ironically conveys and that differs, to a greater or lesser extent, from

the interpretation that is explicitly communicated by the utterance. This ironic interpretation is spotted at some stage during the relevance-centered inferential steps leading to an interpretation, and context plays a vital role by invalidating the expectation that the speaker might intend an explicit interpretation of the utterance (Coulston, 2017).

Dissociative attitudes can exhibit a wide array of variations, but all of them involve rejection or disapproval (and also ridicule, mock, scorn . . .) of a thought (or utterance). On the other hand, The notion of echo is intentionally broad, because it covers direct echoes of previous utterances, and also echoes of attributed thoughts (real or imaginary), social norms and expectations.

Analyses of humorous ironies using an RT framework are scarce. An initial challenge is encountered: if irony entails a dissociative attitude with a negative quality (an expectation that is unfounded, a thought that is disconfirmed, an event that did not turn out as expected, etc.), how can ironies end up being humorous? A possible answer is suggested in Yus (2016). The proposal is to incorporate the identification of a humorous intention as a second-order, feeling- or emotion-related metarepresentation (with the broad label of *affective attitude*) that is added to the main dissociative attitude, and to differentiate the dissociation-related (propositional) metarepresentation from the humor-related (affective) one. While the former entails an attitude towards a propositional opinion, norm, expectation or utterance, the latter fits more the qualities of feelings and emotions (maybe also impressions), rather than propositions. And the propositional-affective duality explains why in many instances of irony, despite involving a (negative) dissociative attitude, there is a feeling shared by interlocutors that this attitude is not meant to be interpreted as critical or serious, but as amusing or humorous. The following example is provided in Yus (2016): three dialogues involving the same ironical utterance with the same dissociative attitude and the same echoed content, but with different interpretive outcomes:

(14) [*John calls Mary on the phone*].

MARY: Hi John! How're things?
JOHN: I am fine! I've just thought . . . Since Mary is always calling me, today for a change I'll make the call.
MARY: Hahaha. Poor thing . . . You are right, I should call you more often, but you seem soooo happy to call your friend, don't you? hahaha.
JOHN: Hehehe . . . Of course, Mary . . . A pleasure.

(15) [*John calls Mary on the phone*].

MARY: Hi John! How're things?
JOHN: I am fine! I've just thought . . . Since Mary is always calling me, today for a change I'll make the call.
MARY: I am sorry . . . I do call you every now and then . . . Don't be so angry.
JOHN: Yeah, once a year more or less. I just think I deserve better.

(16) [*John calls Mary on the phone*].

MARY: Hi John! How're things?
JOHN: I am fine! I've just thought . . . Since Mary is always calling me, today for a change I'll make the call.
MARY: Hahaha. Poor thing . . . You are right, I should call you more often, but you seem soooo happy to call your friend, don't you? hahaha.

JOHN: Actually, I am pissed off with having to call you all the time. You could make the effort to call me, couldn't you?
MARY: I am sorry . . . Don't be so angry. I never thought you'd be so upset.

In these examples, John has a dissociative attitude towards an opinion echoed (maybe a commonsense social norm) that he should not always be the one who calls, and that it would be nice if Mary sometimes called him for a change. However, the final interpretation varies in each case because of the feelings associated with this echoed opinion. In (14), John does think that it would be nice that Mary called him more often, but the feelings that he holds towards the opinion echoed are on the positive side, expecting a humorous result from it, and Mary infers the attitudes (dissociative and affective) correctly. The whole exchange is tinged with humor and amusement. By contrast, in (15) John also has a dissociative attitude towards the opinion echoed but the feelings that he holds towards that opinion are on the negative side. Mary, again, correctly infers that the feelings associated with this echo (affective attitude) are negative: John is angry at having to call her all the time. Hence, she reacts in a different way from the previous example: by apologizing. Finally, in (16) we find an example of misunderstanding, in which the dissociative attitude is correctly inferred but the feelings or emotions associated with the opinion echoed (affective attitude) are misinterpreted, resulting in an erroneous interactional outcome.

It seems clear, then, that one of the necessary steps resulting in a correct interpretation of the ironical utterance (humorous or otherwise) is the inference of the speaker's affective attitude (feelings and emotions) towards the echoed content. In this sense, the most aggressive, critical ironies would be the ones in which the dissociative attitude is paired with feelings of anger, annoyance, irritation and the like. In other cases, though, the speaker will hold positive feelings or even humorous ones within a general *this is play* frame and, despite the existence of this dissociative attitude, the overall interpretation will result in amusement or humor.

3.2 Humorous Narratives

Researchers under RT have not addressed the humor arising from the interpretation of long narratives extensively (Chłopicki, 2017). An exception is the work by Larkin-Galiñanes, C. (2000; 2005). She claims that the relevance-theoretic application to short jokes cannot be easily extended to long narratives, mainly because it is impossible to maintain typical joke-centered strategies such as incongruity-resolution for discourses that take up hundreds of pages. Besides, the humor of these long narratives is often not directed at the reader, but arises in conversations held between characters in the novel. Furthermore, she stresses the role of stereotypes in the kind of humor that is found in long narratives.

Her analysis focuses on how implicatures are produced within the context of humorous novels by certain illocutionary acts "whose possible richness of implicature is limited by the repetition of the same, or similar, salient connotations, which reinforce each-other and at the same time condition the reader's search for relevance within the on-going text" (2000, p. 100). This process begins in the initial chapters of the novels, thus allowing for the reader's defined image of each of the characters in question, so that specific expectations may be conceived as to his/her behavior and reactions. This character-centered information is then manipulated for the sake of humor. That is, the reader's expectations aroused as to the character are played with in the narrative and surprise him/her by being incongruous, both with encyclopedic knowledge of the real world and also with contextual knowledge of the specific fictional world created by the narrator up to the point in question. In this way, some form of incongruity and resolution is somehow also at work in these narratives, even if stretched into a longer piece of discourse.

3.3 Beyond One-to-One Communication: Conversational Humor

RT has mainly focused on a prototypical dyadic situation involving *a single speaker* selecting an appropriate utterance to code his/her thoughts and *a single hearer* that invariably aims at obtaining the most relevant interpretation by decoding of utterance as the starting point of an inferential mutual parallel adjustment between the extraction of an explicit interpretation, the derivation of implicatures (if these meet the expectations of relevance), and the access to the necessary amount and quality of contextual information. As a consequence of this dyadic picture of communication, there are very few studies within the relevance-theoretic framework that address the multifarious quality of multiparty conversations and, as an extension, also few studies that take conversational humor as their object of research.

However, conversations should not behave differently in terms of relevance, nor should explanations of how humor is handled in interactions differ radically from what has been predicted within RT for one-to-one instances of humorous communication. If information processing is relevance-oriented, then the information transmitted and exchanged in humorous conversational instances should also be relevant to the interactants and generate specific effects that compensate for the amount of mental effort devoted to its interpretation. The fact that few studies have addressed conversational issues from a relevance-theoretic stance does not imply that the object itself is beyond an RT explanation. A different issue is whether or not the effects generated by conversational humor and the functions that this humor can have for the interlocutors within interactions (often in the form of positive non-propositional effects such as increased bonding, group solidarity, identity enhancement, etc.) can be explained simply by relying on the single RT formula of effects and effort.

In Yus (2016), it is claimed that at least two possibilities of RT-based analysis of conversational humor can be isolated:

1. During the conversation, one speaker holds the conversational floor and tells a joke to a number of interlocutors in the group. In this case, the general relevance-theoretic procedure also applies to this kind of communication, because the structure is the same as the prototypical one-to-one communicative situation typically studied within RT. In this case, though, the picture is that of parallel one-to-one instances, because the same joke is told to several interlocutors and each of them has to make sense of the joke (by using the prototypical mutual parallel adjustment of explicatures, implicatures and context).
2. A different issue for RT is the study of multiparty conversations in which the main source of humorous effects cannot be located in one single utterance told by one single speaker to a number of interactants, but demand the cooperation and collaboration of all the interlocutors, who co-construct the humorous effects by adding turns, humorously replying and continuing the prior joking utterance, or even completing an initiated turn that demands the help of others to achieve the expected humorous effects. The relevance of humorous communication does not lie, in this case, in one single utterance devised in such a way that it will be interpreted in a specific way by several interlocutors. Instead, there is a co-construction of the coded input that will eventually yield these humorous effects.

3.4 Media Discourses

There is some research under RT on humorous discourses in the media, for example on comics (e.g., Yus, 1997b) and on puns in advertising (e.g., Tanaka, 1994), but this research should increase in the future, given the applicability of RT to how media discourses are interpreted. In this sense,

in Yus (2016), two chapters are devoted to the analysis of how cartoons in the press and advertisements are interpreted within the general search for relevance and how interpretations can be manipulated for the sake of generating humorous effects (or similar but less intense outcomes such as amusement, entertainment, and the like).

Of special interest for the analysis of both cartoons and advertisements (specifically printed ones), is the technique consisting in altering the normal relevance-based choice of an interpretation of some text or portion of text within the cartoon or ad. In short, advertisers and cartoonists can use images in ads and cartoons in order to force the reader to entertain in parallel literal/idiomatic or literal/metaphoric interpretations for the same text, thus creating incongruence and increased attention. For example, the Spanish ads (17–18) and the Spanish cartoon (19) fit this pattern:

(17) Product advertised: Travel insurance.

Image: A man hanging with one single hand from a cliff.
Text: No se quede colgado.
[*Don't be left in the lurch*.]

(18) Image: A personal computer. A cable departs from the slogan and crosses the ad.

Text: Fujitsu le echa un cable.
[*Fujitsu gives you a hand*.]

(19) Image: A man (A) painting a ship. The name of the ship is Capitalismo (Capitalism).

Text: A: ¡Una manita de pintura y como nuevo!
[*A lick of paint and like new.*]

The Spanish ads play with literal/idiomatic readings of two phrases. The advertisers use the accompanying image to force the reader into accessing a parallel literal interpretation of these phrases. In (17), the Spanish idiom *No se quede colgado* (don't be left in the lurch) has a possible but unlikely literal meaning in the context of this ad comprehension: *Don't remain hanging off*. Despite being an irrelevant choice for an interpretation, the image of a man hanging from a cliff makes it as likely as the idiomatic interpretation, thus generating two parallel and equally valid (relevant) interpretations of the phrase. Something similar happens in (18), where *echar un cable* is a very common idiom in Spanish meaning *give someone a hand*, but it also has a purely literal—but unlikely—interpretation: *to throw a cable at someone*. The visual depiction of a cable levels again the accessibility to these two interpretations, producing some incongruity, and the reader has to keep both interpretations active in his/her mind, which leads to greater attention and, perhaps, to some form of pleasure or entertainment.

The cartoon (19) by El Roto is also interesting in its combination of text and image, because the main point of the cartoon cannot be interpreted from text or image alone, but demand an inferential relevance-seeking combination of both sources of information. The image makes the literal interpretation of *lick of paint* very accessible, whereas the text (i.e., "Capitalism" and the man's utterance) forces the reader to go beyond this visual literalness and move on to a more connotative metaphoric interpretation.

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15
Teasing

Michael Haugh

1 Introduction

Teasing is often associated with childhood, but it has been found to be ubiquitous, arising across a wide range of different interactional settings in different languages and cultures. It is of particular interest to those undertaking research about humor, because teasing is multilayered, invariably mixing elements of provocation and non-seriousness. The mixed set of messages accomplished through teasing is what lends itself to being interpreted and evaluated in different ways by participants. However, teasing not only combines provocation with various modes of non-seriousness, including but not limited to being framed as humorous, but itself involves a range of different practices. In other words, teasing constitutes a heterogeneous category of behavior. The multilayered and heterogeneous nature of teasing has made its relationship with humor a complex one. While it may be claimed that the teasing is playful or done in jest, it can easily slide into being characterized as aggressive, and so may also be construed by participants as a covert form of bullying or harassment. The diverse range of practices by which teasing is accomplished in interaction, and the different interpretations and evaluations that may be occasioned among participants in the course of episodes of teasing in interaction, have thus made it fertile ground for study across a wide range of disciplines.

In this chapter it is suggested that exploring the nuanced and complex relationship that holds between teasing and has much to offer studies more broadly. The chapter begins by first introducing the different ways in which teasing has been studied across various disciplines (section 2), before going on to discuss the key findings about teasing that have emerged through such research (section 3). In section 4, the relationship that holds between teasing and is considered in more detail through an examination of a particular teasing practice, namely, jocular mockery. The chapter concludes, in section 5, with a brief consideration of key debates about teasing, and areas that are suggested to be in need of further research.

2 Historical Perspective: Approaches to Teasing

It has long been recognized that we must invariably face instances where others will mock or tease us. The Roman stoic philosopher, Seneca (4 BCE–CE 65), advised in *De Constantia Sapientis*

("On the Firmness of the Wise Man," XVII) that "no one is laughed at who begins by laughing at himself" (Seneca, 1889/2015), thereby suggesting that the best way of dealing with mockery, veiled insults, and the like is to treat them non-seriously.

However, the systematic study of teasing and mockery largely has its roots in the work of anthropologists, in particular, Radcliffe-Brown, who introduced "joking relationships" as a serious focus for academic study. Joking relationships are held to encompass "a relation between two persons in which one is by custom permitted, and in some instances required, to tease or make fun of the other, who in turn is required to take no offence" (Radcliffe-Brown, 1940, p. 195). Subsequent studies have indicated that such teasing may decrease potential tensions in relationships where individuals or groups have simultaneously converging and diverging interests (Rigby, 1968; Garde, 2008). Yet despite pointing out that such relationships are ubiquitous in kinship-based societies around the world, research about teasing in kinship-based joking relationships has been relatively limited.

Radcliffe-Brown's insights have been productively extended to workplaces, however, drawing from the classic anthropological method of participant observation. It has been argued that joking relationships may develop through ongoing teasing in institutional contexts in order to manage competing interests or agendas among members of that group or organization (e.g., Bradney, 1957; Sykes, 1966). Teasing, in the form of competitive banter or verbal dueling, has also been found to offer a means by which members can vie for status or influence within a group (Loudon, 1970; Traylor, 1973). Both of these themes have subsequently been picked up by scholars in pragmatics and communication.

Another important theme to have initially emerged in studies of teasing in anthropology is the relationship that holds between teasing and socialization.[1] Such research has focused on teasing as a means by which members are socialized into normative expectations about behavior, attitudes and so on, as well as into particular social roles within groups, through indicating what is considered deviant or aberrant behavior (Loudon, 1970). Socialization through teasing occurs not only in interactions between adults and children (Eisenberg, 1986; Schieffelin, 1986; Franzén & Aronsson, 2013), but also among children themselves (Voss, 1997; Tholander, 2002; Lytra, 2007).

In social psychology, echoing work on teasing and language socialization, teasing both among, and of, children has been a key focus of numerous studies. It has been suggested that perceptions of teasing in general change with age. For instance, while teasing among young children under five teasing is said to be perceived as "delightful," among older children and teens it is largely seen as a "means of controlling others and demonstrating their superiority" (Kowalski et al., 2007, p. 184). Various studies have indicated that a particular instance of teasing can be perceived in different ways and engender quite different affective responses among participants, not only in the case of children but also adults as well.

Yet despite early work in psychology recognizing that teasing is multidimensional (Sperling, 1953), a two-way distinction between prosocial and antisocial teasing has since come to dominate social psychological accounts of teasing (Kowalski, 2004; DiCioccio, 2010; Wright & Roloff, 2013). Prosocial forms of teasing (e.g., affectionate, playful or jocular teasing), are considered to involve a form of "permitted disrespect," or ways of "affectionately poking fun" that are "socially inclusive" and "enhance positive feelings and relational quality" (Wright & Roloff, 2013, p. 97). Antisocial forms of teasing (e.g., hostile, aggressive or malicious teasing), in contrast, are considered to be "disrespectful form[s] of cruelty," which involve "social rejection" and "create emotional harm" (p. 97), and so may be perceived as a form of bullying or harassment. Building on this distinction, researchers used self-reports and questionnaires to investigate the emotional and relational effects of teasing on the teaser and the target, personality factors that

predispose participants to interpret teasing in particular ways, and the way in which participants interpret the intentions of the person initiating the tease. Overall, studies of teasing in social psychology have consistently reached the same broad conclusion, namely, that instances of teasing are often construed differently by teasers and the targets of those teases.

While social psychologists have generally focused on the averse or negative consequences of teasing, in research about teasing from a language-use perspective, the focus has been primarily on (ostensibly) playful or jocular forms of teasing as a situated interactional accomplishment. Drawing from analyses of recordings of conversational interactions, scholars working in pragmatics, interactional sociolinguistics, and conversation analysis have analyzed different forms of teasing in situated contexts (e.g., Drew, 1987; Alberts, 1992a, 1992b; Decapu & Boxer, 1999; Schnurr, 2009; Haugh, 2010). In contrast to the categorical distinction made between prosocial and antisocial forms of teasing in social psychology, in pragmatics and interactional sociolinguistics different forms of teasing are generally held to lie on a continuum from bonding to nipping through to biting teases (Boxer & Cortés-Conde, 1997).

Building on various methods of interactional analysis, including conversation analysis and (corpus-assisted) discourse analysis, researchers have analyzed both the ways in which teasing is accomplished in conversational interactions, as well as its various interpersonal functions. Differences in teasing across different languages and varieties of those languages have also been examined. Overall, studies of teasing from a language-use perspective have found that the interpretation and interpersonal functions of teasing are invariably closely related to the particulars of local, situated contexts, as well as with respect to the expectations of the social groups within which the teasing practice in question occurs. Those analyzing the interactional mechanics of teasing have also emphasized the way in which the response of the target and audience plays a critical role in the ways in which a teasing episode may develop (Pawluk, 1989; Alberts, 1992a).

In this brief overview of different approaches to teasing, it has become clear that teasing constitutes a heterogeneous category of behavior. It is arguably this very heterogeneity that affords the wide range of different disciplinary perspectives that have been brought to bear on teasing. Yet while researchers working within these different analytical paradigms have naturally focused on different aspects of teasing, a number of common issues and topics have nevertheless emerged in studies of teasing to date. In the following section, we move to consider these in more detail.

3 Core Issues and Topics in Teasing Research

3.1 Conceptualizing Teasing

One of the key challenges facing researchers is how to delimit the scope of inquiry in relation to teasing. Part of the difficulty in defining teasing as an object of scientific study is due to the way in which a term from natural language, that is, *teasing*, has been used and elevated to the status of a technical term. A survey of second-order, technical conceptualizations of teasing in the literature indicates that researchers have generally invoked a paradoxical juxtaposition of seemingly contradictory serious and non-serious stances in their definitions of it. For instance, "friendliness and antagonism" (Radcliffe-Brown, 1940, p. 104), "painful" and "pleasurable" (Sperling, 1953, p. 458), "mocking but playful jibes" (Drew, 1987, p. 219), "irritating, annoying or goading" and "sport, "mischief" or "playful" (Pawluk, 1989, p. 148, 151), "playfulness/joking and derogation/aggression" (Alberts, 1992a, p. 154), "humorous taunts" (Voss, 1997, p. 241), "provocative" and "playful" (Keltner et al., 2001, p. 234), "confronting or challenging" and "playful or humorous" (Kowalski et al., 2007, p. 178), "critical" and "insincere" or "fictional" (Partington, 2008, p. 723), "hostile and friendly" (Blythe, 2012, p. 510) and so on. In Table 15.1, the key terms that have

Table 15.1 Evaluative stances evoked in second order, technical definitions of teasing

Serious	*Non-serious*
annoying, harassing, irritating, painful	*artful, playful, mischievous, sportive*
critical, denigrative, derogative, insulting, mocking, nipping	*joking, jocular, humorous, pleasurable, witty*
aggressive, antagonistic, biting, hostile, tormenting	*affectionate, bonding, friendly*
challenging, confronting, goading, provoking, taunting	*fictional, insincere*

been used in the literature to date to define teasing have been arranged into eight broad inter-related clusters.

From this overview of the terms that are used to define teasing we can see that it inevitably involves a (ostensibly) serious stance on the part of the teaser towards the target that is construed as non-serious. Yet it is also apparent from these definitions that teasing is something that is not only *done* (i.e., a social action) in an ostensibly *non-serious* way (i.e., its valence), but is also itself open to *evaluation* by participants, as well as being inherently *evaluative* of the target.

Drawing from both lay, first-order senses of *teasing* as a figurative *cutting down* or *setting up* of the target (Pawluk, 1989), and technical, second-order conceptualizations of teasing as a broadly provocative social action that is construed, ostensibly at least, as non-serious, we can posit the existence (in English at least) of two inter-related conceptualizations of teasing:

> *teasing*$_1$: a provocative cutting down of a target that is construed as (ostensibly) non-serious
> *teasing*$_2$: a provocative setting up of a target that is construed as (ostensibly) non-serious

Construing these two broad types of provocative actions as non-serious amounts to the claim that "these actions in which we now engage do not denote what those actions *for which they stand* would denote" (Bateson, 1955, p. 41, original emphasis). Thus, a tease may denote reproaching or enticing, for instance, but it does not denote what would be denoted by those reproaches or enticements. Instead, the reproach or enticement is construed as non-serious, that is, as *playful, jocular, laughable, cheeky, flippant, facetious, absurd, irreverent, mock, sportive* and so on (Haugh, forthcoming). This non-serious framing may, of course, be construed by participants in such a way that it is not entirely clear whether the teaser really is being non-serious, or is in fact covertly serious. That is, rather than invoking the claim "this is play" with respect to the teasing in question, participants may invoke the question "is this play?" (Bateson, 1955, p. 43), thereby creating interpretive and evaluative equivocality. Teasing may also, in turn, be further evaluated by participants (and analysts) with respect to its interpersonal import on a continuum from *bonding* (e.g., *affectionate, friendly*), to *nipping* (e.g., *challenging, confronting*), through to *biting* (e.g., *aggressive, antagonistic, hostile*) (Boxer & Cortés-Conde, 1997).

The extent to which a conceptual apparatus and technical metalanguage that is grounded in a particular language, namely, English, can accommodate the analysis of analogous forms of "teasing" across different languages remains, however, an open empirical question. Indeed, it would seem prudent that any study of teasing be grounded in an examination of the metapragmatics of "teasing" in the language in question, that is, an analysis of the way(s) in which it is conceptualized and talked about by ordinary, lay users of that language, in order to avoid potentially distorting the object of study.

3.2 Teasing in Interaction

One of the key findings from studies of teasing in conversational interaction is that it is invariably an interactional accomplishment on the part of two or more participants (Drew, 1987;

Pawluk, 1989; Alberts, 1992a; Tholander & Aronsson, 2002; Butler, 2007; Haugh, 2010). This observation holds true because teasing is essentially a provocative form of social action that invites specific forms of response from participants, including both addressed recipients (i.e., the target), and side participants (i.e., the audience) (Haugh, 2014). Teasing does not necessarily require an audience, although many teases appear to be designed with an audience, whether real or hypothetical, in mind (Pawluk, 1989).

Teases are designed first and foremost in ways that invite some kind of affective response (or set of responses) on the part of the participants. These affective responses range from amusement, to annoyance or irritation, through to offense, shame or even anger. Laughter is held to be a key way in which participants display amusement, although it is well known that the relationship between laughter and is not straightforward, given the multiple functions that can be attributed to laughter in interaction (Chafe, 2007). In addition, these affective responses are not necessarily shared by all participants. While the teaser and audience may construe an instance of teasing as "funny" or "amusing," for instance, the target may construe it as "annoying," "offensive" or even "hurtful." This affective response is often occasioned through either some form of mocking, ridiculing or denigrating of the target (*teasing*$_1$), or through some kind of enticing or setting up of the target that involves deception or subsequent withholding of the desired object (*teasing*$_2$).

In some cases, teases may also be designed in ways that invite some kind of verbal or non-verbal response from other participants. For instance, a counter tease may be directed back at the producer of the initial tease, or an elaboration of the initial tease may be directed at the same target by another participant. In cases where the counter or elaborative teases are construed as jocular, the teasing episode constitutes a recognizable activity type in its own right, namely, banter (Norrick, 1993). In the case of sexual teases, in contrast, what is invited by the tease is some kind of sexual response from the target. In some instances this may be construed as relatively harmless "flirting" (Beck et al., 2007, p. 157; Hopper, 1995). In workplaces, however, responding to sexual teases can create a double-bind for the target, as "although the sexual tease demands by its nature that she respond sexually, at the same time, by virtue of the work context, it also demands that she *not* respond in a sexual way" (Alberts, 1992b, p. 195). Sexual teasing may thus sometimes be (legitimately) construed as a form of sexual harassment.

There are various ways in which teases may be cued as (ostensibly) non-serious by participants. These vary depending on the type of teasing that is involved, although it often involves laughter, prosodic cues, and various forms of exaggeration (Haugh, 2014). The consensus to date appears to be that construing a tease as non-serious is something that is collaboratively accomplished by participants (Hopper, 1995), and that such interactional work can be quite intricate, involving "multiple layers or laminations" (Gordon, 2008, p. 319). Hopper's (1995) characterization of episodes of playful teasing as "mutually improved ensemble performances in which players sustain alignments around the question: is this play?" (p. 57) is thus particularly apt in light of ongoing work on the interactional mechanics of teasing.

Much of the research about teasing in interactional contexts has focused on (ostensibly) jocular forms of teasing (e.g., Drew, 1987; Alberts, 1992a; Straehle, 1993; Lampert and Ervin-Tripp, 2006; Butler, 2007; Schnurr, 2009; Geyer, 2010; Haugh, 2010; Blythe, 2012; Sinkeviciute, 2014). Building on such research, Haugh (2014) suggests that jocular forms of teasing, a subset of which he terms "other-directed jocular mockery," are interactionally achieved by participants through various design and response features. Some of the key design features of jocular mockery are summarized in Table 15.2.

Response features of jocular mockery mirror these design features, as they include laughter (e.g., turn-initial, interpolated or delayed laughter), facial cues (e.g., smiling, exaggerated facial expressions, iconic gestures). However, they also include other verbal responses, including

Table 15.2 Design features of jocular mockery (adapted from Haugh, 2014, p. 79)

Design feature	*Examples*
non-verbal	
laughter	turn-final laughter; interpolated laughter
phonetic practices	smile voice; vowel or fricative lengthening; modulated pitch accents; compressed pitch range
facial cues	smiling; exaggerated facial expressions; iconic displays
verbal	
exaggeration	extreme case formulations; overstatements
incongruity	presuppositions; allusions
formulaicity	idioms
topic-shift markers	*no*-prefacing; *anyway*-prefacing

expressions of explicit accord (e.g., *yeah*), (partial) repetitions of the mocking remark, elaboration of the mockery, and reciprocation or counter mockery (Haugh, 2014, p. 81).

Analysts have also sometimes distinguished between the interactional design *features* of tease responses and the *types* of responses that have been observed to arise in teasing episodes. While these response types have been classified in various ways (Drew, 1987; Pawluk, 1989; Tholander & Aronsson, 2002; Haugh, 2014), a notable feature of responses to jocular teasing is that they often accomplish a mixed array of messages just like teasing itself. That is, while treating the tease as non-serious through laughter, targets may nevertheless respond seriously to the tease through rejection, explanations, corrections, rebuttals, and so on (Drew, 1987). Moreover, while tease responses may vary in their degree of (non)seriousness, they also vary with respect to whether they can be regarded as more defensive (e.g., accounts and denials) through to being more provocative in orientation (e.g., retaliation) (Tholander and Aronsson, 2002, p. 566). A key difficulty facing researchers in systematically analyzing tease responses is that they are often equivocal. For instance, a non-serious response may mask or disguise a covertly serious response. Or a participant may initially go along with the tease, but in subsequent interactions complain about it and indicate they have taken offense (Haugh & Bousfield, 2012; Sinkeviciute, 2014).

Another key finding in relation to jocular or playful teasing is that it is very often occasioned by a prior transgression or (inadvertent) blunder on the part of the target (Drew, 1987; Straehle, 1993). It is for this reason that it has been claimed that jocular teases constitute a way of reproaching others in particular kinds of situated contexts (Geyer, 2010). Drew (1987) goes further in claiming that teases are invariably sequential "seconds" that exploit prior turns of the target to sanction prior transgressions. However, subsequent work has indicated that in some cases the teaser may actually be exploiting the participants' relational history, or simply taking advantage of a seemingly non-problematic prior turn for its humorous potential in formulating the tease (Armstrong, 1992, p. 50; Blythe, 2012, p. 523). It thus remains an open empirical question the extent to which jocular forms of teasing are occasioned by prior transgressions or blunders as opposed to being more opportunistic in nature, and indeed whether these might in fact represent distinct teasing practices.

Notably, while jocular or playful forms of teasing have received the bulk of attention, other forms of teasing, or activity types involving teasing, have nevertheless been considered in a limited number of studies. These other teasing practices include competitive forms of playful jousting (e.g., Decapua & Boxer, 1999; Partington, 2006), goading (Mitchell, 2015), baiting (Beach & Dunning, 1982), jocular pretense (Haugh, 2016), and sexual teases (Alberts, 1992b; Hopper,

1995). The ways in which instances of jocular mockery may occasion episodes of banter (Norrick, 1993; Haugh, 2014) or fantasy (Hay, 2001; Haugh, forthcoming) have also been examined. However, our understanding of the interactional mechanics of these other forms of teasing remains largely in its infancy. Given there is a wide range of teasing practices, some of which may not yet have been uncovered by researchers, there is evidently still a considerable amount of work to be done in furthering our understanding of the dynamics of teasing in interaction.

3.3 Functions of Teasing

Teasing has been studied in various situated contexts, ranging from everyday encounters between family members, friends, and acquaintances, including both face-to-face and technology-mediated interactions, to encounters within particular communities of practice, schools, workplaces, and public or intergroup encounters, through to initial interactions. This body of research indicates that teasing can be deployed to accomplish a wide range of different types of purposes or agendas. These can be broadly divided into the affective, instrumental, and interpersonal functions of teasing.

Affective functions of teasing involve engendering both positively and negatively valenced emotional responses among participants. This includes teasing as play, that is, for the sake of amusement or entertainment of the participants (e.g., Eisenberg, 1986; Norrick, 1993; Haugh & Bousfield, 2012). However, it also includes teasing that is more (covertly) aggressive, that is, teasing that is meant to annoy, irritate, or even enrage (Pawluk, 1989; Sinkeviciute, 2013), or to cause embarrassment or shame in the target (Kowalski et al., 2007; Harwood, 2010). In some cases, the teasing may be designed to elicit amusement for the (overhearing) audience, but annoyance or even embarrassment from the target (Sinkeviciute, 2014). On other hand, teasing may also mitigate potential offense or embarrassment in some situations (Alberts, 1990), as well as be deployed to manage expressions of affection (Mills and Babrow, 2003; DiCioccio, 2010).

Instrumental functions of teasing include indicating moral transgressions (e.g., Eisenberg, 1986; Drew, 1987; Geyer, 2010; Franzén & Aronsson, 2013), socializing members into group norms (Miller, 1986; Tholander, 2002), and promoting conformity as a form of social control (Schieffelin, 1986; Shapiro et al., 1991). Teasing may also be used in accomplishing sensitive or delicate social actions (Shapiro et al., 1991), including compliments or expressing thanks (Mills & Babrow, 2003) as well as criticisms, reproaches, and complaints (Alberts, 1990; Straehle, 1993; Haugh, 2014).

Interpersonal functions of teasing encompass the accomplishment of both relational and identity work. Relational work includes the use of teasing to both include and exclude. Teasing may foster interpersonal solidarity, and thereby create or maintain relational alliances or in-groups. Yet it may also exclude others, often through implicit claims to superiority, thereby creating out-groups (e.g., Norrick, 1993; Boxer & Cortés-Conde, 1997; Haugh, 2010). Teasing may also contribute to negotiating relationship boundaries (Mills & Babrow, 2003). Identity work accomplished through teasing includes claiming or ascribing identities (Heisterkamp & Alberts, 2000; Queen, 2005; Schnurr, 2009), managing the status of members within a group hierarchy (Traylor, 1973; Decapua & Boxer, 1999), and asserting interpersonal power or dominance (Partington, 2008).

However, given teasing is invariably situated, it follows that these various functions are invariably torqued or fitted to the particulars of their context of occurrence. For instance, while among family and friends teasing may accomplish solidarity (Boxer & Cortés-Conde, 1997) and exclusion (Haugh, 2010), in initial interactions it may invite intimacy (Haugh & Pillet-Shore, 2014), and in the context of romantic courting may probe or test for the possibility of greater

intimacy (Beck et al., 2007). Analyzing the functions of teasing thus inevitably involves a consideration of the broader context in which it arises, including the relationships that are perceived to hold between the participants in question.

3.4 Teasing and Offense

While much of the work on teasing has focused on describing its interactional dynamics and functions, including both the nature and performance of teasing, and (non)verbal responses to it, another central question facing researchers is to explain "*why* people respond as they do to particular teasing interactions" (Alberts et al., 1996, p. 355, emphasis added). Through analyses of the reported personal responses of participants to teasing episodes it has become clear that the personal consequences of teasing systematically vary across participants.

A number of studies have found that teasers tend to view their behavior more favorably than the targets of teasing (Shapiro et al., 1991; Keltner et al., 1998; Kowalski, 2000). Research has shown despite the ostensibly non-serious nature of teasing, among targets it can generate negatively valenced feelings of shame, embarrassment in the moment of teasing itself, as well as anxiety, depression, and low self-esteem in the long-term in the case of persistent teasing (Kowalski et al., 2007). And while it may indeed occasion feelings of enjoyment or amusement for the audience or side participants, it may also generate feelings of empathetic embarrassment as well (Kowalski, 2000). Finally, while the teaser him or herself may experience feelings of superiority after teasing someone else (Tragesser & Lippman, 2005), he or she may also experience feelings of guilt or embarrassment (Kowalski, 2000).

These emotional effects, and the predisposition to engage in prosocial vs. antisocial forms of teasing, have been argued to be influenced by particular personality characteristics (Alberts et al., 1996; Keltner et al., 1998; DiCioccio, 2010), as well as the individual's own personal experiences of teasing over time (Bollmer et al., 2003). Individual perceptions of teasing have also been found to be mediated with respect to perceptions of the teaser's intentions. Kruger et al. (2006), for instance, claim that targets and teasers recurrently have different perceptions of the latter's intents, with a clear tendency for teasers to believe their intentions will be perceived as positive more often than they are in fact perceived that way by targets.

Another line of research has investigated whether particular topics or objects of teasing may be more likely to engender negative affective responses, particularly for the targets of the teasing. Typical objects of teasing among American, Australian, and British speakers of English include appearance, competence, sexual orientation, ethnicity, race, and religion (Alberts et al., 1996; Aronson et al., 2007; Haugh & Bousfield, 2012). Notably, while "intergroup" teases that target one's gender and ethnicity have also been found to occur among friends, participants often reported negative thoughts and feelings when describing such instances (Hack, 2008).

One area that has received particular attention has thus been the relationship between teasing and (im)politeness (Haugh, 2011; 2015; Haugh & Bousfield, 2012; Sinkeviciute, 2013; 2014). One key finding of such work has been that while at the time of the tease participants may orient to it as only mock impolite (i.e., something that can be evaluated as impolite, but on this occasion is not evaluated in that way), in subsequent interactions the target or side participants may orient to the tease as offensive. This orientation can be due to cumulative effects of recurrent teasing of a particular target (Haugh & Bousfield, 2012). It can also be a function of the way in which participants orient to the potential offensiveness of a tease differently depending on the dynamics of participation. For instance, in "front-stage" interactions, that is, where the tease is accomplished in front of an audience, the target may feel under pressure to "go along" with the tease, while in "back-stage" interactions where either the teaser or audience members

are not present, the target may more legitimately display offense (Sinkeviciute, 2014). There remains considerable work to be done, however, to establish when and how participants may take offense to teasing across different types of situated interactions and relationships, as well as across different groups and cultures.

3.5 Teasing Across Groups and Cultures

There is now a growing body of work that considers similarities and differences in teasing across different types of relational networks, ranging from family or friendship units, communities of practice, through to broader societies. Much of the research on teasing to date from a language-use perspective has involved speakers of different varieties of English, including among speakers of American English (Straehle, 1993), Australian English (Haugh, 2014; Sinkeviciute, 2014), British English (Haugh & Bousfield, 2012), and New Zealand English (Schnurr, 2009). However, there have been an increasing number of studies of teasing accomplished in other languages, such as Japanese (Geyer, 2010), Mexican Spanish (Eisenberg, 1986), and Swedish (Tholander & Aronsson, 2002; Franzén and Aronsson, 2013), as well as among speakers of Australian Aboriginal languages, including Bininj Kunwok (Garde, 2008) and Murriny Patha (Blythe, 2012), and speakers of North American Indian languages (Phillips, 1975). Teasing practices have also been investigated within particular social groups and communities of practice (e.g., Queen, 2005; Mitchell, 2015), including those that develop in workplaces (Yedes, 1996; Decapua & Boxer, 1999; Partington, 2008; Schnurr & Chan, 2011).

Comparative studies of teasing are few and far between, however, and so the inferences that can be made from research to date on teasing in different languages or cultures are limited by the fact that the participants' understandings and functions of teasing are invariably situated relative to different activity or relationship types. While teasing evidently occurs in a diverse range of languages and cultures, it remains to be seen whether there may be differences in teasing practices, or different culturally imbued interpretations of teasing, across languages and cultures. Research on teasing, particularly in anthropology, suggests that there may be particular ritualized forms of teasing that may not be readily interpretable or accessible to cultural outsiders; for instance, "razzing" among North American Indians (Pratt, 1996), "name-calling" among the Kaluli of Papua New Guinea (Schieffelin, 1986), or "kin(ship)-based" teasing among Australian Aborigines (Garde, 2008). Cross-cultural studies in pragmatics and communication also suggest that instances of teasing in the same situated activity may have different functions or may be evaluated differently. While such findings are suggestive that teasing is indeed something that is culturally torqued, there is still much to be learned about teasing in different linguistic and cultural milieus.

4 Methodology and Sample Analysis

One of the key challenges facing the analyst in examining instances of teasing is how one licenses inferences about whether it is indeed a form of jocular teasing or something else. This challenge arises in part because teasing is often inherently ambiguous by design, but also in part because different participants may have, or be positioned to have, different interpretations and evaluations of the teasing in question. Inferences by analysts can nevertheless be licensed in a number of ways, including through: (1) close examination of turn design and participant responses, (2) drawing on ethnographic knowledge, and (3) examining naturally occurring or eliciting metapragmatic comments (e.g., *just kidding/joking*) made by the participants themselves. It is critical, however, that any inferences about the understandings or evaluations of teasing

by participants be situated vis-à-vis their locally instantiated participation footings, and the attendant rights and responsibilities these footings confer on those participants (Goffman, 1979; Goodwin and Goodwin, 2004).

We can observe the importance of taking into account this locally situated participation order in actual situated instances of teasing in interaction. In the following excerpt from a family conversation over dinner, for instance, an adult son (Eddie) is talking about a lunch he had that day with his new girlfriend (Denise). This informing subsequently occasions an extended sequence of teasing by two other family members, Shelley (his sister) and Patty (his grandmother), when he claims the lunch was a "celebration" of the start of their relationship. The other participants, Beryl (his mother) and Roger (his grandfather), also contribute to the overall development of this teasing episode.[2]

```
(1)
274   B:    was it anything special?
275   E:    yep (.) yep. it was Denise and I:'s celebration.
276   S:    our [↑TW:O weeks↑ [together]                          ←
277   E:    [(    ) [no the-)] the official sta:rt.
278   we decided we'd make today the start
279   (1.0)
280   E:    °this is the date°.
281   (1.5)
282   E:    [an'-]
283   S:    [the] fo:urteenth?=
284   E:    =°yep°.
285   (2.2)
286   B:    what-
287   R:    so: [fourteenth of Octo:ber is it?]
288   B:    [what about (.) what's go:ne] i:n
289   before that.
290   (1.8)
291   P:    that was [getting to know you.]
292   E:    [well, it just was-]
293   (.)
294   E:    it just-
295   P:    ge- getting to kno::w yo:u, getting to kno:w          ←
296   a:ll about °yo:u°. ((in singing voice))
297   (0.2)
298   P:    getting to °↑li:ke you°= ((in singing voice))
299   R:    =oka:y Na:n=
300   E:    =hhhe hhe
301   P:    gettin' to >hope you< li:ke >yheh heh heh heh< heh
302   (0.3)
303   S:    getting to ↑ki:ss yo::u↑= ((in singing voice))        ←
304   S:    =[he he] he he
305   B:    =[he he]
306   E:    [em[barrassing heh heh]
307   P:    [heh heh heh heh heh] heh heh heh
308   (4.3)
```

```
309   S:    b(h)it clo:se to the bo:ne h(hh)ey ha ha
310   B:    [hem hem hem hem]
311   P:    [hem hem hem hem]
312   (2.0)
313   S:    well [I-]
314   E:    [I] was ju:st making su:re we were compatible.
```

There are three discernible teasing sequences that can be observed in this excerpt. The first is when Shelley impersonates Eddie making a mock announcement about the celebration in line 276. It constitutes an overstatement of the importance of the celebration, which alongside the louder volume and marked rise in pitch, offers cues to the non-serious or jocular framing of this tease (Keltner et al., 2001, p. 234). Notably, in appropriating Eddie's voice to make the announcement, and thus treating him as author and principal of it (Goffman, 1979), Shelley herself expresses a mocking attitude towards the idea of celebrating a 2-week anniversary. Eddie responds with a po-faced rejection of Shelley's assertion (Drew, 1987) when he claims that they are celebrating the "official" start of their celebration, not having gone out for 2 weeks.

The second teasing sequence arises when Eddie is questioned about what the prior 2 weeks of their relationship constitutes if the relationship only officially started that day. Eddie's grandmother, Patty, steps in to provide an account on his behalf in line 291, that is, they were just "getting to know" each other. She then uses this account to subsequently tease Eddie about this new relationship by starting to sing lyrics from the song, "Getting to Know You," from the Rogers and Hammerstein musical, *The King and I* (lines 295–298). Patty's husband, Roger, subsequently attempts to shut down the teasing sequence in line 299, thereby taking the stance that more teasing would be going too far. Notably, it is not the target here, but rather one of the side participants who takes up the role of attempting to ensure that what is ostensibly jocular does not morph into being annoying or even embarrassing (Culpeper & Haugh, 2014, pp. 126–127). However, Patty persists, in line 301, in singing a further line of lyrics from the song and then invites laughter through utterance-final laughter particles (Jefferson, 1979).

Shelley then engages in a third bout of teasing by creating further lyrics that upgrades the tease from being about "getting to know" his new girlfriend to "kissing" her (line 303). This elicits laughter from both Patty and Beryl (lines 305, 307), as well as a mild admonishment from Eddie himself that the tease is "embarrassing" accompanied by laughter (line 306). A long pause then follows after which Shelley admonishes her own tease as a "bit close to the bone," followed by laughter particles (line 309) that constitute an invitation to laugh, which is accepted by Beryl and Patty (lines 310–311). Eddie then follows up with an account as to why the prior 2 weeks don't "count" as their relationship starting, when he claims that those 2 weeks were about "making sure we were compatible" (line 314). In this way, he not only responds by seriously rejecting the tease (Drew, 1987), but also accomplishes a defensive move (Tholander & Aronsson, 2002).

Notably, the jocular mockery in line 303 is accomplished through complex array of footings, as while Shelley is clearly the animator, authorship is ostensibly shared with Patty (who started the song), and possibly (unwittingly or not) with the lyricist of the song itself. In this way, Shelley is able to implicate Patty as partially responsible for the jocular mockery (i.e., as co-principal). Moreover, in responding to this particular tease, it is not only Eddie (the target), but also Shelly herself (the producer of the tease), who are holding Shelley accountable for an annoying or embarrassing tease. Thus, although the teasing here is evidently recognized by those participants as jocular and playful, it is nevertheless morally regulated by those very same participants with respect to the extent to which it can be evaluated as annoying or embarrassing for the target.

Research on this kind of jocular mockery among American, Australian, and British speakers of English (Haugh, 2010; 2014; Haugh and Bousfield, 2012; Haugh, 2016; in press) indicates that it can arise in a whole range of different situated contexts, including in initial interactions between participants who are not previously acquainted. Thus, while it is often claimed that teasing occurs infrequently, if not at all, among strangers (Straehle, 1993, p. 226; Boxer and Cortés-Conde, 1997, p. 287; Kowalski, 2000, p. 239; Keltner et al., 2001, p. 241; Kowalski et al., 2007, p. 189; DiCioccio, 2010, p. 350; cf. Drew, 1987, p. 220), there is growing empirical evidence to suggest that jocular forms of teasing among strangers do indeed occur. It may be used to mark intergroup boundaries (Phillips, 1975), invite intimacy in the case of getting acquainted (Haugh, 2010; Haugh and Pillet-Shore, 2014), or to accomplish sensitive social actions (Haugh, 2014). There is still considerable work yet to be done, however, to establish the extent to which and circumstances in which jocular mockery occurs between non-intimates in different situated contexts and across languages and cultures.

5 Future Directions

As we have seen from this brief introduction to the ways in which teasing can be conceptualized, the notion of teasing is clearly complex. It not only involves multiple layers of interpretation and evaluation, but is also evidently heterogeneous in nature. Teasing prototypically involves mixing elements of provocation and non-seriousness. While it is often couched as playful or jocular by speakers, this non-serious construal of the tease may only be ostensible. It is for this reason that teasing can provoke a wide variety of affective responses, ranging from amusement to annoyance through to anger and hurt feelings. Notably, positively valenced affective responses tend to be more common among the teaser and audience in cases where there are co-present side participants, while negatively valenced negative responses tend to be more common among targets. It has also been found that while participants, in particular, the target, may initially respond to the teasing as "funny" or "laughable," this may mask a private response that the teasing is "annoying," "offensive," or even "hurtful," an affective response that may or may not emerge in subsequent interactions.

While a number of models of teasing have been proposed (e.g., Alberts et al., 1996; Kowalski, 2004; DiCioccio, 2010), we are arguably some way off being able to develop a truly comprehensive theory of teasing that allows us to examine teasing practices across groups, relational networks, and societies. This hurdle is due in part to the fact that we do not yet know enough about the metapragmatics of teasing in different languages and cultures. Operational definitions of teasing that are couched in the English as a scientific metalanguage may inadvertently mask the culturally imbued nature of teasing. Our understanding of the interactional mechanics of many different teasing practices is also still somewhat limited. There is still much to be done in analyzing the various different forms of teasing. Indeed, there may be teasing practices across languages and cultures that are yet to be recognized by analysts. Finally, although it is clear that teasing may be recurrent in ongoing relationships, analyses of responses to teasing are mostly rooted in the locally situated here-and-now. Our understanding of teasing would thus benefit from studies that examine teasing episodes longitudinally, that is, situated in ongoing relationships over time. A rapprochement between research on teasing in the experimental methods of social psychology and the observational methods of pragmatics and communication might go some way in addressing this issue. But given the field of studies is interdisciplinary by necessity, scholars of are also arguably well placed to contribute much to our understanding of teasing and our efforts to theorize it.

Notes

1 See Sperling (1953, pp. 467–469) for a useful summary of early research in anthropology on the socialization of children through teasing.
2 The transcription follows standard conversation analysis (CA) conventions (Jefferson, 2004). The excerpt is taken from a conversation in the Australian component of the International Corpus of English, a simplified transcript of which is available through the Australian National Corpus (http://www.ausnc.org.au). My thanks to Pam Peters for allowing me access to the audio recording of this conversation.

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16

Politeness, Teasing, and Humor

Maria Shardakova

1 Historical Perspective

The perception of humor, including teasing, with regard to politeness has changed dramatically over the past few decades, as the traditional conceptualization of politeness undertaken in the spirit of linguistic universals (Lakoff, 1973; Brown & Levinson, 1987; Leech, 1983) has gradually given way to a new understanding inspired by the insights of social theory (Eelen, 2001; Mills, 2003; Locher & Watts, 2005; 2008). Current models reject the essentialist and prescriptive treatment of politeness as "formal diplomatic protocol" that speakers follow in order to refrain from overt aggression (Brown & Levinson, 1987, p. 1), advancing instead the notion of rapport management, which embraces all types of verbal behavior, not only pro-social (cooperative and polite) but also antagonistic and conflictual (Eelen, 2001; cf., Culpeper, 1996; Kienpointner, 1997; Locher & Watts, 2008), and the whole spectrum of subjective judgments that "people make about the social appropriateness of verbal and nonverbal behavior" (Spencer-Oatey, 2005, p. 97). Instead of focusing on individual face wants (Brown & Levinson, 1987), new studies approach verbal interaction as a moment-to-moment performance of affiliative and disaffiliative stances by participants who are engaged in the mutual construction of interpersonal relationships (Eelen, 2001; Mills, 2003; Terkourafi, 2005; 2015; Bousfield, 2008; Arundale, 2010; Haugh, 2013). Echoing works in sociology and social anthropology, new studies view verbal behavior as a social practice that increases or decreases relational capital while promoting or impeding social conjunction (Eelen, 2001; Mills, 2003; Locher & Watts, 2005). Attention to the situated and co-constructed nature of (im)politeness shifts the emphasis from the speaker's intentions to the hearer's reception of the message. Similarly, the context of the interaction, both local and global, becomes more prominent as interactants attend to a host of linguistic and paralinguistic data, including shared knowledge and beliefs (Clark, 1996) as well as behavioral expectations—e.g., contractual/legal agreements, behavioral conventions, and interactional principles similar to conversational maxims (Spencer-Oatey, 2005).

Analogous studies in verbal humor have accumulated substantial empirical evidence that reveals the ambivalence of jocular behavior vis-à-vis politeness. Once seen either as an expression of aggression (Morreall, 2011) or as a cushioning device for face-threatening acts and a positive politeness strategy (Leech, 1983; Brown & Levinson, 1987), humor is now shown to

be capable of occupying any point on the politeness-impoliteness continuum (Kotthoff, 1996; Boxer & Cortés-Conde, 1997; Hay, 2000; Holmes, 2000; Culpeper, 2005).

Context—both as pre-communicative social givens and communicative negotiations of relationships—has been deemed one of the most important factors affecting the interactants' (im)politeness judgments when engaged in jocular interactions (Norrick, 1993; Kotthoff, 1996; Holmes, 2000; Hay, 2001).

Earlier studies tended to focus on humor production and examined such broad pre-communicative categories as gender, social distance, power, and humor genres (Boxer & Cortés-Conde, 1997; Tannen, 1999; Hay, 2000; Keltner et al., 2001; Holmes & Schnurr, 2005; Norrick & Spitz, 2008). It has been suggested that men have a propensity for "verbal challenges and put-downs" when communicating with other men (Tannen, 1999), while women opt for self-denigrating humor (Boxer & Cortés-Conde, 1997). Close friends and intimates were reported to engage in high risk humor, such as teasing or irony—behaviors typically avoided among distant interactants (Norrick, 1993; Kotthoff, 1996; Boxer & Cortés-Conde, 1997; Eisterhold et al., 2006). Persons of higher status have been shown to use "humorous impertinence" to affirm their power (Kotthoff, 1996, p. 320; cf. Holmes, 2000). Some forms of verbal humor—e.g., teasing, sarcasm, put-downs—have been have assigned to the category of aggressive humor (Norrick & Spitz, 2008).

Among pre-communicative givens, the interactants' native culture has been identified as a powerful factor affecting jocular behavior (Chiaro, 1992; Eelen, 2001; Crawford, 2003; Holmes & Schnurr, 2005; Schnurr & Chan, 2011; Haugh & Bousfield, 2012; Shardakova, 2012). It has been proposed that different cultures have different preferred humor styles and corresponding playful identities. These established styles are regarded as natural and "politic"[1] (Locher & Watts, 2005) by the members of the speech community, irrespective of how they may be regarded by outsiders. Analyzing the playful exchanges between Russian and American youths, Shardakova (2012) demonstrates that the two groups have distinct jocular practices: while the American group engaged in friendly banter with the speakers, assuming the identity of acidic brutes, the Russian group indulged in self-deprecation and acted like jesters. Shardakova argues that these seemingly dramatic face-threatening acts are "bereft of any real impoliteness or face-threat. Instead, they represent non-salient, expected, and appropriate behavior—the politic behavior" (Shardakova, 2012, p. 32). While ritualized practices usually neutralize impoliteness (Kádár, 2013), they can regain their face-threatening capacity if taken out of context or if the participants fail to recognize them as rituals (Culpeper, 2005, pp. 64–65). When American learners of Russian transferred their playful practices into their new language, their Russian counterparts found such humor "rude" and "aggressive" (Shardakova, 2013).

Second-language data corroborates the existence of culture-specific humor and even particular delivery styles (Shively, 2013; 2015). Thus, in Shively's (2013) study, an American foreign-language (FL) learner of Spanish who self-identified as someone who enjoys sarcastic deadpan humor was not able to detect this type of humor in the speech of native Spanish speakers; nor was he capable of performing this type of humor so that it was recognized by his Spanish interlocutors (p. 937). Learners' lack of familiarity with the target culture's playful practices affects both their ability to detect and appreciate humor (Bell & Attardo, 2010) as well as their ability to accurately judge humorous utterances vis-à-vis (im)politeness. As Bell (2007) reports, one of her participants did not appreciate humor that hinged on tricking a child because she found it offensive (p. 379). It is through the process of in-culture socialization (Shively, 2013) and/or through gains in cultural and linguistic knowledge (Davies, 2003; Bell, 2005; Shardakova, 2010) that second-language learners begin to approximate native speakers.

More recently, researchers have begun to zero in on local communicative contexts, examining rapport management within individual communities of practice and arguing that perceptions

of humor and politeness, as well as interactional expectations, may vary significantly across such communities (Culpeper, 2011; cf. Geyer, 2010; Grainger, 2004; Holmes & Schnurr, 2005; Mullany, 2004). It has been shown that general tendencies in the use of humor vary across local contexts and that fixed variables—such as gender and social status—contribute differently depending on the local norms of interaction. Thus, women in predominantly male environments might adopt male styles of humor that are more aggressive and critical (Holmes & Schnurr, 2005). Similarly, less powerful conversationalists may choose to challenge their higher status counterparts and confront the established hierarchy (Kotthoff, 1996; Holmes, 2000; Rampton, 2002; Holmes & Schnurr, 2005).

Within this line of research the recipient's uptake becomes as important as the speaker's intent. Analyzing responses to various types of humor—e.g., teasing (Drew, 1987; Tholander & Aronsson, 2002; Partington, 2008), irony (Hay, 1994; Toplak & Katz, 2000; Kotthoff, 2003; Eisterhold et al., 2006; Attardo, 2001), self-denigration (Schnurr & Chan, 2011), canned jokes (Bell, 2009a; 2009b)—researchers report that the hearers adopt varied strategies in response, depending on whether they perceived the humor as benign or potentially threatening. When humor is deemed inconsequential to the hearers' face/identity, they tend to respond to the literal meaning of the message, adopting the playful mode and playing along with the speakers (Attardo, 2001; Kotthoff, 2003; Partington, 2008). If, on the other hand, the hearers perceive the humor as damaging to their sense of self-worth or their identity, they usually respond to the implied meaning of the message, censoring the speakers. These censoring responses may take different forms: they range from a complete withdrawal from communication (Tholander & Aronsson, 2002) to chastising and even insulting the speaker (Bell, 2009a; 2009b) or arguing that the utterance was counterfactual (Drew, 1987). Interestingly, hearers may perceive humor as inappropriate and face-threatening on the basis of its form and funniness. For instance, in American culture communicators may find it inappropriate for an adult to tell riddles (Bell, 2009a, p. 158) given the crudity of the form (Bell, 2009a, p. 160). When analyzing evaluative responses to unsophisticated humor, Bell reports that it is usually intimates who opt for confrontational assaults while more distant interactants avoid overt confrontation or impolite responses (Bell, 2009b, p. 1835; cf. Bell, 2009a).

This brief overview highlights the following aspects in the discussion of humor and politeness: playful behaviors need to be analyzed within a broader discussion of rapport management, rather than within the narrow framework of traditional politeness theories. No judgment regarding humor's social role (affiliative vs. dis-affiliative) can be made outside of real-life interaction: the interactants negotiate the extent of humor appropriateness. Within this discursive view of politeness, the context of interaction becomes particularly important. One of the ways to address contextual variables is to analyze interactions within the framework of a community of practice (Wenger, 1998). Each community of practice develops its own rules of engagement, including perceptions of (im)politeness, which usually reflect broader cultural norms and patterns.

2 Core Issues and Topics

This study focuses on a particularly aggressive humor type—teasing (Norrick & Spitz, 2008)—in the context of a Russian foreign language classroom. It addresses a host of interrelated issues: the legitimacy of teasing in educational settings, particularly when instructors and students come from different cultural backgrounds and may not share behavioral norms and expectations, let alone the linguistic means to negotiate such norms. The institutional setting with its inherent imbalance of power between instructors and students (Blevins-Knabe, 1992; Martínez-Alemán, 2007) also contributes to the gravity of the use of teasing.

This study focuses on instances of teasing that can be viewed as "critical evaluations" (Partington, 2008) and follows the definition proposed by Alberts (1992), who regards teasing as an utterance that contains "a potentially insulting/aggressive comment but simultaneously provides/relies upon cues that the utterance is to be understood as playful/non-serious" (Alberts, 1992, p. 155; cf. Boxer & Cortés-Conde, 1997; Drew, 1987; Eisenberg, 1986; Tholander, 2002). In this, teasing is a type of implicature that requires the target to interpret the utterance as violating the Gricean maxim of Quality[2] (sincerity) and as non-face-threatening (cf. Partington, 2008, p. 773). The context of interaction helps the participants to interpret an utterance as a playful tease (polite or non-impolite[3]) rather than an aggressive put-down (impolite) (Culpeper, 1996; 2005; 2011; Kotthoff, 1996; Kienpointner, 1997; Bousfield, 2008; Dynel, 2008; Haugh, 2010; Haugh & Bousfield, 2012).

It has been proposed that playful attacks be viewed as teases in interactions between friends or closely related people (family, intimates) and as put-downs when interactions happen in other contexts (Boxer & Cortés-Conde, 1997; Drew, 1987; Dynel, 2008). Playful attacks in interactions involving people of unequal social status (between business owners/managers and their employees or between instructors and students) have been regarded as particularly face-threatening, yielding either repressive humor when teasing is initiated by people of higher status or subversive humor when teasing is initiated by people of lower social status (Holmes, 1998; cf., Dunbar et al., 2012; Grainger, 2004; Holmes, 2006; Holmes & Marra, 2004; Holmes & Schnurr, 2005; Keltner et al., 2001; Rampton, 1998; 2002; Rees & Monrouxe, 2010; Schnurr & Holmes, 2009; Wanzer et al., 2006). As Grainger (2004) argues, even innocuous teasing/flirting interactions between nurses and patients on geriatric wards carry "aggressive undertones" and re-construct asymmetrical power relationships (p. 57).

Discourse-based studies in politeness emphasize the fluid nature of contextual variables, problematizing the existence of preset roles and social parameters (Eelen, 2001; Mills, 2003; Locher & Watts, 2005), which means that in order to distinguish teasing from more aggressive behaviors it is necessary to consider the participants' identities as they are being co-constructed in local interactions (Drew, 1987; Mullany, 2004; Geyer, 2010). Thus, Drew (1987) shows that even in interactions with friends or other familiar people (e.g., family members, participants of therapy sessions), participants may perceive teases as threatening if the teases ascribe to them deviant identities. In his study, participants "rarely respond by going along with the humor of the tease" (pp. 219–220), providing instead serious responses (cf. Tholander & Aronsson, 2002; Toplak & Katz, 2000). Similarly, in his analysis of press briefings held at the White House, Partington (2008) demonstrates that speakers engage in teasing when they want to emphasize their affiliative identity; however, when they want to foreground their individual identity, they usually refrain from teasing. It is unclear, though, whether instructors and students in foreign- and second-language classrooms can re-negotiate the roles and identities bestowed upon them by the institutional setting (cf. a similar argument about the restricting force of the classroom roles in Richards [2006] and Waring [2013]) or whether they are able to "enter an alternative world" (Waring, 2013, p. 192).

Research in educational psychology views teasing as inappropriate for the classroom setting; even if some learners[4] may appreciate instructors' provocative behaviors, the majority perceive teasing as aggressive behavior that impedes learning inside and outside the classroom (Keltner et al., 2001; Wanzer et al., 2006; Myers et al., 2007; Frymier et al., 2008). Despite this general conviction, anecdotal evidence suggests that teasing often occurs in foreign language classrooms. While there have been occasional references to teasing in second language acquisition research, it is only recently that the field has established an explicit agenda in regard to FL teasing (Shively, 2015). To this day, however, there exists only limited evidence regarding the use of teasing in

FL classrooms and virtually no study has explored the relationship between FL teasing and politeness.

Most existing studies combine teasing with other playful behaviors and address such practices within the programmatic context of FL teaching/learning—i.e., the role of ludic play as a means to facilitate language learning (Broner & Tarone, 2001; Cook, 2000; Sullivan, 2000; Tarone, 2000; Bell, 2005; 2009c, 2011; Cekaite & Aronsson, 2005; Lucas, 2005; Pomerantz & Bell, 2007; Bushnell, 2008; Forman, 2011) or as a part of communicative competence—i.e., a goal of language learning (Cook, 2000; Tarone, 2000; Broner & Tarone, 2001; Davies, 2003; Bushnell, 2008; Bell, 2009c; Shardakova, 2010; 2012; Forman, 2011; Pomerantz & Bell, 2011; Shively, 2013; 2015). It has been argued that in both capacities—as a facilitator of language learning and as a part of linguistic proficiency—ludic play is an important part of the foreign language classroom and/or socialization into the target speech community. The extent to which teasing may serve the same purposes as other types of playful behaviors remains unanswered. Nor is it clear whether foreign language classrooms create conditions conducive to teasing (cf., Davies, 2003).

Based on the existing evidence, second-language (L2) teasing is highly context-dependent and localized: it usually occurs between people who are socially intimate—i.e., between friends or with host-family members during study abroad. In these interactions, teasing has been shown to occur rather frequently, even when L2 learners have only limited linguistic abilities (Davies, 2003). Bell (2009c) ranks teasing the second most frequent playful behavior after humorous narratives among advanced L2 speakers of English in their interaction with native speaker friends (22.1% and 35.3% respectively). When examining teasing in the context of homestay during study abroad, Shively (2015) shows that native speakers may engage learners in routine playful banter (cf. Norrick, 1993). Shively reports that a considerable portion of teasing (up to 50%) attacked learners' "non-target-like use of the L2" (Norrick, 1993, p. 131; cf. Eisenberg, 1986). While tolerable when received from a host family member, such teasing may destabilize the rapport between instructors and their students. Interestingly, Shively argues that even when received from a close person (a host family member), teasing that attacks L2 learners linguistic abilities may have a severe negative effect, threatening learners' desired identities of proficient L2 speakers (p. 130). Because teasing usually targets the recipient's individual identity—his/her positive self-image (Spencer-Oatey, 2000, p. 31)—its presence in the classroom may require special conditions, a great deal of negotiation, and careful calibration on the part of the speaker.

Data from foreign- and second-language classrooms show that both students and instructors participate in teasing. Students often tease each other, sometimes assuming imaginary L2 identities and inventing new voices for these identities (Bushnell, 2008; Pomerantz & Bell, 2011; Shardakova, 2016). In addition to this benign playfulness, students may also engage in more aggressive teasing when they challenge the authority of an instructor (Rampton, 1998) or express a rebuke of institutional teaching routines (Rampton, 2002). Fewer studies document the teasing of students initiated by instructors. Surprisingly, some instructor-initiated teases are rather aggressive, attacking students' individual identities. Thus, Forman (2011) documents how an Australian ESL instructor at a Thai university teased his students about their poor hygiene or sexual promiscuity. Lund (2015) reports equally aggressive cases of teasing between Swedish high school teachers and immigrant students, with one of the teachers poking fun at the students' poor knowledge of Swedish. Arguing that teasing helped to build rapport between the instructor and the students, Forman, nevertheless, admits that teasing may be potentially offensive and disruptive of the learning process (p. 557); he does not, however, explain why the instructor's teasing was accepted by the students. Lund, on the other hand, proposes that the offensive potential of the teasing is offset by the fact that teachers drew on youth and popular culture when playfully attacking their students.

The proposed study builds on previous research and investigates the relationship between classroom second-language teasing and politeness and is guided by the following questions:

1. How common is teasing in a foreign language Russian classroom?
   a. How often is teasing used by foreign language Russian instructors as a classroom management tool?
   b. Do learners tease their foreign language Russian instructors?
2. What are the conditions for teasing: How is it made a legitimate classroom practice? (What are the targets of teasing, what are the topics of teasing? How is teasing negotiated? What mitigating strategies do participants use?)

3 Methodology and Sample Analysis

3.1 Participants

Data came from a classroom-based ethnographic study conducted in an intensive summer program at a large public university located in the Midwest United States. For this chapter, only interactions in the upper-level grammar courses (3rd-, 4th-, and 5th-year Russian courses) were selected. The following reasons determined this selection: in these courses communication was systematically conducted in Russian, and the instructors were of similar demographics, as they were all female native-speakers with 6 to 15 years of experience teaching Russian at various US universities and they regularly employed teasing as a classroom management tool.[5] Compared to other summer courses—e.g., conversation, listening, and phonetics—the grammar courses were also the closest to typical academic-year Russian language courses, making the findings of the study more generalizable.

Thirty-two students, with an average age of 25.3 years (SD = 4.7), participated in the study (Table 16.1). Based on the placement tests, the participants scored from intermediate-mid through advanced-low on the ACTFL proficiency scale (ACTFL, 2012). At the time of the study most participants were enrolled as undergraduate (55%) and graduate (45%) students at different US universities. Most of the undergraduate students were Russian majors or minors. The graduate students were pursuing degrees in Russian area and literary studies.

3.2 Data Collection

The data comprise a corpus of 360 instances of teasing (261 teases initiated by the instructors and 99 initiated by the students) elicited from 24 hours of audio-recordings of classroom interaction. Tables 16.2 and 16.3 summarize the number and frequency of teasing instances against the overall number of playful interactions initiated by the instructors and the students.

Table 16.1 Distribution of students across the study groups

Level	*3rd-year*	*4th-year*	*5th-year*	*Total*
Female	8	5	2	15
Male	5	9	3	17
Total	13	14	5	32

Table 16.2 Distribution of instructor-initiated teasing across the study groups

Level	*3rd-year*	*4th-year*	*5th-year*	*Total/Average*
Instructor characteristics	NS, F	NS, F	NS, F	-
Years teaching Russian	15	6	12	11
Playful interactions, N	150	110	148	408
Teasing, N (%)	117 (78%)	52 (47%)	92 (62%)	261 (64%)
Frequency of teasing per class session	14.6	6.5	11.5	10.9

Note: NS = native speaker; F = female; M = male; N = number

Table 16.3 Distribution of student-initiated teasing aimed at the instructor across the study groups

Level	*3rd-year*	*4th-year*	*5th-year*	*Total/Average*
Playful interactions, N	206	269	277	752
Teasing, N (%)	33 (16%)	30 (11%)	36 (13%)	99
Frequency of teasing per class session	4.1	3.7	4	3.9

Teasing was widely present in all the groups observed: the instructors' use of teasing amounted to 10.9 instances per 50-minute class session and the students' teasing of instructors averaged 3.9 instances per class session.

3.3 Data Analysis

This chapter draws on two theoretical frameworks—rapport management (Spencer-Oatey, 2000) and interaction ritual (Goffman, 1967; Kádár, 2013). Both frameworks approach verbal interaction as a relational phenomenon and identify conditions for its effective realization, including face-threatening acts.

Spencer-Oatey's model of rapport management expands on Goffman's notion of face that underlies traditional theories of politeness (Lakoff, 1973; Leech, 1983; Brown & Levinson, 1987), distinguishing between concerns of face and concerns of sociality rights. She further delineates two aspects of face—quality face and identity face—and two types of sociality rights—equity rights and association rights. Quality face is defined as the desire to be positively evaluated by others based on one's personal qualities (cf. positive face in Brown & Levinson's politeness model); and identity face refers to the desire to be positively evaluated by others based on one's social role and identity. Equity rights refer to the belief that one is "entitled to personal consideration and fair treatment from others" (Spencer-Oatey, 2000, p. 14; cf. negative face in Brown & Levinson's politeness model), whereas association rights refer to the belief that one is entitled to have associations with others, based on mutual involvement, empathy, and respect (Spencer-Oatey, 2005, p. 100).

The paper also draws on the notion of interaction ritual (Goffman, 1967), particularly as developed by Kádár (2013) who approaches ritual from the standpoint of interpersonal pragmatics and focuses on interactions in small-scale groups. He maintains that the primary function of ritual "resides in its potential to (re)shape and strengthen interpersonal relationships" (Kádár & Bax, 2013, p. 76). Because ritual serves as a means of triggering emotional response, it promotes social cohesion and solidarity without requiring that interactants share the same values or even the same interpretation of the ritual (Kertzer, 1988, p. 69).

Both the model of rapport management and the notion of interaction ritual help analyze how instructors and learners navigate such face-threatening behavior as teasing.

3.4 Examples and Discussion

Discounting individual variations, the instructors and the students used similar strategies to calibrate their playful attacks and to signal which attacks were admissible and which were not.

To mitigate the offensive force of playful attacks, the participants used a host of inter-related strategies: they avoided attacking recipients' individual identities, targeting instead their social identities (cf. Spencer-Oatey's (2000) argument that teases usually damage the recipients' personal face, p. 31). For instance, the instructors often chastised the students for not being "good students," or not living up to the name of "educated people" or "intelligentsia," or even "Americans." The students usually attacked the instructors as "Russians," "Soviets," "spies," or "professors." In total, 79% of the instructors' teases and 88% of the students' teases attacked the recipients' social identity. Instructors usually attacked students as a group, which inadvertently boosted the students' association rights and their feeling of belonging to a community. Linguistic devices were selected accordingly: the attackers consistently used plural forms, even when addressing one individual. Moreover, the teases usually evoked stereotypes and censured the recipients' hypothetical, rather than actual, transgressions. The reliance on stereotypes allowed teases to appear in topic-initial positions, which markedly differentiated teases observed in this study from teases reported by other studies that regard teasing as a sequential act, delivered in "response to a prior turn" (cf. Drew, 1987, p. 233). Issued as hypothetical and non-specific (target-less) forewarnings, teases further lose their punitive quality

Examples (1) and (2) illustrate the use of the aforementioned strategies.

(1) A female student and the instructor, 4th-year Russian course. All examples preserve the original Russian, including errors.

01 S: ia ustala

I am tired

02 I: bednye bednye studenty (.) oni tak ustali
03 vsiu noch veselilis' (.) peli pili tantsevali

Poor-poor students they are so tired
all night they had fun they sang drank danced

04 S: my nikogda ne pit (.) tol'ko rabotat'

We never drink only work

In (1), a student complains that she is tired and the instructor mockingly commiserates, addressing the complainer not as a single person but as a group, which is marked by the plural form "poor students." The instructor continues by suggesting that the students are tired not from their studies but from wild parties. The instructor draws on the stereotypical portrayal of college students as party animals who neglect academic pursuits in favor of questionable entertainment. While inspired by her native culture (Ligi & Trasberg, 2014), such stereotypes are also present in American culture (cf., Ashmore et al., 2002; indeed one can find self-reported stereotypes posted onto the Unigo website where students answer questions such as "What is the stereotype of students at your school? Is this stereotype accurate?"). The instructor's evocation

of these stereotypes may, if only underhandedly, boost the students' self-image, as both American and Russian youth cultures associate alcohol consumption with a range of highly valued individual characteristics such as non-conformism, toughness, free-spiritedness, and friendliness (on alcohol consumption as a semiotic manifestation of various prestigious social identities see Christie, 2013; Packer, 2011). The student's affected protest upholds the play and ratifies the tease as affiliative.

(2) A male student and the instructor, 4th-year Russian course

01 I: mne ne nravitsa ni pepsi (.) ni kola

I like neither Pepsi nor Cola

02 S: konechno (.) russkie nravitsa vodka

Of course Russians like vodka

03 I: nu pochemu tol'ko vodka esche i koniak

Why only vodka also cognac

In (2), a student teases the instructor who has just exemplified how to use the double negation in Russian with the following utterance, "I like neither Pepsi nor Cola." The student playfully suggests that the instructor's dislike of soft drinks is due to her Russian penchant for vodka. The attack is delivered as an implication—the student does not say that his instructor likes vodka; instead he declares that all Russians like vodka, which implies that being Russian, the instructor must also share this gastronomic preference. As in (1), the tease targets the instructor's group identity (nationality/ethnicity), careful to avoid singling her out (the use of plural), and draws on popular American and Russian stereotypes. The instructor playfully refutes the accusation as inaccurate, because she/Russians also enjoy cognac. The fact that the instructor upholds the play ratifies the tease as rapport building.

The evocation of stereotypes as a mitigating strategy proved somewhat trickier when the stereotypes were not shared. Thus, in (3) the recipients experienced teases as offensive and withdrew from the play.

(3) Two female students, 3rd-year Russian course

01 I: my tut o politike
02 a vy navernoe o modakh

we are discussing politics
while you must be talking about fashion

03 S1: [izvinite]

sorry

04 S2: [izvinite]

sorry

In (3), the instructor approaches two female students who seem distracted during the class discussion and playfully admonishes them, suggesting that they must be talking about fashion while the rest of the class is discussing politics. Drawing on her native culture, the instructor

intended her tease as simultaneously punitive and praising (cf. biting and bonding, Boxer & Cortés-Conde, 1997): the singling out of the two students for their neglect of their academic duties is mitigated by the subtle praise of their femininity (cf. positive connotations of gender stereotypes in Russian culture, Likhacheva & Nesterovskaia, 2014). However, in the context of an American university classroom, gender-based stereotypes are typically regarded as aggressive and inappropriate (Wanzer et al., 2006). The students' serious reaction—they do not play along with the instructor and instead quickly offer their apologies—marks the instructor's teasing as unfavorable and potentially disruptive of the learning process and the rapport between the instructor and the students.

The teases were usually co-constructed and negotiated over multiple turns. The participants' reactions to teasing—playful vs. serious—helped determine the extent to which the teases were admissible (cf. Drew, 1987; Schnurr & Chan, 2011; Tholander & Aronsson, 2002). Most of the teases—even rather aggressive ones—were usually upheld by the participants (as in (1) and (2)), who enjoyed the opportunity to engage in "real communication" (in the students' own words, as recorded during the post-field interviews). The serious reception of the instructor's teasing in (3) is a fairly rare example of the students' withdrawal from play when they experienced the tease as face-threatening. The instructors usually upheld the students' teases (there were only two withdrawals in the corpus when the students made jokes about Russians beating their mothers and about Russians hating all non-Russians).

Another way for the participants to manifest their ratification of the tease was to adopt the tease as their own. For instance, the students mimicked their instructors' teases (and intonations) to attack both their peers and the instructors (e.g., *nado men'she pit'* "you need to drink less," *nu razve tak mozhno* "how could you"). Similarly, the instructors recycled their students' teases in self-directed humor and in teases directed at students, sometimes with a fake American accent and grammatical errors (e.g., *my vse lubim Stalina* "we all love Stalin," *my russkie ne mozhem zhit' bez vodka* "we Russians can't live without vodka"). Over the course of the program, certain teases became ritualized and were employed almost automatically (cf. similar ratification of teasing routines in Kádár & Bax, 2013). These teases ranged from very innocuous (*my na positive* "we are positive") to rather aggressive (*chto vy kak devochki* "you are like little girls," *my zlye stalinisty-putintsy* "we are evil Stalinists-Putinists"). Eventually, each group developed its own repertoire of teases shared by both the instructors and the students alike. The groups also considerably overlapped due to the fact that they drew on similar cultural resources (e.g., American and Russian stereotypes). Through the process of conventionalization, these teases were disambiguated and recognized as tokens of affiliation and social bonding (cf., Terkourafi's (2015) argument that politeness is based on conventionality).

In sum, the study showed the ubiquity of teasing in the Russian FL classroom, with both instructors and students playfully attacking each other. These playful attacks shared certain characteristics that made them acceptable and rapport-promoting, rather than threatening and inadmissible. Participants' social identities were regular targets: the instructors teased the students for being "typical students" or "bad students" and the students attacked the instructors for being "Russians" or "professors." Rooted in glaring stereotypes, playful attacks helped conceal the speakers' aggressive intent, while also making the attacks less pointed and less threatening. Shared stereotypes (students not wanting to study or professors being strict) required a minimum of negotiation (especially when these stereotypes carried additional cache, boosting the recipients' self-image and offering them prestigious roles and identities), while culture-specific stereotypes (Russian gender-related stereotypes and American pejorative stereotypes about Russians) required more relational work, sometimes leading to communication break-down. Eventually,

Table 16.4 Distribution of targets in all the groups combined

Instructor-initiated teases, N	*Social identity, 206 (79%)*	*Individual identity, 55 (21%)*
	Students, 97 Educated people/intelligentsia, 28 Child-like, 21 Gender, 13 Americans, 10 Intelligentsia, 9 Russians, 5	Tardiness, excessive punctuality, curiosity, dress-code, literary taste, laziness, love of sports, lack of social awareness, clumsiness, cynicism, naïveté
Student-initiated teases, N	*Social identity, 87 (88%)*	*Individual identity, 12 (12%)*
	Russians, 32 Loving the Soviet way of life, 17 Professors, 11 Child-like, 8 Spies, 7 Educated people/intelligentsia, 4 Americans, 4	Chocolate-lover, tardiness, smoking, poor hand-writing, lack of knowledge about sports, political ignorance, gender, book-lover, not a feminist, old-fashioned, cynicism, naïveté

though, even aggressive teases targeting the participants' gender or nationality/ethnicity were appropriated by all the participants to form a shared repertoire of playful practices.

4 New Debates

The study reveals several directions for future research. It will be worthwhile to examine the effect of the learning context—foreign language vs. second language—on the negotiation of teasing practices as a way to manage the classroom and build rapport. It will be equally interesting to find out whether the mitigation strategies observed in this study (attack of social identity, reliance on stereotypes, and boost of association rights) are shared across other languages and learning contexts. A comparative study of native- and non-native instructor playful practices may shed more light on how rapport is built in foreign language classrooms.

The study also raises the question of whether the lack of shared stereotypes or other types of cultural knowledge may lead to breaches of communication and dis-affiliation. While this study did not detect any serious consequences of linguistic constraint, the role of linguistic proficiency may be more prominent in the negotiation of rapport in other learning contexts. For instance, higher degrees of linguistic disparity between instructors and students may cause higher degrees of dis-affiliation. Finally, it will be relevant to explore whether (and how) L2 classroom teasing affects the acquisition of linguistic and cultural knowledge.

Notes

1 Locher and Watts (2005) use the term "politic" in reference to verbal behaviors that often go unnoticed; the unmarked nature of these behaviors makes them appropriate. Marked behavior, conversely, is noticed and can be acknowledged in three ways. It can be perceived as polite, as impolite/non-politic/inappropriate, or as over-polite/ non-politic/ inappropriate.

2 Leech (1983) proposes a separate banter principle for this type of implicature, when the speaker uses an overtly impolite utterance to convey politeness and solidarity (p. 145).

3 Teasing has been theorized differently on the politeness-impoliteness continuum: Leech (1983) views teasing as a manifestation of mock impoliteness and, thus, inherently polite; on the other hand, Culpeper (1996, 2005, 2011) analyzes teasing as neutralized impoliteness—the impoliteness that is understood as untrue; yet Haugh and Bousfield (2012) place teasing in a separate category of non-impolite behavior.
4 It has been shown that such student characteristics as humor orientation, verbal aggressiveness, and communicative competence affect students' perception of instructor humor, making some students tolerant of aggressive forms of instructor humor (Frymier et al., 2008).
5 While the comparison of native-speaker vs. non-native-speaker classroom management practices goes beyond the scope of this study, it is worth noting that the two populations diverged drastically in their use of teasing, with American born instructors almost never resorting to teasing and Russian native instructors using teasing very frequently.

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17

Irony and Sarcasm

Herbert L. Colston

Terminology

Although many people likely feel confident they know what irony is and how it might be distinguished from similar concepts, little agreement holds for a specific definition of irony sufficient for scholarly purposes. Indeed, some scholars have dismissed entirely the attempt at defining irony:

> I will refrain from engaging in the vain attempt to define irony.
>
> (Bara, 2010, p. 176)

Some consistency nonetheless can be found in characteristics scholars have noted for irony, found across various accounts of its nature, comprehension, and usage. Among these are opposition, contradiction, contraindicatedness, contrast, bi-coherence, and related notions of juxtaposed incompatibilities. But the array of forms of irony, and the different mechanisms of creating or exhibiting these oppositions, contradictions, etc., make for great difficulty in settlement of the definitional issue. Accordingly, for present purposes only a brief discussion of some of the terminology used to distinguish a few types of irony will be presented.

Many scholars have noted the difference (and similarities) between irony found in events or situations in the world, vs. those embedded in language or other human communication, the latter having received the most academic attention. ***Situational irony*** (Lucariello, 1994) has been used to label ironic contradictions or coincidences found in situations. As one brief example, consider a story reported on an Internet news site about a woman who was arrested for shoplifting in the United States at a Walmart store (Hoffer, 2014, June 3). According to the local town's Public Safety Department report, among the items stolen was a copy of the Christian Bible:

> an employee noticed her stuffing the book—which, as you know, includes specific instructions not to steal—into her purse.

As indicated, most research on irony has concentrated on the verbal form. ***Verbal irony*** usually refers to spoken or written *creations* of ironic contradictions, with those contradictions falling

typically across an *actual* event, situation, etc., vs. a person's linguistic *depiction* of that event, etc. For example, consider the following short excerpts from a recent *New York Times* interview with David Letterman, celebrity and now retiring multi-decade host of American late-night television programs (Itzkoff, 2015, May 3), as an array of examples of verbal irony:

1. (*As part of Letterman's opening warm-up monologue for a studio audience at a taping*): "Everything O.K. at home?" "Everything O.K. at work?" "You don't find yourself filled with some kind of emotional longing? Are we emotionally stable?"
2. (*In response to a question about regrets over retiring*): "When I left Indiana and moved to California. When Regina and I decided to have a baby—enormous anxiety and trepidation. Those are the two biggest things in my life, and they worked out beyond my wildest dreams. I'm pretending the same thing will happen now. I'll miss it, desperately. One of two things: There will be a reasonable, adult acceptance of transition. Or I will turn to a life of crime."
3. (*Replying to a question about how television has changed*): "I see that things are certainly different. A lot of what we did was dictated by Carson. A guy named Dave Tebet, who worked for NBC and was like a talent liaison—in the same way that Al Capone was a beverage distributor, he came to us and he said: 'You can't have a band. You can have a combo.'"
4. (*Responding to a question about his 2000 heart surgery*): "I was concerned that I'll never be able to run again—that was my big concern. Because I had so relied on running, all my life, to get myself clearheaded. And of course, I was worried that somebody would go on while I was off with my heart surgery, and be good enough that they didn't want me back. As I'm trying to recover from quintuple bypass surgery, I'm paranoid that my life is ending. And then, six weeks after the surgery, I ran for five miles. So let's face it, I am a hero. There's no two ways of looking at it."
5. (*To a question about his potential firing over a 2009 "sex scandal"*): "Looking at it now, yes. I think they would have had good reason to fire me. But at the time, I was largely ignorant as to what, really, I had done. It just seemed like, O.K., well, here's somebody who had an intimate relationship with somebody he shouldn't have had an intimate relationship with. And I always said, "Well, who hasn't?' to myself. But then, when I was able to see from the epicenter, the ripples, I thought, yeah, they could have fired me. But they didn't. So I owe them that."
6. (*To a follow-up question about people's surprise over the candor of his response to the "sex scandal"*): "I didn't know what else to do. I couldn't think of a really good lie."

In these excerpts, Letterman *asserts*,

a) he may become a criminal (Example 2), and,
b) he is a hero (Example 4).

Letterman also *asks*,

a) if audience members are emotionally stable (Example 1), and,
b) whether any person exists who has *not* engaged in an illicit intimate relationship (Example 5).

Letterman additionally *analogizes* that Dave Tebet bears the same relationship to being a mild-mannered talent liaison that Al Capone bears to being a friendly neighborhood beverage distributor (Example 3). Finally, Letterman *acts* as if his inability to conjure a lie resulting in his subsequent honesty about the sex scandal was a major failing on his part (Example 6).

Each of these depictions is contradictory to reality. To just consider examples 2 and 4, Letterman knows he won't actually become a criminal and that his surgery recovery was not genuinely heroic. Verbal irony thus bears the characteristic of a linguistic creation by a speaker or writer, that somehow expresses some proposition, stance, attitude, description, etc., concerning objective reality, that is somehow contrary to that reality.

A number of related forms of irony have either been considered subtypes of verbal irony, or at least similar/parallel kinds of tropes. Among many of these are sarcasm, ironic praise, ironic criticism, hyperbole, understatement, ironic analogy, and ironic restatement. Still other forms are also considered parallel or similar to verbal irony but reside outside of irony accomplished through language per se, although language can certainly be involved. Some examples of this set are satire, parody, visual irony, and hypocrisy. In the interest of brevity only the former instances will be treated at length here.

Many, although not all, forms of irony enable management of negativity expression issues (Colston, 2015). Sarcasm, as a form of verbal irony is arguably most strongly associated with this negativity expression. ***Sarcasm*** is generally considered a nasty, mean-spirited or just relatively negative form of verbal irony, used on occasion to enhance the negativity expressed relative to direct, non-figurative criticism (Colston, 1997). It may also afford a nuanced expression of negativity by tinging the level of criticism expressed (Dews & Winner, 1995; Dews et al., 1995). In either instance, though, its purpose is to successfully convey a speaker's desired level of negative attitude about some referent event/situation. Some have argued that sarcasm is the most prevalent form of verbal irony (Capelli et al., 1990). Others have noted independently that this negativity expression management seems the primary function of verbal irony (Roberts & Kreuz, 1994; Colston, 2015). It thus makes sense that sarcasm and negativity management coincide.

Ironic criticism and ***ironic praise*** (the latter sometimes called ***ironic compliment***) are terms used to discern between a speaker's expression of negativity by uttering something seemingly positive (e.g., "Nice stain you've got there"), vs. positive expression through seemingly negative utterances (e.g., "You raging psychopath!," said to someone acting kindly). This distinction is important because measurable differences between the forms are easily obtained. Ironic criticism (say something positive to express something negative), for example, is understood more readily and is more prevalent than ironic praise (Sperber & Wilson, 1981a; Pexman & Glenwright, 2007).

Hyperbole typically states the extent, magnitude, severity, quantity, etc., of some referent topic as larger, or at least different from, reality as in, "That'll take forever." Hyperbole is occasionally contrasted with ***understatement***, where such magnitudes, etc., are typically framed in terms lesser than reality, as in, "It's just a scratch," said about a major injury.

Ironic analogy, also called rebuttal analogy (Whaley & Holloway, 1996; Colston & Gibbs, 1998; Colston, 2000a) refers to the leveraging of an ironic expression via an analogical construction. Letterman's comment in example 3 demonstrates this mechanism. In ironic analogy, the analogical comparison typically likens the ironic structure of a vehicle to that of the associated target. In the Letterman comment, for instance, referring to Al Capone as a "beverage distributor" is ironically understated. True, Capone did distribute beverages in Prohibition-era Chicago, Illinois. But he did so illegally and through violent, gangster tactics. This ironic structure is then grafted onto the referent person Dave Tebet, whom Letterman wishes to paint also as heavy-handed, through the analogous ironically understated label, "talent liaison."

Ironic restatement refers to an ironic, verbatim repeating of another statement that is demonstrably wrong, to demonstrate that statement's inaccuracy (Colston, 2000b). This ironic form, akin to ironic analogy, also borrows a construction mechanism from elsewhere—restatement, for its functioning. People often restate others' remarks to question the remarks or for other reasons. If

a speaker claims for instance that global warming is a hoax, other speakers can repeat that remark with incredulous intonation to express their attitude towards the remark, "Global warming is a *hoax*??!!" This mechanism can become ironic if the repetition pretends, typically with some degree of obviousness, to convey agreement, "Oh, *YES*, absolutely. Global warming *IS* a hoax!"

Core Issues and Topics

Perhaps the greatest amount of theoretical and empirical work on verbal irony has attempted to explain its comprehension. One might initially ask why such an explanation targeted to verbal irony is even necessary. Given the preponderance of theoretical work in linguistics, psycholinguistics and allied disciplines that attempt to explain language comprehension in general, including figurative language, why would a separate account of verbal irony comprehension be necessary? The issue for verbal irony is that even if one adopts a more general comprehension theory (e.g., Speech Act Theory, Standard Pragmatic Model, Relevance Theory), one still must explain how the final fully developed comprehension product of an instance of verbal irony occurs relative to some other prevalent trope like metaphor (Kaufer, 1981; Haverkate, 1990). Although a general account *might* eventually subsume all the intricacies of different tropes and their comprehension, at present there appears too wide a gap in the interpreted products of different tropes like metaphor and verbal irony to enable full explanation by current broad comprehension accounts (Gibbs & Colston, 2002; Colston & Gibbs, 2015).

At the least, current broad accounts likely need additional components to explain specific differences in irony and metaphor understanding (among other tropes), such as the difference in the relation between what is said and implied (Winner & Gardner, 1993). Metaphor, for instance, conveys something about the *similarity* between what is said vs. implied when two metaphorical domains are juxtaposed. Verbal irony instead conveys something involving the *opposition* between what is said and implied. Metaphor and irony also communicate different types of meaning. Metaphor primarily addresses or shows something in a novel way about the referent topic. Verbal irony typically additionally conveys something about the speaker's attitudes or opinions about the topic. Metaphor and irony also may require different concentrations of comprehension abilities. Understanding metaphor could require listeners to possess knowledge of source and target domains to recognize their similarities. Understanding irony could instead emphasize that listeners draw inferences about the speaker's state of mind. More specifically, irony comprehension might require listeners to draw a second-order inference about a speaker's beliefs and intentions (Winner & Gardner, 1993; Gibbs & Colston, 2002). Current broad comprehension accounts do not seem to provide mechanisms to fully explain the subtleties in these different kinds of trope understanding.

Another reason for a separate account of verbal irony understanding (or at the least, for a broad account that could explain the nuances of verbal irony understanding) is to dispel a popular and prevalent folk account of verbal irony understanding not found for other tropes. This account claims that verbal irony involves speakers saying the *opposite* of what they intend to communicate. This notion of opposition is also formalized by several linguistic approaches to verbal irony.

Consider next the various accounts of verbal irony comprehension proposed from linguistic, psychological and psycholinguistic scholars. This is not an exhaustive list, nor are the accounts offered in any particular order, save for a very loose correspondence to chronology. The folk and other formalized accounts based on opposition are treated first.

Folk and Opposition Accounts—That verbal irony involves a speaker simply saying the opposite of what they intend to communicate is the likely explanation held among many

non-scholars of irony. It is also encapsulated in more formal explanations (Brown & Levinson, 1987; Levin, 1982; Haverkate, 1990). A hearer recognizes a speaker's intention to express opposition in using verbal irony, typically through the use of ironic markers. The hearer then takes the opposite of the speaker's (writer's) stated meaning to achieve the correct comprehension product.

A number of problems hold for such a folk or a formalized account based on opposition. A straightforward issue is that many forms of verbal irony are not declarative in form, such that the notion of opposition is less than clear (Kaufer, 1981). Rhetorical questions, for just one example, can often be ironic. For instance, a speaker might ironically utter,

1. Oh, how could I possibly be angry?

when she is in fact livid. Non-declaratives pose a tough challenge for the Opposition Account because the opposite of a question, and in the present case, a question not genuinely used for an inquiry, is often unclear. Is the speaker not asking for something? Is the speaker asking for the opposite of what he/she requests?

Even in the case of straightforward declarative ironic statements, however, the problem of defining the opposite of what is stated is very difficult. The difficulty lies not only in being unable to specify that opposite meaning, but additionally being unable to specify even the initial non-figurative meaning one is supposed to take the opposite of (Brown, 1980; Gibbs & O'Brien, 1991). For instance, imagine a speaker ironically says during a days-long rainstorm while on winter vacation in Southern California,

2. Without a doubt, "It Never Rains in California"

According to opposition-based accounts, this statement, a declarative containing an old popular song lyric, should have a nonfigurative meaning whose opposite is the speaker's intended ironic meaning. But what is the nonfigurative meaning to start? First, such a meaning would be highly dependent on the context. The meaning would be quite different, for instance, if the statement were spoken in response to seeing rain, vs. if said in response to another speaker's question about what the specific lyric was from the popular 1970s song about Southern California weather (Hammond & Hazlewood, 1972). But even in the former case with no preceding question, it is unclear if the meaning is a direct statement about the frequency of rain in some area, a reference to an old popular song, both, or something else. The statement also contains a hyperbole in the form of an extreme case formulation (e.g., "never") such that the so-called nonfigurative meaning itself is already figurative. Trying to then glean what part(s) of this meaning is supposed to serve as an anchor for taking an opposite meaning is intractable (e.g., it ALWAYS rains in California, it never IS DRY in California, it ALWAYS IS DRY in California, it never rains in PLACES OTHER THAN CALIFORNIA, it is not the case that it never rains in California . . .). And all of this ignores the initial clause in the statement, which only multiplies the problem (e.g., WITH a doubt . . ., without a CERTAINTY . . .).

Standard Pragmatic Model

Most modern scholarly attempts to theoretically explain verbal irony comprehension have thus attempted means other than opposition. One important comprehension account is essentially an extension of the eventually termed, Standard Pragmatic Model (SPM) applied to irony comprehension (Searle, 1969; 1979; Grice, 1975; 1989). This approach involves a multistage model

that claims hearers will first complete a morpho-syntactic/lexical/semantic analysis of an ironic remark that would arrive at a complete, "non-ironic" interpretation that corresponds to the direct meanings of the words used, within the syntactic structure they inhabit. Upon subsequently comparing this interpretation with the context surrounding the situation and realizing the inappropriateness of this first meaning with that context, the speaker would then conduct a re-interpretation. This reinterpretation is licensed by the simultaneous operation of the Gricean cooperative principle and thus the *seeming* violation of the Gricean maxim of quality. This second stage amounts to an implicature for re-interpreting the comment to have the ironic meaning initially intended by the speaker.

A number of problems with this approach to irony comprehension can also be identified, some of which motivate models-to-be reviewed subsequently. Most prominent among these problems is empirical evidence failing to show consistent and necessarily lengthier comprehension times for ironic relative to non-ironic remarks as the SPM would predict (Gibbs, 1986). This account also fails to align with other theoretical developments including a search for meaning and cognitive economy (Gibbs, 1994). Moreover, the SPM was argued to be too narrow to account for instances of irony that stemmed from Gricean maxims other than quality (Kaufer, 1981; Attardo, 2000; Colston, 2000c). The account also did not readily incorporate the role of a speaker's attitude towards a referent topic in the use of verbal irony (Attardo, 2000).

Direct Access

Many accounts proposed to explain verbal irony comprehension implicitly or explicitly claim special comprehension processes are required for successful irony comprehension. Whether these involve opposition computation, reinterpretation or others, many accounts favor the view that irony comprehension is somehow exceptional. The Direct Access Account, however, argues that verbal irony comprehension proceeds directly, with no special or separate processing mechanisms not also found or potentially available for non-ironic (or other kinds of figurative) language comprehension. The Direct Access Account accepts that verbal irony *can* involve very rich mechanisms (e.g., allusion to a fixed expression, mimicry, layered meanings), but these are also readily observed in non-ironic and other figurative comprehension. Moreover, there is no necessity for a multistage comprehension process—verbal irony can instead be computed directly from the utterance and context (Gibbs, 1986).

The Direct Access Account, in making the broad claim about a lack of exceptionality in verbal irony comprehension, subsumes or allows for several of the other accounts presented here, but is at direct odds with some of them. Direct Access can involve mention, echo, reminder, and pretense as well as allusion, contrast and other mechanisms found in other verbal irony comprehension accounts (see the following sections), because these are also found in nonfigurative language comprehension. Direct Access conflicts, however, with the Opposition, SPM, Relevant Inappropriateness and Graded Salience Accounts that explicitly call for multiple stages in verbal irony comprehension, at least on occasion.

Mention/Echo/Reminder

Other modern scholarly attempts to theoretically explain verbal irony comprehension have attempted to avoid the multistage claims of the Standard Pragmatic Model. One such account invoked the philosophical use/mention distinction to explain verbal irony comprehension. This account argues that a statement of verbal irony involves explicit *mention* of a statement, belief, proclamation, opinion, etc., spoken (written) by some other speaker (writer), rather than a direct

use of such a statement to express one's own belief, etc. The statement is also typically mentioned in the presence of contextual information that demonstrates its falsehood. In this way, the ironic speaker detaches him/herself from the mentioned false statement, and achieves verbal irony accordingly (Sperber & Wilson, 1981a; Wilson & Sperber, 1992; Wilson, 2006).

Initial criticism of this original *mention* view argued that many instances of verbal irony do not involve a specific quotation of some other speaker or person, but rather simply refer to some possible belief that *could* be held by someone. So a revision that allowed for verbal irony to be a mention of an *attributed* belief was proposed, or that an *echo* of attributed beliefs can achieve verbal irony (Sperber & Wilson, 1986). The detachment-from-falsehood mechanism is essentially the same as in the original proposal, though, so a speaker still achieves the verbal irony in this fashion.

Further revisions allowed for a broader *reminder* of some general, widely held belief or social norm, rather than a specific mention of a real or attributed belief (Kreuz & Glucksberg, 1989). Put succinctly, this Mention/Echo/Reminder family of accounts argues that verbal irony involves a reminder (via mention, echo or other similar means) of some belief not held by the speaker but instead referenced by the speaker, while in a context that contradicts the belief, all with the twin goals of demonstrating how the belief is wrong given the current contextual evidence contradicting it, and detaching the speaker from that belief. So for instance a speaker saying,

3. Not a cloud in the sky

during a hurricane, could be (1) directly quoting another speaker (e.g., a weather forecaster on an earlier posted webcast) who had erroneously predicted cloudless skies, (2) mentioning a belief attributed to a hypothetical speaker who also erroneously predicts clear skies, or (3) simply citing the general socially shared desire or preference for nice weather. Each of these references involves a reminder of a viewpoint (e.g., being happy because the skies are clear) not currently held by the speaker, so the speaker detaches him/herself from that viewpoint and shows how the viewpoint and anyone who holds it is wrong.

Pretense

Another approach developed generally in parallel to the Mention/Echo/Reminder Account(s) argues that an ironic speaker rather than just abstractly mentioning, echoing or reminding hearers of some real or attributed viewpoint, is instead overtly *pretending* to be another person, either real or hypothetical, who holds that viewpoint (Clark & Gerrig, 1984; Currie, 2006). The speaker then portrays what that other person would say, often with a derisive and/or exaggerated characterization, as a means of making his/her pretense transparent. This act also detaches the speaker from what his/her portrayed character is advocating, and, in turn, belittles or derides the portrayed viewpoint and its holder(s).

In many ways Pretense makes the same claims as Mention/Echo/Reminder in that an ironic speaker is somehow demonstrating an attributed (and false) viewpoint (Sperber, 1984; Williams, 1984; Winner, 1988; Chen, 1991; Barbe, 1995). Indeed, Winner (1988) claimed that both approaches amount to "substitution" explanations. But Pretense adds the components of outright mimicry and derisive portrayal as a means of vividly explaining how a speaker demonstrates his/her attitude (typically negative) towards the referent topic. Mention/Echo/Reminder is less precise in explaining how this derisive attitude demonstration is brought about. Other acts of mention or echo can actually demonstrate a speaker's concurrence with the real or attributed

statement; thus, Pretense supplies a ready mechanism of showing a speaker's disagreeing attitude in using verbal irony—derisive or mocking portrayal of what some other speaker would say. Other scholars have also argued that Pretense is broader than Mention/Echo/Reminder, allowing it to handle dramatic and situational irony (Attardo, 2000).

Another characteristic of the Pretense Account is its ready alignment with the highly prevalent human behavior of mimicry, which supports a wide array of socio-cognitive activities (e.g., pretend play and human development, social alignment, flattery, portrayal, narrative, caricature, and many others).

Allusional Pretense

This comprehension account incorporated some aspects of both the more traditional SPM and the newer Mention/Echo/Reminder Accounts (Kumon-Nakamura et al., 1995). The Allusional Pretense Account preserves the former by attempting to anchor verbal irony on very specific claims made in the original Speech Act Theory concerning felicitous speech acts—in some ways a precursor to the Standard Pragmatic Model. The Allusional Pretense Account also aligned and extended Mention/Echo/Reminder in calling for "allusion" as a mechanism for reference to socially shared desires or preferences. This account thus claims that verbal irony must (1) violate the sincerity conditions for well-formed speech acts and (2) be spoken in the midst of violated expectations.

The second of these claims is not unique to Allusional Pretense; most accounts explicitly or implicitly claim this. But the first claim-enabled explanation of non-declarative forms of verbal irony, and thus provided a broader and more basic general linguistic process for the triggering of verbal irony without having to resort to the original Gricean requirement for a violation of the Quality maxim. Allusional Pretense also avoided the use of mechanisms outside of traditional comprehension/use theories, such as Mention/Echo/Reminder and Pretense had (use/mention distinctions and mimicry/derisive portrayal, respectively).

The next account revisited the claims in Allusional Pretense concerning verbal irony necessarily riding on (1) felicity conditions for well-formed speech acts (i.e., pragmatic insincerity) and (2) a violation of expectations—subjecting them to empirical evaluation. It in part confirmed these conditions, but also called for some revisions to their scope.

Contrast

This account originated in work that addressed the question concerning why speakers would *use* verbal irony. That work had identified contrast, as in the pervasive *contrast effect* found throughout areas of perceptual, cognitive, and social psychology, as a means of explaining magnitude-of-negativity judgments in verbal irony comprehension.

Very briefly, hearers (readers) will reliably consider stereotypically sarcastic comments (positive statements made about negative situations) as more negative in comparison to directly negative commentary made about the same situations (Colston & O'Brien, 2000a; 2000b; Colston, 2002—although see Dews & Winner, 1995 and Dews et al., 1995 for an alternative explanation of a dilution of negativity in verbal irony usage). The increased negativity was shown to stem from a contrast effect. Negative situations (e.g., bad weather) are seen to be worse when judged in the context of positive commentary (e.g., "what a beautiful day"), relative to direct negative commentary (e.g., "what a terrible day"). A speaker thus using this contrast to produce the more negative perception is comprehended herself as being more negative. This supplies one of the reasons for why speakers use verbal irony, or at least ironic criticism or sarcasm—to achieve an enhancement of negativity, or at least provide some control over levels of expressed negativity.

This mechanism was then applied to the *comprehension* explanation in a Contrast Account that largely resembled Allusional Pretense but that revised one of its primary two claims (Colston, 2000c). The claim that verbal irony requires the presence of (or inference of) violated expectations, desires, or preferences was empirically confirmed as a necessary condition of comprehension. Allusional Pretense's other claim, however, of pragmatic insincerity, or a violation of sincerity condition for well-formed speech acts, was argued and empirically demonstrated to be too narrow.

A replacement that pinned verbal irony on a broader violation of *any* Gricean maxim was suggested, along with the requirement that the expected, desired, or preferred state of affairs be positioned in *contrast* to the actual state of affairs that occurred (Colston, 2000c). This revision was argued as necessary to more precisely corral the demarcation of verbal irony from non-irony. Allusional Pretense put the basis of verbal irony on unmet felicity conditions for well-formed speech acts—or, being pragmatically insincere, along with a violation of expectations. Contrast put it on a violation of *any* Gricean maxim, including Manner, along with the same violation of expectations. This alteration allowed for cases where a speaker is being generally pragmatically *sincere*, but is nonetheless in violation of a Gricean maxim, and is interpreted ironically.

Consider as an example the very generic case of a speaker experiencing an obvious disappointment, and then in an earnest, disappointed manner (e.g., head shaking, intonation indicating disgust) saying,

"Oh how I love when things turn out the way you want."

Here the speaker is technically being pragmatically sincere—she adheres to the felicity conditions for well-formed speech acts (Austin, 1962; Searle, 1969; 1979; Kumon-Nakamura et al., 1995). What she says is true: she is being informative to the addressee, her attitude is earnest, and her politeness level is apt. But she is making her statement as if it matched the events actually present in her current world, rather than other events she would prefer to have happened (violation of Relevance).

Other instances of verbal irony that stemmed from each of the other Gricean maxims can also be demonstrated. For instance, even violations of Manner can result in at least borderline verbal irony. Consider the case where two assistant basketball coaches enter a room where a young man is supposed to be waiting to try out for a basketball team. They open the door, only to see dozens of very tall young men standing, waiting for instructions. One coach whispers to the other, "which guy is ours?" The other coach responds, "the tall one" (Colston, 2000c).

The Contrast Account also called for a positioning of the violated expectations as if in contrast to reality. This positioning is inherent in many of the terms used to grapple with irony explanations (e.g., opposite, contrary, contraindicated, bi-coherent, etc.). One cannot simply violate a maxim (e.g., relevance, manner), in the midst of an expectation violation and achieve verbal irony. Expectations and reality must be additionally presented *in contrast* with one another (Colston, 2000c). For example, consider that a speaker has been waiting an hour for a late friend to pick him up. The friend finally arrives, guiltily approaches, and the speaker says angrily,

"You're late!"

Here a violation of a Gricean Maxim (the information presented in the comment is obviously known to the hearer), and an expectation violation is present, but no irony occurs. If the speaker were instead to say, in the exact same earnest and honest, angry tone:

"You're on time!"

irony is achieved.

The difference lies in the presentation of the expected situation and reality. In the first example, the speaker presents the reality (the driver is late) in the midst of that reality (the driver is late). This could very well lead to a *generation* of the expected situation (the driver being on time) in the mind of the hearer, at least implicitly. But it does not *contrast* that expected situation and reality. The reality occurred, the expected situation did not, and the speaker states effectively that the reality occurred, and allows the potential inference that the expected situation did not occur, but does not create a contrast between expectations and reality.

In the second example, though, the speaker presents the expected situation (the driver being *on time*) in the midst of the reality (the driver is late). The second situation thus contrasts the expected situation and reality. The reality occurred, the expected situation did not. But here the speaker states effectively that the expected situation occurred, and therefore concurrently suggests that the reality did not occur.

So in the case of verbal irony, a speaker somehow makes manifest that an expected/desired/preferred situation occurred, when it did not. Or conversely s/he presents that a reality did not occur, when it actually did. These contrasting possibilities are thus the backbone of the irony. This contrast can be achieved by a variety of mechanisms (e.g., mention, echo, reminder, pretense, allusion), but they all share the requirement that expectations and reality must contrast with one another.

These revisions by the Contrast Account accomplished three things. First, they allowed for verbal irony to stem from maxims other than Quality, as proposed originally by Grice and later criticized by Kaufer (1981). The Contrast Account also could then subsume Mention/Echo/Reminder, Allusion and Pretense as *mechanisms by which* expectations/desires/preferences could be contrasted with reality. Finally, and perhaps most importantly, the Contrast Account demonstrated how a too-strong reliance on the notion of sequentiality in comprehension could be limiting the explanatory power of verbal irony comprehension accounts and indeed all forms of indirect/figurative language comprehension explanations.

The Contrast mechanism is less vulnerable to this sequentiality issue because it is based on perceptual contrast, which involves the *simultaneous* processing of a target in a contrasting or other context(s). Contrast effects like those claimed in verbal irony comprehension have been found in an enormous array of domains from sensory effects through perceptual judgments of magnitudes up to social and cognitive judgments of people and situations. None of these effects requires sequential, encapsulated processing of individual components. That the speech stream unfolds in time may have led verbal irony explanations to greatly attend to the role of sequentiality in processing, but other less temporally dependent mechanisms can still greatly affect how meaning happens in language.

The next comprehension account ended up making a very similar claim to that by the Contrast Account concerning a violation of any Gricean Maxim resulting in verbal irony. This account also parsimoniously combined two of the emerging necessary conditions for verbal irony, violation of expectations and flouted Gricean Maxims. This Relevant Inappropriateness Account, however, retained the claim for multiple stages in processing, and did not consider the role contrast mechanisms play in verbal irony. It additionally proposed an idea concerning a limitation to the extent of a violation of a Gricean Maxim.

Relevant Inappropriateness

Building upon criticisms of preexisting approaches, Attardo (2000) developed the Relevant Inappropriateness Account of verbal irony. This account initially noted that "irony as a figure of speech" (p. 797) approaches were inadequate, which included (as labeled here) the

Opposition, SPM—and by extension older Speech Act explanations not reviewed here, as well as the Graded Salience Account (see the next section). Opposition and SPM explanations were discounted in much the same way as argued previously here, with the exception of SPM's reliance on multiple stages of interpretation, which was preserved. The SPM was also criticized for claiming a rejection of initial (incorrect) comprehension products. This criticism was argued to support the Graded Salience view (Giora, 1995; 1997; Giora et al., 1998) that called for retention of initial comprehension products for use in comparison with later comprehension products.

The Relevant Inappropriateness Account then discounted "irony as mention" approaches largely for their seeming failure to provide necessary and sufficient conditions to logically distinguish instances of irony and non-irony. The Pretense Account fairs better in that it is argued to be a much broader explanation than the mention approaches.

The alternative view that is presented is in line with Kaufer (1981) and is similar to the Allusional Pretense and Contrast Accounts in that it argues that verbal irony must be based more broadly than on a simple violation of the Gricean Quality maxim. This account also acknowledges that the violation of any Gricean Maxim allows explanations of verbal irony that are left unexplained by the Standard Pragmatic Model and Allusional Pretense approaches.

Rather than use a Gricean Maxim violation, however, Attardo utilizes the notion of inappropriateness as the hinge-pin of verbal irony. The following definition of inappropriateness is offered:

> An utterance *u* is contextually appropriate if all presuppositions of *u* are identical to or compatible with all the presuppositions of the context *C* in which u is uttered (c.f. the notion of "common ground"; Clark, 1996), except for any feature explicitly thematized and denied in *u*.
>
> (Attardo, 2000, p. 818)

Relevant Inappropriateness thus does away with the explicit condition of a violation of expectations as necessary for verbal irony. By accounting for the interlocutors' expectations and the fact that they've been violated, as being a subset of the presuppositions of the conversational context, this factor is thus embedded in the notion of inappropriateness.

This account also proposes a "principle of least disruption" (Attardo, 2000) that corrals the extent of the inappropriateness of an ironic utterance. According to this principle, a hearer will presume that a speaker who violates the Gricean Cooperative Principle in using verbal irony, is doing so to the least possible extent, such that the intended meaning is still referring to the context and is thus meaningful for the hearer. This prevents the hearer from disengaging from the conversation entirely as might be the case if a more extensive violation of the Cooperative Principle were presumed (e.g., that the speaker is genuinely being uncooperative).

Attardo also argued convincingly that relevance and appropriateness, although often in coherence, are not coextensive. Thus an instance of inappropriateness must also be relevant to a hearer for irony to be achieved; it cannot just be inappropriate in some extensive or random way.

Lastly, the Relevant Inappropriateness view also attempts to preserve the multistage nature of the original Standard Pragmatic Model. This preservation is argued as necessary to explain comprehensions of novel instances of verbal irony, where there is no a priori basis upon which to forestall the nonfigurative meaning of an ironic utterance.

As one of the more recent accounts of verbal irony comprehension, Relevant Inappropriateness emerged near the beginning of research on embodied simulation (see the later section) that may be casting a new light on the notion of sequentiality and multistage processing. Both

Relevant Inappropriateness and Graded Salience maintain the possibility of these in their exposition. This issue is reconsidered below (see the section "New Debates").

Graded Salience

The next comprehension account puts a greater reliance on the lexical processes involved in verbal irony comprehension than other accounts, emphasizing the potential for irony to be encoded in the lexicon. This Graded Salience Account (Giora, 1997; 2002; 2007) portends that multiple influences on the different related senses of words will make certain meanings more and less salient. The conventionality, frequency, familiarity, and prototypicality of different senses of words, for instance, will influence whether those senses are coded in the lexicon or are made salient. For instance, if a particular sense of a word is frequently encountered as ironic (e.g., *stupid*, or something similar, as the ironic meaning for "wise"), then that meaning can become salient and will always be accessed initially when heard/read (e.g., "wise guy"). Afterward, contextual influences can then arise to influence meaning.

The second main idea of the Graded Salience Account concerns indirect negation, or the idea that if a non-salient meaning is the one intended by a speaker/writer, it will be accessed subsequently to the salient meaning, but that salient meaning will not be suppressed completely as other accounts of negation argue, but rather retained so that a difference between the salient and non-salient meanings can be computed and the final ironic meaning determined.

The Graded Salience Account has frequently been put at odds with the Direct Access Account, which places more emphasis on the contextual influences, arguing that context can play a role even prior to lexical processing in the form of expectations for ironic meaning. This discrepancy is also treated below (see the section "New Debates").

Embodied Simulation

In this very recent account, which has become a major new development in language processing at large, verbal irony comprehension is considered under the view that a major portion of language processing involves activation and simulation of neural activity that would occur were the comprehender actually engaging, sensorily and motorily, with what is stated in language, whether read or heard. For instance, if a person hears the sentence, "The man is pushing the cart across the warehouse floor," neural activity can be detected in the person's brain that is extremely similar to that observable were the person *actually* pushing a cart, or *genuinely* seeing a person push a cart, in the fashion described. The primary difference in the case of language processing vs. genuine sensorimotor activity is that the sensory organs and/or muscles involved are not in genuine activation during language processing (hence the term, "simulation"). According to this general view, language processing usurps preexisting sensory and motor programs as part of the process of meaning-making (Bergen, 2012). The sensory and motor entailments of "pushing" (e.g., the effort, difficulty and fatigue involved, momentum that can amass, among many other things) can then serve to embellish the comprehended meaning of the linguistic statement.

Applied to verbal irony, simulation would seem similar to processing of negated or counterfactual statements. For instance, for a person to comprehend the negative, "The bananas are *not* on the refrigerator," or counterfactual, "If there *were* bananas on the refrigerator," a simulation of genuine seeing of bananas on a refrigerator has been found to precede a simulation of seeing a refrigerator without bananas atop. That which is stated as not being present is nonetheless initially simulated. An ironic usage of an utterance similar to these, for instance saying, "Yeah right, the bananas are on the refrigerator," in response to someone claiming bananas *were* on the

appliance despite their obvious absence, would seem to operate similarly. A sensorimotor simulation of BANANAS would be part of the processing stream, preceding one of a REFRIGERATOR WITHOUT BANANAS (Bergen, 2012).

New Debates

The Embodied Simulation Account applied to verbal irony may seem to rekindle the debate regarding single vs. multiple stages, as is still being waged by the Relevant Inappropriateness, Graded Salience, Direct Access and Contrast accounts. Direct Access always allowed for the possibility of reinterpretation, but claimed that it wasn't necessary—ironic comprehensions could be achieved without recourse to multiple stages. Relevant Inappropriateness and Graded Salience retained multiple stages under certain circumstances to explain instances of verbal irony where reinterpretations did occasionally occur and for calculations of differences between stated and intended meanings. The Contrast account attempted to obviate the issue of sequentiality by claiming that differences of the sort discussed by Graded Salience could take place in a *simultaneous* fashion, analogous to perception of both figure and ground in perceptual contrast situations.

That embodied simulation research on negated and counterfactual constructions has shown evidence for simulations of that which isn't there, as in a simulation taking place of sensory activity similar to actually seeing bananas, upon comprehension of language saying bananas are not present, may shed new light on this issue. Embodied simulations of this kind may provide some sort of common ground among these different accounts. These kinds of embodied simulation are not in and of themselves, language comprehension. They are rather support processes *of* language comprehension. They can also occur very rapidly, and perhaps to some degree independently of language processing per se. As such, they could align with Contrast, Graded Salience and Relevant Inappropriateness, all of which seek to grapple with influences of stated and intended meanings together in irony comprehension. But given embodied simulations' parallel rather than embedded nature with language processing proper, they can also nicely fit with a Direct Access approach—a hearer or reader directly processes an ironic meaning, but that meaning can be influenced by the embodied simulations that are triggered during the process of comprehension.

Precisely how these embodied simulations specifically fit into specific aspects of online verbal irony comprehension is essentially the forefront of current research on verbal irony comprehension. Resolution of the role of embodied simulation in verbal irony is thus important as it can allow refinement and perhaps integration of some of the disparate accounts.

Irony and Sarcasm Usage

Of the other major questions asked of research on verbal irony, including sarcasm, the question of what it accomplishes for speakers has emerged as an important line of research in its own right. Given some arguably contravening accounts (e.g., the Cooperative Principle, Cognitive Economy, Relevance Theory etc.) that extol how language processing ought to function in as direct a form as possible for efficient meaning exchange, what is the benefit for speakers for using figurative forms like verbal irony/sarcasm?

The simple answer to the usage question is that figurative and indirect forms including verbal irony and sarcasm accomplish intricate meaning for speakers that justify their existence (see Colston, 2015). Germane to verbal irony and sarcasm are such "pragmatic effects" as managing negativity and related face issues for interlocutors, accomplishing a variety of complex social

and interaction goals, and achieving balance among occasionally competing and offsetting communicative intentions and needs (Slugoski & Turnbull, 1988).

Work has shown, for instance, that speakers can manage face issues among interlocutors and overhearers through verbal irony, by engineering to a degree the strength and type of negativity expressed (Colston, 2015). These kinds of pragmatic effects aren't deterministic. But speakers nonetheless can attempt some control over the nuance of their expression by working with humor, private keys, contrast, and many other meaning manipulators, as well as more global influences availed to figurative language in general as a way of speaking (i.e., ingratiation, mastery display, distancing, objectivation, and many others).

Conclusion

Although treatment here was limited to discussion of the varieties of accounts of the comprehension of, and to a much lesser extent usage of, verbal irony and sarcasm, many additional phenomena also surround and abut this family of tropes. Similar broader mechanisms of indirect meaning expression can be observed in parody, satire, pastiche, visual irony, and others. Hypocrisy and situational irony are also highly related concepts. How comprehension and performance of these similar forms of indirectness develops in young children and across the life span is also subject to much ongoing research, especially in elder populations where less attention has been directed. How such indirect forms are affected in "normally developing" vs. other populations is also of much interest to scholars and researchers from many disciplines.

It is interesting to observe the limited research on phenomena parallel to verbal irony and sarcasm, across comprehension, usage, development and diverse population approaches. For verbal irony and sarcasm, the predominant question has concerned comprehension. This is not always the case for the other phenomena. One inspiration for future research might thus be to look at questions asked of those other phenomena (e.g., how is *pastiche appreciated*, at what age do people *form the concept of satire*, is there a developmental change in the *tolerance of hypocrisy*) where the comprehension and perhaps usage questions are less prominent. Given the intensely linguistic basis of verbal irony and sarcasm, the focus on comprehension is understandable. But it may shroud other ways of exploring the tropes. Looking to work on sister tropes or similar phenomena could thus be a fruitful strategy for new ideas.

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18

Cognitive Linguistics and Humor Research

Geert Brône

1 Introduction

Over the last three decades, the paths of humor research and Cognitive Linguistics have crossed on a regular basis and in different ways. This can be attributed to a number of reasons, including a shared epistemological basis of the leading linguistic humor theories and Cognitive Linguistics (henceforth CL), the central interest of CL in the cognitive operations driving language (including the classical cases of figurative language), and the inclusion of cognitive linguistic concepts in recent humor-theoretical work. In what follows, we will briefly go into each of these reasons before presenting a more extensive overview of the contribution of CL to humor research.

First of all, since the publication of *Semantic Mechanisms of Humor* (Raskin, 1985), the focus of linguistic humor research has been strongly cognitive, as the Semantic-Script Theory of Humor (SSTH), and its further development into the General Theory of Verbal Humor (GTVH, Attardo & Raskin, 1991; Attardo, 1994; 2001) are deeply rooted in concepts that relate to the foundations of CL. This obviously holds for the notion of semantic scripts, which builds the epistemological basis of the SSTH and refers to cognitive structures representing speakers' knowledge of specific aspects of the world, rooted in experience (Raskin, 1985, p. 81). In that respect, scripts are comparable to the concepts of frames (Fillmore, 1982; 1985), conceptual domains (Lakoff & Johnson, 1980; Lakoff, 1987; Langacker, 2008), and Idealized Cognitive Models (ICMs, Lakoff, 1987), which figure prominently in a range of cognitive linguistic models of grammar and semantics (including conceptual metaphor theory, mental spaces theory, construction grammar, and Cognitive Grammar). Next to the central notion of scripts, other concepts that have played a substantial role in both Cognitive Linguistics and humor research are conceptual mappings (Fauconnier, 1997; Coulson, 2000; Attardo et al., 2002) and the idea of blended structures consisting of input from different scripts/frames/domains (Fauconnier & Turner, 1998; 2002; Turner, 2014; cf. Koestler's [1964] notion of *bisociation* as an early adaption of hybrid structures to creative and imaginative cognition, including humor; and Hofstadter & Gabora, 1989). These and other concepts give evidence for a shared epistemological basis between the major strands in linguistic humor research and CL.

Second, CL unites a number of approaches that treat language as an essential part of cognition, with a strong experiential basis and driven by general principles of conceptual organization, categorization, and processing. With its focus on the conceptual and dynamic aspects of language, CL reacts against the formalist tradition in linguistics (and most notably generative linguistics), which treated language as an autonomous system of structures. For that reason, CL has from its very onset had a keen interest in phenomena that challenge a formalist and modular view on language structure. Among the complex phenomena that hinge on the interplay of linguistic, cognitive, social, cultural and emotional features are conceptual metaphor and metonymy, but also humor, irony and sarcasm. Not surprisingly, then, cognitive linguists have repeatedly drawn on verbal and other humor as illustrations of the "fluid" conceptual system. Importantly, in most of these cases, these analyses serve as a test bed for key concepts in CL rather than as considerations of the cognitive foundations of humor. In other words, the study of humor and other "exotic" or "atypical" phenomena is believed to generate new insights into the dynamics of cognitive processing in general, as Fauconnier (1997) put it:

> Errors, jokes, literary effects, and atypical expressions use the same cognitive operations as everyday language, but in ways that actually highlight them and can make them more salient. As data, they have a status comparable to laboratory experiments in physics: things that may not be readily observable in ordinary circumstances, which for that reason shed light on ordinary principles.
>
> (p. 125)

As a consequence, there is often no explicit reference to work in humor research or reflection on how these concepts relate to cognitive humor theories. What predominates is the status of humor as a test case for the soundness of cognitive linguistic concepts, and thus studies in this line only need to account for their relevance within the research paradigm of CL. Next to this line of research, however, there is also a range of publications that critically assess existing humor research from a cognitive linguistic point of view (e.g., Brône & Feyaerts, 2004; Veale, 2004; 2012; Brône et al., 2006; Ritchie, 2006; Hamrick, 2007; Antonopoulou & Nikiforidou, 2009; Mayerhofer, 2013; Brône et al., 2015). These studies essentially focus on the question regarding to what extent constructs from CL may contribute to linguistic theorizing on humor. This can pertain either to the larger framework of analysis or to specific concepts that may or may not be integrated into existing models.

In this chapter, we will focus primarily on cognitive linguistic treatments of humorous phenomena, irrespective of their specific purpose (as contributions to linguistic humor theory or as illustrations of general conceptual mechanisms). In doing so, we take a somewhat restricted focus in that we present an overview of studies that have a more or less explicit cognitive linguistic seal (see Brône, 2012 for a broader overview). The chapter is structured as follows. In the first part, we zoom in on two systematic research programs in Cognitive Linguistics that have dealt with humorous phenomena more extensively, namely, the space structuring model developed by Seana Coulson (section 2.1) and the work on information structure and salience by Rachel Giora and colleagues (section 2.2). In the second part, we present an overview of studies on specific key phenomena that figure prominently in CL, such as metaphor, metonymy, mental spaces, conceptual blending, and grammatical constructions (section 3). The chapter closes off with some further considerations on the potentially fruitful interaction between humor research and Cognitive Linguistics (section 4).

2 Historical Perspective: Cognitive Models of Creative Meaning Construction

Both Coulson and Giora have a strong profile in experimental cognitive science, but Coulson's work is situated more explicitly in the framework of CL, whereas Giora's work offers a unique and unified model of information structure and access in discourse (revolving around the notion of salience). In what follows, we review some of their seminal work that spans a period of more than two decades.

2.1 Humor and the Space Structuring Model

Within the larger framework of Cognitive Linguistics, the descriptive model most strongly associated with the study of humor undoubtedly is mental spaces theory and conceptual blending theory (Fauconnier, 1994; 1997; Fauconnier & Turner, 1998; 2002; cf. section 3.2). The most important exponent of this strand of research is offered by Seana Coulson, who developed a model of meaning construction in discourse, based in part on mental spaces and blending theory, and who has presented substantial empirical evidence for the cognitive plausibility of this model. Among the humor types she analyzed as an illustration of the explanatory power of the space-structuring model are one-line jokes, cartoons, wordplay, and irony/sarcasm (see Coulson, 2015 for an overview). The main strength of this strand of research, rather than presenting truly novel insights into the cognitive mechanisms of humor, resides in the combination of experimental techniques that are used to gain access to the cognitive processing of verbal and visual stimuli (including neurophysiological data, reading times and eye-tracking). The body of empirical evidence supporting the hypotheses generated by the space-structuring model does, however, also directly relate to some of the key issues in (linguistic) humor research. This is most notably the case for the phenomenon of *frame-shifting*, which is largely identical to the central notion of script-switching in the SSTH/GTVH.

The space-structuring model is strongly rooted in frame semantics and mental spaces theory, and argues that meaning construction is a process of actively evoking background knowledge (frames) and distributing that knowledge over different mental spaces. These epistemological roots of the model are combined into a coherent model of meaning construction in context. More specifically, the model accounts for the tension between lexical semantics and discourse constraints in the construction of meaning: it describes how, on the one hand, lexical items actively contribute to the construction of the discourse representation through the activation of frames in long-term memory, and, on the other hand, the discourse representation guides as well as facilitates access to the semantics of lexical items that are compatible with that representation. Coulson argues that this tension can be described in terms of the (re)construction of, as well as navigation through, a complex network of mental spaces.

Coulson draws on different types of creative language use as prime examples of "online" meaning construction for which the space-structuring model provides a descriptive framework. These "exotic" phenomena thus serve as an illustration of the complex interaction between language and context in meaning construction, and at the same time as a reaction against the long-standing tradition in cognitive science (including cognitive linguistics) to build theories on highly artificial examples stripped of a realistic context of use (Coulson, 2000, p. 278). As an example of the type of phenomena under scrutiny, take the punch line joke in (1). While reading or hearing the first words of the joke, the reader/hearer gradually builds up a cognitive representation of the described situation, and thus builds up discourse expectations in a specific direction. This expectation becomes apparent at the punch line,

where the final nominal phrase (*his wife*) forces the reader/hearer to reconstrue the cognitive model in a way that is radically different from the initial construal. This process is described by Coulson as *frame-shifting*.

(1) *When I asked the bartender for something cold and full of rum, he recommended his wife.*

The concept of frame-shifting is largely identical to Raskin's script-switching (Raskin, 1985), which has figured prominently in (linguistic) humor research. Coulson does, however, stress more strongly the conceptual flexibility that is crucial to the frame-shifting process. In other words, semantic (re)construction is not merely a matter of activating semantic frames or slot-filler structures from long-term memory, but rather revolves around the careful integration of cognitive models, based on conceptual mappings between and in mental spaces (Coulson et al., 2006, p. 232). In other words, cognitive discourse models are actively and dynamically construed rather than largely accessed from knowledge structures in memory (an idea that is also stressed in Attardo, 2001, pp. 6–7). In the case of (1), for instance, there is an apparent opposition between the frames of RECOMMENDING FOOD/DRINK and that of INSULT. More important, however, from the perspective of the space-structuring model, is the observation that elements may acquire a local meaning that only functions as part of the (re)construed cognitive discourse model. In this specific example, by linking the phrases *full of rum* and *his wife*, the former acquires the locally relevant meaning "alcoholic," triggering the insult-reading of the joke.

Next to the theoretical relevance of the space-structuring model as framework strongly rooted in CL, Coulson's work stands out because of its empirical rigor. Coulson and colleagues have investigated the psychological reality of frame-shifting and other relevant phenomena. It is hypothesized that frame-shifting will have an impact on cognitive processing load and this hypothesis was tested by comparing test subjects' response to punch line jokes vs. texts that do not require a process of frame-shifting (e.g., as in a variation on (1): *When I asked the bartender for something cold and full or rum, he recommended his daiquiri*). This response was measured using different experimental paradigms, including reading-time data (with subjects taking longer to read punch line jokes in comparison to non-joke endings, Coulson & Kutas, 1998), eye-tracking data (more regressive eye movements upon reading the punch line, Coulson et al., 2006), and event-related brain potentials (ERP, neural indices of semantic reintegration after processing the final word of the joke, Coulson & Kutas, 2001).

All in all, the studies by Coulson and colleagues present strong empirical evidence for the psychological reality of frame-shifting, and thus not only support the main claims proposed in the space-structuring model, but also empirically validate some of the key assumptions made in (cognitive) humor research. Most importantly, however, this line of work serves as a strong argument in favor of a usage-based cognitive science, taking the conceptual fluidity of language users as a rule rather than as an exception.

2.2 Humor and the Salience Principle

A second major line of research on humor and creative language in CL has been established by Rachel Giora and her colleagues, and was inspired by lexical semantics and psycholinguistics (Giora, 1997; 2003). Giora's starting point is a general principle of semantic organization (in this case an information structure and salience principle), which manifests itself particularly clearly in humor and irony. In what follows, we briefly discuss two related hypotheses that emanated from this research program, namely, the Marked Informativeness Hypothesis and the Optimal Innovation Hypothesis.

In an early publication, Giora (1991) analyzes the effect of surprise in punch line jokes in terms of the typical information structure of texts. According to the principle of *graded informativeness*, normal texts are typically built up in such a way that gradually more informative elements are added to the text. In terms of prototype theory, elements with a high information value exhibit properties that differ from the prototype of the category. As an effect, they are considered least likely to occur and would generate an effect of surprise when encountered. The major difference between "normal" texts and joke texts, according to Giora, resides in this degree of informativeness. Whereas the former exhibit a gradual build-up in the information value of the textual elements that are presented, the latter display a more marked semantic structure. This observation led to the formulation of the Marked Informativeness Requirement for narrative jokes, which states that a well-formed joke

> obeys the Relevance Requirement and violates the Graded Informativeness Requirement [. . .] in that it ends in a markedly informative message
>
> and
>
> causes the reader to perform a linear shift: the reader is made to cancel the first unmarked interpretation upon processing the second marked interpretation.
>
> (Giora, 1991, p. 470)

The Relevance Requirement stipulates that the punch line is in fact compatible with the rest of the text, although it is marked in the sense that it differs significantly from the information that is present in the established discourse representation (thus violating the Graded Informativeness Requirement). The effect of this markedness of the final element in comparison to the prototypical text category is stipulated in the second part of the Marked Informativeness Requirement: it forces a linear shift or abrupt transition from the initial discourse representation to a forced new one (with a large cognitive distance between the two, Giora, 1991, p. 471). In example (1), the initial interpretation of the phrase *cold and full of rum* relates to the typical context of a bar. Elements such as *bartender* and *recommend* are prototypical, and thus unmarked and low in terms of information value within the setting of ordering a drink at a bar, whereas the joke interpretation, which only becomes foregrounded at the punch line of the joke, is marked in terms of information value.

The Marked Informativeness Requirement relates to some of the aforementioned work by Coulson on the space-structuring model through its cognitive assumptions. According to the hypothesis, jokes differ from other traditional tropes such as metaphor and wordplay in the degree of cognitive activation of different interpretations. Whereas in metaphor and wordplay, there is simultaneous activation of multiple meanings, jokes hinge on the suppression of the unmarked (or salient) interpretation in favor of the marked one that is activated through the punch line. Giora (2003, pp. 170–175) presents empirical evidence for the suppression hypothesis, and this is supported by other studies as well, including Coulson and Kutas (1998; 2001) and Vaid et al. (2003).

The ideas developed in the Marked Informativeness Requirement formed the basis for a research agenda on information processing in/and creativity, which is formulated most strongly in the Optimal Innovation Hypothesis (Giora, 2003; Giora et al., 2004; 2015). This hypothesis states that the subjective effect of pleasure generated by creative stimuli can be explained by a delicate balance (or tension) between innovation on the one hand and *salience* (defined as a form of cognitive entrenchment) on the other. The central concept of salience, developed into a full-fledged research program (Giora, 1997; 2003), is proposed as a principle

of semantic organization in the mental lexicon. Some meanings are argued to be more salient than others, which can be explained by a number of parameters, including frequency, prototypicality, conventionality or familiarity (Giora, 2003, pp. 15–22). Importantly, in terms of lexical access, salient meanings are shown to be more easily accessible than less salient ones. Giora and her colleagues have provided evidence for the role of salience in the semantic processing of a range of figurative language phenomena, including metaphor, irony, sarcasm, jokes, and wordplay. The Optimal Innovation Hypothesis integrates the salience hypothesis into a model of creativity and stipulates that aesthetic innovation hinges on salience for its effect of pleasure.

The major difference between the Optimal Innovation Hypothesis and existing models on expressivity and innovation (discussed in detail in Giora, 2003, pp. 176–183) is situated exactly in its focus on the balance between the familiar and the expressive. In other words, aesthetic effects are not primarily a function of innovation in itself, but rather emerge from innovation that is firmly rooted in entrenched knowledge (i.e., the salient):

> (1) The Optimal Innovation Hypothesis—Pleasurability is sensitive to optimal innovation.
> (2) Optimal innovation—A stimulus would be optimally innovative if it involves
>
> (a) a novel—less or nonsalient—response to a given stimulus, which differs not only quantitatively but primarily qualitatively from the salient response(s) associated with this stimulus and
> (b) at the same time, allows for the automatic recoverability of a salient response related to that stimulus so that both responses make sense
>
> (Giora et al., 2004, p. 116)

The examples in (2) illustrate the tension between familiarity and creativity that constitutes the essence of optimal innovation.

(2) a. Weapons of mass destruction (salient, familiar expression)
b. A weapon of mass destruction (morphological variant of the salient expression)
c. Weapons of mass distraction (optimal innovation)
d. Absorption of mass-produced wine (pure innovation)

The phrase in (2a) is familiar to most English speakers and its conventional meaning is most likely stored in speakers' mental lexicon. According to the Optimal Innovation Hypothesis, the experience of aesthetic creativity can be explained as an effect of variation or deautomatization of a salient stimulus. This variation is principled, however. On the one hand, a novel element should differ from the salient meaning associated with the familiar element/word/phrase. In the case of (2b), for instance, the morphological variation by using a singular form instead of the more commonly used plural does not yield a conceptually different meaning, and is thus not generally considered to be creative. In (2c), however, the novel form does differ both quantitatively and qualitatively from the conventional, salient phrase (e.g., as an ironic comment on mainstream propaganda in popular media). Crucially, the new form at the same time evokes a novel meaning and allows for the recoverability of the salient phrase on which it builds (readers or hearers automatically activate the familiar phrase "weapons of mass destruction" upon reading or hearing "weapons of mass distraction"). The relevance of recoverability, or the relative degree of innovation, is made clear in examples such as (2d). Here, the phrase exhibits some similarity

to the familiar phrase, both in sound, rhythmic and constituent structure, but the new phrase does not (clearly) allow for the recoverability of the salient (requirement 2b of the hypothesis).

Giora and her collaborators designed a series of experiments to test the cognitive reality of optimal innovation (an overview of which can be found in Giora et al., 2004; 2015). First, test subjects typically rate optimally innovative stimuli like (2c) as more pleasurable in comparison to the other variants (2a, 2b, 2c). Importantly also, given the focus on graded innovativeness in Giora's hypothesis, salient stimuli (like 2a) should elicit a higher degree of aesthetic pleasure than pure innovations (as 2d). This again is confirmed in a rating task reported in Giora et al. (2004). Second, the results from experiments measuring cognitive processing cost (including self-paced reading) suggest that optimal innovation comes with a cognitive cost: optimally innovative stimuli require the activation of both the familiar (salient) and the novel response. This simultaneous processing is reflected in the average length of reading times of optimally innovative stimuli in comparison to unambiguously salient ones (cf. also Brône & Coulson, 2010).

The Optimal Innovation Hypothesis does not only allow for a strictly cognitive reading, though. The aforementioned tension between the familiar and the novel, the deautomatization of salient responses, provides creativity with the power of subversiveness (Giora, 2003, pp. 182–183). This deviation of routine thinking as a source of creativity, humor, and aesthetics is of central interest to both pragmatics and CL. In pragmatics, it is known as norm violation, and in Cognitive Linguistics as the tension between conventionality and innovation (see Brône, 2012; Veale et al., 2015; and Veale, 2012 for an overview). As mentioned in section 1, cognitive linguists resort to cases of humor and creativity as test cases or show cases for

(i) the conceptual flexibility or mental agility that is central to a constructivist approach to semantics advocated in CL (Veale et al., 2015). Despite subverting linguistic norms and habitual patterns of thinking and speech, humor is still produced and processed on the fly and without apparent effort. Phenomena that at first glance appear to parasitize on the linguistic system, may in fact provide a unique perspective on it.
(ii) the flexibility of the theoretical constructs developed in the paradigm of CL. Showing that these constructs (like mental spaces, conceptual blending, conceptual metaphor, grammatical constructions, etc.) can be applied to creative and unconventional instances of language use, is indicative of their descriptive power. In other words, looking at phenomena that at first glance seem to undermine the linguistic system may in fact provide evidence for the same systematics.

These two motivations for studying humorous phenomena in language figure prominently in other studies in the broad field of Cognitive Linguistics. In what follows, we provide an overview of phenomena that have played and continue to play a central role in CL in general, and which have been shown to be instructive for the analysis of (at least some types of) humor as well.

3 Core Issues and Topics: Applying Concepts From Cognitive Linguistics to Humor Research

Recent years have witnessed an increase in studies approaching humor from a cognitive linguistic perspective (cf. Brône et al., 2006; 2015; Brône, 2012; Veale, 2012). The following overview focuses on three of the research programs in Cognitive Linguistics, applied to the study of humor, namely, (1) metaphorical and metonymic mappings, (2) mental spaces, and (3) grammatical constructions.

3.1 Conceptual Mappings in Humor: The Case of Metaphor and Metonymy

One of the landmarks of Cognitive Linguistics is Lakoff and Johnson's seminal *Metaphors We Live By* (1980), which set the agenda for the study of metaphor as a conceptual mechanism central to thought and language. Cognitive linguists have dealt with the conceptual status, discursive function, neurological and psychological reality, as well as the practical application of metaphor (and to a lesser extent metonymy). In its most basic definition, conceptual metaphor is seen as a systematic and asymmetric mapping between two conceptual domains, one of which serves as a source that provides the necessary structure for the target domain. A classical example of such a mapping is LOVE AS A JOURNEY, described in Lakoff and Johnson (1980), which underlies expressions such as *this is how far we have come, our marriage is on the rocks, we're at the crossroads*, etc. In each of these phrases, some of which are conventionalized, while others are not, the abstract domain of LOVE is conceptualized by resorting to concepts from the more concrete experiential domain of TRAVELING.

The central principle of double domain activation in metaphor is reminiscent of cognitive, script-based humor theories, which also focus on the activation of two (typically opposed) scripts that are connected in the process of incongruity resolution (Attardo et al., 2002). Although this theoretically interesting conceptual relationship between humor and metaphor has been addressed by several scholars, and from different perspectives for some time (Koestler, 1964; Hofstadter & Gabora, 1989; Giora, 1991; 2003; Attardo, 2015; Müller, 2015), the key question on the boundaries between the phenomena has not received systematic attention. A notable exception is Pollio (1996), who uses insights from conceptual metaphor theory to argue that the main difference between metaphor and humor is situated in the profiling of domain boundaries. Metaphors, it is claimed, integrate information from the source and target domain to form a unified conceptual entity, suppressing the apparent domain boundaries, whereas humor, in fact, emphasizes the domain discrepancies or oppositions.

Attardo (2015) takes a somewhat different approach by addressing the question regarding what makes some metaphors humorous while others are not. Humorous metaphors, it is argued, can be used as an umbrella term for different phenomena: metaphors that are funny in and of themselves, metaphors that describe a referent that is inherently funny, and failed metaphors. Attardo problematizes the conceptual boundaries of the category of humorous metaphors and argues that the criterion of "semantic distance" (which is also present in Pollio's account) is difficult to operationalize. As an alternative, Attardo proposes to treat humorous metaphors as a prototypical category, sharing family resemblances rather than strict definitional features and sharp boundaries. With this approach, Attardo relates his account to one of the foundational principles of CL, namely, linguistic categorization inspired by prototype theory.

Veale et al. (2006) take the conceptual substrate of metaphor as a basis for studying the subversive potential of humor as described by Giora. More specifically, they argue that in interactional humor, deep-rooted metaphorical structures can be used as a cue for trumping an adversary or partner. In sequence (3), speaker B distorts the conceptual mapping between source and target in the conventional metaphorical expression *a blessing in disguise* used by speaker A (target: SOMETHING NOT IMMEDIATELY APPARENT, source: CONCEALMENT). By simply adding the modifying adjectival phrase *bloody good*, the semantics of the idiomatic expression changes radically, because the addition foregrounds the literal meaning components of the idiom, which are not typically profiled in conventional usage. Such figure/ground reversals between literal and metaphorical readings, or between an idiomatic and componential analysis, in fact play a prominent role in a whole range of humorous phenomena, even when no figurative component is involved, as in

(4) (Veale et al., 2006; Brône, 2008; Veale, 2012). In (4), the one-line joke subverts the classical interpretation of water polo as a subdiscipline of aquatic sports, in favor of an ad hoc reading that foregrounds the two components of the compound *water polo*, and used the conventional non-compound reading of *polo* as an equestrian ball game.

(3) A: *(consoling tone)* Perhaps it is a blessing in disguise, dear.

B: *(angry tone)* Well, it must be a bloody good disguise then.

(4) Tim hasn't played water polo since that tragic day when his horse drowned.

In comparison to the massive amount of publications dealing with metaphor in CL, its conceptual counterpart metonymy received substantially less attention in the literature. For the analysis of humor, however, the definition of metonymy as a cognitive construal mechanism involving the selection of a salient reference point to refer to a different concept in the same frame (or the frame as a whole, Langacker, 1993) does provide interesting analytical potential. More specifically, proposing a conceptual approach to metonymy as a process of "mentally accessing one conceptual entity via another entity" (Langacker, 1993, p. 30) also covers pragmatic phenomena such as inferences and conversational implicatures (Gibbs, 1999; Panther & Thornburg, 2003). Because humor interpretation involves complex inferential activity, it may be useful to inquire into the metonymic basis of pragmatic processes.

Barcelona (2003) presents a theoretical argument for the metonymic basis of pragmatic inferences and uses joke interpretation as a prime illustration. He argues that joke interpretation is facilitated by established metonymic connections within specific experiential domains, and that these connections play a constitutive role in the process of frame shifting or script switching. Example (5), taken from Barcelona (2003, pp. 93–97) illustrates the inference guiding role of metonymy.

(5) Opposition MP (referring to the prime minister): "But what can we expect, after all, of a man who wears silk underpants?"

The prime minister (rising calmly): "Oh, I would never have thought the Right Honorable's wife could be so indiscreet!"

The humorous provocation by the MP, which opens the sequence in (5), builds on the stereotypical cultural model of masculinity, which prescribes specific rules of conduct, appearance and clothing. According to that stereotype, real men do not wear silk underwear, which thus implies that, according to the MP, the prime minister is not a real man. In his response, the prime minister opportunistically exploits this metonymic reference point (WEARING SILK UNDERPANTS stands for PERSONALITY TRAIT by linking the MP's supposed knowledge to the indiscretion of the latter's wife ("you know that I wear silk underwear because your wife, with whom I have a sexual relationship, has confessed this to you"). In this and other cases, metonymic patterns guide the reorientation process that is central to the humorous effect.

The concept of metonymic inferencing as reference-point structure is explored in Brône and Feyaerts (2004) and Feyaerts and Brône (2005) as well. Based on an analysis of one-line jokes and cartoons, they argue that humorous effects may be attributed to *marked* reference-point structures, which complicate the interpretation process. The examples in (6) are humorous insults referring to the ugliness (6a) and stupidity (6b) of the butt of the joke. Interestingly, in both cases the target concept is activated by means of an unconventional metonymic

reference-point in a causal chain of events, being either the effect (6a: effect of seeing an ugly baby) or the cause (6b: bumped his head, so causing brain damage). The result of these unconventional or marked, but nevertheless retraceable metonymic reference-point structures, is a balanced processing difficulty, which again is reminiscent of Giora's Optimal Innovation Hypothesis (see section 2.2).

(6) a. Surely your father shot the stork after seeing you.

b. Looks like you weren't strapped in during launch.

3.2 Mental Spaces and Conceptual Blending in Humor

Fauconnier proposed a model for the analysis of conceptual structuring in thought and language (1994; 1997). He introduced the concept of *mental spaces* to account for the way in which we structure and partition information into smaller, manageable packages. These structures are argued to "proliferate when we think and talk, allowing a fine-grained partitioning of our discourse and knowledge structures" (Fauconnier, 1997, p. 11). It is argued that partitioning discourse into separate but connected mental spaces is essential to a whole range of phenomena, including analogy, conditional and counterfactual reasoning, modality, indirect speech and thought, and the differentiation of different viewpoints (e.g., attributing different viewpoints to characters in a narrative).

The space-structuring model developed by Seana Coulson (see section 2.1) is strongly rooted in mental spaces theory, and provides a framework for the analysis of jokes as well as irony (Coulson, 2005). Next to this research program, only a few studies have looked into the relevance of mental spaces. Ritchie (2006) is a notable exception, in that he takes the aforementioned mental space approach to narrative viewpoints to account for jokes that revolve around character misinterpretation within the joke story world, and proposes an account of viewpoint shifts/reinterpretations. The relevance of a mental spaces approach, according to Ritchie, resides in the explicitation of the level(s) at which the typical reinterpretation process in jokes takes place. That is to say, whereas traditional humor theories mainly focus on the reader's perspective, who has to perform a script switching or frame shifting operation after encountering the punch line (i.e., a forced reinterpretation), Ritchie shows that the initial misinterpretation can also be attributed to a story character in the joke (with the reader or hearer consciously observing that misunderstanding). Using mental spaces as an analytical tool for partitioning the discourse may help to capture this stratification into different viewpoints and belief sets, as the reinterpretation process does not necessarily have to be directly in the mental space of the audience, but rather, it suffices that it happens in a viewpoint that is accessible to that audience.

Following up on Ritchie's account, Brône (2008) outlines a descriptive model for the analysis of interactional humor, based in part on mental spaces theory and in part on Herbert Clark's Joint Action Hypothesis (Clark, 1996). Among the phenomena that are analyzed in terms of complex constellations of viewpoint mental spaces is a form of teasing referred to as *hyper-understanding*:

(7) Ken:and I'm cheap,—

MARGARET: I've always felt that about you,
Ken: oh shut up,
(—laughs) fifteen bob a lesson at home, —

(Clark, 1996, p. 353)

The category of hyper-understanding was introduced to cover instances of interactional humor that revolve around one speaker taking advantage of potential ambiguities or other conceptual weak spots in a previous speaker's utterance. In the case of the example in (7), the second speaker (Margaret) playfully echoes the utterance of the first speaker (Ken) through the use of the anaphoric element *that*, while at the same time subverting the initially construed interpretation of that element, highlighting the metaphorical rather than the literal reading of *cheap*. In terms of its mental space configuration, the phenomenon of hyper-understanding centrally involves the differentiation of viewpoints, and the construal of a pretend space in which the teaser playfully assumes that the initial speaker, in fact, intended that secondary reading. Examples such as these show the potential of mental spaces theory as an analytical tool to account for the complex interplay of different communicative layers of action that is typical of interactional humor. This playful layering at times is marked through the use of nonverbal signals, such as raised eyebrows (Tabacaru & Lemmens, 2014).

As an offshoot of mental spaces theory, Fauconnier and Turner proposed the so-called *conceptual blending* or *conceptual integration theory* (Fauconnier & Turner, 1998; 2002; Turner, 2015), which focuses on the way in which information from different mental spaces may be integrated into hybrid cognitive models. This model postulates that in natural forms of cognition and language use, conceptual content from different resources is integrated via a set of partially compositional processes. Among the cognitive phenomena that are argued to involve conceptual integration processes are the classical construal phenomena described in CL (metaphor, metonymy, conditional reasoning, etc.). Conceptual blending theory aims to uncover an underlying mental operation in various manifestations of creative or imaginative cognition. Different "acts of creation," from wit and humor to the scientific and artistic genius, involve the integration of input from different sources to yield novel conceptualizations.

Conceptual blending theory attracted the attention of humor scholars, in part because of its flexibility and broad analytical range, and in part because of its appealing visual representations (with mental spaces represented as circles that are connected in multiple ways). The framework has been used to account for the phenomenon of frame-shifting (cf. section 2.1), irony and sarcasm, wordplay of the type addressed in the Optimal Innovation Hypotheses (cf. section 2.2), and a range of other phenomena in which the local integration of conceptual structure yields a witty, expressive or humorous effect. Fauconnier and Turner (2002), Coulson and Oakley (2003), Brône and Feyaerts (2005), Feyaerts and Brône (2005), and Brône and Coulson (2010) provide blending analyses of local ambiguities that revolve around the source-target resonance in metaphorical construal. To take the example of metaphorical wordplay, a headline as in (8) crucially relies on the reactivation of the literal basis of what is essentially a metaphorical expression. In the context of economic news reports, the verb *to puncture* has a contextually salient metaphorical meaning ("cause to diminish"). However, the metonymically motivated link between the producer Michelin and its primary product (tires) re-profiles the literal reading of *puncture*.

(8) US slowdown punctures Bridgestone's profits

This strategy of relating encyclopedic knowledge to the literal meaning components of a metaphorical expression was labelled *double grounding* (Feyaerts & Brône, 2005), referring to the double projection of one key element (*puncture* in (8)) onto two input spaces of a complex integration network. Brône and Coulson (2010) tested the psychological reality of double grounding, using a reading-time experiment and rating task. It was hypothesized that double grounded metaphors (such as (8)) would require a higher processing cost and produce higher wittiness ratings in comparison to single grounded metaphors (e.g., like *US slowdown punctures Cold Stone's*

profits). The results of this experiment indeed yielded longer average reading times and higher wittiness ratings for double grounded metaphors, thus providing evidence for a conceptual integration process.

Apart from a range of verbal phenomena, conceptual blending theory has been applied to multimodal phenomena as well, including cartoons (Hofstadter & Gabora, 1989; Hünig, 2002; Marín-Arrese, 2003; 2006; Bergen, 2004; Coulson & Oakley, 2003; Brône & Feyaerts, 2005), comics (Veale et al., 2013), and multimodal advertisements (Fauconnier & Turner, 2002; Lundmark, 2005). Multimodal representations are often highly compressed cues that need to be unpacked into multiple knowledge structures in order to be understood.

3.3 Grammatical Constructions in Humor

When looking at the body of literature on the linguistic aspects of verbal humor, it is apparent that the grammatical particularities of humor have only received little attention in comparison to the phonetic, lexical, semantic, and pragmatic dimensions. Nevertheless, grammatical patterns may be of importance in generating humorous effects, either in deviations from conventional patterns of usage or as productive formulaic patterns for specific joke types. Both of these dimensions were recently addressed in a number of studies that take insights from construction grammar and Cognitive Grammar and apply them to particular aspects of the grammar of humor.

One of the key assumptions of both Construction Grammar (Goldberg, 1995) and Cognitive Grammar (Langacker, 1987; 2008) is that the basic units of language are symbolic pairings of form and meaning, rather than atomic syntactic structures and combinatory rules. These symbolic pairings, referred to as grammatical constructions, constitute the primary repository of linguistic knowledge on different levels of linguistic organization, from the lexicon (words as conventionalized form-meaning couplings) to larger constructional patterns (referred to as the construction of the language), and even recurrent discourse patterns (or discourse constructions, Östman, 2005). As a consequence, construction grammar does not adhere to the classical modular view, which draws relatively strict boundaries between lexicon and syntax.

Antonopoulou (2002), Antonopoulou and Nikiforidou (2009) and Antonopoulou et al. (2015) present a construction grammar view on the first dimension sketched earlier: verbal humor may draw on specific discrepancies between the semantics of an abstract grammatical construction and the semantics of lexical items that are used in instantiating that construction. In one of the examples under scrutiny (9), taken from a narrative by Raymond Chandler, the grammatical construction that is conventionally used for expressing caused motion (Goldberg, 1995) is exploited for humorous purposes.

(9) Keith squats forward and fights his mother's thigh up into the car, while Frank leans forward.
(Antonopoulou & Nikiforidou, 2009, p. 298)

The constructional pattern in (9), consisting of a verb with a double object ([SUBJ [V OBJ OBL]]), is in its unmarked usage typically instantiated by verbs that have the causing of motion as part of their semantics, like e.g., *to throw* (*Jack threw the napkin off the table*), which licenses two thematic roles (agent, patient), corresponding to the subject and object position of the construction. However, the construction can also be instantiated with other verb types, like *they laughed the poor guy out of the room*, where the valence of the intransitive verb *laugh* is "augmented up" to that of a transitive verb because the construction in which it is embedded requires a transitive relationship. This phenomenon is referred to as *coercion* or type-shifting (Michaelis, 2005). In (9) the integration of *fight*, which does not conventionally have a directional complement,

into the caused motion construction triggers a humor-relevant incongruity: the construction profiles an external causal force for an action (lifting a thigh) that under normal circumstances does not require such an external force. As a consequence, the constructional semantics triggers the construal of the object of movement (*mother*) as an indiscrete mass.

The example in (9) revolved around the discrepancy between a schematic constructional pattern and its instantiation with specific lexical elements. Construction grammar posits a continuum between schematic and fixed constructions, with idiomatic expressions obviously having a more fixed form and conventionalized idiomatic reading (also referred to as (semi-substantive constructions). Humor frequently draws on these conventionalized patterns and couplings, as was already discussed in the sections on Giora's Optimal Innovation Hypothesis (section 2.2) and metaphor (section 3.1). Antonopoulou and Nikiforidou (2009) argue that construction grammar provides an adequate model for a uniform analysis of these different manifestations, with the additional advantage that construction grammar can naturally integrate insights from frame semantics (on which it builds): "A significant contribution of CxG [Construction Grammar, GB] to humour is that it fills in a noticeable gap in the GTVH and in any theory that focuses on content rather than form, thereby underrating the role of language" (Antonopoulou & Nikiforidou, 2009, p. 310). Antonopoulou et al. (2015) apply the same rationale to larger discourse units and argue that conventional discourse patterns from a specific genre may be exploited in different genres, so as to achieve a humorous effect.

A second potentially interesting perspective on grammar and humor involves the productive use of specific grammatical constructions for specific joke formats. Bergen and Binsted (2004; 2015) focus on the phenomenon of *scalar humor*, which is based on the use of a construction that expresses a position on a scale (the XYZ-construction: "X is so Y that Z"). This conventional construction, used in non-humorous language as in (10a), profiles a scalar inference between the first and second phrase of the construction: Z illustrates that X has a high degree of Y. This conventionalized pragmatic relation evoked by the XYZ-construction is used to create hyperbolic cause-effect relations as in (10b–d).

(10) a. We danced so long, my feet got sore
b. Yo' mama's so old, she knew Burger King when he was still a prince
c. Yo' mama's so old, she has a picture of Moses in her yearbook
d. Yo mama's so fat, a picture of her fell off the wall

(Bergen & Binsted, 2004)

In the examples in (10b–c) the Z-component of the construction (*she knew Burger King when he was still a prince, she has a picture of Moses in her yearbook*) presents scenes that do not fit the normal scope of Y (in this case the mean length of a human lifetime). In (10d), such a hyperbole can be based on a false presupposition (namely, that representations have a weight that is proportional to the object represented). Studies such as those by Bergen and Binsted can serve as illustrations of the flexibility and creativity of conceptual construal, overriding conventionalized semantic-pragmatic features within the boundaries of a grammatical construction.

4 The Future of Cognitive Linguistic Humor Research

Although Cognitive Linguistics has maintained a relatively steady interest in creative phenomena such as humor and irony over the last two decades, the studies presented thus far have been largely programmatic, in the sense that they aim to show the potential of a cognitive linguistic approach. There is thus a substantial need for further empirical validation and theoretical

integration. Looking at the current research agenda of CL in general, we see at least three priorities for future research.

First, from the very onset, CL presents itself as a strongly usage-based framework (Langacker, 1987). At a theoretical level, this means that all linguistic knowledge emerges from actual usage, in a process of schematization and abstraction from fully instantiated usage events. From an analytical perspective, the usage-based postulate has led to an increase in large-scale empirical work, focusing on language use in context, language variation, and change, using a variety of methods such as corpus studies, psycho- and neurolinguistics experimentation, and simulation models (see Tummers et al., 2005 for a technical state of the art). Many of the topics discussed in this chapter are still in need of further empirical support, both in terms of their empirical scope in different usage settings and their cognitive plausibility. The two more systematic research programs developed by Coulson and Giora, in which theoretical concepts and specific cognitive hypotheses are tested using a variety of empirical methods, set an example for researchers interested in pursuing this direction.

Second, the empirical turn in CL towards the analysis of more and truly usage-based data has paved the way for the study of spoken language. Whereas CL has long suffered from the written-language bias that has been typical for much work in linguistics, the relatively recent availability of large corpora of spoken language has led to an increased interest in the dynamics of spoken language as the primary form of language use. Large-scale corpus studies focusing on the interactional grounding of humorous phenomena in spontaneous face-to-face interaction are still scarce (Attardo, 2008; Brône & Oben, 2013; Feyaerts & Oben, 2014). Linked to this increasing interest in spoken language is a turn towards multimodality interaction, studied from a cognitive linguistic perspective (see Feyaerts et al., in press for an overview). Only very few studies have looked into the interaction between verbal and nonverbal markers (such as hand gestures, head movements, facial expressions, and eye gaze) in the realization of humorous or ironic utterances (Attardo et al., 2011; Tabacaru & Lemmens, 2014). This opens up a large and new area of research that is relevant to both cognitive linguists and humor researchers.

A third and final point pertains to the interdisciplinary collaboration in the broad field of CL. Cognitive linguists increasingly cooperate with researchers from neighboring fields to address specific aspects of the cognitive, social, and interactional dimensions of language, based on the foundational principle of CL that "language is an integral facet of cognition which reflects the interaction of social, cultural, psychological, communicative and functional considerations" (source: motto of the *Cognitive Linguistics Series*, Mouton de Gruyter). For the analysis of humor, such a broad multi-angle approach is indispensable, as it has often been argued that humor requires a holistic, integrated approach (Brône et al., 2006). The GTVH may serve as an example, in the sense that it is a model grounded in linguistics, but it integrates insights from a different variety of fields in the operationalization of the knowledge resources (KRs) it postulates. A challenge for cognitive linguists thus is the integration of insights from case studies (as the ones presented in this chapter) into a larger model (being either the GTVH or alternative models), as well as the incorporation of ideas and methods from other fields. Only by doing so, Cognitive Linguistics will be able to claim an original contribution to the field of humor research and not fall victim to the common problem of duplicating existing insights, to which humor research has been susceptible in the past.

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19

Psycholinguistic Approaches to Humor

Belem G. López and Jyotsna Vaid

Introduction

Interest in the psychological aspects of humor has a long history. There is, for example, Freud's (1905/1960) psychoanalytic theory of jokes and their relation to the unconscious, and Henri Bergson's (1950) theory of laughter as affirming the human values of spontaneity and freedom in the face of behavior that is rigid or mechanical. Apart from these and other influential theoretical accounts, there is by now a large body of empirical scholarship on humor (see Martin, 2010, for a review). Differences in the experience of humor have been studied in relation to the content or form of humor, and also in relation to individual differences in personality, character strengths (Ruch & Heintz, 2016), age, gender (Vaid & Hull, 1998), language, and culture (Vaid, 2006). Research has also considered functional aspects of humor, such as its role in creativity (Koestler, 1964; Vaid, 2014), emotion regulation (Samson & Gross, 2012), and group cohesion (Vaid, 1999; Billig, 2005).

At its core, humor is a cognitive experience that gives rise to feelings of mirth or joy. Accounts of humor that have foregrounded its cognitive aspect have been proposed by early philosophers such as Kant and Schopenhauer and by contemporary scholars (see Nerhardt, 1976; Attardo, 1997; Giora, 1991; Forabosco, 1992; Martin, 2010). The central idea is that the experience of humor arises from an initial tension created by encountering something unexpected, discrepant or incongruous in a situation and the subsequent relief felt when there is some resolution of the incongruity. How to study empirically, in real time, the cognitive processes that are thought to be responsible for humor perception, production, and use by language users falls under the domain of psycholinguistics.

Psycholinguistics is a branch of cognitive psychology concerned with how human language is acquired, processed, planned, and represented in the mind and brain. Although the discipline has been in existence for over 60 years, it has only recently begun to explore the processing of humorous language. Why has the study of humor *not* been a dominant focus within psycholinguistics? We offer three possible reasons. One is that language as it is theorized in psycholinguistics does not easily lend itself to the study of humor. That is, within psycholinguistics, the focus has been on what users must know tacitly about the structure of their language in order to be able to generate or understand a potentially infinite number of utterances using a finite set

of rules for combining words. The focus on how individual language users mentally represent their knowledge of language to allow them to communicate has meant that aesthetic, expressive, affective, or playful, aspects of language have been downplayed relative to propositional aspects.

Second, humor as a topic of empirical inquiry is hard to pin down, because potentially any aspect of language or any situation could be perceived as, or rendered, humorous, given that the experience of humor depends not just on the content or structure of the humor-eliciting stimulus but also on the identity of the humor producer and the relationship between the producer and the receiver. This variability and fluidity of humor make it a challenge to study in the form of experiments, the preferred research strategy in psycholinguistics. By its very nature, experimentation requires a "stripped-down" approach, in order to study it under controlled conditions to be able to make cause-effect claims. As a result, social and contextual aspects of humor may be lost when humor is studied under controlled conditions as compared to when it is studied under naturalistic conditions, or "in the wild." Further, the emphasis in psycholinguistic research of the *individual* user's language processing as the unit of analysis has meant that less attention has been paid to understanding the dynamics of language processing in *interpersonal* interaction, a key feature of humorous discourse.

A third challenge that the study of humor poses for psycholinguistics as an enterprise relates to underlying assumptions about how language is used by humans. Psycholinguistics has constructed the typical language user as one who is serious and seeks to be clear, direct, coherent, and informative. As a result, theories and research have been directed at understanding how it is that language users manage to understand one another as well as they do, given the potential for misunderstanding in the face of ever-present ambiguity in the signal. Thus, cues that are relevant for ambiguity resolution have been a major focus of psycholinguistic inquiry. It is now accepted that utterances are disambiguated by the use of predictive mechanisms that rely on language users' tacit knowledge of the rules of grammar that specify permissible combinations of elements and thus constrain what an utterance could mean. In addition, the use of extralinguistic cues (e.g., pragmatic or contextual knowledge), is traditionally thought to occur after linguistic cues are processed, to further constrain what something could mean (see Coulson, 2015 for a critique of this view). Thus, linguistic and extralinguistic cues are enlisted by language users to narrow down the range of possible meanings of an utterance so that the most plausible meaning in a given context comes to the fore. All this makes sense if a serious mode were the only mode in which language users operated. Unfortunately (or fortunately), it is not. Language users (children and adults) are often not (at all) serious but indulge in play (e.g., Bell et al., 2014). In a playful mode, the usual rules of interaction may no longer apply, or they may apply in different ways. Psycholinguistics is just beginning to acknowledge the need to study language as used in a playful mode (see also Clark, 1996; Chafe, 2007).

Humor both exposes and disrupts the usual ways of using language. It also disrupts the rigidity of conventional ways of thinking, for it plays not only with the rules of language but also with the rules of logic. Yet humor clearly has a logic of its own. In this chapter we will consider how the logic of humor has been—or could be—explored from the lens of psycholinguistics and how the range of psycholinguistic research methods can be enlisted to study humor.

Aside from its cognitive core, two additional aspects are critical to humor and are, therefore, important to address in any comprehensive psycholinguistic account: humor's aesthetic and social aspects. Verbal humor is not only a form of compressed thought (Veale, 2015) or interactive, creative cognition (Ward et al., 1997), but it also has a literary quality, and makes use of a range of devices (including polysemy, intertextuality, irony, under- or over-statement, metaphor, analogy, ambiguity, or figure–ground shifts) in a way that is poetic, memorable, and pleasing (Veale, 2015). The social nature of humor is also at the heart of conversational humor and

requires what Clark (1996) has called *joint action*, where speakers and listeners coordinate and co-construct meaning. For there to be even the possibility of sharing the experience of humor, all parties must signal that they are open to engaging in a play mode (Bateson, 1953).

Questions of potential interest from a psycholinguistic perspective to humor include: How do listeners and speakers signal that they are in a play mode, or *not* intending to be taken seriously? How does the ability to comprehend and produce humor emerge and develop from infancy and across the life span? How does humor development relate to developmental milestones in theory of mind, empathy, or attachment? How are humorous texts structured and how do changes in their structure affect how they are perceived? How do cognitive aspects of humor processing (e.g., getting a joke) relate to affective aspects (e.g., liking a joke)? What is the temporal course of humor comprehension? Does humorous text facilitate or slow cognitive processing? How does humor generation relate to creativity? How is humor supported by neural structures? And how does social identity affect humor processing? In what follows we will address how recent work within psycholinguistics has begun to address some of these questions. Our review will necessarily be selective. We will begin with considering precursors of current work.

Historical Perspectives

Critical insights about humor of relevance for contemporary psycholinguistic research have come from early scholars in such diverse disciplines as ethology, cybernetics, philosophy, anthropology, linguistics, and Gestalt psychology. As noted at the outset, a central theme underlying a cognitive account of humor is that humor involves (or perhaps requires) the recognition of some incongruity. Early psychological theories of human motivation proposed two contrasting tendencies: a need for stability and security and a need for innovation and change. Humor is aligned more with the second of these principles but probably also reflects the tension between these two tendencies.

In a psychoanalytic account of humor, Freud (1905/1960) noted that certain topics tend to be particularly salient in humor, namely, topics that are transgressive in some way. Freud proposed the existence of mental censors that act to filter out these topics. However, by virtue of their structure, which involves a play on double meanings, jokes manage to bypass these censors. According to Freud, the pleasure experienced in joking is the pleasure associated with the release of repressed sexual or hostile impulses conveyed in humor. Building on this notion, Minsky (1984) proposed that our cognitive apparatus also has sensors to detect "bugs" in reasoning, so that inefficiency in thinking can be reduced. Minsky suggested that absurd humor is experienced as pleasurable because it exposes faulty logic or errors in reasoning. Minsky's proposal thus offers a broader account than the psychoanalytic one and a more cognitive account of why we experience pleasure in humor.

Encountering something incongruous may be perceived as funny but one might also react to incongruity with fear or anxiety. Speaking to this point, Maier (1932) proposed that for something to be experienced as amusing (rather than fear-inducing), the perceiver should not be overly invested emotionally in the situation. Further, the perceiver should be able to see the ridiculousness in the situation. In other words, one experiences a situation as amusing so long as one is affectively detached from it and can enjoy its absurd logic.

Related to this notion is another central insight, namely, that a precondition of humor is the adoption of a play frame, a tacit agreement that what is talked about inside the frame is not to be taken seriously (Bateson, 1953). By agreeing to this, space is created for other beliefs and perspectives to emerge, including those that may challenge the dominant view. The notion of a

play frame is also implicit in early writings of anthropologists on joking relationships. These are relationships observed in many traditional societies in widely dispersed regions such as Africa, Oceania, and Asia, and involve a socially sanctioned use of joking between kin related by marriage (e.g., brother-in-law/sister-in-law). In such relationships, as Radcliffe-Brown noted, "one is by custom permitted, and in some instances required, to tease or make fun of the other, who in turn is required to make no offence" (1965, p. 90). The existence of such relationships suggests that humor may serve to defuse potential conflict or socially transgressive behavior. These early notions of humor as needing a cooperative play frame and cultural sanction may be seen as precursors to current scholarship on safe spaces for difficult dialogues, and on the performance aspect of humor (e.g., standup comedy as a socially sanctioned form of bringing up difficult and otherwise often unspoken topics).

Relatedly, the anthropologist Mary Douglas (1975), observed that the structure of a joke parallels its potentially subversive function. She noted that "a joke is a play upon form [which] brings into relation disparate elements in such a way that one accepted pattern is challenged by the appearance of another which in some way was hidden in the first" (1975, p. 98). The telling of a joke is a potentially subversive act in that it results in "a victorious tilting of uncontrol against control," the "levelling of hierarchy, the triumph of intimacy over familiarity, [and] of unofficial values over official ones" (1975, p. 98). This notion of humor as potentially subversive is echoed in a number of current approaches to humor, including cognitive linguistics, where humor is seen as arising from the subverting of a category (Veale, 2015), and in cultural studies, where marginalized or stigmatized groups may use humor to articulate and subvert their marginal status (Vaid, 2006; Bingham & Green, 2015). The emphasis here is on the *potential* for subversiveness that humor enables. Actual instances of humor will run the gamut of truly subversive humor that exposes and challenges the status quo to humor that is conservative in the sense that it endorses and reinforces the status quo (Vaid & Hull, 1998). Humor may also occur (to differing degrees in different cultures) as a response to embarrassment (e.g., Vaid et al., 2008). Finally, a potentially subversive use of laughter, termed "unlaughter" by Billig (2005), is when one chooses *not* to laugh when laughter may be the expected response in a situation.

Of greater relevance to the cognitive aspect of humor is the work of early Gestalt psychologists who pointed to the similarity between humor and the experience of insight in problem solving. As Maier (1932) noted, the experience of humor (like that of insight) involves a sudden and unexpected restructuring of the elements of a configuration leading to clarity and a solution. In other words, humor can lead to discovery. This aspect of humor was further developed by Arthur Koestler in his book, *The Act of Creation* (1964), in which he noted that discovery underlies art, science, and humor and that all three domains involve "bisociative" thinking, i.e., a form of thinking in which two disparate and "habitually incompatible matrices" are temporarily brought together and "momentarily fused" (p. 94). This notion of bisociative thought as a component of humor is widely held in contemporary work in humor, and the insight that humor as associated with a sudden sense of discovery has motivated recent studies (e.g., Amir et al., 2015; Chen & Vaid, 2004).

Finally, no account of the cognitive basis of humor would be complete without mention of the seminal incongruity/resolution information-processing model of humor proposed by Suls (1972; see also Shultz, 1972). Extending the observations of early scholars that to experience something as humorous requires the detection of some initial incongruity followed by a sudden insight that (at least partially) resolves the incongruity, Suls proposed that these two components of the mental experience of humor occur in separate and sequential stages of information processing. If a resolution is found then the situation is perceived as funny. If it is not found then the

incongruous information is just perceived as puzzling or odd but not as amusing. Suls and others (e.g., Wyer & Collins, 1992) also noted that the thought processes needed both to recognize the incongruity and to find a way to make sense of it are modulated by level of incongruity and saliency of the input. Suls's model of humor processing has been hugely influential in shaping subsequent research and can be considered a precursor to subsequent influential formulations, such as the script-opposition model of Raskin (1985; see Attardo, 1997) and the frame-shifting model of Coulson (2015).

We turn next to an overview of research methods used in psycholinguistics as applied to humor study, distinguishing between approaches used with infants or young children and those used with adults.

Psycholinguistic Methods as Adapted to the Study of Humor

With Children

Research methods that have been used to study children's humor appreciation, comprehension, or production have made use of a combination of approaches involving observation, judgments, preferences, and elicited responses. Studies of infants have relied on observational approaches to study infants' spontaneous smiling and laughter at different ages and in different situations in interaction with caregivers (e.g., Mireault et al., 2012). Some studies with young children have presented them with cartoons or verbal humor and asked them to judge which they find most funny and explain why (Shultz, 1996; Puche-Navarro, 2009). Other studies have interviewed parents of young children to get their insights into what the children found amusing at different ages (Reddy, 2008). Studies of humor generation have involved having children of different ages tell a funny story or draw a funny picture and explain why it is funny (Loizou & Kyriakou, 2016). The general logic of developmental research designs has been to observe humor appreciation, comprehension, or production by children under naturalistic or controlled conditions, comparing performance either over time (longitudinally) or across different age groups at a given time (cross-section studies), or examining their response to humor-eliciting stimuli that have been manipulated in systematic ways (e.g., varying the type of incongruity). Given that humor comprehension presupposes some understanding of another person's perspective, the study of the development of humor comprehension can provide insights into the onset of theory of mind, and may point to an earlier developmental onset of this concept than might be indicated based on other measures.

With Adults

There is a sizeable body of work on disorders of laughter or humor in patients with unilateral or bilateral brain lesions arising from stroke, disease, or traumatic injury. Disorders of mirth can be distinguished from disorders of laughter and arise from different neuropsychiatric conditions. For example, pathological joking, or *witzelsucht*, involves right orbito-frontal structures and is associated with impaired humor appreciation coupled with a compulsion to produce routine jokes and witticisms (e.g., Granadillo & Mendez, 2016; see Vaid, 2002; Vaid & Kobler, 2000, for further discussion). In the interest of space we do not review this clinical literature but note simply that it has inspired a number of studies of the contribution of the two hemispheres to joke comprehension in neurologically intact individuals, using lateralized stimulus presentation (e.g., Coulson & Williams, 2005; Hull et al., 2006; McHugh & Buchanan, 2016). It has also motivated studies that seek to dissociate the neural circuitry involved in the cognitive vs. the

affective component of humor processing (e.g., Goel & Dolan, 2001;Vrticka et al., 2013) or the comprehension vs. elaboration aspects of humor processing (e.g., Feng et al., 2014).

Offline Behavioral Methods

One of the earliest ways to study humor is by using so-called offline techniques, that is, techniques in which the final product, rather than the time course of processing, is analyzed. Some relevant offline tasks used to study humor comprehension have included rating scales or choice tasks (judging the degree to which an item is amusing, or selecting the most amusing item out of a choice of items) (Giora, 1997; Martin, 2010; McGraw & Warren, 2010). Other studies have asked participants to come up with a funny caption for a cartoon, a funny title for a story, a funny rejoinder to a saying (Vaid, 2014), or to list humorous similarities or differences between two concepts (Hull et al., 2016).

Online Behavioral Methods

Online behavioral methods include priming and lexical decision, self-paced (word-by-word) reading, or eye-tracking during natural reading. As an example of a natural reading task, participants are to read a series of sentences containing funny or not funny one-liners and decide for each if it is funny or not. Overall reading time and accuracy are noted. A variant of this task is to present all but the final (punch line) word in the center of the screen and, after the participant has finished reading it, show the final word randomly and (very quickly) in the left or right visual field. This variation allows for a comparison of hemisphere differences in joke comprehension (see Coulson, 2015). Another variation is to present the initial joke centrally and present a target word to the right or left visual field and have the participant name the target word or decide if it forms a word or not (lexical decision). The target word in turn is either related to the joke meaning or is an unrelated word (e.g., Hull et al., 2006; Chen & Vaid, 2004).

In a lexical decision priming paradigm adapted to study joke processing, participants would be asked to read a joke text and at different points in the text they would be presented with a word that is related to the initially favored or the punch line meaning of the joke (or is a non-word). Participants must decide as quickly as possible if the target is a word or not a word (e.g., Vaid et al., 2003).

In the self-paced reading task funny or not funny sentences are shown one word (or phrase) at a time on a computer screen. Participants press a key to see the next word and reading times for each word (or phrase) are recorded. This method provides more fine-grained, moment-to-moment information on reading time (processing effort) but may feel somewhat unnatural.

Eye-tracking is a sensitive gaze-measuring technique used in many psycholinguistic studies. It tracks the eyes' trajectory when reading text on a computer screen and provides information on a number of dependent measures including first pass reading time/gaze duration (i.e., the amount of time spent reading specific material the first time all the way through), number of fixations (i.e., the number of times a participant stops and fixates on specific regions of interest), and total reading time (i.e., the total amount of fixations made for specific regions of interest) (Ferstl et al., 2016). Unlike self-paced reading task paradigms, eye tracking does allow for readers to go back and reread words, phrases, and utterances, which allows for a more naturalistic measure of reading.

Finally, psychophysiological measures are being used to study language processing and humor processing, in real time. Although this approach, like eye-tracking, provides an unobtrusive measure of physiological concomitants of the humor response (e.g., movements of facial muscles

around the eyes or mouth associated with smiling and laughter), and the potential for associating specific bodily changes (e.g., heart rate acceleration or deceleration) that may accompany cognitive changes at different points in reading or listening to a joke, there is some uncertainty as to how to interpret the findings observed thus far, and more replications and converging evidence is needed (Flacconi & Owen, 2015).

Online Neurobehavioral Methods

Electrophysiological

Event-related potentials (ERP) are time-locked evoked responses of electrical activity of the brain. Components of the waves are described in terms of their (positive or negative) polarity, amplitude, onset, peak latency, and distribution on the scalp. ERPs have high temporal sensitivity that makes them particularly useful for psycholinguistic research, as they can measure phenomena at the millisecond level. Several notable components of ERPs of relevance for language include the N400, a negative evoked response with an average peak amplitude at 400 ms following stimulus onset; this component is sensitive to semantic violations. Second, the P600 is thought to tap syntactic violations, but has also been demonstrated to reveal a combination of syntactic and semantic processing. Finally, the late left anterior negativity (LLAN) occurs at about 500 ms and is associated with comprehension processes. Like eye-tracking, ERPs offer an unobtrusive way of studying natural language processing (e.g., reading a sentence) without requiring the participant to make any judgment.

Hemodynamic

Humor comprehension is also being studied using hemodynamic functional neuroimaging methods, most commonly, fMRI techniques. Although providing a less direct measure of neural activity than electrophysiological measures and with less temporal resolution, hemodynamic methods offer greater spatial resolution. Studies of humor comprehension using such measures typically contrast changes in blood flow in response to humorous material vs. various kinds of control conditions with the aim of examining the neural correlates of mirth, distinguishing between the appreciation vs. the comprehension of humor (e.g., Campbell et al., 2015), or between humorous and nonhumorous insight (Amir et al., 2015).

We turn next to a discussion of core findings from key studies in the acquisition, comprehension, and production of humor.

Core Findings

Developmental Studies

A classic early study of children's appreciation and comprehension of humor tested the incongruity/resolution model. Across two experiments, Shultz (1972) presented elementary-school-aged children (second through seventh graders) with different versions of cartoons and asked them which one they liked best and to explain the humor in them. The different versions included the original form, an incongruity-removed version, and a resolution-removed version. The results showed a developmental trend with the younger children preferring the cartoons showing incongruity without resolution and the older children preferring those in which there was resolution. This trend was replicated in a subsequent study of the appreciation of riddles

(Shultz, 1974). These findings suggest that children initially prefer humor that is purely incongruous and only later come to enjoy humor in which the incongruity is somehow resolved.

Relating children's preferences for different types of humor to their cognitive development, McGhee (1979) outlined four stages: in the first stage children enjoy humor that involves incongruous actions directed at objects. In Stage 2 they enjoy humor that involves incongruous labeling of objects and events. In Stage 3 they enjoy conceptual incongruity and in Stage 4 they enjoy humor that has multiple meanings. More recent work supports this characterization. Studying 2- and 3-year-olds, Hoicka and Akhtar (2012) found that young children were more likely to respond with laughter when they saw an object being used in an unusual way, such as placing underwear on someone's head. As an example of conceptual humor, children preferred humor that violated real world concepts (for example, when the parent pretends that a pig is saying *moo* rather than *oink*). In a study of visual humor, Puche-Navarro (2009) presented 3- and 4-year-olds with a series of images. The children were instructed to pick out which image out of three choices (congruent, incongruent or neutral) made them laugh more; they were then asked to explain their choice. For example, children were shown an image of someone watching television in three conditions. The incongruent condition depicted two televisions with a man in one of the screens talking to another person in the other screen. Children were able to successfully select the incongruent image as funny.

Taken together, developmental studies underscore the relevance of incongruity as a key factor in children's appreciation of humor, and further show that what is considered incongruous becomes more varied as children get older and develop schemas based on their additional knowledge (of language and of the social world). Although the perception of incongruity is central to understanding and using humor, in children as in adults, the use of humor by young children also provides insights into their social-emotional abilities and their creativity, as well as their cognitive abilities.

In one of the few studies that has examined young children's humor production, Loizou and Kyriakou (2016) emphasize providing different options—e.g., telling a humorous story or drawing a humorous picture—to allow for a fuller expression of children's ability to produce humor and tap into different skills.

Finally, developmental research on humor is looking also at the very first year of life to trace the precursors of humor and the role of social learning in humor appreciation. In a longitudinal study of preverbal infants, Reddy (2001) examined naturalistic play between parents and children and had parents describe and identify the different types of humorous encounters they had with their infants. Reddy found that "clowning" was one of the behaviors parents commonly observed in infants, as early as eight months of age and in 11-month-olds. It was further noted that infants seemed to be deriving meaning about what was funny from social cues of the caregiver. Reddy also suggested that children may be using social cues to test boundaries about what is permissible or not by whether their behavior elicits laughter. Reddy's work suggests that humor in the form of clowning and mocking the serious emerges towards the end of the first year (see also Mireault et al., 2012, which examines humor perception and creation between parents and their 3- to 6-month-old infants).

Humor Comprehension

Two issues have been the focus of psycholinguistic research in humor comprehension. The first addresses whether humor facilitates or slows sentence or text comprehension. The second addresses the issue of whether in processing humorous text (jokes, in particular), the initially salient meaning (related to the setup phase just before the incongruity is encountered) remains

active once the punch line meaning is introduced or is suppressed. We consider each issue in turn.

Does Humor Speed Up or Slow Down Comprehension?

To contextualize this issue it is important to refer to an important conceptual framework, the space structuring model, a model of language comprehension that was motivated by conceptual blending theory and cognitive grammar. In this model various kinds of information including perceptual input, linguistic input, social context, and a speaker's current cognitive state, all contribute to constructing a cognitive model of the discourse situation (Coulson, 2015). Both linguistic and non-linguistic information is consulted in retrieving frames from long-term memory, which is used to construct the cognitive model. Whereas frames normally serve a useful function of organizing conceptual knowledge and guiding expectations, they also fall short in certain situations, particularly when competing frames are encountered and a restructuring of elements in the message-level representation of a situation becomes necessary. Frame-shifting refers to the semantic and pragmatic reanalysis required in such cases, and is particularly common in processing jokes, as jokes are structured precisely to suggest one frame initially while keeping another frame in the shadows.

Thus, to understand a joke requires engaging in a restructuring of the situation model whereby the initially presented information has to be revised when it is found to be inconsistent with the current text representation. A new frame has to be retrieved from long-term memory on which the current representation can be mapped. Joke comprehension thus involves situation model updating and as such is likely to be costly in terms of processing.

Accordingly, one would predict that there would be a processing disadvantage for joke texts compared to otherwise similar non-humorous texts. In a series of studies, Coulson and colleagues have provided support for this prediction. Using a self-paced reading paradigm in which sentences are presented one word at a time with the sentence's final word either determining the joke or non-joke status of the sentence, Coulson and Kutas (1998) found longer reading times for the last word of jokes. Similarly, an ERP study by Coulson and Kutas (2001) showed that joke endings elicited a larger N400 component than did non-joke endings of comparable stimuli. And in an eye-tracking study, Coulson et al. (2006) found longer overall reading times and more regressive eye movements for jokes than non-jokes. Importantly, there were no differences in first-pass reading times between jokes and non-jokes. Taken together, these studies suggest that humorous material takes longer to read and process given the re-reading (and reconceptualizing) required to integrate the punch line.

While Coulson's work clearly lends support to the view that joke comprehension can be effortful because of the frame-shifting required, it is also possible that a portion of the processing cost may arise from not knowing that one may be encountering a joke. If one were explicitly told that some of the material one will be reading may be funny, and one has to in fact monitor for humor, would there still be a processing cost associated with jokes compared to non-jokes?

This question was examined in a joke detection task devised by Vaid et al. (2015). One-liner jokes in English adapted from previous studies by Coulson were randomly intermixed with one-line non-jokes. The joke stimuli were further classified into two types: linguistic and extralinguistic bases of the humor. Linguistic humor involved wordplay of various kinds (punning, ambiguity). Extralinguistic humor relied on world knowledge. An example of a joke involving extralinguistic humor is *The difference between a good speaker and a bad one is often a nice nap.* The two types of jokes were randomly presented with non-joke counterparts created by replacing the punch line meaning with another word that rendered the sentence coherent but not funny.

Each sentence was shown individually on a computer screen, and participants were to decide as quickly as possible if it was meant to be a joke or not. The results showed that participants were more accurate in classifying jokes than non-jokes, particularly for jokes involving wordplay (91.9% vs. 71.5% accuracy, respectively). Furthermore, response times to correctly classified joke stimuli were significantly faster than those to non-jokes. Also, jokes that involved extralinguistic humor were detected significantly faster than jokes relying on linguistic humor.

The Vaid et al. (2015) study suggests that joke texts need not take longer to process than non-joke counterparts if readers are expecting to see humorous material. Moreover, the finding that jokes that make use of wordplay took longer to read than those involving extralinguistic sources of humor suggests that activation of multiple meanings (which is more likely in wordplay when the humor rests on keeping the different meanings in mind) creates interference. By contrast, extralinguistic humor is more likely to involve the punch line meaning canceling the initially salient meaning leaving only a single meaning active. Other work, using an eye-tracking paradigm, has also shown that joke texts do not have to take longer to process (Fersti et al., 2016).

Are Initially Salient Meanings of Joke Texts Suppressed Once the Punch Line Meaning Is Activated?

To examine this issue we turn to two studies that examined multiple-meaning activation in processing humorous texts. The first study also examined the time course of meaning activation (Vaid et al., 2003). In this study, a primed lexical decision paradigm was used. Participants were presented with jokes and probes that were related to the initially salient meaning of the text and probes that were related to the actual joke meaning. Participants had to decide whether or not probes were words or not. In the first experiment, probes were presented at three different time points: at the setup, incongruity, or resolution. Priming of probes related to the setup meaning occurred when probes were presented at the setup stage, as expected. Priming of both the initial and the joke meaning was found immediately after the punch line meaning was introduced, suggesting that both meanings were still active. However, when (in a second experiment), the probe was presented somewhat later to allow time to process the joke meaning, only that meaning now showed a priming effect. Thus, this study suggests that the initial meaning of a joke text is eventually suppressed and only the joke meaning survives. Interestingly, in a recent study by Fein et al. (2015), the initial meaning of the joke text persisted; there was a failure to suppress the initially salient meaning. This study used pictorial humor (a series of images). As such, it is likely that the initial meaning was still salient because it was still actually present, and part of the pleasure in the joke experience was comparing the initial meaning to the joke meaning (see also Attardo, 1997). Taken together, one may conclude from these studies that if keeping the initial meaning in mind is somehow relevant to enjoying the joke, then that meaning will remain active, whereas when the joke meaning is of a garden path type, i.e., is truly different from the initial meaning and does not require the initial meaning to be kept in mind in order to appreciate the joke, the initial meaning will be suppressed.

Mayerhofer et al. (2015) conducted a priming study involving garden path jokes. They looked at the effect of presenting a single word prime prior to the presentation of the joke text; the prime was related either to the initial meaning or the joke meaning of the text. For example, a participant would be primed with the word *diet* followed by the garden path joke, *I still have the body of an 18-year-old*. "Diet" would activate the salient meaning to be healthy, but the punch line, *It is in my cellar*, would make it difficult to suppress the *diet* meaning until the follow-up sentence is presented (e.g., *There are rats in the cellar as well*). Mayerhofer and colleagues found that ambiguous prime words presented at the setup actually slowed reaction time.

Overall, studies of humor processing have shown a range of outcomes. Part of the discrepancies across studies may reflect task demands (whether the humor is unexpected or expected), the nature of the humor stimuli (verbal vs. pictorial, linguistic vs. extralinguistic humor), the nature of the primes, and the temporal course of meaning activation. There is clearly a need for more studies of humor comprehension, supplemented with neurocognitive approaches, to better understand how meaning activation unfolds in joke processing under different conditions.

Studies of Humor Production

Compared to studies of humor appreciation or comprehension, there has been far less research on verbal humor generation, particularly under controlled conditions. This gap may in part reflect the early emphasis in the literature on studies of humor appreciation, which typically used readily available canned jokes as stimuli. A few early experimental studies that used joke telling or other humor elicitation methods (e.g., coming up with figure captions for cartoons) were by and large not designed to study cognitive aspects of humor generation but simply to compare different groups in their ability to generate humor. Studies that examine joking in conversational or performance contexts (Norrick, 1993; Vaid, 2006) offer important insights for our understanding of humor delivery and have underscored the importance of timing, repetition, prosody, and gesture.

In a recent experimental study of elicited humor, Hull et al. (2016) sought to examine the role of incongruity in humor production by means of a concept comparison task. This task was chosen as it was thought to capture a key element of humor noted in several studies of humor comprehension: that humor arises when there is a juxtaposition between a dominant and an uncommon aspect of a situation. In the study participants were to compare or contrast the meanings of pairs of discrete concepts (e.g., MONEY and CHOCOLATE). Other variables were also manipulated, including the task (finding differences or similarities between the concepts), semantic relatedness of the concepts, semantic content (neutral or taboo), gender of participants, and whether or not the instructions explicitly asked for funny responses to be generated. The actual responses generated were analyzed for their humorousness.

The findings showed that funny responses were more likely when instructions did not explicitly ask for them; they were also more prevalent for taboo than neutral items, for semantically unrelated than related items, and when the task required looking for differences rather than similarities. Furthermore, responses that were judged funny typically highlighted a property that was high in output dominance (frequency of mention) for one concept of the pair but simultaneously low in output dominance for the other concept of the pair. Responses judged not funny did not show this pattern of output dominance divergence. These findings are consistent with prior claims that humor arises when there is a bringing into alignment of a dominant interpretation of a situation (in this case, a dominant feature of a concept) and an uncommon one. For example, for the concept pair MONEY and CHOCOLATE, a response judged humorous was "one swells the wallet, the other swells the hips." This response brings into alignment a dominant feature associated with the concept money (a fat wallet) and a less dominant feature associated with the concept chocolate (large hips).

Finally, a recent line of work has examined wordplay in the use of proverbs in written discourse. Proverbs are examples of often metaphorical statements that articulate a culturally shared perspective about the human condition, expressed in the form of anonymous, self-contained, concise phrases. Mieder and Litovkina (1999) and others (e.g., Arnaud et al., 2015) have examined characteristics of rejoinders to established proverbs (or "anti-proverbs") that may challenge the received wisdom of established proverbs, based on compilations of such

non-canonical occurrences in newspaper or magazine headlines, advertisements, or graffiti or in casual conversation.

Arnaud et al. (2015) analyzed a corpus of 303 non-canonical occurrences of six English proverbs from the Corpus of Contemporary American English for occurrences of wordplay, i.e., clever and humorous formal manipulations. They noted that the vast majority of non-canonical occurrences involved noun phrase substitutions that did not change the meaning in significant ways. A subset of 32 non-canonical occurrences presented to a group of native speakers of English for their judgments showed that, to be rated as clever or humorous, some semantic manipulation of the original proverb was required; simple substitutions of noun phrases was not enough.

Moving beyond a corpus-generated approach, Vaid (2014) conducted a proverb rejoinder elicitation study. Native English speakers were given a set of 20 common proverbs and were asked to provide rejoinders to them starting either with the word "and" or the word "but." The elicited rejoinders were subsequently analyzed in terms of their correspondence in form and meaning to the original proverbs and were rated by judges on their humorousness. The optimal innovations hypothesis proposed by Giora and colleagues (Giora et al., 2004) provided a basis for predicting which responses would be given higher ratings. A structure is considered optimally innovative if it provides a novel response to a familiar stimulus, but the response still allows for the recovery of a salient response relative to that stimulus. Vaid (2014) hypothesized that optimally innovative rejoinders judged most appealing (humorous) would be those that preserve the surface form of the original proverb but replace a single element with a novel word or phrase that changes the meaning of the original proverb. The results supported this hypothesis: rejoinders judged to be humorous (particularly rejoinders that began with the word "but") were significantly more likely to resemble the original proverb in form but differ from it in meaning (e.g., *Familiarity breeds contempt, but unfamiliarity breeds bad grades; Haste makes waste, but waste makes good fertilizer*).

Taken together, these findings indicate that one important way in which humor is generated is by subtly altering the meaning of standard sayings or collocations (see also Dynel, 2009). The findings further support the claim by Hanks (2013) that "exploitation" of linguistic norms, defined as "a deliberate departure from an established pattern of normal word use" (p. 121) is a common device for generating creative and humorous discourse and is a particularly effective device, rhetorically, as it produces memorable outputs.

New Directions

As noted at the outset, studies using a psycholinguistic approach to the study of humor are still fairly few in comparison to the broader psychological literature on humor and there is thus much scope for more research. The existing research has nevertheless uncovered a number of interesting observations that will need to be substantiated in further work and extended to consider a broader range of stimuli, whether verbal or pictorial, and a broader range of paradigms and tasks. In addition, an increasing number of neuroimaging and neuropsychological studies of humor comprehension and production are emerging that complement studies that use behavioral methods. Furthermore, psycholinguistics research is beginning to investigate the effects of knowing more than one language on humor production and comprehension (e.g., Bell et al., 2014; Vaid et al., 2015).

Looking ahead, a psycholinguistic approach to the study of humor can be particularly illuminating if it is integrated with a sociological and ethnographic approach and builds in ways of studying the interaction of the social identity of interlocutors with how humor is processed. One would like to see studies, for example, of how humor processing is affected by whether the

humor producer (or the humor receiver) is a member of a dominant social or linguistic group or a marginalized group. Studies to examine the effectiveness of different forms of humor as an intervention in the classroom to promote learning, as well as the effectiveness of using (and teaching) humorous forms of resistance against social injustice would be equally interesting. Examining the interaction of humor content, the social and linguistic context in which humor is exchanged, and the cognitive aspects of processing humorous text will, we believe, lead to rich theoretical insights as well as provide a unique perspective on less studied aspects of humor.

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Neurolinguistics of Humor

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Humor plays a key role in human cognition and affect. Laughter shortens the distance between people. Humor has implications for the understanding of humorous discourse and plays a role in "emotional shifting" from a neutral or negative emotional state to a positive one (Chan, 2014). Humor softens interpersonal conflicts and helps individuals cope with the frustrations of daily life; it also affects psychological and biological activities.

1 Historical Perspective

Using brain-imaging techniques, researchers have performed empirical studies of the human brain to investigate humor from a neuroscience perspective and to learn more regarding the brain mechanisms underlying humor processing. During these years, humor research could be divided into two directions—nonverbal (e.g., visual gags) and verbal humor, according to the modality of the stimulus. Nonverbal humor (visual gags or sight gags) is any material that uses visual stimulation to convey humorous information, whereas verbal humor is that which uses verbal stimulation to make people laugh. Within the field of visual gags, most studies of humor have used visual non-verbal cartoons as humorous stimuli (e.g., Bartolo et al., 2006; Samson et al., 2008; 2009; Noh et al., 2014). A few studies have used television shows or video cartoons (e.g., Moran et al., 2004; Neely et al., 2012; Sawahata et al., 2013). In contrast, within the field of verbal humor, some researchers have used types of verbal humor differentiated according to the linguistic mechanism levels (Bekinschtein et al., 2011; Chan et al., 2012; 2013; Chan & Lavallee, 2015), and others have examined individual differences in verbal humor (Mobbs et al., 2005; Samson et al., 2009).

Functional magnetic resonance imaging (fMRI) techniques and non-invasive brain imaging instruments have allowed researchers to investigate the brain mechanisms of humor more efficiently. The process of comprehending and appreciating humor takes longer than milliseconds (ms), so many of these studies have relied on fMRI using spatial resolution (e.g., Goel & Dolan, 2001; 2007; Mobbs et al., 2003; Chan et al., 2012; 2013; Chan & Lavallee, 2015). In earlier studies of the brain mechanisms of humor, it was assumed that humor is processed in particular brain areas. In these studies, participants were recruited among patients with brain injuries (e.g., Gardner et al., 1975; Brownell et al., 1983; Winner et al., 1998; Shammi & Stuss, 1999; Brownell &

Stringfellow, 2002) or from clinical cases (e.g., Marjoram et al., 2006; Reiss et al., 2008; Kana & Wadsworth, 2012). Recently, there have been more fMRI studies of humor processing in healthy individuals (e.g., Goel & Dolan, 2001; Mobbs et al., 2003; Chan et al., 2012; 2013). Additionally, some humor studies have presented their data from electroencephalography (EEG) (e.g., Coulson et al., 2001; 2007; Coulson & Williams, 2005; Coulson & Wu, 2005; Du et al., 2013; Y. J. Feng et al., 2014; Manfredi et al., 2014; Papousek et al., 2013) or magnetoencephalography (MEG) (e.g., Marinkovic et al., 2011). However, few studies have used invasive techniques, such as positron emission tomography (PET) (e.g., Iwase et al., 2002), to investigate the neural circuits associated with humor processing. Through the arrangement of humor structures and techniques, humor can evoke a psychological representation process (comprehension and appreciation) and thereby elicit a behavioral response or action (laughing) (Chan, 2015; 2016). The humorous stimuli used in research are generally classified as verbal (e.g., jokes) or non-verbal (e.g., cartoons), and the responses to these stimuli are analyzed using fMRI, EEG, MEG, and PET.

2 Core Issues and Topics

2.1 Theories of Humor

2.1.1 General Theory of Verbal Humor (GTVH)

Language is the critical tool for conveying humorous messages. Therefore, to explore humor processing one should start out with the linguistic perspective. Among the linguistic theories of humor, the leading ones are Raskin's Semantic-Script Theory of Humor (SSTH) and its revision, the General Theory of Verbal Humor (GTVH), by Raskin and Attardo. The SSTH contains the opposition (e.g., actual/non-actual, normal/abnormal, and possible/impossible) and overlapping of two scripts (Raskin, 1985). Next, Attardo and Raskin (1991) extended and modified the original SSTH and then proposed the GTVH, which provides perhaps the most comprehensive attempt to identify and categorize different types of verbal humor. Using a linguistic approach, the GTVH divides humor into six knowledge resources (KRs): Script Oppositions (SO), which is similar to the original SSTH; Logical Mechanism (LM), which is related to humor techniques; Situations (SI), which are related to the characters in and scenario of the joke; Targets (TA), which represent the victim that probably appears in the joke; Narrative Strategies (NS), which are related to the joke format (e.g., dialog, riddle, or story); and Language (LA), which conveys the joke. The GTVH assumes that humor is induced by the simultaneous presentation of two incompatible scripts, which differs from the incongruity-resolution model, in which humor is induced after the incongruity is resolved. Attardo et al. (2002) further attempted to provide a taxonomy for the different types of logical mechanisms known to be required for humor comprehension, including inferring consequences, juxtaposition, exaggeration, role exchanges, and faulty reasoning.

In addition to the linguistic theory of humor, in previous studies of humor, researchers have attempted to segregate cognitive processing (comprehension) from affective processing (appreciation) in the neurolinguistics of humor (e.g., Goel & Dolan, 2001; Chan et al., 2012; 2013). These studies have divided humor processing into two major components: a cognitive component and an affective component. The cognitive component of humor refers to reading verbal jokes (i.e., the experience of incongruity after reading the punch line but eventually understanding it by re-interpreting the entire joke) (Brownell et al., 1983). The affective component of humor refers to the process of enjoying a joke and experiencing amusement or mirth after understanding it (Shammi & Stuss, 2003).

2.1.2 Tri-component Theory of Humor

Chan (2015; 2016) further claimed that humor processing is composed of three components and that the observationally explicit response, laughter, should be segregated from the affective component (an implicit psychological process). Therefore, Chan has proposed the Tri-component Theory of Humor, which is also known as the "Model of Humor Processing: Cognition, Affect and Laugh (CAL model)." The Tri-component Theory of Humor assumes that humor processing is composed of the following factors: (1) humor comprehension, the cognitive process that includes incongruity and resolution; (2) humor appreciation, the affective process that refers to the amused emotional state that occurs after getting a joke; and (3) humor expression, the laughter process that is associated with the mirth response that occurs after appreciating humor, or the action of mirthful laughter. The affective component refers to having fun with a joke and experiencing amusement and is an implicit psychological representation. The laughter response refers to the direct and explicit physical reaction; the risorius muscles move. This behavior is observational; it is how the affective component and the laughter response differ. Humor results in laughter; occasionally, however, laughter is an explicit behavioral response. Individuals can enjoy humor (affective process) without the laughter response (Berlyne, 1972). The insight process and laughter response are different because the insight process leads to the "A-HA!" moment, after eliminating the inconsistency and resolving the problem; the laughing response is the observational behavior of "HA-HA," which occurs after resolving a joke. Thus, summing up, Chan and Lavallee (2015) and Chan (2015; 2016) maintained that the "Tri-component Theory of Humor" assumes that humor contains three components: the cognitive, affective, and expressive components.

2.2 The Neural Substrates Underlying Processing of Verbal Humor

2.2.1 Three-Stage NCM Model: Incongruity, Resolution, and Appreciation

Earlier fMRI studies of humor have focused on segregating cognitive from affective processing (Goel and Dolan, 2001; Moran et al., 2004; Bartolo et al., 2006). These studies have used a funny condition and an unfunny condition as stimuli. However, such comparisons of funny and unfunny conditions have not been able to fully distinguish the neural correlates of humor processing into cognitive and affective components. Therefore, Chan and her colleagues (2012) used a different design to attempt to segregate cognitive and affective processing by comparing three conditions: funny, unfunny, and garden path sentences. Next, Chan and her colleagues (2013) employed an experimental design to identify the neural substrates related to humor cognitive processing by comparing three conditions: funny (incongruity-resolution), unfunny (congruous; the baseline condition), and nonsensical (irresolvable incongruous). Finally, Chan et al. (2012; 2013) sought to further specify a three-stage neural circuit model (NCM) of verbal humor processing, which includes incongruity detection and resolution (cognitive processing) and humor appreciation (affective processing).

Chan and her colleagues (2012) distinguished between cognitive and affective components in humor processing through comparing fMRI results of funny, unfunny, and garden path sentences. Garden path sentences, also known as ambiguous sentences, refer to sentences that typically mislead readers in their first reading, leading to a semantic dead end (i.e., incongruity). Readers are then required to resolve this incongruity by re-reading the sentence to construct a reasonable interpretation. Reading garden path sentences causes incongruity resolution but involves no obvious humor reaction. Unfunny sentences are normal sentences that cause neither

incongruity resolution nor humor reactions. According to the results, humor processing can be divided into two stages: identification (of the incongruity between punch line and bridging sentence) and resolution (establishing the unexpected distant coherence between the two). By comparing garden path sentences and unfunny ones, the cognition of humor comprehension can be found; by comparing funny ones and garden path ones, the affectivity of humor processing is found. When comparing garden path ones and unfunny ones, the frontal lobe is found to play a key role in humor comprehension, which is especially associated with the bilateral inferior frontal gyri (IFG) and the left superior frontal gyrus (SFG). These regions are associated with semantic comprehension, semantic choices, and semantic integration (Chan et al., 2012). When comparing funny sentences and garden path sentences, it is found that the cortex and subcortical networks play important roles in humor appreciation, which is especially associated with the left ventral medial prefrontal cortex (vmPFC), the bilateral amygdale, and the parahippocampal gyri. These regions are associated with reward systems, such as secretion of the neurotransmitter dopamine, transmission of affective feelings, and activation of reward loops and thus pleasant emotions (Chan et al., 2012).

Such studies have successfully distinguished the comprehension (incongruity resolution) of humor from the affective feelings of humor, and so the distinction between incongruity and resolution is being addressed. Chan and her colleagues (2013) used fMRI with funny, unfunny, and nonsensical sentences to distinguish between incongruity and resolution. Nonsensical sentences refer to sentences that cause readers surprise or incongruity but do not lead to resolution in the context, leaving the readers perplexed. Incongruity can be found when comparing nonsensical and unfunny sentences. The study shows that the right middle temporal gyrus (MTG) and right medial frontal gyrus (MFG) identify incongruity. These regions are in charge of semantic conflict detection and storage of semantic messages. Resolution is found when comparing funny and nonsensical sentences. It has been shown that the left SFG and the left inferior parietal lobule (IPL) control resolution. These regions are in charge of semantic comprehension and integration (Chan et al., 2013).

Chan and her colleagues (2012) first distinguished humor-identifying and affective components of humor, and then they distinguished incongruity and resolution (Chan et al., 2012; 2013). It is thus concluded that the right MTG and the right MFG are in charge of the first stage of humor, incongruity. These regions control semantic conflict detection and storage of semantic messages. Next, the left SFG, the bilateral IFG, and the left IPL master the resolution processing. These regions command semantic comprehension and integration. Finally, pleasant affective feelings are associated with vmPFC, bilateral amygdala (AMG), and bilateral parahippocampal gyri (PHG). Therefore, the three-stage processing of humor involves the neural circuits of the left and the right brain, the cortex, and subcortical networks (Chan et al., 2012; 2013).

Shibata and his colleagues (2014) adopted Chan et al.'s (2012; 2013) three-stage NCM model and manipulated the material to avoid interference by fMRI. The findings provided brain image data to support Chan et al.'s theory. Shibata et al. (2014) studied the three-stage cranial nerve mechanisms. To avoid interference, the researchers performed a robust manipulation of materials. In funny and unfunny conditions, the first two setup sentences and the key sentence are the same, while only the third setup sentence differs. The study shows that the punch line in the funny condition amuses people and is associated with the bilateral IFG, middle frontal gyrus (MFG), middle temporal gyrus (MTG), temporo-parietal junction (TPJ), inferior parietal lobule (IPL), left SFG, and left temporal pole, which are associated with nerve networks related to language and semantic activities. Additionally, associations are found in mesolimbic reward regions (the bilateral midbrain and left lentiform nucleus), which are related to positive rewards. This whole brain analysis again confirms the NCM proposed by Chan et al. (2012; 2013). In

contrast, psychophysiological interactions (PPI) analysis suggests linguistic and semantic brain regions such as the IFG, MTG, superior temporal gyrus (STG), SFG, and IPL are associated with humor comprehension, whereas the right MTG, left IPL, and IFG are shown to have enhanced connectivity with the midbrain.

Based on Chan et al.'s three-stage NCM theory, Y.J. Feng and her colleagues (2014) further used the event-related potential (ERP) technique to examine the electrophysiological evidence for the three-stage NCM theory. S. Feng et al. (2014) studied humor processing using EEG and examined the instant changes in cortical activation during incongruity detection, incongruity resolution (humor comprehension), and elaboration (humor appreciation) of humor (Chan et al., 2012; 2013). The stimuli in the experiment were 90 question/answer-type statements (including setups and punch lines). The setups were manipulated to produce jokes (involving incongruity detection, incongruity resolution, elaboration of humor), non-jokes (involving only incongruity resolution), and non-coherent sentences (involving only incongruity deletion). The results of the experiment show that non-coherent sentences elicit the most negative ERP deflection (N400) between 350 and 500 ms, with jokes falling behind, and non-jokes eliciting the least negative ERP deflection, which possibly means the N400 of jokes (usually reflecting semantic integration) might be associated with incongruity detection. Jokes elicit positive ERP deflection (P600) between 500 and 700 ms, and non-coherent sentences elicit the least positive ERP deflection. As positive ERP deflection reflects reanalysis of sentence structure, jokes are possibly associated with incongruity resolution. In the end, compared to non-coherent sentences, jokes constantly elicit greater late positive potential (LPP, 800 to 1500 ms), which is often elicited by emotional relevance, so it can be inferred that it might be associated with the positive feelings that accompany the elaboration of humor. In sum, N400, P600, and LPP can serve as indices for the three stages in the NCM model (Chan et al., 2012; 2013).

Marinkovic et al. (2011) used MEG technology to study the cranial activity stimulated by three types of material: funny, congruous (not funny), and incongruous (nonsensical) sentences. The results show that the funny condition between 700–1150 ms brings the largest posterior P600 in the anterior medial prefrontal cortex (amPFC) and right dorsolateral prefrontal cortex (dlPFC) compared to congruous and incongruous endings. These brain regions are associated with reprocessing after the identification of semantic incongruity between the setup and punch line and establishing the unexpected distant semantic coherence between the two. According to the results, it is inferred that humor processing can be divided into two stages: identification (of the incongruity between punch line and bridging sentence) and resolution (establishing the unexpected distant coherence between the two). The findings support Chan et al.'s (2013) NCM model, which includes incongruity detection and resolution in humor comprehension.

These studies provided brain findings by EEG, MEG, and fMRI techniques that support the NCM model. Because the three stages of humor processing in incongruity detection, resolution, and humor appreciation may be affected by various variables of humor stimuli and characteristics of readers, the structure of humor and individual differences should be taken into consideration.

2.2.2 Identifying and Categorizing Different Types of Verbal Humor

Words as media and verbal humor function through different linguistic mechanisms to achieve the purpose of amusing people. Different language structures lead to different comprehension processes and thus different appreciation of humor or feelings about it. To probe into how humor structures affect comprehension and appreciation, Goel and Dolan (2001), Bekinschtein

et al. (2011), and Chan and Lavallee (2015) used different categorizations of humor structures to approach the subject.

Goel and Dolan (2001) first used funny riddles to separate the cognition and affectivity stages of humor processing by fMRI techniques. Their study compares semantic funny riddles (complex incongruity and resolution) and verbal funny riddles (simple puns based on pronunciation) with non-humorous material as a control group. The fMRI results show semantic funny riddles are mainly associated with the bilateral posterior middle temporal gyri (pMTG) and the left posterior inferior temporal gyrus (pITG), whereas verbal ones are associated with the left pITG and the left inferior frontal gyrus (IFG). The left pITG and left IFG have a positional correlation with the funniness level of jokes, suggesting that these regions are in charge of pleasant feelings and reward modification.

The incongruity of the punch line determines whether readers find a joke amusing. Incongruity is as an essential component of humor (Shultz, 1976), and it plays with language in many ways. Verbal jokes often use linguistic ambiguity to create incongruity (Chan & Lavallee, 2015). The technique of ambiguity is commonly found in verbal jokes (Bekinschtein et al., 2011). It means that a word or a sentence has two or more meanings; the humorous words work at different levels of the language. Linguistic ambiguity is usually used. Readers feel humor through disambiguation. Therefore, in the process of reading a joke, people understand the joke through a cognitive process of disambiguation, which is accompanied by the affective experience of enjoying the joke (Moran et al., 2004; Chan & Lavallee, 2015). The technique of ambiguity is most common, and this technique is also a foundation of using humor. In addition, there is verbal ambiguity, on which Bekinschtein and his colleagues (2011) focused. Of the various linguistic approaches, cognitive linguistics is the best and strictest method of interpreting humor processing because of its focus on the form and function of linguistic items and on the semantics of linguistic construction (Bergen & Binsted, 2003). Verbal humor is of interest to linguists, and it is understood that it is produced through language (e.g., Attardo & Raskin, 1991; Attardo, 1994). However, the use of linguistic ambiguity does not always trigger an atmosphere of amusement. Researchers are now paying close attention to the interaction between the neural substrates of "ambiguity" and "funniness."

Bekinschtein and his colleagues (2011) thought that ambiguity does not necessarily lead to humor. Therefore, their study investigated the relationship between semantic ambiguity and humor by using the following materials: (1) ambiguous sentences (AS) in which critical content words have multiple meanings, (2) matched unambiguous sentences (US), (3) ambiguous jokes (AJ), (4) low-ambiguity jokes (UJ), and (5) signal-correlated noise. The fMRI results show the main effects of ambiguity appear in the anterior inferior frontal gyrus (aIFG) and posterior IFG (pIFG). These regions are related to semantic processing of language comprehension. The main effects of humor appear in the anterior inferior frontal gyrus (aIFG) and posterior IFG (pIFG), which are related to dopamine reward processing. Finally, the interactions of ambiguity and humor appear mainly in the aIFG.

Additionally, Samson and her colleagues (2009) attempted to provide a taxonomy of the different known types of logical mechanisms in humor. They used visual cartoons (non-verbal humor) including incongruity-resolution and nonsense humor and adopted correlation analysis of blood-oxygen-level dependent (BOLD) signal changes with the level of experience seeking. The results indicated that experience-seeking scores correlate positively with the prefrontal and posterior temporal regions and the hippocampus. This is due to experience seekers needing to explore humorous stimuli intensively when searching for novel mental stimulation. Moreover, experience-seeking scores relate to the BOLD signal of nonsense stimuli rather than that of

incongruity-resolution stimuli. This finding confirmed the behavioral result wherein experience seekers prefer nonsense humor over incongruity-resolution humor.

2.2.3 Identifying and Categorizing Different Types of Verbal Humor: Based on the Tri-component Theory of Humor

Based on the tri-component theory of humor processing, Chan and Lavallee (2015) probed into incongruity resolution according to logical mechanisms (the cognitive "rule" or process—e.g., role exchange, analogy, juxtaposition—that is implemented to resolve a joke's incongruity) as suggested by Attardo et al. (2002) by using fMRI techniques. Their study explored the neural correlates of the cognitive processes required to successfully comprehend three joke types: bridging-inference jokes (BJs, referencing the joke's need for backward inferences with bridging implications, linking a referring expression to an intended referent that is neither present in the setup nor mentioned in the ongoing punch line but that is nevertheless inferentially identifiable), exaggeration jokes (EJs refer to an element of a script that is rendered unusually salient by exaggerating its size or other characteristics), and ambiguity jokes (AJs refer to jokes involving incongruities of multiple meanings and requiring disambiguation to resolve these incongruities). BJs are jokes that only present consequences but require inference to get; therefore, a reader cannot understand the whole meaning when reading the punch line until he or she makes a backward inference between setup and punch line and successfully gets the gap-filling inference. During this process, readers would feel confused or nervous when reading BJs for the first time. Upon getting the gap-filling inference and successfully resolving the incongruity, they would feel released and regulate their affect, finally eliciting the amusement feeling. EJs are jokes with certain elements being exaggerated, which leads to conceptual incongruity. Hence, a reader would perceive the exaggerated part and try to find out the reason why the part is exaggerated or distorted, mostly with irony regarding certain characters or events of the EJ finally producing the funny feeling. AJs are jokes that present two scripts at the same time and lead to language incongruity. A reader would discover the language incongruity and try to make an explanation for these two scripts. For examples and the tri-component model of joke types in bridging-inference, exaggeration, and ambiguity jokes, see Table 20.1.

The fMRI results show a type-funniness interaction in the right MFG (BA 8) and left posterior cingulate cortex (PCC, BA 31), indicating that joke type (bridging-inference, exaggeration, or ambiguity) and funniness (joke/non-joke) evoked different responses. For all joke types, the left dlPFC appeared to support common cognitive mechanisms, such as schema-shifting, whereas the ventral anterior cingulate cortex (vACC) was associated with common affective appreciation. The dlPFC may play a key role in this process of script shifting (Uekermann et al., 2007). The vACC has been found to play a role in affective mechanisms for joke appreciation and the feeling of amusement.

In addition, the temporo-parietal lobe (TPJ and MTG) was associated with bridging-inference jokes, suggesting the involvement of these regions in "theory of mind" (ToM) processing. The fronto-parietal lobe (IPL and IFG) was associated with both exaggeration jokes and ambiguity jokes, suggesting that it supports executive control processes such as retrieval from episodic memory, self-awareness, and language-based decoding. The social-affective appreciation of verbal jokes was associated with activity in the orbitofrontal cortex (OFC), amygdala, and PHG.

Chan and Lavallee (2015) found that during incongruity detection, MTG activation was particularly associated with bridging-inference jokes, whereas frontopolar cortex (MFG, BA 10) activation was associated with exaggeration jokes and ambiguity jokes. Incongruity resolution was associated with bilateral TPJ and right MTG activation for bridging-inference jokes, whereas bilateral IPL and bilateral IFG activation were associated with exaggeration jokes and ambiguity jokes.

Table 20.1 Examples and the three-stage model of jokes for bridging-inference, exaggeration, and ambiguity jokes

Type of joke	*Joke*		*Tri-Component Theory of Humor*			
	Setup	*Punch line*	*Humor comprehension*		*Humor appreciation*	*Laughter*
			Incongruity	*Resolution*		
Ambiguity jokes (AJs)	A postman limped into the post office, with his pants bitten into pieces. The post officer asked him what happened. He replied, "A big yellow dog just jumped out from nowhere and bit at my ankle when I was delivering the mails." The post officer asked, "Did you apply something to the ankle?"	The postman answered, "No, I guess he didn't like any dressings."	A word in the joke contains two or more than two meanings.	Forward inference to get disambiguity	Disambiguation under social bonding	Resolve the ambiguity of multiple meanings.
Exaggeration jokes (EJs)	On a holiday, a wife and a husband were getting ready to go out shopping. The wife said, "I've put on my makeup, and it's time to go out now." The husband said, "Don't you see I'm shaving my beard?" The wife replied, "But you'd shaved your beard before I wore my makeup, hadn't you?"	The husband said, "My beard just grew after you did your makeup."	The meaning of the joke is distorted or the normal proportion is exaggerated.	Forward inference	Linking reward to the ironic	Understand the reason for the exaggerated part and get the meaning, which involves irony.
Bridging-inference jokes (BJs)	On New Year's Eve, Peter wanted to greet the New Year with some pizzas and movies at home. He then ordered a big pizza in the restaurant downstairs. After the pizza was baked, the clerk asked him, "Sir, how do you like to cut your pizza, in four or eight pieces?"	Peter answered, "Four. How could I finish eight pieces?"	The inferring expression isn't contained in the joke.	Backward inference and bridging implication	Affect regulation	Successfully make gap-filling inferences.

Portions of this table were adapted from Chan and Lavallee (2015) and Chan (2016).

In summary, the brain areas involved with comprehension of a verbal joke are the inferior frontal gyrus (IFG), inferior temporal gyrus (ITG), middle temporal gyrus (MTG), and inferior parietal lobule (IPL), which are responsible for detecting incongruity and resolution. The brain areas associated with appreciating a verbal joke are the amygdala, midbrain (ventral tegmental area, VTA), ventral striatum (VS, e.g., nucleus accumbens, NAcc), ventromedial prefrontal cortex (vmPFC), orbitofrontal cortex (OFC), parahippocampal gyrus (PHG), and ventral anterior cingulate cortex (vACC), which are involved in affective feelings. After humor appreciation and the happy feeling, an observable response (laughter) is associated with activation of the left supplementary motor area (SMA, BA 6). Every type of verbal joke has a corresponding brain region that is involved in the process of understanding a joke; disambiguation jokes activate the brain areas of the inferior frontal gyrus (IFG), similar to the mechanism of semantic selection involved in neurolinguistics. Exaggeration jokes are used to understand the semantic distortion and exaggerated expression of irony; these jokes are mainly activated in the inferior parietal lobule (IPL) brain areas. In bridging-inference jokes, the intention of the lead role is filled through backward inference, and the joke is understood by filling in the gap; these jokes activate the temporoparietal junction (TPJ) area. Moreover, phonological jokes induce a response in the inferior temporal gyrus (ITG) and inferior frontal gyrus (IFG) brain areas, whereas semantic jokes trigger reactions in the middle temporal gyrus (MTG) and inferior temporal gyrus (ITG) areas of the brain.

Based on the tri-component theory of humor, humor processing is composed of humor comprehension, humor appreciation, and humor expression. The neural correlates of different types of jokes in humor processing are as follows.

(A) Humor comprehension (incongruity and resolution)

Common cognitive mechanisms: dorsolateral prefrontal cortex (dlPFC): schema shifting

1. Ambiguity jokes: inferior frontal gyrus (IFG): disambiguation
2. Exaggeration jokes: inferior parietal lobule (IPL): sociolinguistic shifting
3. Bridging-inference jokes: temporo-parietal junction (TPJ): theory of mind (ToM)
4. Phonological jokes: inferior temporal gyrus (ITG) and inferior frontal gyrus (IFG)
5. Semantic jokes: middle temporal gyrus (MTG) and inferior temporal gyrus (ITG)

(B) Humor appreciation (amusement)

Common affective mechanisms: ventral anterior cingulate cortex (vACC)

1. Cortical regions: ventromedial prefrontal cortex (vmPFC) and orbitofrontal cortex (OFC)
2. Subcortical regions: amygdala, nucleus accumbens (NAcc), ventral tegmental area (VTA), midbrain, ventral striatum (VS), and parahippocampal gyrus (PHG)

(C) Humor expression (laughter): supplementary motor area (SMA)

2.3 Exploring Humor Processing in Terms of Individual Differences

2.3.1 Sex/Gender Differences of Humor Processing

Within the field of individual differences in humor research, sex/gender differences are explored by some researchers. Related studies have suggested that females prefer to recruit left-lateralized emotion and language processing and that males tend to use right-lateralized visual-spatial processing (Lefcourt et al., 1990; Allen & Gorski, 1991; Henman, 2001). The findings have

elucidated sex/gender differences in the processing of different types of information. Humor is a high-order process that needs to integrate multiple inputs simultaneously. Therefore, recent studies have explored sex/gender differences in pictures and verbal humor at the neural level.

Kohn and his colleagues (2011) studied the neural mechanisms of processing funny pictures between males and females by using fMRI techniques. The findings showed that females have greater activation in the ventral system, including the amygdala, insula, and anterior cingulate cortex (ACC), when processing funny pictures. The ventral system relates to emotion awareness and evaluative processing. Males have greater activation in the ventral and dorsal processing systems when processing funny pictures. The ventral and dorsal processing systems correlate with executive control. The findings suggest that females tend to process humor through limbic reactivity, whereas males prefer to process humor through evaluative executive resources.

In addition to picture stimuli, Azim and his colleagues (2005) studied the neurobiological correlates of verbal and nonverbal humor between males and females with fMRI techniques. The finding showed that females activated the left PFC, including the left IFG and left MFG, greater than males did when processing humor (including verbal and nonverbal humor). These brain regions relate to working memory, mental shifting, verbal abstraction, executive control and irrelevance screening. It was suggested that females need to recruit left-lateralized regions to store, implicate and compare related components when understanding humorous stimuli.

Based on the tri-component theory of humor processing, Chan (2016) attempted to identify differences among joke types and between sexes/genders in the neural mechanisms underlying humor processing of three types of verbal jokes: ambiguity jokes (AJs), exaggeration jokes (EJs), and bridging-inference jokes (BJs). These findings indicated significant differences in neural correlates for the interaction between gender/sex and joke type. When processing BJs involving backward inference, females have greater activation than males in the temporoparietal-mesocortical-motor network composed of the temporoparietal junction (TPJ), the orbitofrontal cortex (OFC), and the supplementary motor area (SMA). The TPJ is related to "theory of mind" (ToM), the OFC is related to reward coding, and the SMA is related to laughter response. When processing EJs, females have greater activation than males do in the frontal-mesolimbic network associated with the anterior (frontopolar) prefrontal cortex and the amygdala and midbrain. The anterior (frontopolar) prefrontal cortex correlates with executive control processes, and the amygdala and midbrain relate to reward anticipation and salience processing. Conversely, males showed greater activation than females in the frontal-paralimbic network associated with AJs, including the dorsal prefrontal cortex (dPFC) and parahippocampal gyrus.

2.3.2 Personality Traits in Humor Appreciation

According to the literature on personality traits, extroversion and neuroticism would have different effects on emotion reactions (Costa & McCrae, 1980; Ruch & Decker, 1993; DeNeve & Cooper, 1998; Cann & Calhoun, 2001). Therefore, personality traits may affect humor processing disparately. Mobbs and his colleagues (2005) explored the relationships among BOLD signal changes from cartoons and extroversion, introversion, and neuroticism. The results indicated that the level of extroversion correlates positively with BOLD signals in the right orbital frontal cortex (OFC), ventrolateral prefrontal cortex, and bilateral temporal cortices. Emotional stability (contrary to neuroticism) relates positively to the mesocortical–mesolimbic reward circuitry. OFC reflects the involvement of reward processing, receiving ascending dopamine (DA) projections from the ventral tegmental area, and the representation of stimulus reward value.

3 New Debates

Studies of the neural correlates of humor and jokes (from the perspective of linguistic theory) provide some interesting areas of investigation such as sight gags, phonological jokes, and verbal humor. The understanding of verbal humor relies on semantics, inferential working memory, and emotional contributions from multiple brain regions. Additionally, patient studies have shown that patients with right-brain lesions, specifically in the frontal lobe, have difficulties with humor comprehension (Shammi & Stuss, 1999). Neuroimaging studies of the linguistic processing of verbal humor have indicated major involvement of the left hemisphere in humor comprehension (e.g., Bekinschtein et al., 2011; Chan et al., 2012). Further experimental research is suggested to investigate the brain lateralization of verbal joke processing. In addition, based on the "tri-component theory of humor," different types of verbal humor, including semantic ambiguity, exaggeration, and bridging-inference jokes, were manipulated in the experiment to provide critical evidence of neural mechanisms in the interaction between joke type and funniness (Chan & Lavallee, 2015). Additionally, previous fMRI studies have shown that the neural correlates of humor appreciation are different for females and males (Kohn et al., 2011; Azim et al., 2005; Chan, 2016). However, much more needs to be known regarding the neural correlates of comprehension, apprehension, and laughter in different humorous content (e.g., sexual jokes and hostile jokes). There is a continuing need for an adequate theoretical and empirical basis for the neural correlates of humorous content. Likewise, in recent years, increasing attention has been focused on gelotophobes who fear being the target of laughter. Future studies could focus on investigating humor motivation processes, identifying the neural substrates in gelotophobes and non-gelotophobes associated with humor appreciation for different joke types and their corresponding non-joke baseline.

Acknowledgments

This research was supported by the "Aim for the Top University Project" of National Taiwan Normal University (NTNU). In addition, this research was also supported by the "Identifying the Neural Substrates of the Ambiguity-Humor Interaction: An fMRI Study" project at National Tsing Hua University (NTHU), sponsored by the Ministry of Science and Technology in Taiwan (NSC 102–2410-H-007–072) and partially supported by the "The Neural Correlates of Humor Appreciation and Coping of Gelotophobes: An fMRI Study" project at National Tsing Hua University (NTHU), sponsored by the Ministry of Science and Technology in Taiwan (MOST 104–2410-H-007–022).

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21

Conversation Analysis of Humor

Phillip Glenn and Elizabeth Holt

Introduction: Humor and the Sequential Organization of Interaction

We begin this chapter by acknowledging a contrarian stance. In the conversation analytic (henceforth CA) research tradition reviewed here, humor is not a used, or indeed a particularly useful, analytic category. Obviously "humor" is a folk category, and participants may occasionally use it to gloss an interactional event (for example, "that conversation was humorous"). However, for the project of CA (described in the section "Historical Perspective") the term *humor* represents a *typification* (see Heritage, 1984, pp. 144–150) of events in interaction, an abstract category that is insufficiently specific for describing social actions and sequences or the visible orientations of the participants. Where employed in CA it is generally used as an initial, loose gloss of interactive sequences (Heinemann, 2009; Kaukomaa et al., 2013), which may be further elucidated by detailed analysis of recurrent patterns. For this reason, CA studies of conversational phenomena that one might associate with humor have proceeded more or less independently from pragmatics studies that embrace the concept of humor in interaction.

But that is not to say that CA is irrelevant in the academic pursuit of discovering more about the nature of humor in interaction. CA studies provide detailed analysis of actions and sequences in which humor occurs and how, within these, social actors use it to do whatever they may be doing. Most centrally, the analyses evident in a substantial body of CA studies of laughter attend to how participants occasion, create, and respond to what might readily be thought of as humorous materials without explicitly engaging the concept of humor. CA research that has shed light on related phenomena such as joking, teasing, playfulness and non-seriousness can inform humor studies. Thus, for example, Schegloff (2001) investigated playful sequences that are followed by a turn-initial "no" and a return to serious talk. He identified irony and hyperbole in these non-serious sequences, but argued these are not always non-serious in terms of their import for the action in progress. Rather, both the participants and the analysts need to consider each case individually to identify its contribution to the action in progress. Furthermore, recent CA studies of laughables draw on linguistic and pragmatic concepts in making sense of turns seemingly built to make recipient laughter relevant.

We will have more to say about each of these points in the pages that follow. We begin by reviewing the origins of CA, its central commitments, and key studies in its development. We review core CA findings that explicate humor-like phenomena: laughter, laughables, serious/not-serious actions, possibly humorous sequences such as teasing, flirting, and joke telling, and humor in primarily nonhumorous activities such as political debates, business meetings, medical examinations, and family talk about cancer. In a sample analysis we will demonstrate CA methods, making observations about how humorous features work in their sequential environment. We will argue that CA and humor scholars should take advantage of the opportunity to connect these literatures while building more comprehensive accounts of how humorous linguistic and nonverbal devices work in social interaction. Thus we close not with a contrarian stance but a call for scholars in CA and humor studies to learn from both traditions and consider ways that each can inform the other.

Historical Perspective

CA was deeply influenced by the foundational work of sociologist Harold Garfinkel (1967), who took interest in understanding the social order as it arises in and from the ways participants organize and account for their actions. He coined the term *ethnomethodology* to name the study of people's methods for accomplishing the structure and order of everyday life. Harvey Sacks turned to talk as a locus of social order that could be studied formally. Along with colleagues Emanuel Schegloff and Gail Jefferson, Sacks began working with recorded interactions, creating detailed transcripts capturing not only words but also non-speech sounds, paralinguistic details, and temporal features such as pauses and overlaps. (As video recording equipment became increasingly available, CA studies increasingly took up the transcription and analysis of visual features of face-to-face interactions.) From repeated listening to recordings and studying transcripts they began producing analyses of single instances of sequences of talk. Foregrounding description over theory-building, they sought to develop a formal, analytic vocabulary that would allow access to participants' displayed, in-the-moment understandings and methods for creating accountable actions and social order.

From this early research, CA has developed a robust and growing collection of studies that are cumulative yet distinctive in methodology and findings from other social scientific traditions (see recent overviews, e.g., Schegloff, 2007; Sidnell, 2010). Heritage (1984, pp. 241–244) characterized three core principles that underlie CA studies:

1. Interaction is orderly, and participants create and orient to its inherent structure;
2. Ongoing interaction both *shapes* and *renews* context, with each turn displaying a sense of what is going on and setting the stage for what happens next;
3. These two properties are evident in the smallest details of talk; thus, no detail can be assumed a priori to be disorganized or irrelevant.

Central to CA is an action-based conception of meaning: what an utterance means is what it is doing, in the sequential context in which it arises. Thus analysis must reflect participant orientations to what is going on at any moment. That is, to use a term like *repair* to describe a sequence requires showing evidence that this is a reasonable gloss for what the persons creating the talk are doing, reflected in how they organize the talk. This is not to deny the role of language as an abstract system for carrying meanings forward across times and persons but rather to emphasize how people in actual situations use specific language and other communicative signals to create understandings and get things done in the moment.

The insistence on using recordings and transcripts is intended to keep the analysis grounded as closely as possible in the raw data of social life—actual interaction. In this regard it is also important to note what CA studies do *not* rely on: interviews, surveys, participants' self-reports, experiments, etc., all of which represent glosses or abstractions further removed from what is going on (However, there are CA studies of interviews and other data-gathering activities *themselves* as instances of language use in social interaction, e.g., Maynard et al., 2002). CA studies further avoid making mentalistic claims about participants' attitudes, intentions, and thoughts—except as the participants may make these available to each other in and through their conduct in the moment. Analysis proceeds inductively, documenting the order evident in single instances, and then building collections of recurrent phenomena that show both consistent features and case-by-case variations.

These core commitments help explain why humor (or concepts central to the linguistic study of humor such as "irony") appears rarely in CA research. From a CA perspective, *humor* represents a conceptual category but not a social action.[1] Furthermore, labeling something as an instance of humor may reflect the analyst's judgment but not necessarily the orientation of the participants to what is going on. Much more common is a focus on laughter, and we will begin the next section reviewing key developments in CA studies of laughter and laughables. Studies of related phenomena such as jokes and teasing are also reviewed in this chapter.

In brief, the assumptions and commitments that characterize ethnomethodological CA give it great power as a coherent field of study while bracketing it from other social scientific research traditions. The use of recordings and transcripts as primary data, the insistence on documenting evidence for analytic claims in participant's displayed orientations, and the resistance to psychologizing or imposing analyst's interpretations all serve to limit what CA can say about humor per se while greatly enhancing what it can tell us about how people go about organizing their social interactions—which routinely involve "humorous" elements.

Core Issues and Topics

Laughter

Given the perceived close relationship between laughter and humor, research on laughter is likely to be highly relevant, and there is a large body of CA research on laughter. Humor scholars have sometimes used the presence of laughter as the basis for collecting instances of humorous talk (for example, Ervin-Tripp & Lampert, 2009). However, CA research demonstrates that laughter in interaction is not simply or necessarily a reaction to the presence of humor (Glenn, 2003) but serves as an action in its own right—used, e.g., to mitigate a potentially problematic contribution (Shaw et al., 2013) or laugh off a trouble (Jefferson, 1984). Consequently, although laughter does often indicate the presence of possibly humorous materials, each case needs to be analyzed independently and other factors taken into consideration.

In contrast to humor, laughter is more clearly identifiable in interaction; as a term, it more readily names a specific action.[2] It has long drawn the interest of conversation analysts. Jefferson pioneered the study of laughter in a series of papers demonstrating ways speakers invite and volunteer laughter (1979), place laughs precisely within speech (1985), and (with Sacks and Schegloff) through laughter create affiliative sequences (1987). Glenn (2003) synthesized existing work and showed how participants extend shared laughter, orient to the social import of "who laughs first," and constitute *laughing at* in contrast to *laughing with*. Recent special issues (Vöge & Wagner, 2010), edited volumes (Glenn & Holt, 2013), and review essays (Holt & Glenn, 2015) show a maturing of the cumulative, extensive CA work on laughter.

Laughables

Although laughter is not necessarily a reaction to the presence of humor, clearly it does have a close relationship with the (usually preceding) talk: when we laugh we laugh at something. Thus CA studies employ the term "laughable" to refer to laughter's target while remaining agnostic about its possible humorousness:

> In such a conception we move away from the simple assumption that laughter follows humor, to a mutual constitution model that suggests that the occurrence of laughter marks its referent (usually retrospectively) as laughable—and, potentially, as humorous. Funniness becomes understood not as an inherent property of a message, or the internal state of a social being, but rather as a jointly negotiated communicative accomplishment.
>
> (Glenn, 2003, p. 33)

CA research on laughables in interaction has generally focused on the regularities in turn design, the action of the turn and its contribution to the ongoing sequence especially in terms of its relationship to subsequent laughter. Many laughable turns seem far from anything humorous, for example, those that occur in tricky or delicate environments such as complaints (Holt, 2012) or troubles-tellings (Jefferson, 1984). However, analysts have also explored laughables such as jokes and teases, which are more clearly associated with humor. Thus, their research throws light on the resources participants exploit in the construction of laughables, and/or aspects of the turns that participants may orient to in treating a contribution as laugh-relevant.

Laughter in a turn at talk itself can contribute to the action of that turn, drawing recipient laughter. Working from a narrower operationalization to build a collection of laughables from which to explore "speech-laughs" (i.e., speech infused with laughter), Ford and Fox (2010) adopted the following criteria:

> To count as a laughable, a turn (or part of a turn) must be produced with possibly laugh-relevant sounds and/or bodily displays, and it must be responded to with laugh-relevant sounds or bodily displays.
>
> (p. 340)

Ford and Fox (2010) identified a number of other **phonetic practices** used in the construction of laughables, including long and loud aspiration after a word-initial voiceless stop, lengthening of fricatives, high pitch, laryngeal constriction, voicelessness at the beginning of vowels, breathiness, and modulations of loudness. Similarly, Greatbatch and Clark (2003) identified recurrent phonetic practices that public speakers (specifically in their study, management gurus) use to create laughables, such as adding stress via prosody and rhythm. A "smile voice" can help constitute talk as laughable. This occurs when the lips are laterally extended in what may be perceived to be a smile (though also associated with other actions such as grimacing; Ford & Fox, 2010).

As well as prosodic practices, **nonvocal resources** are also recurrently exploited in the production of laughables. Greatbatch and Clark (2003) described speakers using comedic facial expressions and gesture. Ford and Fox (2010) identified several visual bodily practices associated with the production of "speech-laughs" including lip-spreading (interpreted as smiling), leaning and/or throwing back the head, covering the face with hands, lowering and raising shoulders, shaking torso and shoulders, clapping hands or slapping a surface, and tensing neck and facial muscles.

To many analysts of humor, a central and defining characteristic of humor is the presence of **incongruity** (Suls, 1972; Mulkay, 1988; Attardo, 1994; Attardo, 2005). In analyzing, possibly

humor-related sequences in interaction incongruity is less of a useful distinguishing feature, for the term points to a conceptual category more than to a specific social action. However, incongruity has been identified in CA research as one recurrent design feature of laughables and thus, as a resource that can be used in their construction. Greatbatch and Clark (2003), for example, identified incongruity resulting from "the gurus formulating a situation as surprising or unusual and inviting audience members to laugh" (p. 1535), and Ford and Fox (2010) described incongruity (along with contrasts) as a recurrent feature in the construction of speech-laughs.

Other analysts have identified practices that may be seen as generating incongruity. Holt (2011) analyzed a collection of overdone figurative phrases responded to with laughter in topic terminations. Sometimes these involved using a phrase more readily associated with a different (often more dramatic context) such as saying "It's down for posterity" and "No state secrets" in discussing the fact that a phone call is recorded in the following extract.

(1) [Holt:2:2:5–6]

1 Lesley: I hope you don't mind y*o*ur c*o*nversations being re↓corded
2 this *te*lephone is bugged.
3 (0.2)
4 Bond: ↑*O*h ↓is *i*t?=
5 (0.2)
6 Bond: ↑h*a* [ha ha ha[ha h[a ha ha ha
7 Lesley: [Well- [K- [*Ka*thrine's doing 'er th*e*sis o:r or
8 s*o*mething on um
9 Bond: Oh[t*hat*'s right you t*o*ld me she wz going t*o*,
10 Lesley: [sp*e*ech.
11 Lesley: Yes.
12 Bond: Ye:s.
13 (0.2)
14 Bond: *O*h w*e*:ll
15 Bond: D*ou*n it's d*o*wn f'p*o*st*e*rity [hey,
16 Lesley: [£*No* ST*A*TE secrets,£=
17 Bond: =[h*a*]ha h*a* h*a* eh oh]
18 Lesley: =[hh]h*e*h h*eh* heh.hh]. hh *Oka*γ th[en,]
19 Bond: [Y e]s. hh Well-
20 Bond: *e*khh-hu *L*e:mme know if yo*u* don't get that ballot
21 paper'n *I*'ll [(check [)]
22 Lesley: [Yes. [O] kay

The expressions at lines 15 and 16 invoke extraordinary contexts in reference to the recording of a mundane telephone conversation: the first expression suggests wording more generally appropriate to historically significant events; the second treats their talk as worthy of espionage or diplomatic intrigue. Thus they come across as incongruous and not entirely serious. Similarly, Haakana and Sorjonen (2011) analyzed how, in purchasing lottery tickets convenience store customers in Sweden invoke some incongruous context, such as applying for a pension or making an investment. Thus the incongruity created by, for example, requesting a ticket as applying for a pension, is oriented to as laughable by the participants.

In brief, an array of activities such as contrasts and exaggeration that underpin the construction of laughables may contribute to these turns being perceived as incongruous. Incongruous

forms include making untrue assertions and adopting a voice quality that contrasts with the speaker's previous delivery. Like humor, incongruity is a broad and abstract term and is hard to pin down in sequences of interaction. Analysis of the recurrent design attributes of laughables may help to identify different kinds of incongruity associated with laughables, clarify the term, and show how it, along with other resources, can be used as a resource in creating laughables.

The presence of one or more of these attributes—laughter, vocal features, visual features, and/or incongruity—does not necessarily mean that a turn will be treated as laughable. In their analysis of speech-laughs, Ford and Fox (2010) describe the "**interrelated semiotic resources**" for constructing laughables, writing, "[T]he production of 'laughability,' if you will, is highly monitored and is co-produced through simultaneous practices of sound and bodily displays, and such productions are consequentially situated within emerging sequences of action" (p. 340). According to Holt (2011), turns displaying a number of design attributes recurrently associated with laughables may be more likely to be responded to with laughter. However, the placement of turns in the unfolding action sequence and the nature of the recipient's responses are also crucial. For example, at a point in topic closure where laughter is appropriate (e.g., following an overdone figurative expression) a recipient may forgo laughter in order to contribute further to the topic rather than collaborating with a possible termination (Holt, 2010; 2011). Thus, orienting to a contribution as laughable is dependent not only aspects of the turn itself but on the trajectory of subsequent contributions.

Non-serious/Joking

Descriptors like "non-serious" and "joking" that sometimes appear in CA studies may overlap "humorous" conceptually. When used, they make no claim about the humorousness of the action or sequence described. They do carry specific sequential meaning. Again, in CA the aim is to employ analytic concepts that help characterize how participants accomplish and orient to unfolding interaction. Thus, Sacks offered a possible technical, sequential understanding of what it means to be "serious." He notes that respondents to a first-pair part (e.g., offer, invitation, or question) will respond based on their in-the-moment interpretation of it:

> [I]t's one criterion of an utterance being a first pair member that it can be followed with, not *only* the second pair member but *either* the second pair member or laughter—or, alternatively, the question "Are you kidding?" or "Are you serious?"
>
> (Sacks, 1992, p. 672, original italics)

Whether an utterance is judged to be serious or non-serious is fundamentally important to the kind of response it will receive. Sacks discussed this in terms of a kind of "ambiguity" of first-pair parts.

> We are not, then talking about the issue of the sentence having an ambiguity of meaning in the sense of this term or that term, but, does it have this sequence appropriate after it or that sequence appropriate after it; a possible acceptance of the proposal or laughter?
>
> (Sacks, 1992, p. 672)

Thus, a first-pair part taken to be non-serious is not treated as having the sequential implications it might otherwise have. For instance, a "joking" invitation does not have an acceptance or declination as its expected response, but something that orients to its non-seriousness such as laughing (Glenn, 2003, chap. 6). However, Holt (2013) showed that seriousness and non-seriousness

are recurrently intertwined with recipients orienting both to serious implication of a turn as well as non-serious ones (for example, by laughing and then responding seriously). Potentially humorous or non-serious contributions to talk are recurrently bivalent: they are constituted by both potentially serious and non-serious potential actions and thus present an array of possibilities in terms of appropriate response (Holt, 2013).

Humorous Sequences: Teasing, Intimacy Through Improprieties, Joke Telling

Teasing

Conversational teasing routinely occurs in sequences that include at least the triggering element produced by one party, the tease by another party, and the response by the first party. The triggering turn does not become such until it is responded to with a tease. The tease employs humorous elements to treat the victim's prior action as "overdone" (e.g., excessive complaining, boasting; Drew, 1987, p. 32) or as in error (Glenn, 2003, p. 125). It does so through use of comic elements such as exaggeration, irony, or mockery. Yet teases also have a "serious" dimension to them: they carry an element of criticism or negative assessment. Victims can orient to the serious and/or playful elements of the tease. Drew (1987) arrayed victim responses on a continuum from serious uptake (a "po-faced" response) to laughing along and even escalating the substance of the tease.

Improprieties, Intimacy, and Flirting

From Shakespeare's couples who court through their wit to stand-up comics "working blue" there is long-standing recognition that the use of improprieties and sexual references can draw laughter and foster intimacy. Routinely in conversation, a speaker will say or do something that might be considered a breach of tact or courtesy, perhaps of a sexual nature. These improprieties can generate sequences of action. Similar to teasing sequences, a range of recipient responses may occur, from overt disaffiliation to disattention, affiliation, and even escalation (Jefferson et al., 1987). Laughter represents a midpoint on this continuum: on its own, it recognizes the impropriety but does not necessarily affiliate with it. More overtly, if the recipient laughs and produces a next impropriety, that person is then co-implicated in the potentially offensive mentality. When this happens, the participants display conversational *intimacy:* "That is, the introduction of such talk can be seen as a display that speaker takes it that the current interaction is one in which he may produce such talk, i.e., is informal/intimate" (Jefferson et al., 1987, p. 160). Similarly, talk laced with sexual innuendo may be treated as a particular kind of impropriety that ambiguously raises the possibility of a romantic/sexual relationship between participants—that is, as flirtation (Glenn, 2003, pp. 131–141).

Joke Telling

Attention to joke tellings as interactive events invites characterization of not only the joke itself but also the actions that precede and follow; as in storytellings, all the components work in concert to organize the telling/response sequence and thereby constitute the joke as a joke. A case study of a "canned" joke told during a teenage group therapy session (Sacks, 1974) analyzes three key components. First is a *preface* that shows the would-be teller bidding for and hearers granting the floor. Second, the telling itself requires suspension of the normal rules of turn-taking that provide for the possibility of speaker change at the end of each turn construction

unit (Sacks et al., 1974). This particular joke includes a version of a setup and punch line. Third, the response space makes laughter relevant as well as comments showing uptake on and evaluation of the joke.

In another paper on the same interactional event, Sacks (1978) detailed the sequential organization of the joke itself as well as its sexual content and the sociological bases of its appeal to American teenagers. The first part of his analysis is more typical of a CA approach in its attention to structure. The joke is made up of two sets of three events. Individual sections within the joke are made sense of due to the overall sequential organization: for example, sexual sounds emanating from behind a door in the first two events sets up a puzzling lack of sound from behind door number three. This three-part structure provides the minimum number by which a pattern can be established and then broken. At the same time this sequential ordering of the joke draws attention away from the implausibility that forms part of its construction: the hearers' task is to "get the joke," demonstrating competence by making sense of the implicit punch line and providing an appropriate response.

This need for hearers to get the joke provides for the social volatility of joke telling events. Sacks (1974) pointed out that a sexual joke may stand as a sort of "understanding test" in which a recipient who does not laugh may be sanctioned for not "getting" the joke. Similarly, analysis of a joke telling in a family gathering Glenn (2003, pp. 115–117) shows how participants realign from laughing at the punch line of the joke to laughing at one participant who asks for clarification rather than laughing along. Following delivery of the punch line, Chris laughs loudly. In overlap, Vaughn asks for a repeat of the end of the punch line. Cecil shows understanding (while perhaps disaffiliating) with the recognition token "oh" followed by "no" and an inbreath laugh particle. Vaughn repeats the repair-initiating question.

MILT: Said you got an F in se:x
(0.8)
CHRIS: *Oh*h *HA HA H[A HA HA HA]* ★Hooo=
VAUGHN: [Ya gotta what?]
CECIL: =↑Hoh ↓n:o. [·•↑huuh
VAUGHN: [°Got a what?

Milt, who has told the joke, now laughs. Crucially, though, his laughter is *at* Vaughn, marked by Milt's speaking Vaughn's name with laughter and calling on others to explain the joke to him.

MILT: Va[(hh)ughn?] •hh yes ha ha [hah uh]
CECIL: [↑oh: ↑oh ↑ohuh-hoo [↑uhhh =
=[[hoo
MILT: [[Somebody exp*lai*n that to him.

Noticing the crucial role recipient laughter plays in response sequences, some researchers have applied CA methods to stand-up comedy joke tellings. For example, McIlvenny et al. (1992) compared devices used to elicit and respond to audience laughter to those political orators employ to invite, sustain, and override applause (Atkinson, 1984). In brief, these and other CA studies attend to the unfolding structural and social dynamics of joke tellings. Whatever the internal structure of jokes themselves, emphasis in such analysis is placed on the sequential organization of the *telling*, including actions by the other participants. How funny a joke is, who gets it and who doesn't, and what it is ultimately about, are not preordained matters but worked out by participants.

These courses of action—teasing, using improprieties to affiliate or flirt, and joke telling—rely on humorous materials to do what they do. One can hardly tease without joking, flirt without innuendo, or engage in stand-up comedy without jokes. However, the humorous (playful) elements may be necessary but not sufficient for the constitution of such actions, which rely as well on other features of the turns in which they are embedded and their sequential context. Alternatively, there are actions that may occur routinely without anything noticeably humorous going on, but with humorous elements popping up and, it turns out, doing very specific kinds of work.

Possible Humorous Elements of Primarily Nonhumorous Activities: Debates, Meetings, Family Talk About Cancer

Laughter occurs routinely in all kinds of interactions, and often its presence co-occurs with humorous discourse or actions. Again, conversation analysts are not likely to use the term "humor" as an analytic category, staying with action-oriented terms such as laughable (to characterize a single turn) or play (to characterize a jointly created stretch of interaction; e.g., Hopper, 1995). Nevertheless, one finds evidently humorous materials in interactions such as political debates (Clayman, 1992), business meetings (Markaki et al., 2010), and medical examinations (Fatigante & Orletti, 2013).

Humor interludes routinely appear in commiseration and troubles talk. Beach (2009; see also Beach & Glenn, 2011) analyzes a father and son creating playful sequences while talking about their wife/mother's bald head, resulting from chemotherapy treatment for her cancer.

(2) [Malignancy 41: 5–6, in Beach, 2009, pp. 255–256]

25 Dad: = °Heh he heh.° ↑Yeah. So I went back and I got the wa:sh
26 cloth and soap =
27 Son: $Uh hu [heh heh heh heh heh heh heh$ hhh.]
28 Dad: = [() you know. °I said°] ↑O:h God ().
29 Son: You need a *bow*ling ball washer, huh?
30 $hhh [hhh heh heh.$] =
31 Dad: [$Heh heh heh.$]
32 Son: = Don't tell her I *said* that,[okay?] =
33 Dad: [No: I] won't (tell).
34 Son: = $Heh heh heh$. hh hh. pt Bla:h. ((heavy swallow)) Yeah
35 you could just get a- a little pl*e*dge an a- kind a *dust* cloth an'
36 chika=chika=chika right?
37 Dad: Polish it [up.]
38 Son: [Buf]f it up. =
39 Dad: = Uncle Tom's *car buf*fer: [an- =
40 Son: [$Yeah heh [heh ha.$
41 Dad: = [Few of those and the-
42 the- then *bo:y* it'd be shiny! =
43 Son: = Ts:::h::: I:=*li:ke* it.. hh U:gh.
44 Dad: A::gh:.
45 Son: .hhh So- so what- what's she *do*ing I me:an-

The dad's confession that he keeps reaching for the shampoo, even though mom has no hair (lines 25–26) prompts the son suggesting the use of a bowling ball washer (line 29). Following

joint laughter, the son suggests using Pledge (a commercial furniture polish) and a dust cloth then performs a polishing sound (lines 35–36). Dad suggests using "Uncle Tom's car buffer" (line 39). Son closes the playful sequence by bypassing the opportunity to offer a next joking idea (line 43) and asking a non-joking question (line 45).

Through these utterances, dad and son create a playful sequence including increasingly extreme ideas for treating mom's bald head. As Beach concludes,

> activities such as shaving and shining mom's head, knowingly shaped as unreal yet humorous activities, are both enduring and endearing involvements. Produced by a son and dad who carefully craft their language and talk in order to play together, worlds are momentarily created that are not plausible, and thus not real in their consequences—especially when they won't "tell" on each other! Such fleeting, humorous, and imaginary worlds offer a respite to the business of addressing the stark realities associated with mom's dying.
>
> (p. 258)

Methodology and Sample Analysis

Presented for readers' consideration is a real-life bit of quotidian conversation. It shows how a potentially humorous contribution emerges in the jointly produced sequence of actions. How it gets there, what makes it humorous, and what it does in that location are all questions for investigation. In line with a CA approach we focus on the design of the target turn and the sequence to which it contributes. The passage illustrates the importance of not extracting turns from their context and analyzing them in isolation. The utterance in question becomes potentially humorous partly because of the turns that precede it, and evidence of its humorousness comes not only from its design but from the response of the recipient: the recipient treats it as a laughable, thus providing a participant's analysis of the action of the contribution.

Here we provide a single case analysis, but, because a central goal of CA is to identify recurrent patterns underlying the way actions are managed and made understandable, detailed analysis of a single case would routinely be followed up by analysis of a collection of both similar instances and any deviant cases (see Sidnell, 2010).

At the start of the extract E is engaged in a troubles-telling regarding problems concerning her upcoming Thanksgiving arrangements: it is possible that neither her husband nor her daughter will come. The "her" mentioned at the start of the excerpt refers to E's daughter.

(3) [NB:IV:9:3]

1 E: .hh H*e*r hu- u-her father in la:w's in the *h*o:spit'l so *I* don't
2 know what the deal honey I've *j*i*s* rel*e*a:sed myself'v
3 everything I'm j*i*s going along wih th'ti:de.
4 M: Yih-hih-huh? Hh-hhe:h [hhh
5 E: [hhh
6 M: [Well ('at's o-)
7 E: [En the *wind* bl*ow*s'n ah'll go wih the *w*ind *b*lo:o:ows
8 M: ihhhhh hOkhha(h)a(h)y
9 E: .hhh *Ah*'ll be dow:n a few min*ut*es?

E's turn at line 7 is a potential candidate for humor: she reformulates an idiomatic reference to the wind blowing into a sort of song lyric, with the final word nearly sung. Certainly it is responded to with laughter: in line 8 M produces a little laughter followed by interpolated

laughter particles during "Okay." Thus, in CA terminology it is a laughable. We begin by analyzing the turn, showing how it bears a number of characteristics recurrently associated with other laughables analyzed in the literature. We then examine the wider sequence, focusing on how it connects to and builds on prior contributions.

In terms of the design and delivery of the turn, we begin with the prosody and voice quality. Often an indication that a turn is a laughable is the presence of laughter within or directly after the lexical items. Here there is no laughter by E in this turn; however, E produces the final word with sing-song intonation, extending it and modulating the volume. Thus, the end of the turn has animated delivery associated with playfulness.

In terms of its design it is also somewhat elaborate. It has two parts:

1: En the wind blows
2: 'n ah'll go wih the wind blo:o:ows

There is repetition of "wind" and "blows" in the second part. It is also a figurative phrase, and overdone figurative phrases accompanied by laughter regularly occur at topic termination (Holt, 2011). This may be considered "overdone" in its elaborate structure, its sing-song delivery and the fact that it is very similar to another figurative phrase delivered by E just a few turns before (lines 3 and 4). Thus, in a number of ways E utilizes resources recurrently associated with laughables: first, it has animated delivery; second, in terms of its design (especially with the repetition within the phrase and the echo of the previous one) it is somewhat overdone; third, it is a figurative phrase.

But analyzing the turn in isolation misses much of the complexity of the phenomenon. Analysis of its contribution to the ongoing action sequence demonstrates how the laughable emerges from and contributes to the ongoing sequence of actions, and is thus a product of negotiation and collaboration by both participants. At the start of the extract E produces a termination relevant turn in the form of the figurative phrase at lines 3 and 4. This acts as a possible completion of the troubles-telling: figurative phrases are a recurrent way of closing topics (Drew & Holt, 1998). Its status as potentially non-serious is highly ambiguous: there is no laughter or smile voice in its delivery and no turn-final laughter. However, M laughs in response: there is laughter interpolating her "yih" and further beats of laughter after it. Thus, M orients to the prior turn as a laughable. In her second figurative phrase (lines 8 and 9), as we have seen, E employs a number of resources associated with laughables. Thus, a possibility is that, on finding that M orients to the prior phrase as laughable, E then recycles the sequence, this time building the turn as a more clear-cut laughable.

Analysis of the sequence also highlights the way in which the turn contributes to the trajectory, and thus how it does serious business. While recycling this termination relevant figurative phrase, the turn maintains the closing trajectory as well as conveying a more positive stance.[3] In making further laughter a relevant response, it consolidates the topic closing and contributes to bounding off topical talk, thus making way for the closing (Holt, 2010).

Thus, several findings are apparent: identifying humor in interaction is not straightforward, but it is possible to identify participant orientations to potentially humorous actions such as use of resources recurrently associated with laughables in the design of utterances and orientation to turns as non-serious through, for example, recipient laughter. Analysis of this extract also emphasizes the importance of a sequential approach. The laughable in lines 7 and 8 emerges from and is the product of the ongoing sequence. Crucial to fully understanding its nature is recognizing its contribution to the termination trajectory of the troubles-telling, and how it builds on a previous idiom also oriented to as laughable, making the potentially humorous nature of this manifestation more salient.

New Debates

Recent CA studies have advanced understanding of laughables—not only the widest-possible construal of any action or turn that draws laughter, but those that seem built to make laughter relevant. As shown earlier in this chapter, this research has identified recurrent patterns associated with laughables in terms of design and sequential position. There is opportunity here to bring in pragmatics and linguistic research on humor devices and components, including irony, word play, sarcasm, and vocal and visual performative features. Synthesis of CA's sequential approach with those that focus on humorous aspects of utterances may lead to a deeper understanding of what participants orient to as humorous and how such phenomena are created and jointly negotiated across sequences of talk.

Synthesis of approaches may also shed further light on the relationship between related or overlapping categories such as humor and playfulness and participant orientations to these phenomena. CA research on playfulness in interaction has shown that the distinction between seriousness and non-seriousness is not clear-cut (Holt, 2013). Thus, while there are clearly occasions when participants collaborate to produce playful, joking or humorous sequences, there are also many where contributions are highly ambivalent. For example, Glenn (2003, chap. 6) shows how a playful invitation is ambiguous as to its status as genuine, which allows for a range of responses, including attending to it as non-serious. Such research underlines the need for sophisticated approaches to identifying humor-related actions in interaction, reflecting the ambivalence and constantly evolving nature of the phenomenon. Detailed analysis may provide further technical and sequential understandings of the way actions described by these vague, ambiguous abstract terms play out in interaction, in the way that Sacks (1992) provided such an understanding of the serious/non-serious distinction in terms of responses to first-pair parts.

Transcribing Symbols

(From system developed by Gail Jefferson; see Atkinson and Heritage, 1984, pp. ix–xvi.)

[]	brackets indicate overlapping utterances.
=	equal marks indicate contiguous utterances, or continuation of the same utterance to the next line.
(.)	period within parentheses indicates micropause.
(2.0)	indicates timed pause in approximate seconds.
ye:s	colon indicates stretching of sound it follows.
yes.	period indicates falling intonation.
yes,	comma indicates relatively constant intonation.
yes?	question mark indicates upward intonation.
yes!	exclamation indicates animated tone.
yes-	single dash indicates abrupt sound cutoff.
y*es*	underlining indicates emphasis.
YES	capital letters indicate increased volume.
°yes°	degree marks indicate decreased volume of materials between.
hhh	h's indicate audible aspiration, possibly laughter.
•hhh	superscript period indicates inbreath audible aspiration, possibly laughter.
ye(hh)s	h's within parentheses indicate within-speech aspiration, possibly laughter.
((cough))	items within double parentheses indicate some sound or feature of talk which is not easily transcribable, e.g., "((in falsetto))."

(yes)	parentheses indicate transcriber doubt about hearing of passage.
↓yes ↑yes	arrow indicates marked change in intonation.
£yes£	pound signs indicate "smile voice" delivery of materials in between.

Notes

1 There are related verb forms that have distinct and separate uses, such as "to humor" someone, which suggests accommodating a course of action even though one does not align with it.

2 Even laughter, which does describe an action, gets treated with analytic caution:

> In taking stock of what the descriptor "laughter" might reference, one must acknowledge the status of laughter and speech-laugh as taken-for-granted cultural categories, categories that require more concrete grounding with reference to the orientations of participants at particular moments in the flow of interaction.
>
> (Ford & Fox, 2010, p. 340)

3 See Jefferson (1984) on laughter in troubles-telling.

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22

Functionalist Discourse Analysis of Humor

Stephanie Schnurr and Barbara Plester

1 Brief Overview

Research conducted under the umbrella of functionalist discourse analysis selectively draws on different aspects of cognitive-perceptual, social-behavioral, and psychoanalytical theories of humor (Raskin, 1985; Attardo, 1997; see also Attardo & Raskin, 2017 for a more detailed account of these theories) and explores what functions humor plays in an interaction. For example, in a workplace context, functionalist discourse analysts have been interested in how humor may be used to exercise and display (and sometimes disguise or even challenge) power relations (Holmes & Marra, 2002a; Mullany, 2007; Schnurr, 2009a, 2009b) or to relieve tension and stress (Schnurr & Rowe, 2008). Not being tied to one theory in particular but rather cross-cutting and combining understandings from different theories of humor, functionalist discourse analytical research contributes to developing a comprehensive conception of the complexity and multifunctionality of humor (Martin, 2007).

Early research on humor using functionalist discourse analytical approaches (as described in more detail in section 2, "Core Issues and Debates"), mainly focused on identifying and describing the function(s) of humorous instances in a specific interaction without much criticality—often assuming that the effects and perceived impact of the humor instance are self-evident and obvious (Collinson, 2002). Much of this research has thus subsequently been criticized for oversimplifying the complexity and dynamics of interactional humor and for neglecting and overlooking more nuanced, deeper elements that may be operating either alternatively or even simultaneously. For example, in their book *Humor, Work and Organization* (2007) Westwood and Rhodes criticize the functionalist perspective for ignoring some of the critical and complex dynamics underlying much humor, especially workplace humor. They particularly comment on the neglect of considering critical elements such as power, control, resistance and dominance. However, while these criticisms may apply to some earlier functionalist research on humor, more recent developments in discourse analytical research have certainly picked up on those critical elements and have begun to explore how humor is used (sometimes strategically) as a discursive strategy to enact, as well as challenge and resist power, control, and dominance—especially in a workplace context (e.g., Holmes & Marra, 2002a; Schnurr & Rowe, 2008).

A second, closely related, development in research on functionalist discourse analysis is the move away from an exclusive focus on positive humor. Early humor research focused almost exclusively on the positivity that is often ascribed to humor—for example, as a means to create solidarity and group harmony (see Lampert & Ervin-Tripp, 2006; Cooper, 2008)—and commonly assumed that most humor is benign, supportive and well-intentioned. However, as the three historical theories of humor (see also Attardo & Raskin, 2017) indicate, many of the motivations behind humor contain elements of superiority, aggression and ridicule of others. And yet, this "dark" side has long been neglected in discourse analytical research on humor. This may be due to the fact that, as argued by Billig (2005), the "dark" side of humor is problematic and also difficult to access.

This neglect of the "dark" side of humor has also been recognized by functionalist discourse analysts who have recently begun to conduct research on humor that is not primarily enjoyable but rather that is dangerous, disturbing and dark (see Schnurr & Rowe, 2008; Schnurr, 2009a, 2009b; Dynel, 2012; Plester, 2016). This research has identified and described some of the ways in which humor is used, sometimes strategically, as a means to challenge some of the ideas, topics and values that individual people or groups of people perceive as taboo or sacred, or to question existing power relations and the status quo. Disturbing topics may be explored for comedic effect in deliberately transgressive humor (Friedman & Kuipers, 2013), which can be used to challenge common assumptions and protocols. These functions of humor make it an excellent device for those who are not normally in a position to articulate such challenges, such as subordinates in a workplace or newcomers in a friendship group who can utilize humor to criticize or even attack those in more powerful or more established positions. We elaborate this in more detail in section 4, "Analyzing Humor."

Another area that is receiving increasing attention from discourse analytical researchers is the responses that humor generates. Moving away from earlier research that mainly focused on laughter as the prototypical response to humor, several recent studies have identified and discussed various other ways of responding—either supporting or rejecting the humor. Some of these other response strategies include, for example, the production of more humor, echoing the speaker's words, heightened involvement in the interaction, agreeing with or rejecting the underlying message, offering alternative interpretations as well as non-verbal clues and facial expressions (such as a smile, a nod, or even a raised eyebrow) (Holmes, 2000; Hay, 2001; Lampert & Ervin-Tripp, 2006; Schnurr & Chan, 2011). The choice of response strategy depends on the situational context (including the relationship among interlocutors) and the type of humor used. Self-denigrating humor, for example, is typically not responded to with laughter but by disagreeing with the speaker's self-directed criticism or offering sympathy (Hay, 1995; Holmes, 2000; Schnurr, 2009a, 2009b).

As this brief overview of just some of the developments in humor research from a functionalist discourse analytical perspective has shown, humor is clearly a highly complex and ambiguous strategy that may be used to perform a diversity of functions. And it is precisely this complexity and ambiguity that make humor such an interesting topic for discourse analytic enquiry. In the next section we briefly discuss some of these diverse functions that humor may perform in an interaction.

2 Core Issues and Debates

One of the major contributions of functionalist discourse analytical studies to research on humor in general lies in the insights it provides into how humor is actually *done* in an interaction, and in

its ability to identify and describe the various discursive processes through which the different humorous functions are performed. In other words, by analyzing discursive aspects of humor, discourse analytical research illustrates some of the complexities of constructing, enacting, negotiating, and also responding to humor. It thus goes beyond asking what function humor plays in a particular encounter, to an interest in understanding how these functions are achieved, how the humor is (co)constructed among participants and how it is responded to.

In line with these general aims and objectives, research on humor taking a functionalist discourse perspective is mainly interested in identifying and discussing the functions that humor performs in different social environments, such as the workplace (Holmes & Marra, 2002a; Mullany, 2004; Fine & de Soucey, 2005; Rogerson-Revell, 2007; Schnurr, 2009a, 2009b), the classroom (Schmitz, 2002; Davies, 2015), and among family and friends (Sanford & Eder, 1984; Everts, 2003). In this section we discuss just some of the many functions that humor may perform, and although this may seem like a relatively straightforward undertaking, identifying, describing and perhaps even classifying humor are rather complex tasks, as we elaborate in more detail in section 3—not least because humor is incredibly versatile and any one instance may perform multiple functions—sometimes even simultaneously. As Kuipers (2011, pp. 41–42) remarks: "Humor can never be reduced to one single function, meaning or purpose" (see also Fatt, 1998) and such ambiguity and ambivalences suggests that humor can be simultaneously "attractive and repulsive" (Gournelos & Green, 2011, p. xix). The following example briefly illustrates this.

Example 1 (from Plester, 2016)

Context: In an IT organization, Alf, a salesman, had been overlooked and did not receive tickets to a company movie premiere event that Kara, one of his colleagues, had organized. In this excerpt Alf walked up to a group of his colleagues, and with no greeting or opening pleasantries directed the following remark to Kara:

Alf (grinning widely): "*You're a bitch!*"
All: [laughter]

This provocative and profane remake caused loud laughter among all assembled who correctly interpreted it as humorous. Kara, the target of the remark, also laughed loudly. Although Alf's quip was presumably intended to be both provocative and amusing to the group, the use of the term "*bitch*" is potentially hostile and in this case was used to deliver the message that he felt aggrieved at missing out and that he laid the blame directly with Kara. Using humor to convey his disappointment and criticism, Alf managed to express his displeasure both "forcefully and lightly at the same time" (Plester, 2016, p. 57) while avoiding a negative response from Kara.

Broadly speaking, humor has been categorized into verbal, visual and physical humor (Fatt, 1998), but in line with most research from a functionalist discourse analytical perspective, we focus here on verbal humor only. Most of the functions that humor performs fall into one (or more) of the following categories: creating solidarity, doing power, and performing psychological functions (e.g., Duncan et al., 1990; see also Fine, 1983; Sanford & Eder, 1984; Hay, 1995). Discourse analytical research on humor is mainly interested in the first two of these functions and several studies exist that explore the multiple uses of humor as a means to create and reinforce solidarity, and to exercise as well as challenge and subvert power. We briefly discuss both of these functions from a discourse analytical perspective here.

2.1 Creating Solidarity

The ability of humor to create, maintain, and reinforce solidarity among interlocutors is often described as the most basic function of humor, which is central to all instances—even subversive or challenging humor (Holmes, 2000, p. 159). This function is particularly relevant in relation to establishing and signaling membership in different groups—be it a family, a circle of friends, or a workplace team (Everts, 2003; Lampert & Ervin-Tripp, 2006; Romero & Pescosolido, 2008). Because different groups have developed distinct ways of using humor (as reflected, for example, in inside jokes, but also in norms about who is allowed to use what type of humor towards whom, and norms about what constitute appropriate ways of responding to humorous instances), using humor appropriately is an important aspect of signaling group membership, and of establishing boundaries among different groups.

For example, in a study of banter, jocular mockery, and jocular abuse among all male interactions in Australia and the UK, Haugh and Bousfield (2012) found that these practices were recurrent in their data, and that their use was closely related to the ethos of "not taking yourself too seriously" that these groups of friends shared. Among the members of these groups, thus, regularly using these kinds of humor contributed to creating solidarity and to "strengthen and confirm (among other things) the social bonds of friendship" (Haugh & Bousfield, 2012, p. 1112). A similar tendency was observed by Habib (2008), who noted that the frequent teasing among a friendship group of members from different socio-cultural backgrounds also served as an important means to bond and to create solidarity (see also example 2). Likewise, in Evert's (2003) study of family humor, she found that a Kansas family used seemingly aggressive humor to create solidarity and intimacy. Mocking remarks and quips were used to draw family members into humor interactions with the "interactional goal" of creating "relational harmony" (Everts, 2003, p. 369).

In workplace humor research Plester and Sayers (2007) observed that in the IT company where they did their research, colleagues enjoyed "*taking the piss*" out of each other in banter that pokes fun at personal attributes, characteristics and behaviors. In this particular workplace, enjoying banter and making jokes about sensitive topics such as race, sex, and physical characteristics signaled inclusion and acceptance in the company's work culture and individuals excluded from such teasing are consigned to the "out-group" (see Terrion & Ashforth, 2002; Plester & Sayers, 2007; Schnurr, 2009a). Thus, rather than being perceived negatively as face-threatening and inappropriate, these frequent insulting jibes among colleagues were interpreted as *pseudo* insults and taken as compliments by interlocutors, who see each other as "good sports" who can *take* a joke (La Fave et al., 1976). At the same time, this targeted banter also offered people a release from everyday work pressure, and the highly personal nature of some banter signifies in-group status (see also Schnurr et al., 2007). However, humor is not only a means to reinforce solidarity and signal in-group membership, but it may also be used to perform very different functions, such as doing power, which is particularly useful in a workplace context.

2.2 Doing Power

The relationship between humor and power is a close one, and humor is indeed a versatile tool for exercising power—for example, through getting things done (e.g., Barsoux, 1993) but also for establishing group norms and marking those who deviate from these norms (Lynch, 2002, p. 436; Holmes & Marra, 2002b), and, as we mentioned earlier, for challenging existing power relations and the status quo (Holmes & Marra, 2002b; Schnurr & Rowe, 2008). In this last function, as Holmes and Marra (2002b, p. 65) maintain, humor "is also available to the less

powerful as a socially acceptable means of challenging or subverting authority." In addition to this subversive function, however, humor may also be used to downplay power relationships and to "achieve the speaker's instrumental goal while apparently de-emphasising the power differential" (Holmes, 2000, p. 165). All these diverse, and sometimes apparently contradictory, functions illustrate the multifunctionality of humor. Its beauty and attractiveness for users, as Holmes (1998) notes, thus "lies in its flexibility" as "it can function as a bouquet, a shield, and a cloak, as well as an incisive weapon in the armoury of the oppressed."

This ability of humor to be used as a means to do power and to express solidarity makes it a particularly useful tool in workplace settings where the discourses of power and solidarity prevail and are interrelated with each other in complex ways (Holmes & Stubbe, 2003, p. 117). Thus, because it assists the speaker in expressing both power and politeness, it is not only of interest to functionalist discourse analysts but has also been looked at by humor researchers more widely (e.g., Shardakova, 2017). From a functionalist discourse perspective, however, various studies have been conducted to identify and describe some of the discursive strategies through which humor may threaten, save or even enhance interlocutors' face (Schnurr & Chan, 2009; Haugh, 2010; Dynel, 2012). For example, wrapping negatively affective speech acts, such a criticism or disagreement, in humor, or using humor to dissolve conflict mitigates the negative impact of the illocutionary force on the interlocutors and helps in saving face as well as maintaining a positive relationship (Holmes et al., 2001; Habib, 2008; Norrick & Spitz, 2008; Schnurr & Chan, 2009). This function of humor is particularly useful when uttering negatively affective speech acts towards more powerful interlocutors, such as from subordinates to superiors in the workplace context (Smith et al., 2000, p. 609; Holmes & Marra, 2002b). Butler (2015) highlights the power of laughter and concludes that laughter may be used to rectify people's workplace behavior as it plays a "socially normative role in organizations through processes of ridicule and embarrassment" (2015, p. 1). He asserts that people can be controlled by humor because nonconformist behavior may be ridiculed, and as most people do not enjoy being laughed "at" they avoid actions that could invite ridicule, mockery, and teasing. Therefore one specific function of teasing is to exert social control that ranges from "bonding to nipping to biting" (Boxer & Cortes-Conde, 1997, p. 276; Schnurr, 2009a).

These different functions may, of course, be performed simultaneously, and an instance of humor may easily be used to do power while at the same time creating and reinforcing solidarity among interlocutors, as we show in section 4. However, in addition to and often cross-cutting these functions of humor is its ability to assist interlocutors in constructing and negotiating identities. This ability of humor to do identity work and to portray interlocutors as well as non-present others in particular ways is increasingly attracting researchers' attention (e.g., Holmes et al., 2003; Habib, 2008; Schnurr, 2009a; Rogerson-Revell, 2011; Moody, 2014). In this function, humor is not only a valuable strategy to express personal identities (Habib, 2008; see also example 2), to create in-group membership among friends and to draw boundaries between other groups and distance themselves from them (e.g., Holmes et al., 2003), but also to construct professional identities (e.g., Schnurr, 2009a), and to successfully combine the sometimes competing expectations of different identities—such as professional and gender identities (e.g., Schnurr, 2008).

3 Methodology

Research under the umbrella of functionalist discourse analysis draws on a range of different discourse analytical frameworks, such as Interactional Sociolinguistics (e.g., Holmes, 2000; Schnurr, 2009a, 2009b; Davies, 2015), Conversation Analysis (CA) (e.g., Glenn & Holt, 2017)

and Critical Discourse Analysis (CDA) (e.g., Schnurr & Rowe, 2008; Ladegaard, 2011), just to name a few. The choice of the specific framework and approach largely depends on the researchers' specific interest and the aims and objectives of their study. However, in spite of these differences, discourse analysts generally work with authentic, naturally occurring (rather than artificially elicited) instances of humor and they pay particular attention to the interactional context in which the humor appears. In contrast to other ways of collecting humor, such as via interviews (Rosenberg, 1998; Plester, 2009; Friedman & Kuipers, 2013), self-report data (Smith et al., 2000), and participant observation (Hatch & Ehrlich, 1993; Plester, 2015; 2016), discourse analytical researchers tend to record via audio (and sometimes video) instances of naturally occurring humor. These naturalistic methods are useful and research findings are co-created between researcher and respondent(s) (Guba & Lincoln, 2005), and such research must consider "the circumstances that form the backdrop" against which the humor occurs (Alvesson & Sköldberg, 2000, p. 6). This methodological approach thus leads to rich data that, in turn, enables the researchers to grasp the "dialogical character" of humor (Kotthoff, 2006), and to analyze it—not in isolation—but by paying close attention to interactional and socio-cultural context, in which it is embedded.

This focus on naturally occurring data, however, leads to several issues regarding collecting and identifying humor. For example, one major drawback of recording naturally occurring interactions is that the researchers often have relatively little influence on interactional topics and the overall development of the interaction, and they also simply do not know what kind of data they may be getting—that is, they cannot easily control how many instances of humor their recorded interactions will entail. But in spite of these drawbacks, which can be alleviated to some extent by collecting relatively large quantities of data, the collected data is generally very rich and provides an excellent source to conduct the qualitative in-depth analyses that are typical for discourse analytical approaches. And rather than making grand claims and generalizations about, for example, functions and usage of humor, insights gained through these analyses are generally used to contribute to a better understanding of the specific processes through which humor works in a specific interaction.

In addition to these methodological challenges, another, equally complex issue that discourse analysts often face when researching humor is the question of how to identify humorous instances in the data. Because there exist various response strategies to humor, as we mentioned briefly earlier, deciding whether a particular utterance is humorous or serious is not always easy and straightforward. This is particularly true for those instances that are not responded to by laughter but by some other, perhaps less explicit or non-audible strategy (such as a smile or a raised eyebrow). In order to address this issue and to find systematic ways of identifying humor in spoken interaction, researchers often rely on a range of "paralinguistic, prosodic and discoursal clues" (Holmes, 2000, p. 163), and pay specific attention to the speaker's tone of voice, and the audience's auditory as well as (where possible) gesticulatory responses (Schnurr, 2009b; Holmes & Marra, 2002b).

However, identifying humor is potentially even more complicated in written interactions, such as emails or letters where the researcher cannot draw on prosodic features. One way around this is to rely on other contextualization cues (Gumperz, 1999), including for example, the use of emoticons (e.g., 😉), abbreviations (e.g., "lol"), meta-comments (e.g., "just kidding"), or unusual choice of lexical items (e.g., the use of official title and surname in an informal email to a friend). Another possible way of detecting humor in written interaction is to consider (where possible) the (visual or textual) response a specific text generates. A third possibility is, of course, checking with the author and receiver of the text about their humorous intentions and perceptions. This verification process is known as "member checking," which involves the researchers

checking their interpretations of the phenomena under examination with the actual people who are the source for the data (Guba & Lincoln, 1989). This can be a useful validation of the findings and offers the researcher a chance to further refine or alter interpretations to more accurately portray the humor creators' perspective.

One considerable advantage of collecting naturally occurring authentic interactional data, whether spoken or written, is that it enables the researchers, once they have identified the humorous instances, to conduct an in-depth analysis to better understand the ways in which humor is performed, i.e., how it is constructed—sometimes collaboratively among interlocutors—and how it thereby performs various functions—often simultaneously, as our analysis of two short examples in section 4 illustrates. Moreover, looking at a humorous sequence in its entirety (rather than focusing on a witty comment out of context), enables researchers to describe the complex interplay of different types of humor and the different functions they perform within a humorous instance.

4 Analyzing Humor

We have chosen two examples here to briefly illustrate some of the ways in which functional discourse analysts analyze and make sense of humorous instances. Example 2 is taken from an interaction among friends (Habib, 2008), and example 3 is part of an email exchange that took place in a workplace (Schnurr & Rowe, 2008). Both humor instances perform multiple functions, including creating solidarity and doing power.

Example 2

Context: During a conversation among a group of friends who know each other fairly well and who have been meeting regularly once a week for a Greek lesson offered by one of the participants. Prior to this excerpt there was a lot of teasing of Beatriz for pronouncing some Greek words like people living in the mountains who are stigmatized by the general (Greek) public for their "odd" pronunciation.

1.	Beatriz:	Well, I'm, you know; you can go, I can, you know, talk like a peasant girl in Greek
2.	Altina:	yes, but still, I don't talk like intel- intel- intel- intellectual in English, I mean. I have problems. I mean, we have, we have ()
3.	Beatriz:	(interruption) Oh. That's a dirty joke.
4.	Altina:	NO, why?
5.	Beatriz:	((laughs))
6.	Dee:	What an intellectual means?
7.	Beatriz:	See. This is dirty joke. You wheezle.
8.	Altina:	No, I didn't say it as a joke
9.	Beatriz:	If you have something to tell me, just tell me in the face.
10.	Altina:	*I didn't say*
11.	Beatriz:	((laughs))
12.	Altina:	I didn't say that. I was only trying to say that, you know, I have an accent in English.
13.	Beatriz:	I am not an intellectual; I am an artist, you know.
14.	Altina:	I didn't say. Who- why did you think you are an intellectual? I mean ((laughs loudly))

15. Annabelle: Yeh. That is true. What made you think you are an intellectual? ((laughs))
16. Altina: I'm kidding ((laughs))
17. Beatriz: I thought- I thought that was a correspondence. You know with ()
18. Altina: ((laughs)) You know what. You were- you were knocking for a joke. ((laughs))
19. Beatriz: but not only that because we discussed before like you know, ah, the

This is a good example of how humor (in this case teasing) may be used to reinforce solidarity among friends and also to negotiate disagreements and do facework. In line 1 Beatriz uses self-denigrating humor when complimenting Altina on her authentic Greek pronunciation. However, rather than accepting the compliment, Altina disagrees with Beatriz and puts herself down (line 2). Her reference to talking like an intellectual in English, which is uttered with several re-starts (line 2), is then interpreted as "a dirty joke" by Beatriz (line 3). In what follows is a clarification and negotiation of meaning among interlocutors (including Dee who has not yet contributed) as to why she considers this to be a "dirty joke." This negotiation is characterized by the repeated occurrence of laughter—mostly by Beatriz in what seems to be an attempt to mitigate the disagreement and solve the confusion, and perhaps also to save her face and that of Altina (e.g., lines 5 and 11). After Altina justifies her choice of words and explains their intended meaning in line 12, Beatriz replies with more self-denigrating humor: "I am not an intellectual; I am an artist, you know," justifying and perhaps even apologizing for the misinterpretation (line 13). She thereby at the same time does identity work and portrays herself as "an artist," which she sets in direct opposition to "an intellectual"—an identity that she vehemently rejects. However, in spite of her clear rejection of the latter identity, her friends pick this up and Altina starts teasing her for (allegedly) thinking that she is "an intellectual" (line 14). The teasing is then picked up by Annabelle who agrees with Altina's challenging teasing remark (line 15). In both cases the teasing is accompanied by some laughter, which mitigates the potential negative impact or face-threat targeted at Beatriz. This mitigation is further enhanced by Altina's final comment, "I'm kidding" (line 16), and her subsequent laughter. In line 17 Beatriz then explains herself and refers back to some earlier teasing and humor that occurred among the group of friends (not shown here), which she thought was related to this instance. The humorous instance ends in Altina's further teasing of Beatriz for "knocking for a joke"—i.e., that the situation just asked for some humor (Habib, 2008, p. 1131).

In analyzing this humor it is also important to consider the context in which it occurred. Often, when simply reading the words used in an utterance, the humor is not easily conveyed and the reader could question whether this is in fact *humor* (Schnurr, 2009b). In these instances, especially in spoken interactions, researchers rely on a range of contextual elements, such as facial expression (e.g., a wide grin) and body language, which are often important indicators or *frames* (see Everts, 2003) that signal to the audience that a comment is meant humorously. Other contextual elements include "prosodic cues . . . linguistic devices . . . and nonverbal displays" (Lampert & Ervin-Tripp, 2006, p. 56). If these cues are absent then teasing is more likely to hurt people (Boxer & Cortes-Conde, 1997). Additionally, as found by Lampert and Ervin-Tripp (2006, p. 55), playful teases using epithets "such as *bastard, faggot* and *nigger*" (see also example 1) rely on familiarity between the protagonists. While non-friends might interpret such exclamations as insults, people who know each other well experience them as signs of closeness.

We have included this example of spoken humor here to illustrate some of the benefits of functionalist discourse analytical approaches to humor. In our analysis we have identified and described the various functions of the different kinds of humor (e.g., teasing to create and

reinforce solidarity among the friends, and perhaps also to criticize each other; and self-denigrating humor to save face and construct certain identities; as well as laughter to mitigate the negative impact of the criticism and disagreement). And we have also shown how the humor is constructed—sometimes collaboratively (e.g., between Altina and Annabelle)—and how it is responded to. All of these aspects ultimately contribute to the multifunctionality of the humor in this interaction. Moreover, as our analysis has shown, humor is often a complex issue, and different types of humor often co-occur within the same fragment (e.g., teasing and self-denigrating humor as in this excerpt).

The last example that we briefly analyze here is an instance of written humor that occurred in a workplace context.

Example 3

Context: This email was written by Richard, the Head of Department at an Educational Institution to one of his close colleagues, Kevin. A new online performance review for staff had just been introduced institution-wide which involved a substantial amount of additional work for Richard (such as attending workshops and familiarizing himself with the system).

Subject: blood pressure

> Kevin I tried to input reviewers but the system is not up yet, **at least as far as I can tell in my shufflings along the crepuscular corridors of the [performance review]—I felt a slight spike in the blood pressure** but will try to look into this this afternoon Rich

This email is a good example of how humor (highlighted in bold) is sometimes used in a workplace context to do power and create solidarity, as described earlier. This email was written by Richard to one of his long-time colleagues, Kevin, to complain about some of the problems he is currently experiencing with the online system of the performance review and to vent his frustration. After initially providing some important information (about the online system not yet being fully functional), Richard uses humor to make fun of this situation. His humorous description of his unsuccessful efforts to understand the system as "*shufflings along the crepuscular corridors of the [review system]*" and the fact that he "*felt a spike in the blood pressure*" clearly show his frustration with the system. It is especially his use of unusual adjectives (such as *crepuscular*) and nouns (such as *shuffling* and *spike*) together with his metaphorical language use that make this email humorous (e.g., describing his attempts to work with the system as "*shufflings*" through the "*crepuscular corridors*" invoke the frame of a labyrinth or cavernous structure, whereby one must feel one's way slowly and ploddingly in the dark with a sensation of non-progression and near-futility). Moreover, the clearly tongue-in-cheek subject line "*blood pressure*," rather than a more serious one, such as for example "*performance review system*," sets the humorous tone of this email right from the start.

Using subversive humor here to express his negative sentiments over having to deal with these administrative, bureaucratic, and (in Richard's view) rather irrelevant issues, provides not only a channel for him to articulate his frustration and annoyance but at the same time also enables him to challenge the dominant discourse (propagated by the organization), which promotes the system as being easily accessible and having been implemented in order to facilitate staff efficiency. Moreover, in addition to achieving these subversive functions, the humor also, on a more interpersonal level, contributes to reinforcing the positive and collegial relationship that

Richard has with the receiver of this email. Like in the example, the humor in this excerpt is multifunctional and reinforces solidarity among interlocutors as well as functions as a means to communicate negatively affective speech acts (such as criticisms and disagreements).

5 Future Research

In spite of the attention that humor has been receiving from a functionalist discourse analytical perspective, as outlined in this chapter, it remains a largely under-researched area of interest. We mention just some current trends and some possible avenues for research here.

One particularly important development in humor research from a functionalist discourse analytical perspective is the move towards analyzing the uses and functions of humor in languages other than English—e.g., Japanese (Maemura, 2014), Korean (Kim, 2015; Kim & Plester, 2014), Cantonese (Schnurr & Chan, 2009), and Greek (Antonopoulou & Sifianou, 2003). This research is not only likely to generate interesting new insights into the complexities of humor by identifying and describing the specific strategies through which humor is constructed and responded to in these languages in a diversity of different contexts, but it also provides new data and generates additional perspectives to support or challenge established thinking about "humor"—which, in the past, all too often equated with humor in English-speaking contexts. In spite of this positive development, more research is needed on humor in languages other than English to more comprehensively understand the various functions of humor and how they work in interaction.

Equally interesting is recent research on humor in intercultural communication—in the classroom, the workplace and among friends (Rogerson-Revell, 2007; Habib, 2008; Wang, 2014; Davies, 2015). But again, more research is needed on humor in this context. In particular, due to the claim that humor is culture- and language-specific, this line of research promises to provide some fruitful insights into the role of culture in interaction, which should be of interest to researchers beyond humor studies.

Another interesting trend in recent research on humor from a functionalist discourse analytical perspective is the increasing focus on specific types and functions of humor, such as failed humor (e.g., Bell, 2009; also Bell, 2017), as well as teasing—a particularly complex and ambiguous type of humor (e.g., Lampert & Ervin-Tripp, 2006; Schnurr, 2009a; Haugh, 2010; Schnurr & Chan, 2011; Haugh, 2017), and irony (e.g., Burgers et al., 2013; Dynel, 2014; Gibbs et al., 2014)—and also on "dark aspects" of humor—i.e., humor that deliberately seeks to hurt or transgress boundaries (see for example the contributions in Ford, 2015). By exploring the various aspects of these types or functions of humor, often in particular situations and contexts, such as the workplace, a family or a circle of friends, this research provides much needed insights into the workings of humor on the micro-level.

However, most of this research from a functionalist discourse analytical perspective focuses on spoken, and to a lesser extent written, interactions. There are very few studies that explore the various uses and functions of humor in online environments, such as emails, Facebook and Twitter. While there is some research on humor in this context from other perspectives (e.g., Moalla, 2015; Strain et al., 2015), functionalist discourse analysts have so far largely avoided these online contexts (but see for example, Mak & Chui, 2013). But with the increasing relevance of the online environment for both social as well as professional interaction, this context provides an important avenue for future research.

Clearly, this list of current trends and avenues for future research is far from being exhaustive. And while this recently increased attention that humor—as a not so inconspicuous and clearly not superfluous discursive strategy—received from recent scholarship is a welcome development,

which also contributes to putting humor back on the agenda for discourse analysts, we hope that more researchers will follow suit and contribute new insights into the complexities of humor.

Transcription Conventions

(from Habib, 2008)

()	Incomprehensible word or phrase.
(Some word)	A word or phrase within parentheses indicates that there is uncertainty about whether the phrase or the word have been heard correctly.
((Laugh))	Non-linguistic occurrences such as laughter are enclosed within double parentheses.
No	Underlining a word or phrase indicates that it was said loudly and with force.

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23

Corpus-Assisted Studies of Humor and Laughter-Talk

Alan Partington

1 Introduction

At first sight it might seem that corpus linguistics and humor studies make odd bedfellows. Corpus linguistics seeks regularities across large bodies of text; humor often lies in the peculiarity of a single instance. The former has a reputation for concerning itself with decontextualized chunks of language, while humor often resides in the subtle exploitation of interactional cues in the context of situation. Corpus linguistics is able to search for lexical items through very large bodies of language data but, with certain exceptions, such as canned jokes, there is no special vocabulary of humor to locate. And, indeed, until recently there has been little collaboration between the two fields.

However, recent years have seen the development of a certain type of corpus linguistics, known as corpus-assisted discourse studies (or CADS; Partington et al., 2013), which specializes in combining quantitative corpus techniques and more traditional close analysis (and methods in between) in discourse studies and conversation analysis, disciplines of which verbal humor studies is a constituent. One important distinction is between studies in which the corpus is used as a simple repository of a large number of potential examples of humor behavior to be subjected to traditional close reading and those that combine close reading with the employment of a wider range of corpus linguistics techniques. In this chapter we will concentrate on the latter type.

A corpus is a collection of texts that has been designed to be representative of a certain variety or set of varieties of language. They vary in size from a few thousand to billions of words; even the World Wide Web can be used as a corpus (Gatto, 2014). Some are "general language" or heterogeneric corpora, that is, those consisting of very many discourse types and meant to be representative of, say, British English, such as the 100 million word British National Corpus of written and spoken English texts. Many others are "bespoke," that is, compiled for a specific study—for instance, a collection of the works of a particular author (see section 3.1). Software interfaces exist to allow an analyst to interrogate the corpus. Those of most interest here are first, the *concordance*, which allows the user to collect examples of the linguistic phenomenon they are interested in and display them as a list with a co-text that can vary from 80 to, realistically, 800

characters; and second, the *key-item tool*, which allows a user to ascertain the most frequent words or word-strings in one set of texts in comparison with another—for instance, of one writer compared to a set of other writers, which reveals the lexis typically employed by the former.

The next section examines humor in spoken corpora, section 3 looks at humor in written texts, and section 4 at the contribution of corpus-assisted research to humor theory.

2 Corpus-Assisted Studies of Humor in Speech

2.1 Obtaining Humorous Spoken Data

One obvious issue in need of address is that of obtaining examples of humor in speech in sufficient amounts to make corpus-assisted approaches appropriate. One method is to record the relevant data, transcribe it, signaling the sequences judged to be humorous by the analyst and especially episodes where participants produce laughter. Although laughter and humor are by no means coterminous, intuition, experience, and past literature tell us that they are frequently related. However, it will be part of any analyst's job to discriminate between humorous and non-humorous instances, and indeed what different forms of humor are involved in the former. Another is to study the laughter episodes, or *laughter-talk*, defined as the "talk preceding and provoking, intentionally or otherwise, a bout of laughter" (Partington, 2006, p. 1) marked in pre-existing corpora of transcriptions (sections 2.4 and 2.5), while a hybrid approach is to compile one's own corpus transcriptions of a discourse type not previously available where laughter episodes are marked up (section 2.6).

2.2 Humor in the Workplace

The first of these methodologies is followed by Holmes et al. (2001) and Holmes and Marra (2002) who examine the use of humor in management meetings as part of the ethnographic *Wellington Language in the Workplace* project.

Their research team made recordings in four different workplace environments, government departments, a non-governmental organization (NGO), private commercial organizations, and factories, for a total of 429 minutes of spoken interaction, and episodes of laughter were marked in the transcription. Their most immediate observation was that there were more than twice as many laughter episodes in proportion to time between the most and the least laughter-oriented environment, factory meetings and the NGO, respectively. They also distinguished between what they call supportive and contestive humor. The first is illustrated in the following, "in which two women use humour to 'do collegiality' in their workplace talk" (Holmes & Marra, 2002, p. 1687).

(1) Context: team meeting in a commercial organization. They are discussing how people find out about a job they might be interested in.

1. Peg: people quite often like to ask the hypothetical question just to
2. /test the water as well\
3. Clara: /a friend of mine\ wanted to know
4. XF: [laughs] yeah
5. [general laughter]
6. Peg: just like me in the mirror

Contrastive humor, instead, "challenges, disagrees with or undermines the propositions or arguments put forward in earlier contributions" (Holmes & Marra, 2002, pp. 1687–1688), as illustrated here:

(2) Context: regular meeting of a project team in a large commercial organization. Callum has failed to update a header leading Barry to think he has received the wrong document.

1. Callum: I definitely sent you the right one
2. Barry: [laughs]
3. Eric: yep Callum did fail his office management [laugh] word processing lesson
4. Callum: I find it really hard being perfect at everything

Again, considerable differences were encountered across the working environments. In three of them there was more supportive than contrastive use of humor, but in one sort, the private organizations, there were twice as many episodes of contrastive as supportive humor. However, as the authors themselves underline, it is dangerous to make generalizations on such a relatively small dataset (on average less than two hours per environment). For instance, how regularly participants met and how well they knew each other is mentioned as an influential factor in humor frequency, if not necessarily on *type* of humor.

2.3 Humor in Student Conversation

Another approach to corpus compilation was the pro-active one taken in producing the Corinth (Corpus of Interactional Humor) corpus. Students participating on a course in *Humor and Creativity in Language* at the University of Leuven were asked—without the real purpose being made known beforehand—to make digital recordings of a spontaneous conservation that took place during their normal daily lives. They were then asked to select humorous sequences for a total of about five minutes and to transcribe them. The corpus (by 2013) contains about five hours of compiled sequences gathered from 105 recordings. Episodes were found of various types of humorous events, such as "irony, pretended teasing, pretended *schadenfreude*, comical hypotheticals (joint fantasies) and hyper understanding" (Feyaerts, 2013, pp. 265–266), the latter being deliberate misunderstanding by a second participant, often involving hyperbole in a script-shift, for example:

(3) S1: but it still is our goal to lose things right [meaning lose *weight*]
S2: a book for instance
S1: or legs

(Feyaerts, 2013, p. 257)

These kinds of corpora are of necessity relatively small and require considerable planning effort and often expense to compile. For this reason, other studies involve large corpora where laughter-talk is already marked in the transcriptions.

2.4 Laughter in Conversation

Günther (2003) examines joking and laughter-talk in two pre-existing corpora, the 4.2 million word section of the British National Corpus and the COLT corpus (Bergen University Corpus of London Teenage Language), consisting of 500,000 words of transcribed interactional

adolescent speech. Because the BNC includes indications of speakers' age, gender and to some extent social class, Günther is also able to cross-reference types of humorous display with type of speaker. She sets out to examine the following questions:

- What kinds of humorous maneuvers are used in actual talk?
- What discourse functions are served by laughter?
- How does laughter relate to humor?
- How are jokes performed and what joke formats are preferred in spontaneous speech?
- To what extent do social categories determine humorous/laughter behavior and does the conversational corpus data support previous research on gender and humor?

She looks first at canned jokes that occur in authentic spontaneous conversation in the BNC from various perspectives, including their structure, the contexts in which they occur, who tells them, and why. She was able to retrieve these semi-automatically from the mass of speech partly because laughter bouts are indicated in the transcription, but also because canned jokes can have standard introductions (e.g., "have you heard the one about") and standard reactions (e.g., "that was a good one"). Her main finding was that canned jokes are rare in the authentic conversations she studied, with only 59 performances in 4.2 million words (2003, p. 209) and that, contrary to earlier non-corpus-based assertions that females rarely produced canned jokes, no difference in frequency by gender were discovered. However, younger speakers (under 24) performed significantly more canned jokes than people above this age. Younger speakers also showed a predilection for sexual topics.

She goes on to examine various other types of laughter-talk including punning, humorous narratives, vulgar language, fantasy humor, violating social conventions, disaffiliative humor such as insults, and affiliative or semi-affiliative humor such as teasing, and these forms of humorous display were cross-referenced by types of speaker. She found some distinct gender differences. Females were found to laugh significantly more frequently than males. Males were more likely to indulge in inventing fantasy narratives and women in mild violation of social norms (defined as comprising three possible actions, namely, self-praise, "cheekiness"—i.e., mild defiance, and candidness—i.e., admitting to socially sanctioned desires or actions). Because the latter has often not been contemplated in the literature as constituting humorous behavior, Günther asks intriguingly, "One could reasonably ask whether 'the greater penchant of men for humor' (Lampert & Ervin-Tripp, 1998) often noted in the literature [. . .] simply reflects a narrower conceptualisation of 'humour' that overlooks alternative manifestations and resources" (1998, p. 209). We might posit an alternative—or complementary—explanation that women's social behavior regarding humorous display in public has altered over recent time. What is important here is that, without the kind of statistical analysis facilitated by corpus use, she would not have had the data at hand with which to question the prevailing wisdom.

Other statistically significant results were that laughter and humor occurred more frequently in single-sex settings and that laughter invitations were more likely to be accepted in single-sex groups.

Finally, in answer to the first of these pre-questions, what kinds of humorous moves are most frequent, Günther's main finding is that shorter formats such as question-and-answer jokes, witty "one-liners" that are somehow—typically "humorously"—reacted to, commented on or elaborated by other speakers in subsequent turns are far more frequent than individual humorous narratives. Conversational humor, in other words, was found to be very frequently co-created by participants (but see also Rühlemann's [2014] corpus-assisted work on narratives, who observed that *all* forms of conversational narrative are highly collaborative).

2.5 Laughter in University Lectures

Nesi (2012) looks at episodes of laughter recorded in the lectures included in the Michigan Corpus of Academic Spoken English (MICASE) and in the 1.6 million word British Academic Spoken English (BASE) corpus, in which various sorts of laughter are marked in the transcriptions, and so can be concordanced. These include:

1. Continuous laughter: a duration to the nearest second is always provided.
2. Single laughs of no discernible duration.
3. A change in voice quality resulting in laughspeak, "a form of blended, laughing speech that communicates emotional tone."

(Provine, 2000, p. 37)

Laughter is further categorized according to whether it is produced by the current speaker, another individual with a unique identifier, audience members en masse, or audience members and the current speaker together (Nesi, 2012, p. 81).

Nesi's statistical analyses of laughter types in these lectures revealed first of all that 24 of the 160 lectures contained no laughter episodes at all but that the most frequent type in those that did was continuous laughter produced by more than one person—the audience or both the audience and the lecturer.

Nesi also studies the strategic, functional use of humor by speakers by analyzing concordances of the laughter episodes. She lists seven separate functions.

The first is lecturer-student teasing, which Nesi interprets as a form of social control, because "misbehaviour on the part of students (mostly late-coming and laziness) threatens the lecturer's 'competence' face" (2012, p. 84, and see section 2.6). The following is from a medical lecture:

(4) for example in a medical student liver being constantly abused by alcohol scarred collagen is busily being deposited in that gentleman up there who's <laughter> busy partying every night and that can result in impaired liver function.

The second type follows some form of lecturer error when the lecturer uses humor to release tension "both on the part of the lecturer, who by laughing indicates that the mishap is not serious, and the students who, by laughing, indicate their allegiance with the lecturer" (Nesi, 2012, p. 85).

The third type is self-deprecation, used to gain audience affiliation by signaling modesty and approachability; it is also used to suggest social bonds with the audience (which may not in actual fact exist).

The fourth type is disparagement of out-group members, which serves to bond participants and reinforce in-group identity and a shared sense of superiority.

The fifth type is register play, generally the deliberate shift into informal register in an attempt to bolster the lecturer's positive face by projecting an easy-going persona:

(5) firing as they go basically frightening the shit out of the <laughter> the enemy

The sixth type is wordplay, which serves to gratify the audience by assuming they are intelligent enough to solve the sophisticated punning:

(6) well what i call the four Fs photosynthesis—sorry about that—flight fur fur on plants fur on bumblebees fur on mammals and mating <laughter>

The types listed so far have their counterparts in the interactive question-response discourse reported in section 2.6. However, the type labeled by Nesi as "black humour" is particular to the BASE medical lectures and allows the lecturer "to deal with topics that are important to the discipline, but socially taboo" (2012, p. 85). The humor manages embarrassment and also helps to reinforce the participants' professional identity, serving as mild flattery in distinguishing them from ordinary members of the public:

(7) so my advice to you is as soon as you get on the surgical ward start putting your fingers up people's bottoms just get used to it you know <laughter> all doctors have to be able to do it and er and you're no different and just get over that mental barrier.

Nesi emphasizes that these types of laughter-talk are likely to be partly culture-specific. She notes, for instance, there is less teasing criticism of student behavior in the MICASE US lectures, and no humorous reference to alcohol or drunkenness. A small corpus of Malaysian lectures she studied contained episodes of student teasing and black humor but far fewer of self-deprecation or disparaging gossip about out-members.

2.6 Laughter-Talk in Political-Media Interaction

Partington (2006) examines the laughter-talk in the interactive question-response discourse contained in press briefings held at the White House from the perspective of politeness facework.

Briefings are a genre of *institutional talk* (Drew & Heritage, 1992) in that they combine features of informal talk, given that the participants meet so often and know each other well, and confrontational or *strategic* talk, because the main participants, the spokesperson (or *podium*) and the press, have different, often conflicting, aims. There is plenty of opportunity therefore both for laughing with and laughing at other parties.

Two corpora were compiled by downloading the transcripts, which include indications of laughter episodes, from the White House library website. The first, *Dems*, from the Clinton era, comprises 48 briefings or circa 250,000 words, while the second, *Reps*, from the George W. Bush administration, contains around 750,000 words.

The raw data is not ideal from a linguist's perspective. The transcriber places laughter at the nearest convenient point in the text and there is no indication of length or type of laugh. However, it was possible to recover a degree of audio-visual information regarding both the kinesics of speakers and the contexts in which episodes occur, because the briefings are broadcast over the Web by C-SPAN television. The laughter files were annotated with such information, as well as a degree of interpretation of why laughter was occurring at that point. This information thus also became available for both simple concordancing and also cross-referenced automatic search. In other words, it was possible to collect for examination all the episodes where, say, both irony and teasing or punning and fantasy role-play, and so on, were felt to be in play. This proved valuable because mixed-function laughter-talk was not rare.

Partington observes that participants in professional interactions need to project and protect both a *competence* face, characterized by knowledge, expertise, and being in control and an *affective* face, being congenial, well-balanced and able to "take a joke" (2006, pp. 97–98). He identified a number of types of laughter-talk, including wordplay, fantasy play narratives, self-deprecation, other-deprecation, teasing, in-jokes, irony, and sarcasm, and then he attempts to identify the kinds of facework each kind is doing. Indeed, deliberate humor was rarely performed without

a purpose in facework terms. Wordplay, for instance, can be used to make a political point and attack the president's competence face:

(8) Q Ari, with respect, there are some people who don't quite see it that way, and they were out there this morning, talking about some of the rollbacks in arsenic, his reversal on carbon dioxide [. . .] *they said that the President came to town saying that he would change the climate in Washington; we didn't know that it was the actual climate that he was talking about*. (Laughter) (my emphasis) (*Reps*)

As one facing many, the podium in particular needs to bolster affective face and self-deprecation is therefore common in the podium's speech. In the following he employs a kind of bathetic response to praise where self-deprecation is allied to a "tough guy," "hard task-master" fantasy persona:

(9) Q: You've had one of the most civil staffs we've ever dealt with.

MR. MCCURRY: That's good. They're ordered to be that way. (Laughter) (*Dems*)

while in the following self-deprecation is mixed with irony to humorous effect:

(10) Q: The Associated Press reports that on Sunday in Middlebury, Vermont, where you gave a speech and were given an alumni achievement award, there were more than 500 protestors.

MR. FLEISCHER: Oh, it was more than that. (Laughter) (*Reps*)

The podium skillfully reverses the evaluation, transforming it into a compliment, implying that the more protesters one faces, the more prestige you enjoy.

Register play is also common, occasionally a shift from normal briefings register to low register (as in example 9) but surprisingly often from normal to formal register, a form that Partington calls "up-grading":

(11) Context: the podium on his retirement.

MR. MCCURRY And I will certainly enjoy whatever notoriety I have, and I will certainly use it to the good fortune of my family in the future. (Laughter) (*Dems*)

An "elegant" way of saying he will make money from his future memoirs and speeches. These have an air of parody of administration talk and so also constitute a form of collective self-teasing, another effective way for the podium to imply in-group solidarity.

3 Corpus-Assisted Humor in Written Texts

3.1 Corpus-Assisted Study of Author Style

Although less corpus-assisted work has been conducted on humor in writing than in speech, corpus techniques have proved of use in the investigation of authorial style, that is, stylistics. Authors studied include Wordsworth (Morley, 2007), Dickens (Mahlberg, 2007), Austen (Fischer-Starke, 2010), and Conrad (Stubbs, 2005). Most pertinent here are Duguid (2009), which analyzes the use of humorous techniques in a corpus of comic review articles, and Partington

et al. (2013, pp. 165–186), which analyzes the work of the comic author P.G. Wodehouse. Most authors studied are not modern; one practical limitation of collecting literary material for corpus use is copyright.

The best way to highlight the particular aspects of an author's style is to compare it to those of other writers. Duguid (2009) compiled a small corpus (255,000 words) of review articles by celebrated UK comic journalists and one of non-humorous reviews from the *Times Literary Supplement* (215,000 words). Partington et al. (2013) constructed a 1.1 million word corpus of Wodehouse's work by downloading the available texts from the Project Gutenberg site (http://www.gutenberg.org). Due to copyright, these are confined to the early works from the 1910s and 1920s. For comparison, two other corpora were also compiled from Gutenberg, one of ordinary fiction written during the same period consisting of about 1.5 million words, and another of comic writing from the same time comprising about 1 million words. These corpora were named PGW, Novels and Humour, respectively.

Both single-word and word-cluster (from two- to seven-word clusters, technically, 2- to 7-grams) frequency lists were then compiled by means of the *WordSmith WordList* tool (Scott, 2015) for all three corpora. These lists were then automatically compared by the *WordSmith Keywords* program, which thus produced a list of items that are relatively more frequent in the target corpus, PGW, compared to the comparison corpora. These provide a relatively objective picture of the specialties of Wodehouse's phraseology.

3.1.1 Wodehouse as Dialogue

The keyword and key-cluster lists contained a good number of words and expressions relating to reporting, perceiving and mental processes. The reporting items include:

> *say, said, uttered, speak, speech, words, remarks, mention, confide, what I mean, I'm bound to say, I mean to say.*

The perceiving items include:

> *perceived, eyed, gaze, become conscious / aware of, the spectacle of, became aware that, get or under the impression that.*

The mental processes items include:

> *suppose, idea, thinking, meditations, brooded, occurred to (as in it occurred to him that), to ascertain, the recollection of, to my mind, it seemed to me / to him.*

All these demonstrate how much of Wodehouse's prose is composed of dialogue, an imitation of humorous conversation. Moreover, even when it is narrative and not dialogue, it is still framed as talk. The Wooster stories are narrated in first person as a kind of internal dialogue, with the occasional reference to a potential "public" ("but one must be honest with one's public").

3.1.2 Register Humor: Formality and Informality

The key-items lists then, contain a large number of words and expressions that reflect imitation of everyday speech, including pronouns: *you, I, me, he, him, your* and *my*, and contractions: *it's, I'm, don't, you're, I've, didn't* and *wasn't.*

The lists also include several kinds of non-grammatical speech-indicating lexis, including upper-class slang like *blighter, dash it, by jove, rummy*, conversational constructions, including *you know, I mean, I suppose, awfully sorry, it's all right* and colloquial items, such as *chump, bloke, baffled*.

However, the lists also contain, conversely, a considerable number of formal items of various kinds, including simple words like *injudicious, ascertain, enabled* but also more complex constructions such as *endeavouring to, proceeded to, the latter, as regards, at this juncture, the recollection of, had been compelled to, to the exclusion of all else / other things etc, the work of a moment, would be paltering with the truth*.

Concordancing these items revealed how Wodehouse employs them as part of various interesting comic techniques. First, he frequently mixes formalisms and informalisms closely in the same segment of text, as highlighted in the concordance of *as regards*, a formal item often followed by colloquialisms (my italics):

(12) **As regards** the fusing of her soul and mine, therefore, *nothing doing*.
(13) **As regards** his *getting blotto* . . .
(14) [. . .] **as regards** the foodstuffs *and what not* . . .

and, equally, of *endeavouring to*:

(15) [. . .] where Bill, the fox-terrier, had encountered an acquaintance, and, to the accompaniment of a loud, gargling noise, was **endeavouring to** *bite his head off*.

The concordance of *the work of a moment* reveals how Wodehouse also combines the mixing of informal language with deliberately over-intricate grammatical complexity:

(16) In short, he was one of Nature's rubbernecks, and to dash to the rail and shove a fat man in a tweed cap to one side was with him **the work of a moment**.

Another aspect of Wodehouse's comic style was evident in the concordance of both *as regards* and *endeavouring to*, namely the recounting of banal, mundane events in high-flown language. This is most apparent when the character Jeeves is speaking:

(17) "Mr. Fink-Nottle appears to have realized at this point that his position **as regards** the cabman had become equivocal. The figures on the clock had already reached a substantial sum, and he was not in a position to meet his obligations."

"He could have explained."
"You cannot explain to cabmen, sir. On **endeavouring to** do so, he found the fellow sceptical of his bona fides."

One of the principal underlying and recurrent comic techniques employed by Wodehouse, then, is humor of register, the frequent shift from the informal to formal (bathos) and from the formal to informal (upgrading).

3.1.3 Hyperbole and Litotes

The PGW corpus keyword lists bear traces of another kind of register play. They contain a considerable number of intensifying items, expressions of hyperbole. Some of these are in informal,

1920s upper-class register such as *deuced, topping, infernal, frightful/frightfully* but others are more widely found intensifiers, such as *extremely, thoroughly, perfectly, extraordinarily, undoubtedly, absolutely, undeniably* (all from the first 1,000 keywords)

However, at the same time, the lists contain a number of expressions of litotes or understatement, such as *a bit of, sort of*.

In closer reading, we find that both hyperbole and understatement are important stylistic strategies. The first, exaggeration, is a recurring feature of Wodehouse's prose:

(18) "I can remember the days," said the Gin-and-Ginger-Ale, "when **every other girl you met stood about six feet two in her dancing-shoes**, and **had as many curves as a Scenic Railway**. Now **they are all five foot nothing and you can't see them sideways**. Why is this?"

And regarding understatement we find, for instance:

(19) "Shakespeare said **some rather good things**."

"I understand that he **has given uniform satisfaction**, sir."

3.1.4 Playing With Degrees of Precision

The key-cluster lists also contain a number of items generally used to express vagueness in conversation, including *stuff* (*about*), *and generally, something about* and (some/any/no-thing) *in the nature of, and all that, what not, all that sort of thing/rot, in a* [adjective] *sort of way*. Concordancing these revealed some interesting plays on precision, for example:

(20) He mentioned **something about** scooping out your insides
(21) Of **anything in the nature of** a girl in heliotrope pyjamas there was absolutely no trace

The effect is partly achieved by a contrast in register, vagueness indicators like *stuff* (*about*) and *something about* being conversational and can be used with higher register vocabulary:

(22) You know, I rather agree with those poet philosopher Johnnies who insist that a fellow ought to be devilish pleased if he has a bit of trouble. All that **stuff about** being refined by suffering (PGW)

and when vagueness of reference is used to refer to something very precise, such as *a girl in heliotrope pyjamas* (21) (note, not simply any pyjamas), the effect is striking.

3.1.5 Figurative Language: Humorous Similes

In contrast to other forms of figurative language, similes, a form of analogy, contain an overt lexical sign linking two entities being compared. Miller lists a number of these simile signals: *like, is like, acts like, looks like, as, is as* [. . .] *as, resembles, reminds me of, is the same as, is similar to* and *the same way* (1993, p. 371). All of these items can, of course, be concordanced. Veale (2013) examines a large database of humorous similes to ascertain similarities and differences between them and poetic similes. Duguid (2009) analyzes the use of humorous similes in comic review articles. Wodehouse too was renowned for his creative use of simile (Golab, 2004).

The first particularity to be noted about Wodehouse's similes is the remarkable array of linguistic means of introducing the comparison statement, which goes far beyond Miller's list. For instance, *a sort of* was found in the key-item lists of PGW (see section 3.1.3), for example:

(23) She regarded Eustace as **a sort of** medicine. A second dose might not be necessary, but it was as well to have the mixture handy (thus the simile is: Eustace IS LIKE a medicine)

Duguid (2009) notices the same device is common in comic newspaper reviews:

(24) [. . .] combines the joys of Julie Andrews with the punch of Arnold Schwarzenegger, **a sort of** Goldilocks on crack

A mixture of concordancing and close reading unearthed many much more exotic and striking simile linking expressions, such as the following:

(25) Her attitude to a recalcitrant nephew **would closely resemble that of** . . .
(26) . . . the odd **suggestion he conveyed of** having bought the place
(27) it's **not unlike** the Scottish express going through a tunnel
(28) his expression was **almost identical with** that of . . . the face of a fish I once . . .
(29) . . . something [in Gussie's *timbre*] . . . **reminding the hearer** partly of an escape of gas.
(30) I couldn't have made a better shot, **if I had been** one of those detectives who see a chap walking along the street and deduce that he is a retired manufacturer of poppet valves names Robinson, with rheumatism in one arm, living at Clapham

Through her key items lists, Duguid (2009) uncovers the frequent use in comic reviews of *as if* and *a cross between*:

(31) Mr. Paisley made his slow progress towards his seat **as if** to lay eggs on the sand
(32) Tory candidates in Liverpool have banded together for mutual support like **a cross between** Al-Qaeda and the Famous Five

while the phrase *all the* and the template *as . . . as* are sometimes used in reviews to introduce a bathetic simile:

(33) the denouement has **all** the anticipatory excitement of a blocked lavatory
(34) about **as** emotional **as** a tin opener

in which the second part of the analogy hyperbolically contradicts the first part.

3.1.6 Conclusions on Corpus-Assisted Stylistics

Partington et al. (2013) recount how a good deal of time and effort was required in designing and compiling the target and comparison corpora and ask what was the added value, if any, of introducing corpus techniques.

They argue for the following advantages:

- Some language features may be apparent to corpus analysis alone (at both the key-item phase and the concordancing phases).

- Corpus analysis can lead to hypotheses that need to be tested by close reading of the data.
- Corpus analysis may corroborate (or fail to corroborate) pre-statistical impressions.
- Items noted in close reading being used for humor can be concordanced in search of similar examples. For instance, having noted the comic use of *deliberately* in "concealed my astonishment that anyone . . . could **deliberately love** this girl," the concordance of *deliberately* also retrieved, among other examples: "You **deliberately assert** that you loved that weird Gawd-help-us?"
- Corpus analyses can lead to serendipitous discoveries, for example, that *practically* (the second highest **ly* adverb keyword, after *absolutely*), when concordanced in PGW, proved very frequently to perform the function of introducing a hyperbolic metaphor ("we're practically castaways on a desert island," among many more), a function it never displayed in the other two corpora of writings.

However, they also confess that, had they taken an author unknown to them and subjected the texts only to comparative computer analyses, their findings would have been limited. Intuitions arising from their knowledge of Wodehouse's work informed their analyses at every level, and reading some of an author's work in concomitance with the machine analyses was highly productive. The two approaches can corroborate each other's findings and, even when they do not, this can act as a spur for further investigation. Corpus stylistics would be circumscribed in value, but corpus-*assisted* stylistics can be a worthwhile pursuit.

3.2 Humor in Non-literary Texts

3.2.1 Other-Deprecating Humor and Self-Deprecating Humor: "Reclaiming" Mockery

Marchi (2015) is a corpus-assisted study of humor in non-literary texts. More precisely, she analyzes how the left-leaning UK broadsheet newspaper, the *Guardian*, represents itself and how other papers represent the *Guardian*. This newspaper was chosen because previous research (Marchi & Taylor, 2009) has shown that the *Guardian* is the most self-referential of the British newspapers.

3.2.2 Corpus Methodology

Marchi's analysis is based on two corpora, a 40 million word corpus containing all the output of the *Guardian* in 2005 and a corpus of all the articles mentioning the *Guardian* in 16 other British newspapers in 2005, amounting to over 1.3 million words, entitled the "Other" corpus. She examined in both corpora the items *readers, reader*, READ, and *readership* when they occurred within a span of five words to either side of the item *Guardian*.

3.2.3 Other Deprecation: How the Guardian is Portrayed by the Rest of the Press

There are 112 references to *Guardian reader*(*s*) in the Other corpus. They are generally represented negatively and mocked for a supposedly absurd clash of high social class with far-left politics, the point of the humor being the accusation of hypocrisy. In the following, the *Guardian*

readers' socialist principles allegedly do not prevent them from having their children privately educated:

(35) And while we all want to send our kids to private school, this does not sit easily with being a ***Guardian*** reader. Due to this confusion, the middle classes end up snorting cocaine whilst worrying about the cost of fair-trade coffee. (*Sun*)

Both the appearance and allegedly intolerant politically correct attitudes of *Guardian* readers—often female—are described in unflattering terms:

(36) thin-lipped angry-looking women you see in Caffé Nero reading the ***Guardian*** (*Times*)
(37) Today, you are banned from having an opinion unless it concurs precisely with the opinion of the ***Guardian*** and its baggy-breasted readership. (*Sun*)

3.2.4 Self-Deprecation: How the Guardian Transforms and Exploits Its Stereotypical Representation

In the *Guardian* corpus, the item *Guardian* co-occurs 398 times with READER or READ, a large proportion of which adopt the stereotypical left-leaning image of the *Guardian reader*:

(38) It was once said that Britain was divided into herbivores, the gentle types who **read** the ***Guardian*** and believe in collectivism, and carnivores, the thrusting go-getters who favour rugged individualism.

There are also several teasing references to the well-heeled high social class of *Guardian readers*, including on the topic of private education (see example 35):

(39) If you're a canny ***Guardian* reader**, they're tucked away in a clean and friendly place of learning, quite possibly at your private expense,

But the stereotype is also softened and ameliorated; for instance, *Guardian readers* are portrayed as intelligent and well-educated:

(40) Greer will provide the grey matter, perhaps attract a brainier viewer. Who knows, even the odd ***Guardian* reader** may now tune in.

The one part of the *other*-deprecating stereotype noticeably *absent* from the *Guardian*'s reclaiming of it, however, is the unflattering physical description of the *Guardian* readers.

Adapting the stereotype in this way has several advantages. By self-deprecation one projects a genial image of someone who can take a joke. From the newspaper's perspective, there are financial benefits too in constructing a mutually recognized identity between the newspaper and its readers, which promotes a firm brand loyalty. Günther (2003, section 2.4) argued that the statistical overviews enabled by corpus techniques provide us with structural information on frequency and position of laughter-talk (how much, where, etc.) but that for functional information, what the humor is doing, we need close reading. Marchi's study, however, shows that this division is not always entirely clear-cut in that only by the overview and the ability to collect a large number of examples of references to *Guardian readers* in context was it possible to observe this function of reclaiming of the stereotype by the *Guardian* newspaper itself. As Sinclair says,

language can look "rather different when you look at a lot of it at once" (1991, p. 100), and large amounts of information and a statistically informed view of a language phenomenon can often produce a *qualitatively* different view.

4 Corpus-Assisted Contribution to Humor Theory and Definitions

4.1 General Humor Theory

In the study of White House briefings outlined in section 2.6, Partington (2006) adds some thoughts on humor theory. Evidence was uncovered of several kinds of sudden and deliberate shifts by speakers that precede outbursts of laughter. Apart from the obvious juxtaposition of two meanings involved in punning, there are sudden shifts of *mode*, from the transactional (doing the business of conferences) to the interactional (personal social interaction), which facilitates a transition into play *frame*. They also involve shifts of *narrative outlines* and of *persona*, generally entailing the sudden adoption of *fantasy* narratives/personae. And they include shifts of linguistic *register*, both downwards and upwards.

These observations point to degree of analogy, between joke humor and other forms of laughter-talk in conversation, as predicted by Attardo (2001). They provide evidence of similar bisociative mechanisms (Koestler, 1964) at play. But, equally importantly, they demonstrate how such bisociation in authentic discourse is goal-driven; we observed how these sudden transitions are performed for precise rhetorical purposes, such as to construct an identity, to score points or to win over an audience.

4.2 Irony Studies

In an overview of the field of irony studies, Partington (2006; 2007) noted that the various existing theories of irony tended to be supported by examples either invented by their proponents or, sometimes, cherry-picked from literature. These theories were therefore uncorroborated in the Popperian sense of not being subjected to attempts to falsify them. Moreover, he worried about the validity of the examples themselves:

> in very many studies in the field, the examples discussed, whether invented or selected, are taken for granted as being ironic for no other reason than that the author intuitively feels them to be so. Any discussion of irony based upon data which has not been previously validated as ironic runs the risk of being both over-subjective and circular.
>
> (Partington, 2007, p. 1550)

He concordanced the items *irony* and *ironic** in both a 100 million word written corpus (of UK newspapers) and a spoken corpus (White House briefings) to ascertain what writers and speakers actually use irony to mean in phases like *ironically, the irony is*, and so on. His main conclusions were that irony is not just construed but is instead *constructed* by speakers/hearers. They consciously create two narratives, in the first of which some entity is evaluated, either positively or negatively, and in the second of which the evaluation is reversed to negative or positive, normally with the aim of implying criticism. In this example:

(41) Q: Ari, can I go back to the United Nations sanctions question, and I guess follow up on Bill's question about the French role, especially the Russian role. These are countries that

fought sanctions in the past, and now seem to want to keep them. Do you not see something, at least **ironic**, and maybe *cynical*, about this?

the supposed French and Russian change of policy is constructed as an irony, that is, as a reversal of evaluation from bad to good and judged critical (as "cynical").

When a second speaker constructs the irony the reversal is often, instead, from bad to good and is a defensive response to some sort of criticism:

(42) Q: What does he say to his critics [. . .] who say that the government has succumbed to protectionist pressures?

MR. FLEISCHER: I think that's kind of an **ironic** statement for people to make, given the fact that this is one of the most free-trading Presidents we've seen. (WHB)

As mentioned earlier, theories of irony have rarely been tested, and so De Simone (2014) decided to assess the echoic and pretense theories—which are similar and can be combined as "role-playing" theory—and evaluation-reversal theory against authentic data. In a small corpus-based study of the humorous headlines and final codas of articles in the satirical French weekly *Le Canard Enchainé*, she identified role-taking in 20 out of the 48 instances she identified as ironic (42%), for example:

(43) Mensognes! Calomnies! Il ne se passe aucun horreur sur le chantier du Mondial 2022 au Qatar: «ni esclavagisme ni travail forcé» (10.09.2013)

(Lies and slander! There is nothing horrific at all taking place the 2022 World Cup worksites in Qatar: "no slave labour and no forced labour")

where a supposed voice of the Qatari authorities is echoed or pretended. Instead, the mechanism of evaluation reversal was arguably present in all cases, including in example (43), where the positive Qatari message is reversed in the implicatum, and also in the following, where the evaluation reversal of the time-wasting is clear (good in the dictum, bad in the implicatum), but it is unnecessary to posit any role-playing:

(44) *Contrairement aux Italiens les Français pensent avant d'agir. Seize ans de réflexion, c'est un minimum chez nous*. (20.02.2013)

Unlike the Italians, the French think before they act. Sixteen years of pondering is the minimum here.

Finally, a cross-language corpus-assisted analysis of impoliteness by Taylor (2015) suggests that English and Italian speakers employ the items *irony/ironic* and *sarcasm/sarcastic* and their Italian cognates in different ways. She contrasts their use in two computer-mediated communication (CMC) corpora, both consisting of mainly female-user chatroom sites, the 61 million word mumsnet corpus in English and the 31 million word alfemminile corpus for the Italian material. In the Italian data both *irony* and *sarcasm* are more frequently projected in a positive fashion; for instance, when someone's behavior is described as *ironico/a* it often means it is sophisticatedly humorous with no critical intent. Italian users are also far more likely to self-describe as being ironic or sarcastic; the latter is frequently judged to be a useful but not overly aggressive defense mechanism against another speaker's face-threatening behavior. Given these apparent major differences between the uses of these items in what are two similar cultures, we cannot take for

granted that such cognate items are used in the same way outside English-language cultures and more corpus-assisted contrastive humor studies would be valuable.

4.3 Wordplay

Both Attardo (1994) and Ritchie (2004) expressed criticisms of the linguistic investigation of wordplay based on the fact that too little authentic data had been contemplated and that an explanatory theoretical framework did not seem to be in place. Partington (2009) argues that ideas deriving from corpus work can help remedy these lacunae.

Sinclair (1987) describes two basic principles of language organization. The first is the *idiom* or *phraseological* principle, which sees normal discourse as largely composed of preconstituted or semi-preconstituted blocks of language, and the *open-choice* principle, which describes discourse production as a series of open-ended choices—largely word by word—"a series of slots which have to be filled from a lexicon" (1987, p. 320). Sinclair also argues that the idiom principle of language is the dominant, default mode of interpreting discourse because it requires less time and effort on the part of hearers. It is this expectation on the part of language users that a text consist largely of semi-fixed multi-word units that wordplay exploits in one of two ways. One form of pun functions by placing the sound sequence in question in a novel context, thus forcing the hearer to switch from idiom reading to open choice and to reinterpret the sequence in a new way—for instance (the examples here are from a corpus of newspaper headlines, Partington, 1998):

(45) Hoping to enter a Euro lottery? *Don't bet on it*.

The expression *don't bet on it* usually means "don't be so sure," but is here relexicalized and broken up into its constituent parts according to the open-choice principle, so that *bet* also means, literally, "wager." Such lotteries were illegal in the UK at the time. Similarly in

(46) *Brushes with fiction*: Artists and paintings are often the subject of movies.

The expression *brushes with* is freed up so that the *brushes* become literal. The second meaning in such cases is frequently a literal relexicalization of a more figurative original.

In the second form of wordplay, a preconstructed block is altered to draw explicit attention to the language for the sake of novelty and surprise and also to challenge the hearer/reader to reconstruct the original sequence. For example, the headline:

(47) Columbus paraded as *all-American villain*

recalls the familiar "all-American hero." Note how the evaluation in the new version is frequently the reversal of the original; that is, it combines wordplay and irony.

5 Conclusions

The following are some of the added values of CADS to discourse study, including humor research. It can supply an overview of large numbers of texts, potentially making available a good many humorous events. By shunting between quantitative and qualitative analyses—and analysis types halfway between the two, such as concordancing—CADS is able to look at language at different levels of abstraction. In addition, once a particular humorous event has been identified the researcher can search for other similar events in the corpus.

Corpus techniques can allow the researcher to quantify frequency of humorous events and construct a typology of events in a given discourse type. They can also greatly facilitate comparison among datasets and therefore contrast the use of humor of different (sets of) speakers or writers. They can, moreover, ensure analytical transparency and replicability; that is, if the corpus is publicly available, researchers can test a previous analyst's observations. Finally, and most importantly, they enable the researcher to test the validity of theoretical statements about humor against large amounts of authentically occurring language data.

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24
Laughter

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1 Introduction

Studies of laughter are spread over multiple scientific disciplines of which many have nothing or nearly nothing in common: from conversational analysis and interactional linguistics to emotional psychology, from phonetics and speech technology to physiology, from evolutionary biology to cultural studies. There is not a single established laughter research community but several interest groups that were and still are emerging in parallel. Thus, the many different facets of laughter lead to a big diversity of research foci of which only a selection can be treated in this chapter.

1.1 Humor and Other Sources of Laughter

Laughter and *humor* are frequently used synonymously. There is no doubt that humorous action can lead to laughter (and smiling); however, not each jocular remark is marked by laughter by either the recipient or the speaker. The reasons why laughter and smiling are evoked are manifold and most of them have nothing to do with humor. Apart from amusement and joy, laughter can be a display of nervousness, positive surprise, hilarity, pleasure, non-seriousness, and affiliation, but also maliciousness or as a face-saving or threatening action (e.g., O'Donnell-Trujillo & Adams, 1983).

Laughter in the aforementioned circumstances usually occurs in a spontaneous and unplanned way. But there are also forms of non-spontaneous laughter—for instance, faked laughter and acted laughter (e.g., on stage). Laughing in music (e.g., in opera songs) represents a particular form of staged laughter. Further special cases include laughter with extrinsic stimulation, e.g., by tickling or laughing gas (formerly used in anesthesia). Also, vocalizations in laugh yoga groups can be considered as extrinsically stimulated. In addition, there are forms of pathological laughter such as *risus sardonicus*.

1.2 Laughing and Smiling

Another often used synonym pair is *laughing* and *smiling*. A formulation like "she is laughing with me" sometimes actually means "she is smiling with me." Laughing is usually expressed

acoustically and visually, whereas smiling does not necessarily make use of the acoustic channel. The facial expression of most forms of laughing is more complex than that for smiling. Nevertheless, smiling and laughing share some functions, e.g., as an expression of joy. Forms of smiling are often divided into felt (or so-called Duchenne) smiles, e.g., when someone is delighted, and non-felt smiles, e.g., to signal politeness (Ekman & Friesen, 1982), though there seems to be different interpretations of smiling across cultures (Thiebault et al., 2012; Krys et al., 2016). There are clearly parallels between smiling and laughing, and smiling is sometimes considered the "little brother" of laughing: compare the respective words in German (*lachen* and *lächeln*) and French (*rire* and *sourire*). Since Darwin (1872) it is a matter of debate whether smiling and laughing are two distinct categories or two ends of the same scale.

1.3 Laughter Always Haha-Like?

What does the prototypical laugh sound like? Many native speakers of English and German would probably answer "haha," Italians maybe with "ahah," and native speakers of Spanish might say "jaja." For these tamed and stylized forms of sound imitation the phonological constraints of each language were applied. Here, words or word-like units were conventionalized to generally denote laughter—an acoustic communicative event that is not a word. Sometimes laughter is considered to belong to the word class of interjections, i.e., particles with an affective component, often with a sound-imitative character. However, laughter as such, i.e., in its raw and untamed form, should be considered a non-verbal vocalization along with breathing sounds, sighing, or clicking (Trouvain, 2014).

Although laughter is a salient acoustic behavior in everyday communicative situation, there are comparably few studies on its acoustics, perception, and physiology. As a starting point of scientific descriptions Darwin (1872) can be considered.

1.4 Laughter and Emotion

Laughter is often seen as an expression of *emotion* and linked to positive feelings. Indeed, prototypical vocalizations to express *happiness* generally use forms of laughter (Belin et al., 2008; Sauter et al., 2010). However, things are a bit more complicated. The set of (basic) emotions varies between studies (including joy, happiness, pleasure, elation and more). Moreover, there seem to be various forms of happiness (Sauter, 2010). Looking at emotions in dimensions like intensity (strong–mild), valence (positive–negative) and power (dominating–subordinated), laughter can appear at quite different and sometimes contradicting coordinates. Laughter expressed to underline a malicious thought is rather negative, as it is with a laugh uttered in a very sad setting (e.g., somebody is talking of the deceased partner).

Another problem with the term *emotion* is that it is often used as an umbrella term for affective states, i.e., for a short-term inner state but also for a medium-term inner state like a mood, and also as reflections of attitudes towards things and people who sometimes express a stance. Moreover, in real situations emotions such as pure joy are comparably rare. These short-term affective states are infrequently full-blown emotions, and frequently mixed with further affective components.

1.5 The Social Nature of Laughter

Laughter seems to mainly fulfill a *social function*. Laughter—in particular, mutual laughter, creates a form of social bonding; that is, it is a display of affiliation, and can usually be associated with

a pleasurable atmosphere (Jefferson et al., 1987; Grammer & Eibl-Eibesfeldt, 1990; Smoski & Bachorowski, 2003; Mehu & Dunbar, 2008).

Through observational studies, Mehu (2011) found that high intensity laughs mostly occurred between individuals of the same age, supporting the view that laughter could be involved in bonding and cooperative signaling. Adelsward (1989) found more mutual laughter in successful job interviews than non-successful ones. In the same study, more total laughter was found in conflict dyads but more mutual laughter was found in cooperative dyads. The occurrence of mutual laughter was also investigated in dyadic interactions between friends and strangers by Smoski and Bachorowski (2003). They found that mutual laugher occurs more in dyads composed of friends than dyads composed of strangers. This result is in line with their view that mutual laughter may support or reinforce mutually pleasurable affective experiences, which is probably more often the case with strangers.

If laughing together can be seen as a sign of alignment and affiliation, then not laughing with someone could indicate disalignment or disaffiliation. As pointed out by Sacks (1992), laughter can activate a normative framework in which laughter should be shared. In certain situations, not sharing the laughter could be seen by the participants as a problematic action. Similarly, Schenkein (1972) suggests that by withholding a laugh from a slot in which one is specifically appropriate, as in the slot following a speaker's joke, a person can disaffiliate and cause trouble for this speaker.

Others have pointed out the role of mutual laughter in managing the flow of the conversation. For instance Holt (2010) investigated patterns in the distribution of shared laughter in dyadic interactions. It was found that shared laughter often precedes the introduction of a new topic, thus serving as a topic termination cue.

The sequencing of shared laughter has been another focus of attention. Jefferson et al. (1987) noted that laughter sequences can be seen as forms of adjacency pairs, similar to "greeting–return greeting" pairs. A first laughter instance can serve as an invitation that can be accepted by the recipient by placing a subsequent laughter instance (Jefferson, 1979). In addition to dyads, Glenn (1989/2003) studied the occurrence and sequencing of shared laughter in naturally occurring multiparty interaction where there are more than two speakers present. He was more focused on the question of "who laughs first." He found that, in general, in dyadic interactions, the current speaker laughs first. In general, in multiparty interactions, it is someone other than the current speaker who laughs first. Parallels can be drawn to a stand-up comedian situation where the audience usually laughs first, followed by the comedian.

The strong bonding effect obviously leads to laughter having a strong bias to be contagious. Probably everybody has experienced for her/himself an instance of being infected by laughter of others. This fact has led to an attempt at exploitation by the playback of prerecorded laugh samples of an audience in TV series at certain locations in the discourse.

1.6 Development of Laughter

Is laughter unique only to the human species? There seem to be various species enabled to show a behavior that is similar to human laughter, among them dogs, hyenas, parrots, chimps, bonobos, and orangutans (Davila-Ross et al., 2009). For some species, laughter-like vocalizations are mere imitations of the acoustics of laughter just heard. For other species, laughter triggers social interaction. In a study by Davila-Ross et al. (2014), chimpanzees responded to imitation by a humanoid robot and requested responses from it.

The phylogenetic origin of smiling is often referred to the silent bared-teeth display, whereas the relaxed open-mouth display is also known as play face. In a study with chimpanzees Walter

and Dunbar (2005) observed that dyadic play bouts are significantly longer when the open-mouth display is bidirectional. Also the degree of affinitive behavior increased after both displays. Their data suggest social bonding as a similar evolutionary function for both displays, which could explain convergence of the two displays in humans.

From an ontogenetic perspective it can be stated that there are huge differences in the laughing behavior between individuals. This concerns, among other factors, the number of how many times people laugh, in which situations they laugh and the phonetic makeup of their laughs. The idiosyncratic character of laughter is also used when displaying specific characters in movies, dubbed voices or in animated characters. It can also be assumed that the individual laughing behaviors change over a lifetime, and that laughter, as other (vocalic) behavior, is subject to social influence. Although universal, laughter is also culturally affected in the sense that people with hearing abilities influence each other in the way of laughing. A study by Makagon et al. (2008) showed that the laughs of congenitally deaf subjects had a smaller range of phonetic variation than those of subjects with normal hearing.

1.7 Laughter in Spoken Interaction

Although laughter can be considered and investigated as an autonomous event, it is the context in which the laughter occurs that allows its interpretation. Usually laughter is contextualized within spoken interaction. This entails, for instance, the exact timing of laughter of the interlocutors, the phonetic quality and duration of laughing as well as the embedding of laughter in speaking situations and cultures. Special issues and article collections on laughter in interaction (Wagner & Vöge, 2010; Glenn & Holt, 2013) and specialized workshops on phonetic topics of laughing (Trouvain & Campbell, 2007) provide details of this complex intertwined relationship of articulated language and the vocal but non-linguistic signal of laughter.

2 Core Issues and Topics

This section focuses on the most important topics of laughter research, starting with methods of how data can be collected and how laughter could be observed. What follows is an overview of possible ways of describing and transcribing laughter. Measurement methods of the shape and sequencing of laughter end this section.

2.1 Collecting and Observing Laughter

Laughter is a non-verbal phonetic activity that usually occurs in conversational interaction with an interlocutor. In contrast to this we can state that many studies on the acoustics of laughter were not based on conversational settings but settings in which actors produce preselected laughter categories (Habermann, 1955; Szameitat et al., 2009) or in which subjects watch funny video clips, either alone (Urbain et al., 2010) or with another person (Bachorowski et al., 2001).

Everyday situations would be the ideal setting for observing laughter. However, this ideal setting will be suitable for scientific purposes only in a few exceptional cases. The approach of just listening to situations in which laughter occurs with subsequent taking of written notes (e.g., Provine, 2000) is at least very doubtful and cannot be recommended. The observer is either not fully informed about the context or is part of the conversation, which provokes a strong bias. Because acoustic data are difficult to record in such a situation, most details are not observable at all and do not allow any reproducibility. As soon as data can be recorded we face the observer's paradox (Labov, 1972); i.e., it cannot be excluded that people behave differently when they feel

observed. Covert recordings would overcome this problem but cannot be considered for ethical reasons (recordings in a forensic context may represent an exception of this rule).

Another often-encountered problem with existing recorded data is that interlocutors are often audible on each other's recorded audio channel. Because interlocutors of a conversation often overlap with their speech and particularly with their laughing, this could pose problematic issues for acoustic analyses. Important information can be masked, for instance, when the beginning and the end of a laugh of a specific person is not audible or the laugh is not audible at all. An optimal observation setting would involve a separation of the acoustic channels of the different speakers. However, most recordings used in conversational analysis studies were carried out with just one microphone, where the aforementioned acoustic details possibly remain unknown.

Technically, optimal recordings are definitively a plus when analyzing laughter. Thus, recordings taken from media (radio, television, shared videos on the web) could serve as a rich source of data. But there are two main problems here: the researcher has a reduced or complete lack of control of the situational context and technical manipulations cannot be excluded, or the conversational atmosphere was highly artificial compared to the conversation before the recording. The next problem is that speakers in media behave in a certain conversational manner that makes them professional. They act in a given role similar to actors performing and the product has the effect of leaving a more or less authentic impression.

There are various forms of eliciting laughter in *experimental* settings. For instance, Grammer and Eibl-Eibesfeldt (1990) audio- and videotaped male–female encounters when the subjects felt unobserved. Nwokah et al. (1999) recorded mother–child interactions in the lab. Truong and Trouvain (2012a) analyzed various corpora with conversational speech, which were not specifically recorded for laughter analysis. These corpora were either task-based, e.g., interlocutors played a spot-the-difference game, or they contained speech of real meetings of a research lab where each interlocutor wore a microphone. To summarize, the systematic observation of laughter is by far a non-trivial task. What becomes clear after studies with various styles and in various situations is that laughter is not a strict, staccato-like voiced–voiceless alternation alone but more a bundle of very different phonetic and diverse complex forms (cf. Trouvain, 2003; Chafe, 2007).

2.2 Describing and Transcribing Laughter

How many different types of laughter can we find? Such a question of course depends on the typology you are searching for. When looking for lexical variants for *laugh* in the English language we could come up with the following list:[1] *giggle, cackle, guffaw, chuckle, chortle, snicker, choke, titter, bray, howl, horselaugh, mock, groan, bellow, hoot, bleat* and *neigh*. Other languages will definitively show other lists of synonyms and related words. This semantic field of laugh can be extended by emotional and attitudinal labels for laughter such as *joyful, cynical, heart, mirthful, sad, dirty* or *belly.*

A more phonetic impressionistic approach goes back to Grammer and Eibl-Eibesfeldt (1990) who distinguished between *voiced* and *voiceless* laughs. In their article "Not All Laughs Are Alike," Bachorowski and Owren (2001) made a distinction between laughs that are "song"-like (voiced), "snort"-like (with nasal cavity turbulence) and "grunt"-like (with laryngeal and oral friction). Those classifications take phonetic dimensions of vocal production into account.

Transcripts in normal writing usually do not contain non-verbal vocalizations such as laughter, noises of breathing or throat-clearing, which are hard to write down because of an unclear syllable structure and standardized orthography. Nevertheless, there are stylized forms of spelled laughter such as *hehe*. The idea behind *haha*, *ahah* and *jaja* is that a typical laugh is made up of

two syllables, with each syllable having a consonant and a vowel. The number of "syllables" in song-like laughs can of course change. What looks like vowel–consonant alternations is a voiced–voiceless pattern in an expiratory phase (episode). Inspiratory elements can intersperse the episodes (see, e.g., Trouvain, 2003; Chafe, 2007).

In addition to "freestanding" laughter, we can observe that laughing can be combined with articulated speech. So-called speech-laughs (Nwokah et al., 1999) can sometimes count up to 50% of all laughs of a person. From a vocal production perspective, speech-laughs are characterized with a reinforced expiratory activity and a tremor-like voice quality while articulating (Trouvain, 2001).

In scripted versions of interviews one can sometimes find the information when and at which time the interviewee has laughed by inserting meta-information by means of tags such as "(laughs)." The reader is referred to the laughable in the text but has no information about how this laugh was produced. Similarly, emoticons such as ;-) (= winking), :—) (= smiling), and "LOL" (= laughing out loud) can help to enrich and to clarify more informal texts in emails, text messages, and chat contributions. The advantage of these emoticons is that the authors deliberately inserted these pieces of information in contrast to the transcriber of the interview who decides if this is additional information of someone else's spoken text production. Laughter in comics and cartoons can be recognized by the pictures, but additional iconic information can be delivered by changes in the typography of the transcribed laugh in the bubble.

In discourse and conversation, analytical transcription systems such as the "Gesprächsanalytische Transkriptionssystem 2" (GAT 2) (Selting et al., 2009, p. 367), it is recommended to transcribe laughter either as *hahaha*, *hehe*, *hihi* when it is a shorter or "syllabic" laugh corresponding to the number of pulses or laugh syllables, or as "((laughs))" between double rounded brackets as a description of laughter. Speech-laughs or laughed speech should be transcribed as "<<laughing> word >" whereas the convention for smiled speech is "<< :-) > word>."

In their example transcript (1) taken from a real conversation, Selting et al. (2009, p. 394) depict laughter at various places. The transcriptions of various laughing events differ from event to event: In line 28 the laughs start with *phhh*, continued by *hohoho*; in lines 38 and 39 *hm*; in lines 40 and 41 it is *lacht verstohlen, ca. 1.2 Sek lang*; in lines 62, 63 and 65 it is *hehehe* or *he he*; and in line 66 *he ho ho*. (Interlinear translations of the text were inserted below the respective lines in the transcript.)

```
(1)
27 S2: und sich mit den NACHbarn ange[legt,=ne, ] (1.2)
and PRON with the neighbours argued PTCL
and argued with the neighbours
28 S1:                 [phhh hohoho]
. . .
36 S2: und ham wir immer gesagt HIT[ler;=ne,]
   and have we always said Hitler PTCL
and we always said Hitler
37 S1:               [HITler;]
38 S1: h[m,]
39 S2: [hm,]
40 S1: [((lacht verstohlen, ca. 1.2 Sek. lang))]
[((laughs in a stealthy way, ca. 1.2 sec.))]
41 S2: [((lacht verstohlen, ca. 1.2 Sek. lang))]
. . .
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61 S2: jetzt wohnt er nämlich mit seiner SCHW:ESter
    now lives he actually with his  sister
zusa[mmen.]
 together
now he actually lives together with his sister
62 S1:   [hehehe]
63 S1: he [he]
64 S2:   [und] die LAUfen: (.) RUM wie n URaltes
and they run   around like an old-age
    ehe[paar.]=ne,
couple  PTCL
and they behave like like an old-age couple
65 S1:  [he he]
66 S1: he ho [ho]
67 S2:    [OUH] mann. (.) heh
PTCL man
Oh boy!
```

The diversity of these transcriptions shows various interpretations of various laughter events, be it a laugh with a "syllabic" structure (*hohoho*), laughs with different vowel qualities (*he* vs. *ho*), laughing without any vowel articulation (*hm*), with a more literal description (*verstohlen* in German or *stealthy* in English) or with temporal information (*ca. 1.2 Sek. lang*). Especially with the interpretative comments, it is unclear whether a second transcriber would come up with the same or similar transcription of the laughing events. While it is not the aim of this chapter to criticize this kind of diversity in transcription, it shows two things: first, each transcription is always an interpretation. This holds in particular for non-words without standard spelling. And second, the diversity of the ways to transcribe laughter mirrors the diversity of laughter in general.

The preceding transcript shows a further important feature of laughter in interaction: all laughs in this example transcript were overlapping, either with speech of the co-participant (e.g., lines 28–65) or with laughter of the co-participant (e.g., lines 38–41). It is not unusual that speakers overlap with their vocalizations. The conversational principle "one speaker at a time" (Sacks et al., 1974; Stivers, 2009) does not always hold (see, e.g., Liddicoat, 2007). This restriction is supported by corpora of conversational speech where a considerable amount of "cross-talk" was observed (e.g., Campbell, 2007; Heldner & Edlund, 2010). Laughter in particular has a tendency to overlap with laughter as could be shown by Laskowsi and Burger (2007), Truong and Trouvain (2012b), and also Smoski and Bachorowski (2003). Laughter seems to serve as the optimal opportunity for a joint vocalization. In lines 40 and 41 of the transcript we see synchronous laughter of both interlocutors, whereas the laughter in lines 28, 62, 63 and 65 overlaps with speech of the interlocutor. Interestingly, the overlaps in the latter cases are transcribed as aligned on a syllabic basis, e.g., "he [he]" in line 63 aligns with "[und]" in line 64.

There is no standard annotation of non-verbal vocalizations in speech corpora. Usually transcriptions of laughter are made for the whole laughter bout on the word level. The following patterns can often be observed. A laugh is marked as a single element but with an extra mark such as angle brackets: <laugh>. A speech-laugh : that was <laugh: so funny>. Smiled speech: that was <smile: so funny>. Breathing noises are often <h>; however, it remains often unclear whether the breathing should be regarded as part of the laugh or not.

2.3 Placement and Timing Details of Laughing

It was stressed that laughter usually occurs in spoken interaction and that the social dimension is also reflected in common or shared laughter. Jefferson (1979, p. 93) describes the sharing of laughter with an "invitation–acceptance scheme":

> Laughter can be managed as a sequence in which speaker of an utterance invites recipient to laugh and recipient accepts that invitation. One technique for inviting laughter is the placement, by speaker, of a laugh just at completion of an utterance, and one technique for accepting that invitation is the placement, by recipient, of a laugh just after the onset of speaker's laughter.

This normally leads to the overlap of laughs. The exact mechanisms of how interlocutors manage to produce an overlapping laugh in talk-in-interaction remain unclear.

2.4 Measuring Laughter

It is possible to observe the vocal production of laughter of the phonetic levels of physiological generation, its acoustic characteristics, and its perception. In contrast to speech sounds, which are mainly the product of the control of articulatory gestures in the vocal tract, laughter mainly reflects modulations of phonatory and respiratory movements. This means that vowels that can be observed in laughter are not produced with a specific articulatory target (Bachorowski et al., 2001). Invasive physiological measurements of laughing with a focus on the respiratory apparatus or on glottal activities in the larynx (e.g., Luschei et al., 2006; Esling, 2007) have the advantage of observing laughter directly at the source of generation. The disadvantage is that the data is gained in settings that are far away from persons laughing in interaction and in an ideally unobserved way. Nevertheless, measurements under pure laboratory conditions can give important details of the "mechanics" of laughter, but should be backed with data recorded in more natural or naturalistic situations.

Non-invasive kinematic studies of rib cage and abdominal movements in spontaneous dialogues show how tightly coupled the inhalation and exhalation activities of both conversational partners can be (McFarland, 2001). Though not every inhalation results in an audible noise, many song-like laughs have such an inbreath noise as an offset (Chafe, 2007). Sometimes they co-occur with linguistically motivated inhalation noises between major prosodic phrases, which usually reflects syntactical and discourse structure.

Compared to speech, laughter can show dramatic differences with respect to prosodic dimensions of fundamental frequency (pitch) and intensity (loudness). It is the usual tendency for song-like laughs to be higher and louder than spoken language. There seems to be a difference between males and females: men produce much more unvoiced laughter than women (Bachorowski et al., 2001).

"Laughs are not alike"—this statement is valid for the different acoustic characteristics of laugh productions but also for the effect of laughter when perceiving it. Laughter is sometimes described as staccato-like, meaning that a laugh consists of a sequence of very similar laugh syllables. However, it was shown that a strict rhythmicity by repeating the same syllable has been perceived as less natural than introducing some variation in this rhythmic pattern (Kipper & Todt, 2001; 2003a; 2003b). With regard to the participation of the voice, it is interesting to see that unvoiced laughs are considered less positive than voiced forms (Cirillo & Todt, 2005). Variation in the prosodic parameter duration (length), fundamental frequency (pitch), and intensity

(loudness), as well as variation regarding voice quality (Esling, 2007), can have very different effects—of which we have so far nearly no exact knowledge. Apart from quantitative and qualitative aspects, it seems to be the case that laughter—as other affective triggers—does influence perceptual dimensions such as the memory in the sense of "laugh—and you will be remembered" (Armony et al., 2007).

3 Methodology and Sample Analysis

In this section a selected sample of a joint laugh taken from a conversation is analyzed with a particular focus on the timing of the laughing interlocutors. First a transcript is provided, followed by an interpretation of the acoustic representation of the same sample.

3.1 Data

The selected sample of an overlapping laugh is taken from a conversation in which interlocutors laugh together, because laughter seems to represent an optimal opportunity for joint vocalization, be it with speech or laughter of the interlocutor (Laskowski & Burger, 2007; Truong & Trouvain, 2012b; Smoski & Bachorowski, 2003). Exceptions of the principle "one speaker a time" are rather frequent in spontaneous speech—for instance, as feedback expression or "collaborative completions," which are continuations by the conversational partner with matching prosodic features (e.g., Lerner, 1991; Local, 2005). Other joint vocalizations that require across-speaker coordination are, for instance, synchronous reading aloud (Cummins, 2007), singing in a choir, and a common prayer in church.

The examples shown in this section stem from a dialogue from the Lindenstraße Corpus (IPDS, 2006), where both conversational partners had to talk about a German TV soap (before the recording they had to order non-identical video clips of a given episode). Both interlocutors (same sex, friends) wore head-mounted microphones and earphones and were seated in different sound-treated rooms. The room separation has the advantage to suppress the visual information exchange and to provide acoustic recordings with separated acoustic channels (no acoustic mixture). More details of the analysis of these examples can be found in Trouvain and Truong (2014).

3.2 Transcript

The transcript of the example in (2) shows the spoken words and non-verbal vocalizations for a speaker's turn. Each line has been translated into English in an interlinear way; a summary of each turn is printed in a smaller font at the bottom. Speaker "L" produces a speech-laugh during the articulation of *machen die leut da*. She pauses (indicated by dashes) before she audibly inhales (indicated by *°h*). The square brackets for both speakers mark the overlapping part. Speaker "S" joins in the speech-laugh of speaker "L." Her laughing (consisting of seven "syllables" plus inhalation) co-occurs with the rest of L's laughter before S is taking over the turn. This pattern corresponds to the "invitation–acceptance scheme" described earlier.

The laughable part seems to refer to the reported speech *mai, was pfn machen die leut da*. Laughable elements could be mocking the character they are talking about, which may include the dialect imitated here. Also, the speech error marked by the interjection could be interpreted as laughable as well as the content of what was quoted. There are several possibilities of interpretations. Speaker S changes the communicative role with her overlapping laughter, before the laugh listener, after the laugh speaker.

(2)
L: is halt son skelett im flur und sie meint dann so
is just such a skeleton in corridor and she says then so
mai, was <<interjection> pfn>
well what INTERJ
<<laughing>machen die leut [da> (---) °h]
make the people there
There is a skeleton in the corridor and she goes like "well, what are the people doing there?"
S: [hehehehehehehe °h]
echt nee hier wars so, dass wir ne kurze szene wo sie
really no here was so that we a short scene where she
in der straße entlanggehen und dann °h
in the street go along and then
Really? No, here we had a short scene where she walked along the street and then . . .

3.3 Acoustic Representation

Figure 24.1 illustrates the example section from transcript (2). Recordings with separate channels allow us to determine the *exact timing* of the laughter in the dialogue flow and the *exact phonetic-prosodic realizations* of the laughter by each speaker (top and middle graph). In recordings without channel separation (bottom part of Figure 24.1) these details of prosody are masked.

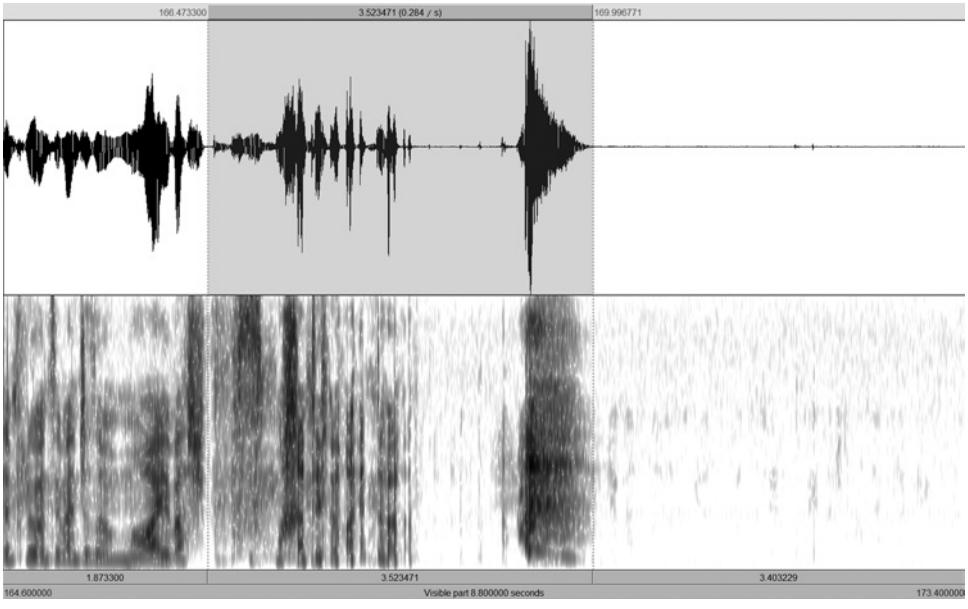

Figure 24.1 Example of laughter at turn-taking, from Lindenstraße Corpus (IPDS, 2006), (Dialogue 4, from 164 to 173 sec) represented as wave form and spectrogram (0–8 kHz). Top: left channel speaker. Mid: right channel speaker. Bottom: mixed speech signal. Marked with shading: the laugh production

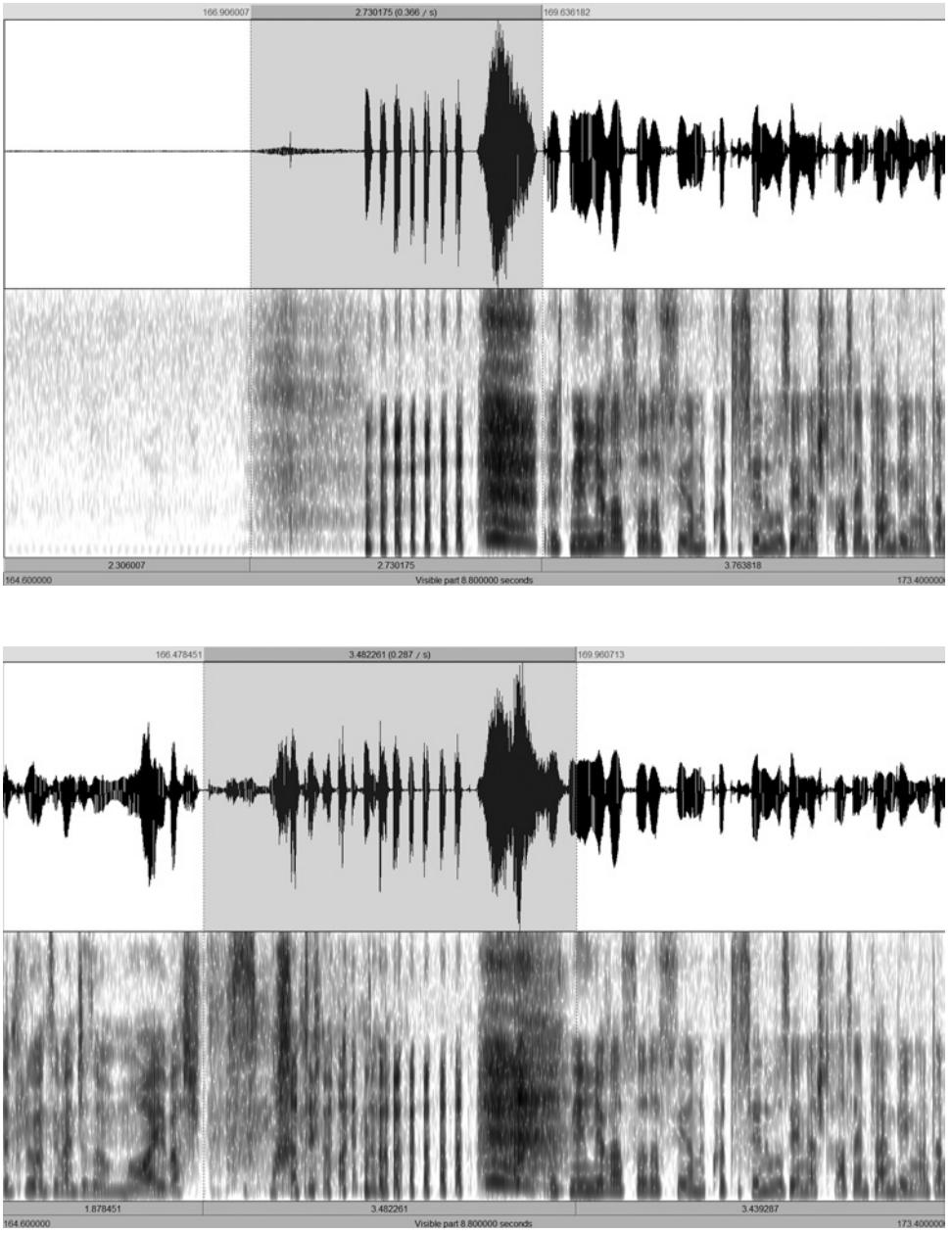

Figure 24.1 (Continued)

Mixed signals seem to be the case in most dialogue corpora investigated in interactional linguistics. In addition, some less intense vocalizations may not even be noticeable when masked in a recording without channel separation.

The exact timing for both speakers in Figure 24.1 shows that speaker S (middle) stops laughing and starts speaking before speaker L (top) terminates her laugh. In contrast to the transcript

where both speakers ended their laughs synchronically, the analysis of the separated recordings makes visible and audible the more fine-grained mechanisms of laughing and laughing together. It is not a coincidence that the turn-giving speaker L starts a bit later with her clearly audible inhalation than the turn-taking speaker S.

4 New Debates

There are plenty of unsolved issues regarding laughter research and some of them seem to be untouched. Laughter is a multidisciplinary research object. As a consequence, different communities such as psychologists, evolutionary biologists, speech technologists, phoneticians, and interactional linguists discuss relevant topics often independently from each other at conferences and journals. "Natural hot topics" include the contribution of laughter to affectivity and emotions, and the still unsolved puzzle of how laughing and smiling are linked in everyday communication. Interesting fields involve how deaf people use laughter and also the topic of laughter-like vocalizations produced by non-human species. Limitations in space reduce this section to the presentation of a few further topics for future research.

4.1 Production and Perception of Laughter Vocalizations

From a phonetic point of view it is still underexplored how the respiratory, the glottal and the vocal tract activities interact for different types of laughter. The control of the vocal apparatus while laughing is not only a mechanical manoeuvre at different places but also requires neurological routines that allow quick reactions in interactional laughing. Individual differences in laughter production are often mentioned but infrequently investigated.

Largely unexplored is how we perceive laughter. This topic also includes the visual aspects of laughing. Often we use contextual information to interpret the laughing signal. Thus, from an interactional linguistic point of view, it is interesting to learn more about the pragmatic functions laughter can have in spontaneous discourse.

4.2 Interpretation of Laughter and Its Cultural Display Rules

Probably the most important question each perceived laugh evokes is "is the other laughing *with* me or *at* me?" Laughter can be used for social inclusion as well as social exclusion. Particularly, the study of laughter that leads to exclusion, either being intended by the speakers or being interpreted by the perceivers, is a fruitful field for further research—for instance, in gelotophobia (the fear of being laughed at), which is a special type of social phobia (see, e.g., Ruch & Proyer, 2008). Another important group with social challenges with respect to laughter is people with an autistic spectrum disorder (e.g., Hudenko et al., 2009).

Similar to other non-verbal vocalizations like sneezing, yawning, and coughing, laughter is under cultural display rules. Laughter as all kind of behavior always happens in a social framework in which people consider some degree of laughter as inacceptable, inappropriate, or otherwise outside an assumed norm. Our knowledge of what is usually considered "laughable" and what kind of laughter and the timing of laughter are considered "appropriate" is rather limited. Nevertheless, we are aware of groups of people violating the expected ranges, often combined with affective-social problems or neurological disorders such as aphasia (Rohrer et al., 2009).

Cultural settings often provide regulations whether and how laughter is displayed in given situations. In Christian traditions smiling and laughter are usually not displayed (e.g., in displays of Jesus), in contrast to, for instance, Buddhist traditions. Sometimes, smiling and laughter are used

to signal two different categories of behavior. Artwork of the Last Judgement shows people with a smile (like angels) going to heaven whereas their peers with a laugh (like madness) going to hell.

In visualizations of laughter in historic illustrations, Hoffmann et al. (2012) analyzed the facial features of schadenfreude laughter by applying the Facial Action Coding System. Results show that while the encoding of schadenfreude laughter is heterogeneous, schadenfreude is decoded when the facial expression unites markers of joy (orbicularis oculi, or pars orbitalis, muscle and the zygomatic major muscle), as well as markers of negative emotions (e.g., brow lowering), or in one case, where the initially categorized schadenfreude illustration contained markers distorting the expression of joy (e.g., frowning and the lowering of lip corners). These findings support the hypothesis that schadenfreude may be expressed by a morphologically distinct blend of a positive and a negative emotion, or is expressed by joyful laughter (with the expression being modulated due to social desirability).

4.3 Technological Applications With Laughter Vocalizations

Laughter in dialogues, particularly those with more than two interlocutors, can represent important aspects in automatic speech recognition. First, laughter as a frequently occurring non-word vocalization can complicate the recognition result—an issue that should be avoided by a better recognition of laughing events in speech. Second, automatic laughter detection in dialogues can help to reconstruct discourse acts like topic change.

A different technological application of laughter is to enrich the expressivity of synthetic speech (Campbell, 2006), especially the expressivity of personalized synthetic voices. Speech synthesis is a great communicative help for people who are unable to articulate speech. However, the expressiveness of the person who is reliant on a speech synthesizer is clearly reduced when there is no possibility to show laughter, or a poor realization of appropriate laughs.

From a perceptual perspective, another field of technology could be helpful—for example, the development of computer-assisted training material for autistic persons and other people who have problems recognizing and/or interpreting certain types of laughter (e.g., Tanaka & Campbell, 2014). Taken together, there are many technological applications conceivable where laughter can play an important role in improving the communication of machines with human users. However, in order to develop appropriate and suitable laughter interactive technology, we must first gain a good understanding of what laughter is.

Note

1 Thanks to John Laver for this list.

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25
Failed Humor

Nancy D. Bell

Introduction

For most people it is difficult to recall situations where their greetings, compliments, requests, or apologies were not recognized as such and were responded to in unusual ways. The case of humor, however, seems to be quite different. Most of us can remember a time when our joke wasn't even acknowledged, or worse, was acknowledged because it achieved the opposite of our intended goal: rather than amusing people, it bored or even upset them. Even individuals who are not able to recall a specific time when their humor failed acknowledge being familiar with the problem, and many even say that this happens to them "all the time." In this chapter, the joint construction and management of failed humor—any utterance that is intended to amuse, but that, for any reason, is unsuccessful in doing so—is explored.

Historical Perspective

Despite being such a widely recognized phenomenon, failed humor has been the topic of very little systematic research and is only now beginning to be incorporated into the study of humor more broadly. Prior to this time, scholarly work on humor included only occasional mentions of failed humor with no attempts to incorporate it into a larger theory of humor. Plato, for instance, saw humor as immoral, and thus withholding laughter or refusing to initiate jokes meant taking the moral high ground and avoiding buffoonery. This view of humor as something low class seems to have been common in ancient times. Clasquin (2001) suggests that humor was treated similarly in ancient India during the early days of Buddhism, during which "[l]oud, boisterous laughter, and anything humorous that might cause it, was for the worldling, the unenlightened, the fool" (p. 98). It was only later, under Chinese influence, that Buddhism embraced humor as a way of teaching enlightenment (Clasquin, 2001; Yue, 2010). Yet, under Confucian influence, the Chinese, too, saw humor as a sign of ill-breeding and lack of education, a prejudice that has persisted to a certain extent, up to the present day (Yue, 2010). From these perspectives, the failure to appreciate humor—or at least to exhibit outward signs of amusement—is evidence of a person's civilized, respectable nature.

Aristotle is less strict than Plato, suggesting only that we avoid extremes—he decries both habitual jokers—buffoons—but also those who are humorless. In doing so, he recognizes that one cause of failed humor is personality, noting that "those who cannot say anything funny themselves, and are offended by those who do, are thought to be boorish and dour," finding such individuals "useless" in social situations (Morreall, 1987, p. 15). The chronically humorless individual has since often been noted. For instance, George Meredith in 1877 attributed the failure of humor to a flaw in the nature of the hearer:

> We have in this world men whom Rabelais would call agelasts; that is to say, non-laughers; men who are in that respect as dead bodies, which if you prick them do not bleed. The old grey boulder-stone that has finished its peregrination from the rock to the valley, is as easily to be set rolling up again as these men laughing.

Under this rubric, then, we attribute failure to the chronic seriousness of certain individuals, or to their tendency to be easily offended (for a current perspective on this see Raskin 1985, 1998/2007).

Freud's (1905/2003) occasional remarks on the failure of humor broaden the possibilities for why humor may fail for the individual, as he recognizes (although inconsistently) that humor is subjective, and thus not everyone will be amused by the same things. He also suggests that lack of amusement may occur because a hearer is simply not in a cheerful state, is preoccupied, or that the joke is in some way at odds with the individual's personal taste or experience. Although Freud frames the issue in outmoded psychological terms of the joker and audience sharing inhibitions and being "psychically compatible," it is easy to interpret this as simply that humor preferences or styles should be shared. He also notes that an individual might be prevented from appreciating a quip if the topic and butt of the joke are not something that the hearer is open to joking about. The butt, for instance, should not be someone who the hearer is close to and will be hurt by hearing this person used as the target of a joke. Other joke-related reasons for failure identified by Freud are that a joke is overused and stale, or that its delivery is too long or complicated.

This brief foray into the history of failed humor is by no means comprehensive. It serves, rather, to illustrate the ad hoc manner in which unsuccessful humor has been considered, with brief mentions of dour individuals or stale jokes, and no attempt to consider the phenomenon within a larger framework. Furthermore, when the major theories of humor are turned upside down and used to explain why we do not find certain things amusing, this approach, too, proves unsatisfactory, providing only partial insight in certain cases (see Bell, 2015 for such an analysis). Finally, these early efforts to understand the failure of humor tell us little about it in terms of language and interaction. Studies by linguists and discourse analysts specifically were rare until recently, thus it is there that we begin.

Core Issues and Topics

Failed Humor as Miscommunication

There is often a fascination with humor and a tendency to see it as different from other types of communication, and while it does have its special qualities, we might best conceive of it as simply a particular key or frame. While some talk occurs within a serious frame, other talk is non- or semi-serious. Recognizing the fundamental similarity between serious and humorous interaction allows us to place failed humor within the larger framework of miscommunication,

in which other unsuccessful speech acts or events have been discussed and for which there is a substantial body of work (e.g., Grimshaw, 1980; Schegloff, 1987; Coupland et al., 1991; Linell, 1995; Bazzanella & Damiano, 1999; Weigand, 1999; Yus, 1999; Tzanne, 2000; Hinnenkamp, 2001; Dascal, 2003; House et al., 2003; Schlesinger & Hurvitz, 2008; Verdonik, 2010; Kaur, 2011). Taken together, this research has demonstrated that miscommunication can arise from any level of language, from problems at the basic level of locution, to those of linguistic form, to larger pragmatic and sociocultural factors. Further, unsuccessful communication and its repair are jointly negotiated, although the actual trigger for the conversational trouble can often be identified in either the speaker's or hearer's behavior.

In many instances, failures of humorous utterances will be identical to those of serious utterances. For instance, both humorous and serious communication may fail because a loud noise obscures part of the utterance or because the speaker uses a word unfamiliar to the hearer, who is then unable to decode what was said. Bell (2015) builds on the models of miscommunication discussed earlier to provide a full account of failure at 10 different levels of communication. While many of these levels represent miscommunications that are similar in both serious and humorous discourse (although not necessarily with the same outcomes), Hay (2001) points to three levels that are crucial with respect to humor. She notes that, for it to be successful, humor must be recognized, understood, and appreciated. Due to space considerations, it is these three levels that I focus on in this chapter.

The recognition of humor is an issue of framing (Bateson, 1972; Goffman, 1974) or keying (Hymes, 1972) and is therefore not unlike serious talk. That is, inadequate cueing of any utterance can lead to its failure. A compliment might, for instance, not be recognized at all or might be misinterpreted as an insult. With respect to humor, a lack of clear contextualization cues might result in the attempt to joke passing unnoticed. Although problems with framing that give rise to miscommunication are not specific to humor, the identification and construction of serious and non-serious frames has been identified as a considerable challenge in interaction (Sacks, 1972, Schegloff, 1987). Frames—and especially humorous frames—are not always constructed in an all-or-nothing fashion. They are often indeterminate, such that the hearer questions the speaker's intentions: "Is she serious?" or "Was that a joke?" Not only can an utterance be keyed in such a way that it falls anywhere along a continuum from utterly serious to completely playful, but frames are often layered in talk (Goffman, 1981), making their interpretation more challenging. This is illustrated well by Priego-Valverde (2009), who uses Bakhtin's notion of double-voicing to analyze the negotiation of unsuccessful humor and, in doing so, points to the difficulty hearers can have in deciding which voice to attend to—the serious or the playful—in their responses. Although this can be a common and sometimes serious trigger for miscommunication, it is also part of what makes humor a powerful communicative resource, as the hearer is able to choose whether to respond to the serious or the humorous aspect of what was said, while the speaker can always opt to deny one of those messages.

When considering the comprehension of humor, to a certain extent, it parallels the understanding of serious talk: The hearer must be able to decode the language used, as well as any sociocultural information. With respect to humor, however, there is an additional hurdle that must be crossed: understanding the joke's incongruity (see Attardo, 2017; Raskin, 2017). This is a common or perhaps simply noteworthy enough occurrence that we have a formulaic phrase for describing these types of failures, saying that the person "didn't get it." The potential causes of "not getting it" are many. For instance, the attempt at humor may not take into account the hearer's level of background information, rendering it incomprehensible; the hearer may

not have paid close attention; the delivery may have been faulty in some way, perhaps being incomplete or incoherent; the joke might be of a style that is not comprehensible to the hearer. Anti-humor is one example of this, and as I was working on this chapter, the students in my sociolinguistics class surprised me by remaining completely stoic when I shared the following (anti-)joke with them:

> Seated among pleasantly conversing guests at a formal dinner, a young man sinks his hands into the bowl of mayonnaise before him and runs his fingers repeatedly through his hair. In response to the scandalized stares of the other guests, the young man explains, "I thought it was spinach."

Finally, humor that fails because it was not appreciated by its hearers is almost certainly what comes to mind for most people when they think of failed humor. Humor is specifically designed to elicit a feeling of mirth in the audience. When this does not happen, despite the hearer recognizing and understanding the attempt, it is often humiliating, thus perhaps explaining its memorability. The causes for this type of failure can, again, be many. For instance, the attempt at humor may simply be weak, obvious, unoriginal, or overused. It might also be overly aggressive or offensive in some way. As some of the early scholars of humor pointed out, either the speaker or hearer might be at fault here. Failures of appreciation occur because the speaker did not consider the hearer's background or personal proclivities, delivered the humorous line inadequately, or simply selected a poor joke. The hearer, on the other hand, might be chronically serious or very easily offended. In the following section we will see some examples of failed humor and discuss how it is negotiated.

Negotiation of Failed Humor

Is the repair of miscommunications involving humor different from those undertaken during serious discourse? How do speakers and hearers manage failure?

Repair Sequences

When miscommunications occur during serious talk, there is a preference for speakers to initiate and correct their own conversational errors (Schegloff et al., 1977). This preference is partly structural, due to the way that conversation unfolds, with speakers linking their utterances to what was said directly before. In this way, a hearer's response to a speaker's faulty utterance will reveal the misunderstanding, allowing the first speaker to immediately undertake repair. Even if the hearer's response does not indicate trouble, quite often the speaker will recognize that she or he has made an error and initiate self-correction without any indication of conversational trouble from the hearer. This preference may also exist because hearer-initiated repair creates a potentially face-threatening situation in which the hearer's initiation is heard as blaming the speaker (hence they may begin with "sorry") (Robinson, 2006). The general structure of serious repair is:

1. Detection of trouble by one party.
2. That party initiates or foregoes repair (if the latter, communication breakdown is more likely).

3. Repair is refused or accepted, both of which may be partial (if accepted, conversation continues).
4. Refusals and partial acceptances trigger a new cycle of repair until full acceptance is reached.

(Bazzanella and Damiano, 1999)

Research on repair indicates that different types of repair are needed for different types of conversational trouble, thus we should expect the repair and negotiation of failed attempts at humor to not always follow this canonical structure. Furthermore, the different ways that humor can fail (e.g., it goes unrecognized vs. it is not appreciated) require different repair strategies. The level at which humor fails, as well as the type of failure, seem to play a large part in how failure is managed, and whether and how repair is undertaken. Many miscommunications involving humor are problems that can occur in serious talk, as well, and seem to generally undergo similar processes of repair, although there may be a greater tendency to ignore the trouble and not undergo repair when humor is involved. Here again, let us focus our examination of repair on failures involving recognition, understanding, and (briefly) appreciation of humor.

When humor is not recognized, there is a high probability that it will simply be abandoned. This option works well when the utterance was not crucial to achieving some goal, which is often the case given that the primary purpose of much playful talk is ludic and phatic, rather than strictly informative. Humor is, however, often used to communicate a serious message in a playful guise, but in these cases, too, it is possible that humor that is not recognized may be abandoned, particularly if the message was either trivial or highly face-threatening. Giving up on unrecognized humor is often the most expedient and face-saving solution, because attempting repair would mean highlighting a joke that was already unsuccessful, and thus pointing to either the speaker's or hearer's apparent incompetence in either framing or recognizing humor. It is worth noting that in these cases, the miscommunication remains below the surface, which poses a particular problem for the researcher's identification and analysis of failed humor.

Sometimes, however, when a hearer does not identify an utterance as humor repair becomes necessary. In the next example, the two interlocutors share a printer, which is in Sakis's room:

ANGELIKI: Can I go and print now?
SAKIS: No, you can't.
ANGELIKI: O.K. Anyway, I don't need this bit today.
SAKIS: Of course you can go and print. I was joking.

(Adapted from Tzanne, 2000, p. 69)

This exchange follows the typical repair sequence described. Angeliki's reply to Sakis's refusal reveals that she has interpreted it as serious, and in his next turn Sakis immediately initiates correction. Although in this case the repair occurred quickly and in an amicable manner, the inability to recognize the playful frame, particularly in cases of mock aggression, can lead to serious miscommunication with negative consequences (see Priego-Valverde, 2009 for examples).

Situations in which a hearer has identified a speaker's intent to amuse, but has not understood the joke fit into a classic miscommunication paradigm, yet this type of failed humor is repaired quite differently. In fact, it is most accurate to say that the preference is to avoid overt repair. As humor scholars are always being reminded, explaining a joke usually ruins it for the hearer, thus, outside of self-corrections of, for instance, errors made due to misspeaking, the preference seems to be to employ strategies that allow audiences to decipher a challenging quip on their own. Thus, rather than overt repair, we tend to see repetition, perhaps with small changes in stress or intonation to facilitate comprehension. This occurs during a 2011 interview of the Dalai Lama

by Australian *Today* show host Karl Stefanovic. Near the end of the highly jovial interview, Stefanovic tells a formulaic joke to the Dalai Lama (DL; there is also a translator present):

01 Stef: so the Dalai Lama walks into a pizza shop
02 DL: (looks to translator and speaks Nepalese, apparently asking for translation)
03 Trans: (provides translation—the word "pizza" can be heard)
04 Stef: pizza?
05 DL: pizza [shop (nodding) yes
06 Stef: [yeah pizza pizza shop. and says, can you make me *one* with everything
07 DL: (1) mm (.) (puzzled look, shakes head, looks to interpreter, smiling) what's that?
08 Trans: (speaking Nepalese)
09 DL: (looks back at interviewer) ah yes
10 Stef: do you know what I mean? (laughing) can you make me one (puts palms together in
11 front of his face, as in prayer)
12 DL: ho
13 Stef: with everything. (gestures with both hands to make one circle) (laughs)
14 DL: ah theoretically possible

Given the presence of the translator, we can say with some confidence that the Dalai Lama understood all the words in the joke, with the exception of the dual meanings of "one." When it is apparent that the Dalai Lama has not comprehended the joke, Stefanovic attempts to draw his attention to this ambiguity by repeating the punch line. His gesture (line 10) as he utters "one" supports the spiritual interpretation of being "one with everything," suggesting he has identified this as the less salient meaning. In line 13, he also supports his repetition of "everything" with a gesture that suggests the world or perhaps the universe as the referent, rather than "all the pizza toppings." Whether or not the Dalai Lama has ultimately understood this joke, we can see that Stefanovic has attempted to allow him to figure it out on his own.

Finally, when humor fails because the hearer has simply not appreciated it, there is little to be done in terms of repair. A repair-like sequence might be seen if, for instance, the hearer provides a non-committal reaction that the speaker interprets as an indication of non-understanding; however this then is a repair based on a misinterpretation, and would then require its own repair sequence in which the hearer's lack of amusement was clarified. Thus, while there is, strictly speaking, no way to repair an unfunny joke and make the hearer appreciate it, there are ways to manage this type of failure in order to save face. Next, we examine some of these strategies.

Speakers

While repair sequences are efforts designed to reestablish intersubjectivity among conversational participants, the management of failed humor involves strategies aimed at saving face and maintaining comity. Thus, where repair focuses on achieving understanding, management is more concerned with social relationships, rather than information. Speakers use strategies to both prevent humor from failing, and to manage it once it has failed. With respect to prevention, in Bell (2015) I identify two possibilities: avoidance and inoculation. When speakers perceive that an attempt at humor might be unwelcome in any way or not understood, they can easily opt out. Humor is rarely, if ever, required in conversation, yet it is often risky, playing as it does on ambiguity, surprise, and provocative topics. Therefore, the surest way to avoid failed humor is to avoid contributing humor.

If, however, a speaker chooses to joke, despite uncertainty as to whether the joke will be accepted and found amusing by the audience, inoculation is another way to prevent its (complete) failure. This is illustrated in the following conversation from 2008, in which two commentators have been discussing the campaign activities of various candidates vying for the nomination of the US Democratic presidential candidate:

BERKLEY: We've seen John Edwards is here, and Barack has been back and forth on numerous occasions. Hillary has been here. Bill is stumping for Hillary, and it's a very, very exciting time for Nevadans.
INGRAHAM: How much time is Bill Clinton spending at the casinos? Any guess on that. I'm just kidding. It's just a little humor.
BERKLEY: None. He's busy working on behalf of his wife.

(*The Big Story With John Gibson*, Fox News, January 15, 2008)

The candidates have been visiting Nevada, and the main host, Ingraham, jokingly suggests that Bill Clinton has been gambling, rather than campaigning while there. Perhaps sensitive that this question, coming as it does from the host, might be perceived as serious and thus inappropriate (or simply as inappropriate) by viewers, she immediately minimizes the statement, referring to it as "just kidding" and "a little humor." These types of phrases function as a way of clearly framing an utterance as humor before the hearer has time to react, thus hopefully warding off any negative reactions.

Speakers are not always able to prevent their attempts at humor from falling flat or causing offense, and when humor inevitably fails, there are at least five strategies they employ to manage the failure. These are: topic change, apology, naming the joke, coaxing, and adding more humor. Our first example illustrates the first two of these strategies, topic change and apology. Here daytime talk show host, Geraldo Rivera, is interviewing women who sew the white costumes worn by the Ku Klux Klan:

RIVERA: Now, Ellen, are you really the seamstress for the Klan? You knit those nifty hats and all?
ELLEN: I don't knit them. And I am one of many seamstresses. And as a matter of fact, J.D. over here is negotiating right now to buy a small factory so that we can . . .
RIVERA: Is that right?
ELLEN: Yes.
RIVERA: Well, will we find it like in the catalog of Sears or . . .
ELLEN: No, you will not.
RIVERA: I'm just kidding. Forgive me. All right. Now I want to come back to you, Ellen, because I think it is intriguing because there is a big demand for this. I want to go to Melissa, one of the moms, and ask her how exactly are you teaching your beautiful daughters, you know, your creed—your credo?

(Geraldo, November 22, 1993)

Rivera orients to their task in a lighthearted manner, referring to the KKK hoods as "nifty hats" and asking whether they might be found in a Sears catalog. His interviewee responds seriously and apparently with some sense of offense, as Rivera not only reframes his prior utterance as "just kidding," but also apologizes and shifts to a new topic (and new interlocutor) to ask about how the children of this organization are being raised. Topic change seems designed to minimize attention to the failure, saving face mainly for the speaker. In apologizing, on the other hand,

speakers overtly take responsibility on themselves for failed humor. This strategy saves face for their interlocutor, freeing the hearer from any implication of lacking sense of humor.

The next strategy, naming the joke, actually draws attention to the gaffe, thereby rendering it amusing, even though it was not originally seen in that way. In the following extract, a reporter interviews an Alabama county commissioner who was attempting to resolve an immense debt incurred by corrupt city officials:

REPORTER: why did you take this job on
INTERVIEWEE: stupidity. (1) that was my humor. I thought you would [(.) laugh HUH! um I've *been*] in
REPORTER: [(exhale) °huh huh huh°]
INTERVIEWEE: public service for the last (.) six years and . . .
(BBC Business Weekly, March 4, 2011, http://www.bbc.co.uk/iplayer/episode/p00f17ll/Business_Weekly_Sewage_Bankruptcy_and_Strikes/)

The official's response of "stupidity" is met with a full second of silence, which he finally breaks by pointing directly to his answer as "humor" and providing an explicit description of her expected reaction of laughter, which he finally receives. This strategy seems to be almost formulaic, and generally seems to get the desired response from the audience. As Bell (2015) demonstrates, the sequence that follows the attempt at humor is pause + joke identification + (instruction to laugh). The third move is optional, and here we have a variation of it.

The remaining strategies both show up in our final example. These are coaxing and adding more humor. Depending on how they are undertaken, both of these strategies can be more aggressive than the others that have been presented thus far. That is indeed the case here, where talk show host Rush Limbaugh makes fun of the audience members of a different show. Just prior to this extract, an audience member had inquired about a sign that said guests were required to have an escort to the bathroom:

LIMBAUGH: Sir, let me just—let me just tell you, that sign is for the audience of the *Sally Jessy Raphael show*, which couldn't find the restroom on their own if they . . .
AUDIENCE: (Murmur)
LIMBAUGH: Just, come on. Lighten up. I am just kidding. She's—she and I are good friends (winks).
AUDIENCE: (Laughter)
LIMBAUGH: No, no, no. All right. What do we have on tonight's award-winning, thrill packed, ever exciting show?

When Limbaugh playfully insults the audience of the *Sally Jessy Raphael* show, his audience responds with what must be disapproving sounds, indicating the failure of his joke. In response, Limbaugh in no way backs down from his joke and instead coaxes (or perhaps here "goads" is the more accurate term) his audience into accepting the humor. In this way, he puts the onus for failure on them, suggesting that they are too serious and unable to take a joke. While his assertion that he and the host of the other show are "good friends" might be seen as mitigating the force of his joking insult, he follows it immediately with a wink, which reframes the statement as another joke (and thus untrue). His strategies have worked, as his audience now laughs and he turns back to the show. Both strategies suggest a confident speaker. For speakers with less bravado or who are in subordinate positions to their audience, adding more humor might

entail turning the joke on oneself, rather than continuing in the same vein (see Lundberg, 1969, p. 26 for an example).

Hearers

Hearers face a different set of issues, and thus employ different strategies when faced with humor that has failed for them in some way. The threat that speakers endure when their humor fails in some way is clear, and most people are familiar with emotions that follow such a failure. They may range from mild embarrassment to complete mortification, but they are never positive. Hearers, however, also face challenges when responding to an attempt to amuse that has failed for them at some level. For hearers to admit that they have not recognized, understood, or appreciated a joke exposes them to the accusation of being slow-witted or dour. Thus, the strategies employed by the hearer tend to be designed to avoid this type of portrayal.

To begin again with the failure to recognize an attempt at humor, this is similar to the problem that the speaker faces when a joke has not been appreciated. That is, there is little that can be done to alter the situation. This is also an area where extensive research has yet to be done. While we cannot yet identify specific strategies that hearers deploy in this situation, published examples demonstrate that the failure to recognize a play frame is often worthy of chastisement (see, e.g., Hay, 2001, pp. 68–69).

The context and type of humor play a large role in determining how hearers react when they have identified an attempt at humor, but realize that they have not understood it. Three main strategies seem prevalent: playing along, feigning understanding, and openly admitting their incomprehension. Just as speakers tend to be reluctant to explain a quip that has not been understood, hearers sometimes play along with the joke by trying to figure it out themselves, particularly if they have not understood canned humor. They may repeat the punch line as they try to puzzle it out or ask for the speaker to repeat the joke, as in the following responses to a joke about a mailman and a dog:

1. (3) I think it went over my head. "How's the dog?" (2) Just wait, I wanna get it. "How's the dog?" (5) Yeah, I don't get it.
2. Uhhh . . . Will you say that again?

While a pre-scripted joke can be seen as a kind of game or puzzle bracketed off as a special speech event within a conversation, spontaneous conversational humor is quite different, in that it is likely to be tied more closely to the ongoing interaction and arise from it. When this type of humor is not understood, it appears more likely that the hearer will attempt to feign understanding (Sacks, 1972). This may entail either expressions of appreciation or lack of appreciation. In the first case, the hearer might merely smile or give a small laugh, whereas the second might involve rolling the eyes or critiquing the joke, the teller, or the delivery. In both instances, however, hearers risk having their ruse exposed if further joking along the same lines ensues. If the strategy is successful, however, both speaker and hearer save face.

Finally, the audience may opt to openly confess to not having understood a joke. This seems most likely to occur when the stakes are low. The joke itself may clearly designed to be tricky, as with many pre-scripted jokes. In fact, in response to a canned joke, this was the most frequent strategy (Bell, 2013). This strategy may also be used when the interactional context is one in which the hearer feels at ease admitting a lack of comprehension.

Humor that has been understood, but is not appreciated, offers a number of opportunities for the hearer to save face. Generally, in order to maintain self-presentation as a competent—and

jovial—interlocutor, the speaker will want to respond in a way that demonstrates both recognition and understanding of the humor, but also indicates lack of appreciation. The precise manner in which this is done will—as with all speech acts—vary according to context and interlocutor factors. With close friends and family, for instance, it is more likely that the speaker will be rebuked for engaging in humor that is childish, weak, or, as in this example, obvious:

BROTHER: so you know how people say they want to be king of their castle, you can actually say you are!
SISTER: oh yeah. Nobody thought of that. That's the best you can do? (sarcastically)

While the brother here is harshly chastised for what the sister sees as an overly obvious and therefore not very humorous remark, those in less intimate relationships are likely to be treated more gently (Bell, 2009a, 2009b).

The preceding examples have referred mainly to humor that simply fails to tickle the hearer. Sometimes, however, a joke is not appreciated specifically because it is found offensive, and this type of failure presents specific challenges to the hearer. At first blush, it may seem that racist or sexist jokes are easily censured, yet this is not necessarily the case. First, the line between what counts as offensive vs. acceptable is different for everyone. Second, at the risk of stating the obvious, jokes are jokes. In other words, for some individuals, every topic is fair game for humor, because whatever is said in a joke should not be understood as representing the real attitudes of the speaker (cf. the use/mention distinction in pragmatics; see Kramer, 2011 for a discussion of humor ideologies in the face of potentially offensive jokes). Because of these issues, the hearer who wishes to express offense risks being seen as a prude or a killjoy. In these cases, Lockyer and Pickering (2001) have demonstrated that even with strangers, offended recipients take pains to present their affront as anomalous, thus showing that they are generally good sports and enjoy a laugh. At the same time, they also lay the blame for their sentiments on the joker for having chosen poorly.

The strategies for repair and management of failed humor that have been presented in this section provide only a heuristic for understanding the range of possible ways that unsuccessful humor is dealt with in interaction. In practice, of course, a range of factors come into play, and the failure of the same quip in different contexts and among different interlocutors will not necessarily be treated in the same manner. It is these social issues that we turn to in the next section.

Social Issues

It is in examining the social issues surrounding failed humor that the interactional work that humor does is thrown into sharp relief. Humor is a communicative resource that is crucial for relationship building, so when humor fails do relationships suffer? As Bell (2015) suggests, speakers whose humor constantly fails and who seem oblivious to the effect their poor choices have on others may well find themselves ostracized. Similarly, hearers who react strongly to humor that they have not enjoyed, and in such a way that the speaker is hurt or offended by their reaction, may also find themselves excluded from lighthearted social discourse. Perhaps even more so than the successful use of humor, then, the failure of humor plays an important role in delineating in- and out-groups and their norms. Humor can be deliberately designed to fail for specific hearers, who will not get the joke, or may even be the target of it, thereby reinforcing group distinctions and increasing marginalization of some individuals (Smith, 2009). Failure is a powerful reminder of group norms, and just witnessing another person being ridiculed can induce greater conformity in the observer (Janes & Olsen, 2000).

Humor often involves critique, accomplished through bringing unexpected elements together thereby—potentially—providing new insights and spurring change. For this reason, it is often associated with subversion, resistance, and revolution. This may indeed be the case at times, yet here, too, research suggests that any change may be limited to local effects (Holmes & Marra, 2002), or may be only minor and/or temporary. Humor, both successful and failed, may be more useful for reinforcing normativity than for promoting liberation. For instance, an individual who attempts to couch criticism about some behavior in a tease that subsequently fails finds him or herself as the recipient of a lesson about group norms, rather than the target receiving that lesson. It is worth noting, however, that upholding dominant social norms is by no means always a bad thing. For example, in 2011, following the tsunami that brought on the Fukushima Daiichi nuclear plant disaster, the Japanese industry minister was forced to resign when, after visiting the evacuation zone near the plant, he feigned rubbing the sleeve of his protective clothing against a reporter, saying, "Look out, radiation!" This was viewed as spectacularly insensitive, not simply because he seemed to be making light of tragedy, but because it was due to lax oversight in his very department that the plant had not taken sufficient precautions against tsunamis (Fackler, 2011).

Whether the failure of humor upholds or challenges social norms seems to depend primarily on three things: the extent to which the humor was transgressive, speaker roles and responsibilities, and the degree of intimacy between the interlocutors. First, while humor thrives on transgression, straying too far beyond group norms for humor will likely earn a speaker some sanction. A joke that is able to successfully effect social change will be one that pushes boundaries, but its failure will contribute to the maintenance of the status quo.

Next, I have argued that, despite the undeniable joint construction of failure, the social role and responsibilities of the speaker carry more weight than those of the hearer in assessing failed humor. The attempt at humor by the Japanese minister is one example of this, as a similar joke between, for instance, crisis responders working to clean up after the tsunami devastation might simply have been seen as dark humor designed to help them cope with the trauma of the event. One need not be so prominent, however, to be censured for humor. Bell and Pomerantz (2015) provide several examples of teachers who were reprimanded or even fired for their humor, again, for jokes that might not have drawn attention had they been spoken by someone with less social responsibility.

The degree of social intimacy that exists between interlocutors has been demonstrated to be a significant factor in shaping the way that they interact, and particularly the amount of elaboration that occurs. It has been demonstrated that, given the uncertainty of relationships among acquaintances, more negotiation will take place between them than during talk between intimates or strangers, whose relationships are relatively fixed (Wolfson, 1988; 1989). Humorous discourse is found more often among intimates (Carter, 2004); however, given the powerful ways that humor can be deployed to manage social relationships, jokes that perform some function beyond entertainment seem likely to show up among acquaintances, and, given the less certain nature of these relationships, failure, too, may be more frequent.

There is, however, a difference in how humor is managed among interlocutors with these differing levels of intimacy depending on the type of failure that occurs. Specifically, when humor fails because it was not understood, direct responses (i.e., those with little elaboration) tend to be provided by hearers who are either strangers or intimates. However, failures due to lack of appreciation show a different pattern, with very direct—and in fact, vehement—reactions provided by intimates, and minimal, non-committal responses by strangers. If we consider

the role that humor plays in constructing group boundaries and negotiating social identities, this is readily understood:

> While not appreciating a joke can place someone into the category of "people with no sense of humor," not understanding a joke cannot entail the same assessment, as appreciation usually cannot occur prior to comprehension (although cf. Bell, 2007). Having not yet understood the joke, the hearer's sense of humor cannot be evaluated. Judgments can be made only on his or her ability to interpret the joke, a quality that is not often publicly lauded and therefore is less subject to face threats.
>
> (Bell, 2013, p. 187)

This suggests that humor shared among intimates that fails due to lack of appreciation may be the most powerful means of reinforcing local norms and values.

Methodology and Sample Analysis

The majority of the work that has addressed failed humor in some way has used qualitative discourse analysis of either spoken or written data as its primary method (see, e.g., Hay, 2001; Lockyer & Pickering, 2001; Priego-Valverde, 2009; Kramer, 2011; Bell, 2015). This type of research has been able to examine the ways that failed humor unfolds and is negotiated in interaction, as well as the ideological bases for certain types of failure. Because Glenn and Holt (2017) address this method in detail, here I focus on data collection using elicitation, a method I have employed fruitfully to collect and analyze failed humor in two studies designed to examine the ways that people respond to humor that they did not find amusing, or did not understand, respectively.

Although I noted in the introduction to this chapter that people will often say that their humor fails "all the time" in fact, it seems to be a rather rare occurrence. Of course, it is conceivable in the case of unrecognized humor that this happens very often, but is not possible to identify unless the speaker points it out; however this seems unlikely. I came to this conclusion when I first became interested in failed humor and began to try to collect examples of it through observation. After several months I had accumulated fewer examples than I had anticipated, and in discussing this with humor scholar Salvatore Attardo, he half-jokingly suggested elicitation. Although his suggestion was probably born from equal measures of scholarly interest and a desire to see me make a fool of myself, the oral elicitation method has been used to gather a large amount of data on language use quickly. It works especially well for aspects of language that tend to be difficult to collect through observation, either because they are rare, or because the interlocutor's awareness of the topic of the research will result in poor data. Perhaps the best-known example of this method is William Labov's (1972) study of the pronunciation of /r/ in different New York City department stores, in which he identified an item available on the fourth floor and asked various unwitting sales people where to find that item. By immediately writing down the pronunciation he heard, he was able to quickly collect large samples of both a pre-consonantal and a word-final /r/.

In two separate studies I focused on unamusing humor and incomprehensible humor. For each study I found an appropriate joke: one that was inoffensive, but not funny to most people (Bell, 2009a; 2009b) or very difficult for most to understand (Bell, 2013). I, and often many of my students, told these jokes to a variety of close friends or family members, acquaintances, and strangers and noted their responses in as much detail as possible. In addition, we noted whether the joke recipient was male or female, their approximate age, and what their relationship to us

was. In later versions of this activity, we also debriefed the joke recipient, asking them why they had responded as they did. This technique yielded well over 200 responses for each study, and the data appeared in this form:

1. Investigator: Female, mid-20s

   Respondent: Female, late-80s, husband's grandmother
   Response: Oh sweetie, that wasn't funny at all

2. Investigator: Male, early 20s

   Respondent: Male, late 20s, family—future brother in-law
   Response: I don't understand. Is there more to this joke?

In this type of research, prior studies can provide a basis for some initial coding. For instance, in the study of unfunny humor the work of other humor scholars led me to look for lexicalized laughter (Haakana, 2012) as a response. In general, however, the analysis was a bottom-up process that involved sifting through the data to allow codes to emerge. The final analysis involved some quantification of codes, as well as qualitative analysis of the responses.

With respect to pragmatics, this type of elicitation has been demonstrated to provide results that are closer to natural interaction than are oral or written discourse completion tasks or role-plays (Turnbull, 2001). However, in the case of failed humor, the use of pre-scripted jokes represents an important caveat. This type of humor can be difficult to introduce into conversations, particularly in circles where canned jokes are rare. Moreover, such jokes—particularly if they are "clean" jokes, as these were—tend to be associated, at least in the United States, with children and are not generally highly valued forms of humor for adults. Still, while capturing naturally occurring examples of failed humor remains ideal, controlled elicitation provides a way to at least begin to identify canonical responses, as well as the ways in which various social factors influence how individuals respond to different types of failed humor.

New Debates

Given that the systematic investigation of failed humor is a recent phenomenon, virtually everything remains open to debate. Further research is needed to confirm patterns described in this chapter and to find new patterns as scholars examine failed humor across a wide variety of contexts and cultures. Humor support (Hay, 2001) and the failure to provide it is an important issue not touched upon here. This is the sole failure that is exclusive to the hearer, and although it is discussed briefly in Bell and Attardo (2010) and Bell (2015), the phenomenon has not been treated extensively. Further study of failed humor may shed some light on the socially constructed nature of creativity, and has the potential to inform broader work on language use and change. A closer look at failed humor will also help to correct the positive bias to which humor scholarship has been disposed for some time (Billig, 2005), as well as work to bring greater nuance to our understanding of the relationship between laughter and humor, which are too often equated. Failed humor is highly understudied, yet offers the potential to contribute a great deal to our understanding of language, humor, and interaction.

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26

Humor Support and Mode Adoption

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Imagine a house-hunting trip for two first-time home-buyers. The buyers are hoping for a sleek, modern home, but have a meager budget for their pricey city and their real estate agent is showing them some entry-level properties. They are excited to view their first option and are greeted with loud, unappealing, early 1970s décor. The following exchange ensues between the partners, in the presence of their real estate agent:

Person A: Wow! It's got such a unique look about it!
Person B: Yes, indeed, it's really something.
Person A: It's not quite what I expected.
Person B: You can say that again!

The preceding conversation, though fictitious, is very similar in form and intent to conversations shared between people every day. In this particular exchange, the speaker (Person A) and the listener (Person B) seem to be conveying a critical assessment of the house, but are doing so indirectly, in a jocular fashion. The indirectness of the remark permits them to veil their comments from the real estate agent while conveying humor to one another along with their displeasure. Notably, the listener in this case follows a conversational convention whereby they adopt a particular style, or mode, of speaking in which they follow the first indirect humorous remark with additional indirect humor. This convention is called mode adoption (Attardo, 2002), and the use of mode adoption in humorous exchanges is the focus of the present chapter.

Historical Perspective

Before proceeding, we first establish some parameters for this chapter. Our aim is to discuss mode adoption and its role in humorous discourse; namely, the use of mode adoption as humor support. In doing so, we will discuss some conversational norms and the role of the listener, and we will examine how listeners respond to humor in conversation. We will steer away from some neighboring topics; notably, we will not discuss types of humor or the goals and functions of humor in any depth, nor will we elaborate upon other aspects of humor support. We will instead only draw upon those topics to provide context to our main discussion. Much of

the psycholinguistic research on mode adoption has been conducted in relation to irony as a humorous conversational context. As such, in this chapter we will make frequent reference to ironic forms of language, even though mode adoption could be employed more broadly and need not be restricted to verbal irony. We will also circumvent deep coverage of the types and functions of verbal irony and instead direct you to another chapter in this book. In the analyses we present later we will explore how mode adoption occurs in a laboratory setting with children, with the aim of demonstrating that this support tool is used early in a conversationalist's life and is used even in laboratory situations where minimal conversational rapport has been established between speaker and listener.

Conversations and the Role of the Listener

Conversations pose many challenges to listeners. Listeners are called upon to attend, process, and ideally respond to a speaker's remarks quickly and accurately, and must sometimes do so without knowing all of the speaker's goals. Speakers switch topics, introduce information with limited context, make indirect requests, employ metaphor and idioms and make jokes, to name a few challenging discourse issues. Despite the variety of complex situations that listeners face, conversations unfold smoothly most of the time, due in part to implicit conversational rules that guide communication.

Grice (1975) outlined a series of pragmatic rules that speakers follow in conversation. Grice's conversational rules, called *maxims*, operate under the premise of the cooperative principle, which suggests that speakers ought to make remarks that are clear and direct within the context of the current conversation. That is, speakers ought to be cooperative, in such a way that makes it possible for conversations to proceed smoothly. Within the cooperative principle, four specific maxims further detail how speakers ought to form utterances. First, there is the maxim of Manner, which indicates a speaker should avoid ambiguity and unclear expression. The second is the maxim of Quantity, by which a speaker should say everything that is required for a listener to understand his/her intention, but should also say no more than is required. The third, the maxim of Quality, implores the speaker to be truthful. Fourth, the maxim of Relation indicates that the speaker ought to only say things that are relevant to the current conversation. More important to the discussion of humor, however, is that speakers may intentionally violate, or flout, these maxims in conversation. For example, in the case of the counterfactual language employed in the use of sarcasm, the maxim of quality ("be truthful") is flouted intentionally. Flouting the maxim successfully is possible only if (1) conversationalists follow the maxims in conversation generally, and (2) they follow them consistently enough that a deviation from the maxim is a signal of an implicature other than straightforward, literal intention (Grice, 1975).

Listeners implicitly understand these conversational maxims and, as a result, are able to make rapid, and usually accurate, interpretations in communication. However, listeners are not mere interpreters in the conversational process. Instead, listeners are instrumental in shaping the direction of a conversation, and can do so by the nature of their response to a speaker's remark. Listeners provide brief verbal feedback like "*yeah*," "*um hmm*," and "*ok*" to indicate they are attending to a speaker's story, and to indicate they are still participating in the conversation while allowing the speaker to share longer pieces of discourse without being interrupted. These brief remarks, called backchannels, not only indicate attention but also shape the way in which the speaker's story unfolds (Tolins & Fox Tree, 2014). Backchannels can take the form of generic utterances, like "*uh huh*," that indicate to the speaker that the listener is still attending and that the speaker ought to continue with his/her story. Alternatively, backchannels can take the form of more specific commentaries, such as "*wow, really?*" that indicate not only attention but also provide

an evaluation of the message content (Goodwin, 1986). Listeners' uses of these two forms of backchannels have been shown to shape unfolding communication differently, indicating that listener responses are processed and used in the construction of narratives (Tolins & Fox Tree, 2014). Listeners also engage in repetition of a speaker's remarks to demonstrate agreement with the speaker, to request clarification of the speaker's remark, or to express direct disagreement, all while continuing the conversation (Perrin et al., 2003). Other approaches to clarification or correction might include pointed questions that detract from the current path of the conversation. In lieu of this approach, the listeners can solicit clarification or express disagreement via repetition so that their contribution to the conversation is achieved without disrupting the flow of the conversation (Norrick, 1993; Perrin et al., 2003).

Common ground, an important aspect in the co-construction of language, is established and maintained via verbal repetition between adults and young children (Clark & Bernicot, 2008), as well as via gestural repetition (Chui, 2014). These repetitions may take the form of explicit echoes of the speaker's language, such as when adults echo, or repeat, children's utterances to demonstrate that they understood the child. Repetitions may also take the form of novel recastings of the speaker's remark, such as when adults aim to clarify the child's intention with an utterance (Clark & Bernicot, 2008). In either case they allow the listener to deftly guide the conversation without expressing disagreement or making clarification requests in more direct ways (Norrick, 1993). Repetitions can also be used in the support of humor, such as when speakers and listeners together build a conversation with hyperbole, which accumulates across turns to convey humorous intent (Norrick, 1993). We will extend the discussion of repetitions into mode adoption later, but first turn to background on humor support.

Humor and Humor Support

Humor comes in many forms and is employed under a wide variety of circumstances. Broadly speaking, we can divide humorous exchanges into either canned jokes or spontaneous humor. The former case involves using a joke (usually a brief narrative and a punch line) that is separate from the immediate context and can be retold under many circumstances. Conversely, the latter case involves the production of context-specific, or novel, humorous dialogue during the course of a larger conversation (Attardo et al., 2011). We are primarily concerned here with novel humor that emerges in everyday conversation. Like other forms of communication, humorous exchanges rely upon joint understanding between the speaker and listener. In order for humor to be mutually appreciated, the speaker must mark or signal the humor in such a way that makes his/her humorous intention clear and the listener must likewise deliver a response that indicates he/she interpreted the humor as such. In doing so, the listener provides humor support.

It might appear as though laughter is the obvious response to humor. In many instances, laughter follows even mildly humorous remarks and it is widely accepted as being a desired response in humorous interactions. Laughter indicates the speaker's remark was not only heard, but that the humorous intent of the remark was also appreciated; the listener's laughter supports the humor of the remark (Hay, 2001). Support mechanisms are important to the co-construction of humorous exchanges, like the ones that unfold spontaneously during conversation. However, laughter is not the sole support strategy that listeners provide. In some instances it may not be fitting to respond to an utterance with laughter, and instead listeners can contribute to the conversation with an array of other support strategies (Hay, 2001).

In lieu of laughter, listeners may engage in repetition of the speaker's remarks by echoing the language employed by the speaker. Echoes demonstrate understanding of the remark, just as the conversational repetitions discussed previously serve to signal understanding to the speaker.

Echoes move beyond mere acknowledgement of the remark, however, and also seemingly allow for "savoring the humor" (Hay, 2001, p. 63). The listener may also increase his/her involvement in the conversation following humor by demonstrating more enthusiasm for the topic, or may use gestures and non-verbal responses to indicate appreciation (Hay, 2001). At times, listeners might correct or contradict the humorous remark by recasting the statement into something more suitable, as is seen when a speaker uses self-deprecating humor; in doing so, listeners signal understanding of the humorous intent but imply that they wish to highlight a different interpretation of the utterance (Hay, 2001). In each of these cases, listeners signal their appreciation of the humorous intention by supporting the humor via means other than laughter. These alternate strategies may be particularly fitting in conversations, when the goal as a listener is to participate *in* the humor rather than be a recipient *of* the humor. In the latter case laughter might be more suitable. Finally, a common support strategy is for the listener to further the humorous exchange by contributing additional humor (Hay, 2001), via the use of mode adoption (Attardo, 2002). We turn now to a discussion of the ways in which mode adoption has been documented as a humor support strategy in several contexts.

Core Issues and Topics

Daily conversations among friends are likely to include indirect comments that are meant to convey some degree of humor. The intimacy and common ground that is shared between friends makes peer conversation a safe space within which to play with humorous language. Much of the psycholinguistic literature that contributes to our understanding of mode adoption has relied upon discourse analysis of conversations among friends, and of how friends tease, make "inside jokes" and employ verbal irony with one another.

Verbal irony is particularly useful for discussion of mode adoption because the speakers mean something other than what they've literally said, and the listener's response can reflect appreciation for the spoken message (i.e., a literal misinterpretation), the intended message (i.e., the unspoken meaning), or for both messages simultaneously (Kotthoff, 2003). When producing irony, Clift (1999) suggested that the nature of ironic remarks encourages the hearer to respond with another ironic remark, thereby extending and continuing the conversation's ironic tone; both the structure and the intention of the utterance can be mimicked by listeners. This mimicry can serve to create a sense of affiliation among the speaker and listener, which in turn permits the safety required for further remarks that might otherwise be too risky (Clift, 1999). Attardo (2002) suggested that mode adoption moves beyond "uptake," which is the listener's awareness of the speaker's intent. Mode adoption builds upon this recognition of the speaker's intent with a response that continues the ironic exchange. In doing so, the listener upholds both the mode of speaking (i.e., irony) and the pragmatic goal of the speaker (i.e., to convey humor). By employing mode adoption, one can demonstrate comprehension of the initial remark and participate jointly in the pragmatic functions of humorous discourse.

Studies Highlighting Mode Adoption

Studies of naturalistic conversations have examined the rates of verbal irony production and results indicate that forms of verbal irony are used on 7% (Tannen, 2005) or 8% of conversational turns (Gibbs, 2000). These rates are often characterized as relatively low usage, but given the wide variety of conversational possibilities this usage is still notable. Once instances of irony have been introduced into a conversation, mode adoption to the ironic manner of speaking is a common response; estimates of mode adoption from previous studies vary, and

range from 6.58% of subsequent turns (Eisterhold et al., 2006) to 21–33% of subsequent turns (Gibbs, 2000).

Tannen (2005) examined dinner party conversations and indicated that some responses to irony were cases of continued irony. Although this analysis did not explore specifics in terms of the form of irony used, Tannen noted that some listener responses included hyperbole and jocularity. In addition to specific utterances that were ironic, listeners sometimes mimicked the overall mocking tone of the conversation as well as particular manners of speaking that had been introduced as part of teasing. By adopting these earlier-introduced manners of speaking, listeners picked up on the humorous aspects of the discourse and further built conversation by maintaining humor with their own contribution (Tannen, 2005).

In an analysis of prerecorded conversations among friends, Gibbs (2000) explored the frequency of irony usage, the forms of irony used, and the nature of responses to verbal irony. Consider this example from a conversation documented in Gibbs's paper, where Anne and Dana are discussing the challenge of having houseguests at their apartment:

ANNE: Isn't it so nice to have guests here?
DANA: Totally!
ANNE: I just love it, you know, our housemates. They bring in the most wonderful guests in the world and they can totally relate to us.
DANA: Yes, they do.

(Gibbs, 2000, p. 6)

This conversational excerpt demonstrates the way in which speakers readily use rhetorical question, hyperbole, and sarcasm, and further illustrates how each participant makes use of mode adoption to build on the preceding statement. Gibbs's analysis of such casual peer conversations revealed that listeners engaged in mode adoption following a speaker's irony on up to one-third of conversational turns, but they did so with different frequencies, depending on the type of verbal irony that was used. The lowest rates of mode adoption were used following instances of hyperbole and rhetorical question, where the listeners responded to these ironies with irony of their own following 21% of turns. The rates of mode adoption were higher for instances of jocularity (32%), understatement (33%), and sarcasm (33%; Gibbs, 2000). This high frequency of mode adoption among friends suggests that ironic language forms derive many of their benefits from the social co-construction of conversation (Gibbs, 2000).

Mode adoption is not restricted to casual conversations among friends; it can be used in the construction of more formalized jokes, in persuasive marketing, and in conversations between parties who are less well-acquainted than friends. However, conversations among friends may be particularly well suited for mode adoption due, at least in part, to the familiarity of the speaker and listener (Kotthoff, 2003; Eisterhold et al., 2006), and to the communication medium (Kotthoff, 2003). In Eisterhold et al.'s (2006) study, instances of verbal irony were recorded in face-to-face settings as well as in other settings such as email, radio broadcasts, and service encounters (although the greatest number of ironic instances were from the face-to-face settings). Eisterhold et al. (2006) suggested that their findings support the need for familiarity in ironic discourse, because many more instances of irony were recorded in interactions between friends than between strangers. Similarly, Kotthoff (2003) examined irony across two different contexts: casual dinner-party conversations and televised debates of current issues. As with Eisterhold et al.'s (2006) findings, Kotthoff (2003) also observed that conversations between friends yielded much more mode adoption than did the televised debates, suggesting that familiarity and communication context are both relevant factors in determining how listeners respond to

irony. One might expect televised social and political debates to be ripe for satirical and indirect speech in the name of persuasion; however, Kotthoff noted that the use of ironic language in the televised debates read as more critical, whereas the irony used in casual conversation conveyed more humor. It may be the case that listeners can understand irony that is conveyed with either a critical or a humorous intent, but in order to engage in the mutual construction of ironic discourse via mode adoption listeners may prefer situations where humor is clearly intended.

Similarly, Drew (1987) indicated that in conversations where the target of a teasing remark subsequently constructed a reply, the target rarely played along with the teasing and instead corrected or redirected the tease. When individuals are targeted in a teasing manner they may not be prone to view the humor and may instead identify with the critical nature of the remark. If this is true, then the lack of mode adoption mirrors the rates noted by Kotthoff's (2003) televised debate data and indicates that mode adoption is not merely a tool used to signal understanding of what is said, but rather is used to uphold the playful nature of humorous discourse in situations where the listener feels inclined to do so.

The majority of research studies highlighting mode adoption have focused on adult conversation. A question that has rarely been addressed, however, is how children begin to participate in humorous conversation in adult-like ways, using responses like mode adoption. In one of very few studies on the topic, Pexman et al. (2009) examined irony use in parent–child conversations and observed some instances of mode adoption. Pexman et al. (2009) analyzed videotaped exchanges in which parent–child–sibling triads worked collaboratively to complete a dominoes task. The recordings were examined for instances of irony production, types of irony produced, instances of gestural irony, and instances of mode adoption. The remarks and gestures made during the dominoes task were often jovial and teasing, with a clear humorous intent. In this sample, mode adoption was used in response to 7% of ironic utterances, such as in this exchange:

YOUNGER CHILD: Stop helping me!
OLDER CHILD: What am I? Chopped liver?
PARENT: Pickled honey.

(Pexman et al., 2009, p. 242)

Pexman et al. (2009) also observed cases of mode adoption following 8% of ironic *gestures*. Gestures are used to communicate meaning intentionally, and ironic gestures communicate a belief that contradicts the context. For example, if your friend attempted to gracefully enter a room but instead made a clumsy and comedic entrance, you might smirk and offer a thumbs-up sign in order to tease them. In Pexman et al.'s (2009) study, children sometimes used mode adoption in the form of a gesture to build upon the humorous tone introduced by a previous gesture, as in this example:

OLDER CHILD: After Mom places a wobbly domino, older child "huffs and puffs" (like the big bad wolf from the "Three Little Pigs") at the remaining dominoes in a teasing, joking manner as if threatening to blow them over.
YOUNGER CHILD: After watching older child "huff and puff," mimics the same behavior on a subsequent turn in the task.

(Pexman et al., 2009, p. 242)

The instances of mode adoption observed in this study occurred in a small number of cases, but nevertheless indicate that this tool is used spontaneously in naturalistic conversation, even by children, to support humor and to facilitate the continuation of the dialogue (Pexman et al., 2009).

Mode Adoption as Humor Support

Mode adoption is, in essence, about adopting a broad manner of speaking, a manner that has been established via the joint involvement of the speaker and listener. This can be thought of in terms of play frames. A play frame is a situational framing of the discourse space that establishes the conversation as playful or humorous in nature (Davies, 2003; Coates, 2007). This is supported by the tendency for listeners to use mode adoption more frequently in the aforementioned studies where the critical intent is de-emphasized and the humorous intent is more accessible.

Based on the preceding studies, we have characterized mode adoption as a highly social endeavor. The listener engages by not merely responding but by taking an active role in co-constructing the conversation. In building on the conversation, the listener can also guide the conversation via the use of mode adoption. In Tannen's (2005) conversational analysis she demonstrated this with a conversation she engaged in with her friend Steve, in which they were poking fun at their friend Peter:

STEVE: Peter, you—I think you should start meditating more. You gotta get more into spiritual things.
DEBORAH: No, maybe he could teach his kids to meditate.

(Tannen, 2005, p. 171)

Tannen claimed that in continuing the ironic tone of the conversation she was able to match the prior statement, yet simultaneously redirect the statement back to Peter's prior reference to kids; in doing so, she showed that she can acknowledge and affirm via the use of mode adoption, but can also contribute commentary or views of her own. This aspect of mode adoption illustrates nicely that it is not merely a tool whereby listeners signal understanding by mimicking words, but rather is a tool that allows users to move beyond those basic conversational functions into deeper pragmatic functions. Conversationalists use mode adoption to build routines of humor (Tannen, 2005). In a further indication that mode adoption is affiliated with humorous discourse, Norrick (1993) suggested that mode adoption permits layering of hyperbole across conversational turns that build humor via exaggeration. Additionally, Gibbs (2000) noted that listeners may respond to irony with irony as a way of trying to one-up the speaker, thus creating a jocular verbal battle in the co-construction of the conversation.

Other common forms of humor support, such as laughter, may in fact be less useful as a support mechanism than mode adoption. Laughter may be a weaker way of signaling humor appreciation because laughter can be used to indicate appreciation for the inappropriateness of a remark without making clear that the listener actually grasps the implicature of the remark (Eisterhold et al., 2006). In addition, laughter may not feel like a suitable response for clever and wry remarks that convey humor, particularly when those remarks embody critical attitudes in addition to humor. Mode adoption, however, may be a stronger indicator of humor support because adopting the speakers' mode of communication indicates full appreciation for their intentions, and promotes the sense of solidarity that can be useful in humor. If mode adoption is in fact a strong indicator of humor support, it is possible that this conversational tool is salient enough that it is used even in the early development of humorous discourse. We turn now to an experimental analysis of mode adoption in children's language.

Methodology and Sample Analyses

Given Attardo's (2002) conceptualization, in order to engage in mode adoption a child needs to understand the intention of the initial remark and also needs to be equipped to respond

appropriately in real time. Here we will describe a previously published study, where we investigated when children begin to show sensitivity to mode adoption (Whalen & Pexman, 2010). Our main goal was to investigate the age at which children begin to co-construct conversations with the use of verbal irony. Developmental studies of irony often make use of counterfactual language, where the intended meaning is virtually the opposite of the spoken message, such as when a speaker remarks "*What a perfect day for golf!*" when it rains heavily on his/her planned golfing excursion. This type of counterfactual language can take two forms: ironic criticism and ironic compliment. In an ironic criticism, positive language is used to convey critical intent, as in the golf example; this form is widely referred to as sarcasm. Conversely, in an ironic compliment, negative language is used to convey positive intent, such as when a speaker remarks "*What a terrible day for golf!*" when the weather conditions are actually ideal. Children typically develop an understanding of ironic criticisms before they develop an understanding of ironic compliments (Hancock et al., 2000; Harris & Pexman, 2003; Pexman & Glenwright, 2007; Pexman et al., 2005). Given this asymmetry in how different forms of ironic language are understood, it is possible that mode adoption rates would differ for each form. As such, we conducted two experiments, one to measure responses to ironic criticisms and one to measure responses to ironic compliments. We created conditions to encourage mode adoption by presenting children with brief illustrated stories that were followed with an experimenter's ironic or literal remark.

In these experiments we recruited children who were old enough to have a basic grasp of counterfactual irony, which normally occurs in typically developing children at 5–6 years of age (Ackerman, 1983; Winner & Leekam, 1991; de Groot et al., 1995; Dews et al., 1996; Hancock et al., 2000; Harris & Pexman, 2003; Filippova & Astington, 2008). Comprehension tends to precede production in language development (e.g., see Clark & Hecht, 1983) so we expected that intentional responses to irony might begin at age 6 or beyond. In each experiment we also included control conditions that made use of literal language, and we measured comprehension to ensure that children detected the intended irony. Here we will report on the cases of irony only and will include only those cases in which children demonstrated comprehension (with one small exception, to be detailed later).

Mode Adoption of Ironic Criticisms

The participants were 65 English-speaking, typically developing children, aged 7, 9, and 11 years old. In this experiment we crafted nine simple animated stories, which the experimenter and child participant watched together on a computer screen. In each story, which featured a child-friendly event, the characters were anticipating a positive outcome, but instead encountered a negative event outcome. For example,

> Shane and Kim spent the whole day making a huge sand castle at the beach. They couldn't wait to show their parents how great their sand castle looked. While they were running up the beach to get their parents, a huge wave came along and ruined their sand castle. [Experimenter's ironic remark: *That sand castle sure looks great.*]

Immediately following each story, the experimenter directed an ironic remark (or a literal remark in the case of the control condition) at the story ending, using appropriate intonational cues. When ironic criticisms were made, the tone was mocking and insincere; when literal criticisms were made, the tone was blunt and factual. The child's response to the experimenter was recorded via video and was later transcribed into five categories: (1) Mode Adoption: responses that used an ironic statement in response to the experimenter's irony; (2) Agreement: responses

that demonstrated agreement with the ironic intent of the remark without a clear indication that the participant was mimicking the ironic nature of the remark; (3) Disagreement: responses that displayed disagreement with the ironic intent of the experimenter's remark; (4) Ambiguous: responses that conveyed a combination of both agreement and disagreement, as well as responses that were too vague to classify; and (5) Reconciliation: responses that displayed an attempt to reconcile the counterfactual remark and intention. Cases of mode adoption were separated from cases of mere agreement by considering the child's intonation, facial expression, gestures, and postural changes (e.g., casual shrugs) in addition to their speech.

Analyses

When children were presented with ironic criticisms, their overall rate of mode adoption was 9.84%. Even the youngest participants used mode adoption, but there was a developmental increase in the use of mode adoption whereby the older children used this response strategy more often than did the younger children. The 7-year-olds employed mode adoption in response to approximately 4% of ironic utterances, the 9-year-olds employed mode adoption in 8% of the cases, and the 11-year-olds did so in 16% of cases. Here is a sampling of the possible ironic comments from the experimenter (for several different stories), and the examples of mode adoption provided by participants:

Example #1

EXPERIMENTER: That sandcastle sure looks great.
PARTICIPANT: Uh huh, it sure looks like that.

Example #2

EXPERIMENTER: That sure was lucky.
PARTICIPANT: Yeah, lucky.

Example #3

EXPERIMENTER: What a fun day.
PARTICIPANT: Yeah! Very fun.

Children's production of ironic utterances in response to irony indicated that they have the ability to engage in ironic discourse appropriately, and that they use mode adoption at rates that fall within the range observed in the adult literature (previously observed rates ranging from 7% in Eisterhold et al. [2006] to 33% in Gibbs [2000]).

Mode Adoption of Ironic Compliments

The participants in the second experiment were 68 children, again aged 7, 9, and 11 years old. As in the previous experiment, each child was presented with nine brief illustrated stories. The story topics were the same as those reported earlier, except that here all story outcomes were positive. For example:

> Shane and Kim were spending the whole day at the beach with their parents and they thought it would be a really boring day. They played in the sand for a while just for

something to do. Then they ended up making a huge sand castle and had lots of fun all day. [Experimenter's ironic remark: *What a terrible day at the beach.*]

After each story, the experimenter made a comment on the story outcome, using appropriate intonational cues. When ironic compliments were made, the tone was positive and joking; when literal compliments were made, the intonation was positive and sincere. Children's responses to the experimenter's remark were recorded and later transcribed into the same five categories as those used for the examination of ironic criticisms.

Analyses

When children were presented with ironic compliments the pattern of mode adoption responses was as follows: 7-year-olds employed mode adoption following almost 8% of ironic utterances, 11-year-olds used mode adoption following 13% of ironic utterances, and 9-year-olds in our sample did not employ any mode adoption following ironic compliments. Some examples of experimenter remarks and participant mode adoption are as follows:

Example #1

EXPERIMENTER: What a terrible day at the beach.
PARTICIPANT: I know. It didn't seem like any fun.

Example #2

EXPERIMENTER: That was a boring day.
PARTICIPANT: Pffft. Yeah, that was. That sure was a boring day.

Example #3

EXPERIMENTER: What a bad trip to the movies.
PARTICIPANT: Yeah, it sure was.

As was observed with ironic criticisms, children as young as age 7 showed a tendency to use mode adoption with rates that are comparable to those of adults. When both ironic criticisms and ironic compliments were combined for analyses, we observed a significant overall developmental improvement in the use of mode adoption, such that 11-year-olds used more mode adoption than either the 9- or the 7-year-olds.

It is important to note that in the two analyses, we only examined cases of mode adoption for which children demonstrated a clear understanding that the experimenter held a counterfactual belief to his/her utterance. That is, after children responded to the experimenter's remark, we asked a series of comprehension questions to ensure the remarks were interpreted correctly and we only analyzed children's verbal responses for cases where children accurately determined the speaker's belief. This analytical approach was taken because comprehension often precedes production and correct assessment of comprehension questions assures us to a greater degree that children's verbal responses mean what we think they mean. However, it could be argued that production of language can actually precede, or at least track alongside, comprehension. It seems plausible, for instance, that children may begin to experiment with the use of ironic language by mimicking utterances they have overheard and by beginning to construct novel instances of

nonliteral language themselves. This approach may allow children to try out forms of irony to test the appropriateness of ironic forms of language in different contexts, with different people, and for different pragmatic aims. Indeed, in the Pexman et al. (2009) study, described earlier, there were instances of children producing verbal and gestural irony as young as four years of age. Thus, children may begin experimenting with verbal irony around the time when they typically begin to comprehend it.

Given this possibility, we also examined apparent instances of mode adoption that occurred when children did not demonstrate a clear understanding of the speaker's counterfactual belief. Children were highly accurate at determining the speaker's counterfactual belief when ironic criticisms were used so there were no real opportunities to examine cases where they misjudged the speaker's belief and still employed mode adoption. However, children were less accurate in their comprehension of the speaker's counterfactual belief for ironic compliments, and in those data we found three instances where children clearly employed mode adoption (as indicated by their use of an irony-consistent tone of voice) yet failed the comprehension question for the same trial. Certainly, this is a very small number of cases and we cannot draw clear conclusions about whether irony production is used reliably without also mastering irony comprehension. However, these instances provide some evidence that children may begin co-constructing dialogue via the use of mode adoption even as they are learning about, but have yet to master, particular forms humorous speech.

Mode adoption provides a way to signal comprehension to the speaker and to share in the pragmatic functions served by irony; if irony is used to create a bond between speaker and listener, for instance, then mode adoption would further this goal. The rates of mode adoption in the present study fit within the range of rates reported in the adult literature, from almost 7% (Eisterhold et al., 2006) to as much as 33% (Gibbs, 2000). The rates observed in our study are notable given the young age of the participants and their emerging understanding of the goals of ironic discourse.

New Debates

We have outlined many of the studies that explore the use of mode adoption, and have described one of those studies in greater detail. The literature on mode adoption is, however, a relatively small aspect of the humor literature, and there are a number of unanswered questions and opportunities for future research. That is, there are several directions that could be emphasized in future studies in order to build a clearer understanding of how humor support is achieved via mode adoption.

Mode Adoption Among Children

Our knowledge of children's use of mode adoption is limited to only two studies. The laboratory study (Whalen & Pexman, 2010) clearly demonstrated that children spontaneously use mode adoption, and they do so with rates that approximate adult rates of mode adoption. However, the rates observed may not reflect children's production in real conversations. It is possible that the rates observed in this study were higher than those we could expect in naturalistic settings. In our study, the ironic remarks were not targeted at a person, but rather at a failed event outcome, making the remarks less threatening. Additionally, the remarks were spoken by the experimenter, who was sharing in watching the animated puppet shows alongside the participant, potentially promoting a stronger sense of shared experience and rapport that permitted sharing in ironic discourse. It is also possible, however, that the rates observed in our study were actually lower

than those one might observe in real-life situations. It is likely, for instance, that the production of mode adoption might be higher when children are involved in conversations with people they trust and with whom they share common experiences, and in situations where the context is highly relevant for the child.

The Pexman et al. (2009) study featuring family triads demonstrated mode adoption rates of 7%–8% among family members in a fairly naturalistic context, with children ranging in age from 3 to 15 years. This frequency indicates that mode adoption among children in daily conversations might be lower than the rates observed in the Whalen and Pexman (2010) laboratory study, but further examination is required to determine which factors and contexts promote children's use of mode adoption. The type of close relationship is one factor that might be important when considering naturalistic use of mode adoption. Although young children demonstrated mode adoption with family members in the Pexman et al. (2009) study, it is possible that spontaneous mode adoption in children's peer relationships requires more time, in order to build the closeness and intimacy that makes ironic humor feasible and enjoyable.

Humorous Language Forms

Many of the mode adoption studies discussed here focused on verbal irony as a language category, and in some cases there has been insufficient discussion of the different forms of irony employed. Gibbs's (2000) work detailed five different forms of verbal irony and described the nature of mode adoption in response to each form. Based on that work, we know that mode adoption rates are higher for some forms of irony (like sarcasm) and lower for other forms (like hyperbole). Conversational analyses that depict mode adoption certainly feature many different forms of humor, including several forms of verbal irony, but we need to undertake systematic consideration of how mode adoption serves to support humor across these forms. According to Roberts and Kreuz (1994), different pragmatic functions are achieved via different forms of indirect language, with humor being one function. Further, some forms of irony are employed for humorous intent more so than others. If we wish to have a clear understanding of how mode adoption supports humor it would be prudent to track how mode adoption is used in relation to language that elicits a strong sense of humor vs. language that elicits a weaker sense of humor.

Mode Adoption vs. Other Support Strategies

In many cases of humorous dialogue listeners respond via multiple support strategies. Across a short series of conversational turns where participants are engaging in banter, it would not be uncommon to see different humor support strategies used in back-to-back turns, or even together in one response. Mode adoption, as a verbal response strategy, lends itself nicely to combination with other strategies, such as laughter, overlap, and gestures. It is possible that combining mode adoption with additional humor support strategies is a response to stronger humor, and builds upon that humor more explicitly and elaborately. However, it is also possible that mode adoption has more impact when it is used without other support strategies. The goal of some humorous discourse is to be clever and to establish group membership, without marking the humor explicitly. A similar principle is seen in computer-mediated communication whereby users choose *not* to use emoticons to mark their humorous remarks because doing so is akin to explaining the punch line of a joke (Whalen et al., 2009). The unmarked message is funny partly because it requires a more sophisticated shared understanding of how the speaker and listener communicate. In face-to-face communication, using mode adoption in lieu of other strategies could promote a more intimate sharing of humor, in which the parties get satisfaction

from conversing cleverly and with subtlety. Future studies ought to consider these possibilities systematically.

Similarly, the structure of mode adoption utterances can convey either clear, robust humor support or subtle, nuanced humor support. In the former case, the listener who responds with mode adoption might do so by using short, lexicalized statements, such as "*yeah, right!*" or may use echoes of the speaker's language, such as "*definitely great*," following the statement "*that was so great*." These approaches were evident in many of the children's responses that followed experimenter remarks in Whalen and Pexman (2010). Although these examples constitute mode adoption, they might be simplistic listener responses that are somewhat less committal than more nuanced or more novel utterances. If the listener crafts a more context-specific mode adoption to a speaker's remark, it might imply greater support and may facilitate better construction of humor. Just as generic vs. specific backchannels shape communication (Tolins & Fox Tree, 2014), so might generic vs. specific forms of mode adoption.

Mode adoption has the opportunity to be a more robust humor support mechanism because it conveys agreement with the implicature of the utterance. Not all forms of humor support do so. Laughter may appear to be the desired goal of much humorous discourse, but it does not necessitate agreement (Hay, 2001; Attardo, 2002; Eisterhold et al., 2006). It is possible for the listener to understand and appreciate the humor in an utterance, demonstrating uptake (Attardo, 2002), without actually agreeing with the attitude underlying the humor. Mode adoption, on the other hand, demonstrates uptake as well as agreement (Hay, 2001; Attardo, 2002). In this way, mode adoption is arguably a stronger support tool for humor than is laughter. While perhaps stronger, mode adoption can also be employed with more nuance and subtlety than laughter, and as such affords more sophisticated usage and can be appreciated as a playful device among skilled speakers.

Conclusion

Listeners often detect and understand spontaneous humor in conversations, even when conveyed indirectly. The challenges involved in humor detection reveal the myriad strategies used by listeners to infer unspoken intentions. Moreover, listeners do not just detect humor, but also often provide support in ways that demonstrate their appreciation and agreement with said humor, thereby supporting the speaker's pragmatic goal. When responding to humor with mode adoption, in particular, listeners demonstrate that they share in the speaker's attitude and promote an opportunity for the conversational parties to partake in the humor together. Mode adoption permits the listener to contribute actively, while not detracting from the speaker's planned direction for the conversation. This makes mode adoption a truly supportive response to humorous discourse.

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27

Humor Markers

Christian Burgers and Margot van Mulken

How does a receiver know that humor is intended? The communicator may say so explicitly ("Wanna hear a joke?" "Listen, this is funny"), but she may also signal humor in less overt ways. Not much research exists that investigates signals of humorous devices (but see Hay, 2001; Attardo et al., 2011; Adams, 2012). Irony, however, is one of the best-researched types of humor (see Colston, 2017), and therefore the study of irony markers is more advanced and may also help to detect cases of humor. Although irony and humor are related to a certain degree (in that some irony is funny, and some humor is ironic), care should be taken to not equate the two. This contribution focuses on irony and sarcasm markers. Prosodic markers of humor are reviewed elsewhere (see Gironzetti, 2017).

1 Historical Perspective

In 1899, French poet Alcanter de Brahm proposed that ironists should use a specific punctuation mark known as the ironic sign (a question mark turned backward) to guide their readers explicitly in an ironic interpretation of an utterance (Satterfield, 1982). This proposal was never really taken seriously. One of the reasons may be that ambiguity is precisely one of the goals of ironists. The irony mark would be a spoiler alert, and thereby reduce the pleasure of using irony. Using irony comes with a risk, however, because the ironic intention of the communicator may go unnoticed. In order to help the receiver to detect the intention of the communicator, she may use less overt signals, named irony markers.

Irony has been defined in many different ways (see Colston, 2017). For our present purposes we settle on a definition based on the different commonalities between the various approaches: irony is an utterance with "a literal evaluation that is implicitly contrary to its intended evaluation" (Burgers et al., 2011, p. 190). If an utterance is read ironically, the valence of the evaluation implied in the literal utterance is reversed in the ironic reading.

Some features are inherent to irony, which are called irony factors (Attardo, 2000). If an irony factor is removed from an utterance, this utterance is no longer ironic (Attardo et al., 2003; for a discussion of irony factors, see Burgers et al., 2012a). In contrast, irony markers are metacommunicative clues that can "alert the reader to the fact that an utterance is ironic" (Attardo, 2000, p. 7). An irony marker hints at the receiver that the communicator takes a different stance

on the propositional content in the utterance she expresses. Verbal or non-verbal cues that can serve as irony markers may also be used to serve other communicative goals, such as politeness, disagreement, surprise, etc. Example (1) contains several irony markers.

(1) [while listening to a very amateurish rendition of Ravel's Bolero] This really is, ehm, the best performance ever!

The adverb "really," the hesitation "ehm," the superlative "best," the indefinite pronoun "ever" and the exclamation mark all signal covertly (although the accumulation is poignant) to the receiver that the communicator is ironic. Almost all theorists on irony agree that irony markers are not necessary to an utterance being ironic. As long as the discrepancy between the intended meaning and uttered meaning is evident to the receiver, the ironist may refrain from using markers. Suppose the ironist removed the irony markers from her utterance, and said

(2) [while listening to a very amateurish rendition of Ravel's Bolero] This is a good performance.

In this case, her utterance would still count as ironic, but the irony would be more difficult to detect (see also Attardo, 2000). There must be some discrepancy between the reality and the utterance, but the extent of this discrepancy may vary, and in order to arrive at a successful interpretation of irony, the receiver has to recognize it in order to interpret the utterance as it was intended. Therefore, the communicator may decide to help the receiver and use cues or hints that play a supportive role.

The identification of irony markers has received small but significant attention in the irony literature. Booth (1974) discusses several irony markers used in literary works. He distinguishes straightforward warnings in the author's own voice (i.e., an explicit signal of irony), known error proclaimed (e.g., an initial absurdity to set the tone for the entire text), conflicts of facts within the work (i.e., the author seemingly contradicts herself), clashes of style (the author departs notably from the normal way of saying a thing) and conflicts of belief (a conflict between the beliefs expressed and the beliefs we suspect the author of holding). Booth's classification is insightful, but it does not allow to pinpoint irony markers in everyday irony.

Muecke (1978) is the first author to propose a clear taxonomy of irony markers. He also argues that irony is not irony unless it "fairly hints" at its own nature. Therefore, communicators should provide grounds for a correct interpretation (Muecke, 1978, p. 363). In that respect, markers are guides, not determinants or infallible pointers to irony. In discussing irony markers, Attardo alludes to a very relevant issue: can context and co-text serve as irony markers? According to Attardo (2000, p. 10), context and co-text should be considered irony factors, that is, inherent to the identification of irony, without which the utterance would not count as ironic. However, the line between co-text, context and utterance is difficult to draw, as can be illustrated by paralinguistic elements of an utterance: are intonation, laughter, or speech rate parts of the utterance, the context or the co-text? In the next section, we will treat context and co-text as different layers in the ironic spectrum (see van Mulken et al., 2011; Burgers & van Mulken, 2013), although we acknowledge that these layers may intersect.

An important issue for this contribution, however, is to establish an overview of irony markers that have been identified in the literature that is as complete as possible. In the following section, we present such an outline, drawing on prior work with clearly defined sets of markers (Muecke, 1978; Kreuz, 1996; Seto, 1998; Attardo, 2000; Burgers et al., 2012a) as well as on studies that focus on one or more specific markers.

2 Core Issues and Topics

Burgers and van Mulken (2013) argue that irony markers can be divided into three categories: (1) markers of the utterance, (2) markers of the co-text, and (3) markers of the context. We discuss each of the three categories and present examples of types of markers belonging to the different categories.

2.1 Markers of the Utterance

Markers of the utterance concern the linguistic characteristics of the ironic utterance. The first type of utterance marker is an explicit marker, in that the communicator directly manifests her ironic intent to the audience. These are contemporary equivalents to Alcanter de Brahm's irony signal. Kovaz et al. (2013), for instance, identify ironic utterances in blogs and literary works by looking for phrases such as "said sarcastically" and "said ironically." Similarly, Kunneman et al. (2015) and Reyes et al. (2013) use relevant explicit hashtags on Twitter like #sarcasm, #irony, and #humor to identify irony and humor. These hashtags explicitly indicate that the author of the tweet had the intention of being ironic or humorous.

Burgers et al. (2012a) provide an overview of the other types of utterance markers they identified in a corpus analysis of irony in Dutch written discourse. They argue that utterance markers of irony can be roughly divided into four categories. These are (1) typographic markers, (2) morpho-syntactic markers, (3) schematic markers, and (4) other tropes (cf. Table 27.1 for an overview). The more we move down the line, the more the utterance markers shift from linguistic to pragmatic signals.

The first group of markers includes typographic markers. Typographic markers include the use of striking typography, like the use of quotation marks and capitalization. In the case of computer-mediated communication (CMC), this category also includes the use of emoticons to signal humorous intent (Hancock, 2004). A second category of utterance markers is that of morpho-syntactic markers. These markers draw the reader's attention by presenting an utterance with a striking syntactic structure or morphology. This category includes markers such as exclamations (Seto, 1998), tag questions (Kreuz, 1996), negations (Giora et al., in press), focus topicalization (Seto, 1998), elongation (Adams, 2012) and diminutives (Burgers et al., 2012a). Interjections (also known as discourse particles, e.g., "oh," "you know," "gee") may also be included in this category. By showing the dissociative or hesitative stance of the communicator, these markers draw attention to the ironic nature of a statement (Kovaz et al., 2013). A special kind of marker in this category includes acronyms used in CMC like LOL (laughing out loud) or ROTFL (rolling on the floor laughing) (Davis et al., 2014), or onomatopoeic references to laughing (e.g., haha, Davies, 2015) to signal humorous intent (see also Whalen et al., 2009; Adams, 2012; Skalicky & Crossley, 2014). By using such acronyms, the speakers "imitate" a face-to-face conversation and verbalize their paralinguistic responses (e.g., laughing) to show the audience their utterance is meant humorously.

The final two categories of markers identified by Burgers et al. (2012a) are based on the distinction between schemes and tropes as made in treatises on classical rhetoric (cf. Corbett & Connors, 1999). Schemes are figures that deal with word order and sound patterns: a deviation from the ordinary arrangement of words and sounds, like alliteration and rhyme. In that vein, schematic irony markers are also based on repetition. The marker of ironic repetition implies that a certain statement is repeated (ironically) within the same text. In ironic repetition, both the original utterance and the ironic repetition can be found within the same text (Muecke,

Table 27.1 List of utterance markers, (made-up) examples related to an ironic comment about a bad idea, and sources

Marker	*Example*	*Sources*
Direct markers		
Explicit reference	"That's a great idea," he said ironically.	Kovaz et al., 2013
Hashtag	That's a great idea, #irony	Reyes et al, 2013; Kunneman et al., 2015
Typographic markers:		
Different typography	It is a **great** idea.	Kreuz, 1996
Capitalization	It is a GREAT idea.	Haiman, 1998
Quotation marks	It is a "great" idea.	Hancock, 2004
Several full stops	It is a great idea . . .	Muecke, 1978
Other punctuation marks	It is a great [!] idea.	Attardo, 2000
Emoticons	It is a great idea ;-)	Kreuz, 1996; Hancock, 2004
Crossed-out text	It is a terrib~~ly great~~ idea.	Burgers et al., 2012a
Other special signs	Your Idea™ is great.	Burgers et al., 2012a
Morpho-syntactic markers:		
Exclamation	Great idea!	Seto, 1998
Tag question	That's a great idea, isn't it?	Kreuz, 1996
Focus topicalization	A great idea that is, I believe.	Seto, 1998
Interjections	Well, it is great idea.	Kovaz et al., 2013
Syntactic negation	It is not the best idea.	Giora et al., in press
Acronyms of laughing	That is a great idea; LOL	Davis et al., 2014
Onomatopoeic reference	That is a great idea, haha	Davies, 2015
Elongation	That is a greaaaaaaaaaaaat idea	Adams, 2012
Diminutives	"*Dat was een goed ideetje.*" That was a great little idea.	Burgers et al., 2012a
Schematic markers:		
Ironic repetition	"John will come up with a good idea" → Indeed, that's a good idea.	Muecke, 1978; Berntsen & Kennedy, 1996
Ironic echo	Indeed, that's a good idea.	Muecke, 1978; Berntsen & Kennedy, 1996
Change of register	You may grant me the honor of listening to another one of your fine ideas (said to a friend).	Haiman, 1998; Seto, 1998
Tropes as markers		
Metaphor	You are a rocket scientist.	Hao & Veale, 2010
Hyperbole	That was the best idea in the history of mankind.	Muecke, 1978; Roberts & Kreuz, 1995
Understatement	That idea is quite OK.	Muecke, 1978; Seto, 1998
Rhetorical question	Could your idea be any better?	Muecke, 1978; Barbe, 1995

Adapted and expanded from Burgers et al. (2012a).

1978). In contrast, an ironic echo implies that the ironic utterance repeats an utterance or statement familiar to the interlocutors that is not explicitly mentioned earlier in the text (Hay, 2001). Under this perspective, an echo can, for instance, refer to a statement made between the two interlocutors in a previous conversation, but also to expressions that are famous from other domains, like politics, sports, and popular culture. A final schematic irony marker pertains the use of a change of register, which means that the speaker starts using words from a different style

register in the ironic utterance to draw the reader's attention (Haiman, 1998). An example of such a change of register includes the use of excessive politeness in situations in which it is not warranted (Seto, 1998).

In contrast to schemes, tropes are rhetorical figures that focus on meaning operation, in that readers should reinterpret the propositional ("literal") meaning of the utterance to uncover the intended meaning. Stacking tropes in one utterance can alert the reader to the nature of the utterance's ironic character. In this vein, tropes like metaphor (Hao & Veale, 2010), hyperbole (Muecke, 1978), understatement (Seto, 1998), and rhetorical question (Barbe, 1995) have been listed as markers of irony. For example, Hao and Veale (2010) suggest that similes including the adverb "about" (e.g., "about as modern as a top-hatted chimney sweep") are relatively likely to be ironic. Yet, within this group of tropes, hyperbole is the trope that is most often associated with irony (Kreuz & Roberts, 1995; Carston & Wearing, 2015). For instance, Kreuz and Roberts (1995) posit that hyperbolic constructions including adverbs such as "absolutely," "really," "just," "simply," and "certainly" followed by an adjective with an extremely positive valence (e.g., brilliant, fantastic, great, wonderful) may be an indicator of ironic intent.

2 Markers of the Co-Text

Co-text refers to all other elements (except for the linguistic features of the utterance under discussion) that can help the reader in detecting ironic intent. In many cases, these co-textual markers are textual. In spoken discourse, co-textual markers can be kinesic, phonetic, or prosodic. In other genres (e.g., cartoons, advertisements), these co-textual markers can also be visual. Table 27.2 presents an overview of co-textual irony markers.

With regard to linguistic co-textual markers, three types are identified. The first type can be referred to as "humor support," which means that one instantiation of humor is followed by either elaborating on the humor or by providing more humor (e.g., Hay, 2001; Vandergriff & Fuchs, 2012; Burgers et al., 2013a; Whalen & Pexman, 2017). This implies that the use of humor in a text will serve as a marker for humorous utterances that are placed later on in the text. That is, a humorous utterance can create the expectancy that other humorous utterances may follow. In that way, say, a fifth humorous utterance of a given text should be easier to recognize than the first humorous utterance of the same text. One study looking at foreign-language learners engaging in synchronous CMC (e.g., chat) found that the use of multiple humorous utterances was actually the most common way by which foreign-language learners supported their humor use (Vandergriff & Fuchs, 2012).

Next to the use of multiple humorous or ironic utterances, Burgers et al. (2013a) identify two other types of linguistic co-textual markers. These are the use of other tropes (metaphor, hyperbole, understatement, rhetorical questions) and mood markers (register, cynicism). First, if the ironic utterance is preceded by a variety of other utterances involving tropes, the reader can already get into a mood of expecting more (and potentially other) tropes like irony. In that way, the other tropes can create an "expectation of tropes." Second, mood markers like including a different register or using cynicism can alert a reader towards ironic intent. After all, a sudden shift of register in the utterances preceding the irony can alert the reader to the fact that something is going on, and that an ironic utterance may follow. Similarly, using cynic utterances can show the reader that the author has a very negative stance towards the topic under discussion and thereby open up the possibility of identifying irony.

In spoken communication, much empirical attention has been given towards identifying paralinguistic features of an "ironic tone of voice." Many older studies into this topic often assume that a distinction can be made between an ironic vs. a non-ironic intonation (e.g., Cutler, 1976;

Table 27.2 List of co-textual markers, examples, and sources

Marker	*Example*	*Sources*
Linguistic markers		
Humor support	Multiple humorous or ironic utterances	Hay, 2001; Vandergriff & Fuchs, 2012
Other figurative speech	Metaphor, hyperbole, understatement rhetorical questions	Burgers et al., 2013a
Mood markers	Change of register, cynicism	Burgers et al., 2013a
Paralinguistic markers		
Tone of voice		Haiman, 1998; Attardo et al., 2003; Bryant & Fox Tree, 2005
	Nasalization, labialization	Cutler, 1974; Muecke, 1978; Haiman, 1998
	Syllable lengthening	Attardo, 2000
Prosody	Intonation	Roberts & Kreuz, 1995; Cheang & Pell, 2009
	Exaggerated stress	Cutler, 1974; Haiman, 1998
	Speech rate	Cutler, 1974; Attardo et al., 2011
	expressionless pitch, deadpan, flat	Muecke, 1978; Attardo et al., 2011
	False coughs, laughter, pauses	Muecke, 1978; Haiman, 1998; Attardo, 2000; Attardo et al., 2011
	Volume	Attardo et al., 2011
	Prosodic contrast	Bryant, 2010
Visual markers		
Facial	Smiling, lip tightening	Rockwell, 2001; Caucci & Kreuz, 2012
	Raised eyebrows	Rockwell, 2001; Tabacaru & Lemmens, 2014
	"Blank face," tongue in cheek	Attardo et al., 2003
	Frowning	Muecke, 1978
Kinesic	Winks, nudges, pointing, Slow clapping, air quotes	Muecke, 1978
Pictorial	Visual hyperbole	Burgers et al., 2013b
	Visual incongruence	Attardo et al., 2003; Burgers et al., 2013b

Kreuz & Roberts, 1995; Cheang & Pell, 2009). The general hypothesis underlying these studies is that specific acoustic patterns can be identified that will lead the reader towards interpreting the specific utterance as ironic.

A first goal of these studies into the ironic tone of voice was isolating specific phonological features that lead the reader towards understanding a certain utterance as ironic. Phonological features that have been associated with communicating irony include a relative slow speaking rate, heavy stress and nasalization (Cutler, 1976; Kreuz & Roberts, 1995; cf. Table 27.2 for an overview). While the idea of an ironic tone of voice was and has remained popular, it has also come under criticism in recent years. First, researchers have shown that characteristics of the "ironic tone of voice" differ between languages. Cheang and Pell (2009), for instance, compared English to Cantonese. They found that, in English, irony was marked by lowering mean

fundamental frequency (F0), while, in Cantonese, irony was marked by increasing F0. In a similar vein, specific intonational patterns indicating an ironic of tone of voice have been identified for other languages like French (Loevenbruck et al., 2013), German (Scharrer & Christmann, 2011), Italian (Anolli et al., 2002), and Mexican Spanish (Rao, 2013). Thus, no generic intonational pattern to mark irony can be identified, but rather specific patterns for different languages.

A second point that has been raised against the ironic of voice is related to its recognition. To see whether intonation alone could lead to the identification of irony, Cheang and Pell (2011) asked Cantonese and Canadian-English speakers to evaluate whether a Cantonese or English utterance (that was either marked with an ironic intonation or not) was meant ironically. When participants had to do this task in their native language, they performed successfully. However, when they had to perform the task in the language they did not speak (English for the Cantonese speakers; Cantonese for the English speakers), participants performed around chance level, indicating that they needed language knowledge to correctly interpret the "ironic intonation." In another study, Bryant and Fox Tree (2005) presented native speakers of English with original ironic and non-ironic utterances taken from talk radio. They found that their participants did not rely on any vocal cues to identify irony.

Because of such reservations, various authors have argued that there is not one specific acoustical pattern that can be referred to as the "ironic tone of voice" (e.g., Attardo et al., 2003; Bryant & Fox Tree, 2005). Instead, when comparing a spoken ironic utterance to preceding utterances, Bryant (2010) found that irony was marked by a prosodic contrast with the preceding utterance. That is, speakers adapted their way of speaking to mark that something was going on in the ironic utterance. In that way, ironic intonation may not be hidden in a specific intonational pattern, but rather in a contrast with preceding utterances (see also Attardo et al., 2003).

Next to paralinguistic cues, other non-verbal cues may help to signal irony in face-to-face interactions. Various studies have identified specific facial movements speakers can use to signal irony. Rockwell (2001) divides the face into three areas: (1) eyebrows and forehead; (2) eyes, lids, and upper part of the nose; and (3) mouth, cheeks, lower part of the nose, jaw, and chin. When contrasting ironic and non-ironic utterances, Rockwell (2001) found that only movements in the mouth area were predictive of differences between the two types of utterances. Similarly, Caucci and Kreuz (2012) code for facial gestures in a corpus contrasting literal and ironic utterances. They find that facial movements like smiling, lip tightening, looking at the conversational partner, slow nods, and laughing are more frequent for ironic (vs. literal) utterances. Tabacaru and Lemmens (2014) report on a corpus analysis of humor use in two American television shows (*House MD, Big Bang Theory*), and argue that raising eyebrows is an important facial marker of humor: raised eyebrows work as a "gestural trigger," showing the audience that the speaker is behaving non-seriously.

While various studies demonstrate that specific facial movements can be indicative of signaling irony, the absence of any facial expression (known as "blank face") has also been suggested as a facial irony marker (Attardo et al., 2003). After all, when the utterance contains highly emotional information (as expressed through irony), the total absence of any emotion in the facial expression of the speaker may also serve as a trigger for the viewer. Like a prosodic contrast does with speech, a blank face sets up a contrast between the content of the utterance and the expression of the speaker, thereby alerting the viewer to the potential of irony in the utterance.

Most studies into visual markers of verbal irony have focused on facial expressions. Yet, kinesic choices can serve as markers as well. For instance, cues like pointing, nudges, and slow clapping can alert the reader to an ironic interpretation. A famous example of slow clapping as a marker for irony can be found in the Batman movie *The Dark Knight* (2008, dir. Christopher Nolan). In one scene, Lieutenant Gordon (played by Gary Oldman) gets promoted to commissioner at the

police station. Upon hearing this, the Joker (played by Heath Ledger) starts clapping very slowly in an adjacent prison cell in mock congratulations. In doing so, the Joker uses slow clapping as a kinesic marker of irony.

Next to facial expressions and kinesic markers, images in print genres like cartoons or advertisements can help the reader in detecting irony. Burgers et al. (2013b) present a first case study of visual markers of irony in images. First, they find that pictorial elements can alert a viewer to ironic intent in two ways. The first way is labeled as a "visual hyperbole," which means that the image shows an exaggerated version of the propositional meaning of the ironic utterance. Because the event shown in the image is absurd and extremely unlikely to occur, this visual highlighting of the propositional meaning shows that the propositional meaning is probably false. Next to highlighting the propositional meaning, an image can also contrast with its propositional meaning, which Burgers et al. (2013b) label as visually incongruent. Their example is an advertisement for a Dutch phone company in which a man has received a pair of hedge clippers rather than the mobile phone he actually wanted. The ironic utterance reads "Sure, hedge clippers are nice," while the advertisement's image features the man looking disapprovingly and holding the hedge clippers to his ear as if they were a mobile phone. Such visually incongruent information can thus also serve to mark an utterance as ironic.

In a second analysis, Burgers et al. (2013b) analyzed which visual elements were responsible for achieving the ironic effect. Taking the perspective of visual narratology (Verstraten, 2009), they divide the image into elements from mise-en-scène (e.g., choice of characters, facial expression of characters, objects, setting) and cinematography (e.g., camera angle, use of color, depth and sharpness, focalization). Their analysis shows that elements from the mise-en-scène are typically used for marking the irony while cinematographic elements are hardly used for this purpose. Within the cinematographic elements, a character's position, facial expression or body language, the use of objects and the choice for specific characters are the elements used most often to visually mark the irony in the utterance.

3 New Debates

While most of the literature on irony markers has been concerned with their identification, new debates have also risen to the surface in the last years. These are related to four topics in particular: (1) the difference between irony markers and types, (2) the effects of markers in utterance processing, (3) usage and effects of markers in discourse, and (4) the use of markers in identification of irony in new online media. We discuss each of these in turn.

3.1 The Difference Between Irony Markers and Types of Irony

This discussion has mostly centered on one particular type of utterance and co-textual marker: the use of other tropes like hyperbole, understatement, and rhetorical questions. While these tropes have historically been treated as irony markers, a new perspective has recently come up in which they are described as types of irony. Various scholars have argued that irony comes in different forms, including sarcasm, jocularity, hyperbole, understatement, and rhetorical questions (cf. Averbeck, 2015, p. 89; Gibbs, 2000, pp. 12–13; Pexman et al., 2009, p. 237). Under this perspective, then, a hyperbole, understatement, or rhetorical question is not a marker, in that it alerts the reader to the fact that a sentence could potentially be ironic. Instead, a sentence including a hyperbole, understatement, or rhetorical question is deemed to be ironic by default. This means that irony is typically defined very broadly. For instance, Gibbs (2000, p. 23) suggests that "irony is not a single category of figurative language, but includes a variety of types, each

of which is motivated by slightly different cognitive, linguistic, and social factors and conveys somewhat different pragmatic meanings." Applying such a loose definition of irony enables the possibility of categorizing different types of figurative speech under the larger umbrella of irony.

In contrast, other scholars argue that irony is clearly distinct from other types of figurative language like hyperbole, understatement, and rhetorical questions (cf. Carston & Wearing, 2015; Wilson, 2013). The argument to see these as distinct forms (opening up the possibility that hyperbole, understatement, and rhetorical questions can be markers) relates to their meaning operation. Under this perspective, irony is defined in a more narrow way. This is typically done in terms of opposition, in that, on a conceptual level, the intended statement implies a contrary evaluation (positive, negative) to the propositional content of the statement (negative, positive). Thus, irony crosses a zero (neutral) point of evaluation and always goes from positive to negative or vice versa.

While irony thus typically involves a shift in evaluation, other tropes do not. Hyperbole, for instance, involves an overstatement of the actual state of affairs. In this trope, then, the intended meaning of the communicator remains in the same evaluative domain, but moves closer to the zero point compared to the propositional meaning (see also Seto, 1998; Burgers et al., 2011). For instance, a statement like "That was the best concert in history" may be an overstatement (e.g., it was quite good), but if the utterance is only used hyperbolically and not ironically, the intended meaning is still in the positive domain. In understatement, we find the reverse effect, in that the intended meaning is further removed from the zero point compared to the propositional meaning (e.g., "The concert was quite OK" is an understatement to indicate that it was very good). Under this perspective, then, the different kind of tropes need be resolved in different ways. Thus, depending on the basic definition used of verbal irony (loose vs. narrow), it is possible to conceive of some elements (e.g., other tropes) as either markers or types.

3.2 Effects of Markers in Processing

A second debate concerns how markers can exactly influence processing, because various studies show different results for the strength and impact of markers. In lab experiments with online measures (i.e., measured during processing), Rachel Giora, Ofer Fein, and colleagues show that markers do not always facilitate processing (Giora et al., 2007; Fein et al., 2015). In some of their studies (e.g., Giora et al., 2007, Experiment 1; Fein et al., 2015, Experiment 1), participants were asked to read a number of dialogues between two fictional friends. In all dialogues, one speaker made an ironic utterance approximately halfway through the scenario, setting up an expectation for irony. The dialogue subsequently ended in either a literal or an ironic utterance. Participants could either read the story at their own pace (Giora et al., 2007, Experiment 1) or had to respond to a lexical probe that was either related to the literal or ironic meaning, or unrelated (e.g., an utterance like "I see you developed some great habits" said to somebody with an unhealthy diet, followed by a literal probe like *healthy*, an ironic probe like *harmful*, or an unrelated probe like *fragile*; Fein et al., 2015, Experiment 1). The general idea of these studies is that if the marker facilitates irony, it should also speed up reading and decision times for the second ironic sentence. However, across experiments, Giora and colleagues find no evidence of this effect. Even when expectations become more explicit (e.g., by allowing participants to read 36 scenarios that all end in irony, Giora et al., 2007, Experiments 3–4, or by explicitly informing participants of the study goal, Fein et al., 2015, Experiment 2), they consistently find longer reading times (indicating more effort) for ironic (vs. literal) contexts. From these studies, Giora and colleagues conclude that salience trumps co-textual markers in processing.

However, Voyer and colleagues (e.g., Woodland & Voyer, 2011; Voyer et al., in press) found empirical evidence that different co-textual markers can interact to increase processing. In their experiments, a statement spoken in either a sincere or a sarcastic voice (i.e., a prosodic co-textual marker) was paired with either a positive or negative co-text. In a series of experiments, they found that response time to utterances spoken in a sarcastic intonation was faster when it fitted the context (i.e., sarcastic intonation with a negative context; sincere intonation with a positive context) than when it did not. From these data, the authors conclude that utterance markers like tone of voice interact with co-text to facilitate processing.

Furthermore, in a recent series of experiments, Giora et al. (in press) have found that word salience does not always lead to the fastest processing time. Instead, they suggest that defaultness is most important in predicting processing. In order to qualify as default, a non-literal interpretation of an utterance should be evoked faster than a literal interpretation, under conditions that the constituents have to be unfamiliar, that semantic anomaly is not involved, and that contextual information is absent. An example of a sentence construction that, in Hebrew, led to a default non-literal interpretation involved a negation of a highly positive concept (e.g., *not the best/most X*). Results from four experiments demonstrate that the default meaning is always activated first, regardless of word salience and contextual strength. This novel perspective suggests that some kind of utterance markers (i.e., those related to a default interpretation) can be especially powerful in steering processing. Which utterance markers are related to defaultness in which ways is a question for future research.

3.3 Use and Effects of Markers in Natural Discourse

An important question is of course whether markers not only facilitate processing, but impact effects of the humor in other ways as well. Burgers et al. (2012b, Experiment 2), for instance, conducted an experiment to assess how irony markers influenced perceived utterance complexity, utterance comprehension, and attitudes towards the utterance and text. They presented participants with a variety of letters to the editor (adapted from real newspapers), which ended with a target utterance. This target utterance was either ironic or not, and included zero, one, or three utterance markers. They found that an ironic utterance with three markers was perceived as less complex than an ironic utterance with one or no markers. Additionally, an ironic utterance with three markers was also appreciated better than an ironic utterance with one or zero markers. These effects did not translate to the attitude towards the text as a whole, which was unaffected by the target sentence.

The results from Burgers et al. (2012b) suggest that utterance markers can be used to decrease the complexity of the utterance, and make it clearer to the audience that the utterance is intended ironically. This is reinforced by corpus data. Burgers et al. (2012a) studied the use of irony markers in a corpus of written Dutch markers. They found that utterance markers tend to be used more when the utterance is more difficult to detect as irony, based on the configuration of irony factors (Attardo, 2000). For instance, more irony markers were used in implicitly evaluative ironic utterances (that do not include evaluative words, e.g., *That is a "plan"*) compared to explicitly evaluative ironic utterances (that do include such evaluative words, e.g., *That is a great idea*). Furthermore, relatively simple markers (e.g., typographic markers) were also associated with implicitly evaluative irony. Relatively complex utterance markers (e.g., other tropes) were used more often when the utterance was easier seen as irony, based on the configuration of irony factors.

Such results support the general assumption that markers can be helpful in situations where the irony is more difficult to detect. In this light, Caucci and Kreuz (2012) present surprising

empirical evidence when looking at the use of facial markers in face-to-face conversations between friends and strangers. Based on the previous results, it could be expected that markers are used more in conversations between strangers, because they have little knowledge of each other and thus need to be helped. Yet, the Caucci and Kreuz (2012) study shows the exact opposite, in that communicators used more facial irony markers when talking to friends than when talking to strangers (Caucci & Kreuz, 2012). Such results suggest that the issue how communicators use which types of markers in which types of communicative situations is a question that warrants further research.

3.4 Humor Markers in New Media

Recently, the automatic detection of irony by computer programs has received a lot of scholarly attention. Example (3), a quote from a restaurant review, shows that it is impossible to tell whether the utterance is ironic or not.

(3) "I love McDonald's" (example taken from Wallace, 2015)

In the field of sentiment analysis and opinion mining, it is of the utmost importance to be able to tell the polarity of a sentiment. If Internet users are ironic, this may confound the results of such analyses. Therefore, statistical or probabilistic models for the identification of irony have been constructed, with the help of machine-learning techniques and the construction of classifiers combining different features to tell ironic texts apart from non-ironic texts. These approaches typically work with a predefined set of cues to test a model to differentiate between types of texts. Often these models contain factors such as n-grams (frequent part of speech combinations), polarity (word valence based on preset lexicons), emotionality (affective words using values from WordNet), and explicit irony markers, such as quotation marks or emoticons.

Utsumi (1996) is the first author to suggest a computational formalization of irony. He stresses the need of incorporating expectations about the communicator of the irony, in order to be able to fully assess the ironic interpretation of an utterance. This same necessity is also highlighted by Wallace (2015), who claims that all probabilistic computational approaches to irony detection inherently fail unless they account for the pragmatic context (i.e., knowledge of the communicator and the situation). Reyes et al. (2012, p. 240) point out that "irony cuts through every aspect of language[. . .] . As such, it is unrealistic to seek a computational silver bullet for irony, and a general solution will not be found in any single technique or algorithm."

Nevertheless, several attempts have been made. It should be noted that these approaches do not propose to develop general models of irony, but rather pragmatic algorithms for irony detection.

Most statistical approaches test their algorithms on publicly available social media data like Twitter or online product reviews (on sites like Amazon.com). They typically contrast datasets that either contain ironic texts (based on user-generated tags such as #irony or #sarcasm or #not) vs. one or more datasets that are non-ironic (based on other hashtags, such as #politics; González-Ibánez et al., 2011; Davidov et al., 2010; Reyes et al., 2013; Vanin et al., 2013; Skalicky & Crossley, 2014; Kunneman et al., 2015).

Carvalho et al. (2009) work on a data set containing opinionated user posts from the web site of a popular Portuguese newspaper. They combine a set of surface patterns that contain typical irony cues, such as positive statements, emoticons, onomatopoeic expressions for laughter, and punctuation marks, and apply machine-learning techniques to automatically identify ironic

sentences. According to Carvalho et al. (2009, p. 53), these surface patterns are more productive in finding irony than clues based on deeper linguistic information. Burfoot and Baldwin (2009) also use machine-learning and classifiers to separate satiric news articles (such as published in the *Onion*) from true news articles. Aided by scores for the validity of the content of the news stories, characteristics such as the presence of headlines and offensive and slang language, they were able to discriminate between the two genres. In a similar vein, Skalicky and Crossley (2014) work on a sample of product reviews. They found that other, more general linguistic properties than the markers mentioned in Tables 27.1 and 27.2 may serve as predictor for the presence of satire (and humor and irony) in product reviews. For instance, they found that satirical reviews contain more negative emotion words, have higher levels of concreteness and word certainty (e.g., *never, always*), and more often use past tense and quantification words (e.g., *few, many*).

Many of the statistical approaches show that other linguistic features co-occur with the presence of irony (e.g., words with a negative polarity, emotion words). These features can be considered to be even more subtle signals of irony, humor, or non-seriousness than the irony markers discussed in this chapter. Of course, no linguistic trait can be listed as an irony marker per se, and the co-occurrence of certain linguistic properties may help the automated detection of irony.

In a similar vein, Reyes and colleagues identify humorous and ironic patterns in social media by automatically evaluating features that concern ambiguity, polarity, unexpectedness, and emotional scenarios (Reyes et al., 2012). They manage to show that ironic (and humorous) texts deviate from other messages (political, technical or general tweets) with regard to these features. In another study, Reyes et al. (2011) used product reviews on Amazon that other users classified as ironic or sarcastic (e.g., *the Three Wolf Moon* T-shirt) to construct an ironic dataset and contrast it with other product reviews. Features such as polarity, affect, and pleasantness were indicative of ironic content. In turn, Reyes and Rosso (2012) propose a set of eight different features, mostly based on the irony literature, to assess potentially ironic statements in different datasets. The majority of the features were sets of words that often co-occur with irony (such as punctuation marks, emoticons, *yet, nevertheless, suddenly, now, abrupt* or words implying emotionality). It appeared that the relatively longer documents, such as the movie reviews, were likelier to contain irony. This attempt at combining shallow features with more interpretive, contextual features is one of the most promising in the automatic detection literature to date.

Both Wallace (2015) and Reyes and colleagues concur that unless an algorithm accounts for an explicit model of the communicator and the situation, automatic irony detection will remain a challenge (see Wallace et al., 2014). Hopefully, future research may better succeed in incorporating irony factors and markers in irony algorithms.

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28

Prosodic and Multimodal Markers of Humor

Elisa Gironzetti

This chapter provides an overview of existing studies on markers of humor, including prosody, laughter, and other paralinguistic phenomena, such as smiling, ranging from Sacks's pioneer study on the telling of a joke, to recent experimental studies on the prosodic markers of humor in conversation, to the role of laughter and other multimodal cues as possible markers of humor. The chapter moves from a "linguocentric" approach to discourse analysis (Erickson, 2004) towards a multimedia approach capable of offering a more ecologically valid picture of humorous discourse. The issue at stake is whether and how the presence of humor is signaled prosodically and/or by means of other multimodal non-linguistic signals in conversation. A sample data analysis of a fragment of conversational humor within a multimodal discourse analysis framework is also provided to illustrate recent advances in the field and introduce the reader to possible future lines of research.

1 Historical Perspective

In this chapter, we are concerned with humor performance and whether speakers signal the presence of humor in conversation. This chapter focuses on humor, as another chapter in the present volume is dedicated to markers of irony (Burgers & van Mulken, 2017). The idea that humor is marked comes from folk theories of humor performance (see Attardo & Pickering, 2011 for a review) according to which humor would be produced with characteristic prosodic features such as laughter, high-pitch, high-volume, etc. Or, to put it differently, humor in conversation would be delivered "with bells and whistles" (Chafe, 1994, p. 131). As we will see, despite the fact that scholars often assumed this to be true, very few empirical studies have been conducted to test this hypothesis.

1.1 Prosodic Features of Humor

Research on the prosodic features of humorous narratives stemmed from research about how prosodic features such as pauses, pitch height and range, etc., are used by speakers to organize and structure their texts, and by hearers to interpret and parse these texts. The first studies on the topic, however, lacked an experimental and empirical component, and were carried out using

auditory rather than acoustic measures, and thus relied heavily on the scholar's intuition and observations of the phenomena.

1.1.2 Non-experimental Studies of Prosody and Humor

As part of his study of the act of oral storytelling, Bauman (1986) analyzed humorous narratives (humorous anecdotes) and non-humorous narratives that included quoted speech and noted that in both cases the voice quality was altered to indicate to the listener that the speaker was reporting someone else's words, and not speaking for him/herself. Among the prosodic features used to mark quoted speech, Bauman mentioned higher pitch, louder volume, and the presence of pauses.

The role of pauses in relation to humor performance is also discussed in the work of Audrieth (1998), according to whom

> timing is concerned with the amount of time delay between the end of the setup of the joke and the delivery of a punchline. Too short a time and the impact is lessened by the abrupt end of the joke.
>
> (Audrieth, 1998, "Part 4. Delivery")

In fact, as part of his advice for telling a good joke, Audrieth suggested the joke teller should pay attention to pauses, as these are critical elements that can determine the success or failure of the humor.

Prosodic features regarding the delivery of jokes were also studied by Norrick (2001), who relied on his intuition and observations to describe the delivery of three excerpts of joke telling that spontaneously arose in everyday conversations. Norrick focused on timing as a complex phenomenon defined as including "features of the basic joke text, teller strategies, standard joke prefaces, formulas and patterns, the teller's style of delivery and audience response" (p. 272), and contrasted the rapid and fluent delivery of punch lines with the rest of the joke.

In her chapter on prosody as a discourse marker, Wennerstrom (2001) proposed to consider the relationship between lexical discourse markers and certain prosodic features, such as paratones, and the role of prosodic features as discourse markers, in order to better understand how discourse is organized. Wennerstrom suggested that there may be a correlation between the structural components of narratives and characteristic prosodic features. These claims are based on the idea that narratives are evaluative, in Labov's terms (Labov, 1972), meaning that together with the reports of certain events, they also convey the speaker's attitudes towards it; for example, "this was amusing." In her analysis of a humorous sequence in a casual conversation among friends, for example, Wennerstrom (2001) proposed that "part of what makes this a humorous frame is the fact that some of the speakers associate a low key with their contributions" (p. 183), thus marking their comments as parentheticals and setting them aside from the general flow of the conversation, while also displaying tone concord with the other speakers, thus reinforcing the affiliative and bonding nature of the humorous exchange.

In a more recent study, Wennerstrom (2011) analyzed six jokes produced in English and recognized that speakers may employ two intonation patterns to produce a humorous effect: an "intonation of contrast" with an L tone followed by a H* one (p. 123), and an "intonation of given information," or deaccent (p. 122). Both types of intonation indicate to the listener the need to reanalyze the text and shift from one script or interpretation to another, and a humorous effect may be achieved if this shift occurs between scripts that are incongruous. While the majority of studies mentioned earlier focused on narrative humor or jokes as they

were delivered in conversation, Bertrand and Priego-Valverde (2011) studied conversational non-narrative humor focusing on discursive and prosodic cues used by speakers to construct a humorous mode of communication. Results showed that a variety of prosodic cues are used by interlocutors, but they are not specific to humor.

The picture that emerges from the results of these non-experimental studies is close to what folk theories of humor describe, namely, that participants in a conversation will use a set of prosodic phenomena to mark the presence of the humor and to set the humor aside from the rest of the conversation. However, as it will be shown in the next section, data from experimental studies of prosodic features of humor point towards a very different conclusion.

1.1.3 Experimental Studies of Prosody and Humor

As was mentioned at the beginning of section 1.1, empirical studies of prosodic markers of humor are scarce and began to appear only recently. The first empirical study that tested whether humor is marked prosodically in English was Pickering et al. (2009), followed by Attardo and Pickering (2011), Attardo et al. (2011), and Attardo et al. (2013). In languages other than English, empirical studies of humor prosodic markers have been completed for Greek (Archakis et al., 2010), Portuguese (Flamson et al., 2011), and Japanese (Kadooka, 2012).

In Pickering et al. (2009), a set of 10 video recordings of two participants performing two jokes each, recalled from memory, were instrumentally analyzed using a KayPENTAX Computerized Speech Laboratory (CSL) Model 4300b. The following acoustic measures were made for each intonational phrase: pitch maxima and minima, volume maxima and minima, pause length, and speech rate. Non-parametric statistical analysis of the data showed that punch lines were delivered with a significantly lower pitch than the setup. In this regard, Pickering et al. (2009) suggested that "prosody trumps humor" (p. 519), meaning that because punch lines normally occur at the end of the narrative (the joke), their delivery is characterized by the typical prosodic features of the end of a paratone: lower volume and lower pitch. Thus, this finding is considered to be an effect of the paratone structure, rather than a characteristic of humorous texts.

The results of Pickering et al. (2009) disprove folk theories of humor, which predict that the punch line will be delivered with higher pitch and volume. Moreover, the data also disprove Bauman's hypothesis by showing that there were no significant differences between setup and punch line regarding volume, pause length, and speech rate, nor were the presence of laughter, the use of a rhetorical pause, or the reported speech effect stable characteristics that could reliably be used to identify the presence of humor. Finally, the last prosodic feature analyzed by Pickering et al. (2009) as a possible marker for the presence of humor in conversation was "laughing voice" or "smiling voice" (Tartter, 1980). This label has been used to describe a change in voice quality as a side effect due to "the adjustment of the vocal tract in smiling or laughing" (Pickering et al., 2009, p. 524) that causes widening of the mouth opening, shortening of the vocal tract, and enlarging of vocal tract opening (Shor, 1978). Results suggested that smiling voice may be one possible paralinguistic indicator of the presence of humor, occurring in 5 of the 20 analyzed samples.

Building on and expanding the results of Pickering et al. (2009) by going beyond narrative humor and including also spontaneous conversational humor, Attardo and Pickering (2011), Attardo et al. (2013), and Attardo et al. (2013) also found that humor in conversation or in experimental contexts is not marked by pitch, volume, speech rate, or pauses, nor is it reliably marked by the presence of laughter. These empirical studies confirm that, contrary to folk theories of humor and claims of non-experimental studies of prosodic humor markers, in English, humor in conversation or in experimental situations is not reliably marked by means

of any prosodic feature. In particular, Attardo and Pickering (2011) operationalized timing as a combination of speech rate (syllables per second) and use of emphatic pauses before the punch line, and found no differences between the delivery of the punch line and the rest of the joke, contrary to what was suggested by Bauman (1986), Audrieth (1998), and Norrick (2001). If anything, in fact, punch lines were delivered slightly slower than the rest of the joke (Attardo & Pickering, 2011, p. 242).

For Greek, Archakis et al. (2010) adopted a Conversation Analysis (CA) framework to analyze the role of pauses, speech rate, and intensity (average loudness in decibels) in the delimitation of humorous turn construction units (TCUs) from non-humorous narrative utterances. The software Praat (http://www.fon.hum.uva.nl/praat/) was used to analyze 170 jab lines and non-humorous utterances extracted from a corpus of 3-hour spontaneous and unstructured conversations among six young (15–17 years old) Greek girls. The results of the analysis show that jab lines, as opposed to non-humorous narrative TCU, are preceded and/or followed by pauses and produced with a slower speech rate and higher intensity. However, the method used in this study raises some concerns, also mentioned in Attardo et al. (2013), regarding the validity of the results and their generalizability, for the following reasons. First, out of the total of 170 jab lines, only 100 were "semi-randomly selected" (p. 198) and analyzed to avoid intonation phrases from the beginning and the end of a humorous narrative, as well as those that preceded and followed jab lines. Second, the authors used intonation phrases as their unit of analysis, which is problematic because intonation phrases are defined as being preceded by and followed by pauses. Third, pauses were defined as silences of at least 0.3 seconds, which according to Brown et al. (1980) are "very short pauses" (p. 66) that co-occur with incomplete syntactic structures, as opposed to "substantial pauses" (p. 56) of between 0.6 and 0.8 seconds that coincide with breaks of short units, such as phrases. Moreover, the participants analyzed in this study had very specific characteristics (the participants were all females, friends, and young) that make it impossible to generalize the results.

Flamson et al. (2011) used Praat to analyze spontaneous humorous speech in Portuguese and compare the acoustic features of humorous utterances—identified using laughter as the only criterion—and non-humorous utterances produced by the same speakers. The initial hypothesis, confirmed by the results of the study, was that speakers would not explicitly mark the presence of humor because they all belonged to the same community and had long-standing social ties. Speakers would use humor to reinforce these ties, thus preventing outsiders to "get the joke." While this is the only empirical study on prosodic markers of humor in Portuguese, the fact that laughter was used as the sole criterion to identify humor poses some limitations. In particular, contrary to what the authors stated (p. 251), the fact that laughter does not follow humor does not necessarily mean that the humor failed, as demonstrated by several studies (see, for example, Bell, 2009; 2015).

Finally, for Japanese, Kadooka (2012) used Praat to analyze the prosodic features of what he calls "punch line paratone" (Kadooka, 2009, p. 204) in authentic Kobanashi stories, focusing on pitch, pauses, and speech rate. The results obtained confirm only partially the punch line paratone model proposed by the author; however, due to the vague method used for the analysis, it is not possible to evaluate the results of the study.

The dearth of research in this particular area of humor studies, not only for English but also in languages other than English, calls for more experimental and empirical studies using acoustic measures to investigate the relationship between humor and prosody in conversation. Moreover, because different scholars have pointed out the relevance of multimodal clues for humor marking in conversation, such as smiling and gaze, an interesting avenue for future research would be to explore, experimentally, the possibility that humor in conversation may

be marked multimodally by means of smiling and gaze in interaction. Nowadays, with the recent technological developments, humor scholars have at their disposal a much wider array of methods and technologies that allow them to record and analyze not only audio, but also video and eye movements, thus being able to address the multidimensionality of discursive practices more adequately (Erickson, 2004). This new multimodal approach to humor in discourse will be explored in detail in the following sections of this chapter.

2 Core Issues and Topics

In this section, we will focus on two core issues in the study of humor markers. First, based on Attardo (2000) and Attardo et al. (2013), a terminological clarification will be offered in order to avoid the confusion that derives from the use of the terminology of markers, indicators, indices, cues, etc. of humor almost indistinctively. Second, after reviewing the abundant literature on laughter as a marker of humor, we will advocate for the need of departing from a linguocentric perspective (Erickson, 2004) and moving towards multimodality to explore whether and how humor may be marked by means of multimodal non-linguistic signals in conversation.

2.1 Terminology

Discourse markers were first defined by Schiffrin as "linguistic, paralinguistic, or nonverbal elements that signal relations between units of talk by virtue of their syntactic and semantic properties and by virtue of their sequential relations as initial or terminal brackets demarcating discourse units" (Schiffrin, 1987, p. 40). As such, *discourse markers* can surface in different media (written language, gestures, prosody, etc.) and serve multiple functions, including signaling the speaker's intentions by conveying a metamessage about how a certain utterance should be interpreted, for example, in a humorous way.

As rightfully pointed out by Attardo (2000) and others before him (see, for example, Haiman, 1998), humor markers are not necessary for a text to be humorous. On this basis, Attardo (2000) distinguishes between *markers* and *factors*: *markers* are elements that can be removed from the text without removing the humor (but their absence could, possibly, affect the recognition of the humor), while *factors* are essential elements that cannot be removed from the text without destroying the humor. The main function of humor markers would be to convey the metamessage "this is humorous" (Attardo et al., 2011, p. 9), and thus enhance the chances that the speaker's intentions be adequately interpreted. In a later publication, Attardo et al. (2011) introduced two new terms into the equation, *indicators* and *indices*. *Indicators* were described as coextensive with humor and always co-occurring with it, but different from *factors* in that they are not essential to the humor. Therefore, an *indicator* could be removed without affecting the humor itself. *Indices*, on the other hand, are elements that unintentionally indicate the presence of humor (Attardo et al., 2011).

Despite the attempts at clarifying the terminology used in the field, there still are overlaps among the four terms that may generate some confusion. As already noted by Attardo (2000), *markers, factors, indicators*, and *indices*, despite their differences, could still perform the same function of signaling the presence of humor in conversation. In the case of *markers* and *indicators*, the signaling function would be a product of the speaker's intention, while in the case of *factors* and *indices*, the function would be a consequence not actively sought after by the speaker. In an attempt at clarifying the differences among these elements, defining each one of them, and operationalizing their definition, the matrix in Table 28.1 is proposed.

Table 28.1 Humor factors, indicators, markers, and indices

	Essential	*Always co-occurring*	*Intentional signal*
Factors	+	+	–
Indicators	–	+	+
Markers	–	–	+
Indices	–	–	–

Table 28.1 should be read as follows: the first column identifies the four phenomena to be defined, *factors*, *markers*, *indicators*, and *indices*. The following columns identify three features of these phenomena based on the existing literature on the subject, *essential, always co-occurring*, and *intentional signal*, and whether these characteristics are necessarily true (+ sign) or not (− sign) of a given phenomenon. The fourth feature mentioned in the literature, *temporally coextensive*, was not included in the matrix because it lacks explanatory power. *Temporally coextensive* and *always co-occurring* are the two distinctive features of *indicators* according to Attardo et al. (2011). However, because no phenomena with this characteristic has ever been encountered, and because scholars attempted to find an element that would always co-occur with humor, rather than having the same temporal extension, *temporally coextensive* was excluded from the matrix while the feature *always co-occurring* was maintained.

According to this matrix, *factors* are essential to the humor, always co-occurring with it, and do not intentionally signal its presence. As they are essential, they cannot be removed from the text without removing the humorous effect as well. Moreover, *factors* are always co-occurring with the humor and only signal the presence of humor indirectly and without an explicit intention of the speaker to do so. *Indicators* would be elements that are not essential to the humor, are always co-occurring with it, and intentionally signal its presence. However, so far, no indicator of humor has ever been identified. An example of a potential indicator would be smiling, if people smiled on purpose every time they said something humorous in order to signal their humorous intention to the interlocutors. *Markers* are elements that are not essential to the humor, nor coextensive with it, and intentionally signal its presence. Based on this definition of markers, a number of phenomena that have been studied would fall into this category, including laughter. These elements can be removed without destroying the humor (thus, there can be humor with and without laughter, but humor nonetheless), and do not have to be present every time humor is present. More importantly, *markers* are intentional, and so the speaker must have the intention to signal the presence of humor. Finally, *indices* are elements that are not essential to humor, and thus can be removed without destroying the humor, and are not always co-occurring with it. Moreover, indices signal the presence of humor unintentionally. An example of *indices* would be elements that involuntarily leak information about the state of mind of the person (Ekman & Friesen, 1969), such as a genuine-enjoyment smile produced not as the result of the speaker's intention to signal the presence of humor, but as a manifestation of the person's state of mind, happiness.

In the remaining sections of this chapter, the term *markers* will be used with the meaning explained earlier, that is to say, non-necessary elements that frame the interpretation of a given utterance or communicative situation as humorous, are not always co-occurring with it, and are produced intentionally with the goal of communicating the metamessage "this is humorous." Scholars have dedicated a lot of effort to identifying and describing *markers* of humor, elements that may or may not surface in a given interaction, and which will contribute to

the negotiation of the humorous nature of the exchange by framing part of it as humorous. The following section will review the existing literature on laughter, possibly the most studied *marker* of humor in conversation, with two goals: first, to highlight pitfalls and gaps in the research, and second, to gradually move from a linguocentric to a multimodal approach to the study of humor markers.

2.3 From Language to Multimodality

The hypothesis that humor markers may be multimodal was recently put forward by Attardo et al. (2013) and has only now begun to be explored experimentally. While irony scholars have been researching multimodal clues for some years now (see, for example, Muecke, 1978; Attardo et al., 2003; Pell, 2005; Burgers & van Mulken, 2017), very few studies have explored the possibility that humor in conversation may be multimodally marked. Among many possible candidates, scholars noted that smiling, laughter, and gaze may interact and serve the same function of marking the presence of humor in conversation.

2.3.1 Laughter

Laughter was among the first phenomena used by scholars to talk about humor, and its role in relation to humor is still controversial today. Despite the fact that humor is a mental phenomenon and laughter a physiological one (Attardo, 1994, p. 10), scholars have confounded laughter and humor since the very early stages of the field (see, for example, Bergson, 1911; Freud, 1916) and often treated laughter as an *indicator* of humor, rather than a *marker* of its presence.

One of the earliest definitions of laughter that attempted to solve this problem and differentiate laughter and humor was put forward by Aubouin (1948), according to whom laughter denotes an effect without specifying its cause, and thus there can be physiologically originated laughter and intellectually originated laughter. Only the latter would have humor as the originating cause.

Olbrechts-Tyteca (1974) went a step further and proposed five different reasons why humor and laughter are two different phenomena and why the use of laughter as a criterion to identify humor is problematic. These reasons are (1) laughter largely exceeds humor; (2) laughter does not always have the same meaning; (3) laughter is not proportionate to the intensity of humor; (4) humor can provoke laughter or smiling; and (5) in many cases, neither laughter nor smiling can be observed directly (Olbrechts-Tyteca, 1974, pp. 11–13).

Following Sacks's analysis of the telling of a dirty joke among a group of young friends (Sacks, 1974), in which laughter and delayed laughter were identified as two possible responses to humor, Jefferson et al. (1977) examined 15 transcripts of naturally occurring conversations and focused on laughter as an orderly synchronous phenomenon. They observed that laughter is an indexical expression or token of understanding that occurs in reference to something else, which is sought by the participants in the conversation as the source of laughter. Laughter in and of itself is considered meaningful, and can be used to refer forward or backward to previous segments of the conversation, for example, to "appreciate a joke which just occurred" (p. 12). The authors also put forward the proposal that the laughable and its responsive laughter could constitute an adjacency pair (p. 30), which they define, following Sacks, as a "massively occurrent, apparently central construction unit for conversation" (Sacks, 1974, p. 72), a hypothesis later defended by Norrick in relation to humor and laughter.

Jefferson (1979) and O'Donnell-Trujillo and Adams (1983) studied laughter as a cue for the humorous intention of the speaker. Jefferson (1979) studied laughter in conversation, and recognized the role of laughter as a technique used by the speaker to invite laughter from the hearer, thus cueing the humorous intention of the speaker. O'Donnell-Trujillo and Adams (1983) explored some pragmatic features of laughter in conversation, and recognized that it can be used to cue for the humorous intention of the speaker and for the humorous interpretation of the utterance. More specifically, laughter can be used as a turn-taking cue, an instruction to hear, a display of hearership, an invitation to elaborate, and a resource in affiliation.

In a broad treatment of conversational joking, Norrick (1993) applied a CA protocol to analyze naturally occurring data from 11 conversations. Norrick drew upon Sacks (1974) and Jefferson et al. (1977) as he considered humor and laughter to be two members of an adjacency pair, with laughter being the necessary response produced by the hearer, and the absence of laughter being thus meaningful. In his approach, silence was considered an accountable response that revealed failure to get the joke (p. 23). The claim that humor and laughter form an adjacency pair was later disproved by Provine (2000), who noted that "most laughter did not follow anything resembling a joke, storytelling, or other formal attempt at humor" (p. 40). Most of everyday laughter found in people's interactions is not, according to Provine, a response to humor, but to unspecified nonlinguistic prosodic and social cues.

Hay (2001, p. 56) also criticized the idea that humor and laughter may be an adjacency pair and labeled it as misleading. In her study, she explored the array of strategies by which hearers can support the production of humor, and laughter and the production of more humor are among the most frequently used. From her data it appeared that laughter is only one of the possible responses to humor in conversation, and depending on the situation and the type of humor (for example, in trouble-talk, when laughing may indicate that one finds the speaker's problems funny), it may not be the most appropriate response.

In a more recent collection of studies on laughter, Holt and Glenn (2013; see also Glenn & Holt, 2017) referred to laughter as "the most common, overt indicator of the presence of humor" (p. 2), while also clarifying that indicating the presence of humor is not the only function of laughter nor the most pervasive one. The chapters in the volume explore the role and function of laughter in relation to different contexts and speakers, although none of these is devoted specifically to the relationship between laughter and humor. In the third chapter of the volume, Ikeda and Bysouth challenged the widespread idea that laughter indexes mirth, meaning that the more one laughs, the more amused s/he is, with data that show that variations in the production of laughter correlate with laughter's different roles in conversation, such as turn-taking management and negotiating conversational roles.

While this brief literature review has shown that laughter tends to be recognized and instinctively associate with humor, and thus it could be a useful *marker* of the presence of humor, it also shows that laughter alone cannot capture all instances of humor in conversation. Therefore, the presence of laughter alone can be, at best, one of the cues used to frame a segment of conversation as humorous (Attardo, 1994). Similar arguments against the use of laughter as the sole or main criterion to identify humor were later echoed by other scholars in the field and supported by experimental results (Pickering et al., 2009; Attardo et al., 2011; Attardo et al., 2013). However, despite the methodological problems that using laughter to identify humor in conversation entails, humor scholars have continued to do it. The reasons behind this can be found in the limitations of early studies of humor markers, which used Conversation Analysis (henceforth CA) notation conventions to transcribe conversations, thus allowing the inclusion of certain vocalized non-verbal behaviors in the transcriptions and

subsequent analyses, such as laughter, but not other silent behaviors that may have been also relevant, such as smiling.

2.3.1 Smiling

Smiling has been studied extensively by psychologists, who analyzed whether smiling intensity in photographs can predict divorce (Hertenstein et al., 2009), can be an indicator of affective style (Oveis et al., 2009), or can predict future life satisfaction (Seder & Oishi, 2012). However, despite the numerous studies on smiling within psychology, and due in part to the methodological limitations of the CA approach that the study of humor in discourse inherited, its role in relation to the presence of humor has been neglected until very recently (Attardo et al., 2013; Gironzetti & Menjo, 2014; Gironzetti et al., 2015).

Attardo et al. (2013) and Ikeda and Bysouth (2013) were among the first who, based on experimental data, suggested that the role of smiling as a multimodal clue of humor should be investigated. On the one hand, in their chapter on laughter, Ikeda and Bysouth addressed, although briefly, the intertwined relationship of laughter and multimodal cues, such as gaze and smile, as a meaningful combination of features that may serve different communicative functions such as displaying appreciation of the laughable or characterizing a specific type of laughter as diverging from other people's laugh (Ikeda & Bysouth, 2013, p. 62). On the other hand, Attardo et al. (2013) noted that, in a corpus of conversational data where humor was present, the only markers that co-occurred with humor in non-insignificant numbers were smiling and laughter. More specifically, "a manifestation on the smile-laughter continuum was used to 'frame' a segment of the discourse as humorous" (p. 411), and smiling was used to provide "clues that lead to the framing of segments of the exchange as humorous" and indicate "agreement with the humor" (p. 408).

The hypothesis of Attardo et al. (2013) was the starting point of a large ongoing project that aims at exploring the relationship between humor, smiling, and gaze in face-to-face dyadic interactions. Within this project, Gironzetti and Menjo (2014) and Gironzetti et al. (2015) adapted and applied the existing standard for the study facial expressions, Facial Action Coding System (Ekman & Friesen, 1978), to explore whether and how smiling behavior is used by conversational partners to communicate that whatever is being said is meant to be humorous. Results showed that conversational partners display more synchronic smiling behaviors when humor is present in the conversation, and consistently smile with a higher intensity when humor is present. These studies confirmed the initial hypothesis of Attardo et al. (2013) that smiling may be one of the multimodal clues used by speakers to signal the presence of humor in conversation while also showing a more complex picture of the relationship between smiling and humor. In fact, based on these results and contrary to what has often been assumed, speakers do not mark the presence of humor by smiling more than during non-humorous portions of conversation, but by smiling at a higher intensity and matching each other's smiling intensity more.

3 Methodology and Analysis

This section provides a detailed description and a sample analysis of the methodology used in Gironzetti and Menjo (2014) and Gironzetti et al. (2015) to complete the multimodal analysis of humor in conversation with the goal of exploring the possibility that smiling may be used as a marker for the presence of humor in conversation. All speaker names used in this section are pseudonyms.

In order to be able to analyze the relationship between humor in conversation and multimodal clues, such as smiling, a set of video recorded data with separate audio and video tracks were collected for pairs of speakers while they interacted face-to-face in a computer-mediated environment using videoconferencing software. Before the recording took place, every participant was given the text of a canned joke (described in Pickering et al., 2009) to memorize and was instructed to start the conversation using the joke the break the ice. This ensured that a sample of canned humor was present in every dyadic interaction, while also serving as a prompt to generate more spontaneous humor. Each conversation lasted between 5 and 10 minutes.

After the recording, the video and audio files were synchronized using ELAN (https://tla.mpi.nl/tools/tla-tools/elan/), and the same software was also used to complete the multimodal analysis. Each conversation was transcribed and prosodically analyzed using CSL (Computerized Speech Lab, www.kaypentax.com) and Praat (http://www.fon.hum.uva.nl/praat/). The ELAN file was then annotated for the following prosodic features: pause-based unit, pitch values, volume values, and length of pauses, with significant pauses being defined as lasting between 0.6 and 0.8 seconds (Brown et al., 1980).

Table 28.2 shows, in the third column, a sample transcription that includes: (1) prominent syllables marked in capital letters—for example, *OTher* in line 276; (2) humorous phrases marked in bold—for example, *aMERican* in line 287; (3) relevant pauses included on a separate line with their lengths is expressed in seconds—for example, the value 1.03 in line 288 indicates that there was a pause lasting 1.03 seconds; and (4) hertz and decibel values within squared brackets—for example, the values [147] [65] in line 286 correspond to 147 Hz and 65 dB.

Each conversation was then analyzed and coded for the presence of humor by two independent raters based on the triangulation method outlined in Attardo (2001; 2012). A portion of text was marked as being humorous based on the following criteria: presence of script opposition (incongruity), presence of metalinguistic comments made by the speakers regarding the humorous nature of the exchange (*this is/isn't funny*), post-experiment comments made by the participants about the nature of the exchange (*I was making a joke*), and presence of behaviors indexing

Table 28.2 Example of transcription

Line	*Speaker*	*Transcription*	*Duration (seconds)*	*Syllables*	*Speech rate*
276	Carmen	// do you speak any OTher [225][62] languages besides ENGlish[242][60]? //	2.379	13	0.183
277		1,11			
278	Marina	// NOPE [251][71] //	0.221	1	0.221
279		0,42			
280	Marina	// nothin FLUently [216][59] //	0.979	5	0.196
281		0,12			
282	Marina	// little bit a this n THAT [210][60] n //	1.294	8	0.162
283		1,26			
284	Marina	// k OTher [185][73] thing //	0.801	4	0.200
285		0,66			
286	Marina	// you KNOW [147][65] = //	0.431	2	0.216
287	Carmen	// =you're **aMERican** [227][60] //	0.811	5	0.162
288		1,03			
289		((both laugh))	2.023		
290	Marina	// **no KIdding** [245][75] //	0.678	3	0.226

enjoyment of the humor (laughter, smiling). The presence of laughter or smiling alone was not a sufficient criterion to mark a given portion of text as humorous.

Table 28.3 shows an excerpt from the conversation between Courtney and Melinda, when Melinda was telling the last part of her joke. The word *girlfriend*, in bold, marks the end of the punch line and the place where the time-log for this specific humorous event was registered.

After all instances of humor were marked in each conversation and both raters agreed on their humorous nature, ELAN was used to create a time-log at the exact end of the punch line or jab line of each instance of humor in the conversation. Then, the time-log was used to mark 5-second windows around the humorous event, starting 2 seconds before the time-log and lasting 3 seconds after it. The same procedure was used to mark in ELAN the same number of 5-second windows with no humor in it, for comparison purposes. These 5-second windows, with and without humor, were then analyzed and coded for the presence of specific smiling facial expressions.

As mentioned in the previous section, the standard for facial expression analysis is FACS (Ekman & Friesen, 1978). However, due to the quality of the video recording, it was not always possible to consistently and accurately apply FACS. Therefore, a simplified and adapted instrument of smiling intensity was developed based on FACS and by FACS-certified raters: the Smiling Intensity Scale (Table 28.4). This scale does not attempt to capture the presence and intensity of individual AUs that may be involved in a smiling facial expression. Instead, selected AUs were grouped in order to characterize different smiling expressions on a scale of smiling intensity.

Table 28.3 Example of punch line

Melinda	// LOOK [214][84] //
	0.07
	// i'm an engiNEER [218][74] //
	0.49
	// a TALKing [290][86] frog
	is really COOL [259][85]
	but I don't have time for a **GIRLfriend** [194][84] //

Table 28.4 Levels of the Smiling Intensity Scale

Levels	*Descriptor*
Level 0	Neutral. No smile, no flexing of the zygomaticus (no AU12), may show dimpling (AU14) or squinting of the eyes (AU6 or AU7), but no raised side of the mouth (no AU12). The mouth may be closed or open (AU25 or AU26).
Level 1	Closed mouth smile. Shows flexing of the zygomaticus (AU12), may show dimpling (AU14) and flexing of the orbicularis oculi (caused by AU6 or AU7).
Level 2	Open mouth smile. Showing upper teeth (AU25), flexing of the zygomaticus (AU12), may show dimpling (AU14) and flexing of the orbicularis oculi (AU6 or AU7).
Level 3	Wide open mouth smile. Shows flexing of the zygomaticus (AU12), flexing of the orbicularis oculi (AU6 or AU7), and may show dimpling (AU14). 3A: showing lower and upper teeth (AU25), or 3B: showing a gap between upper and lower teeth (AU25 and AU26).
Level 4	Laughing smile. The jaw is dropped (AU25 and AU26 or AU27), showing lower and upper teeth, flexing of the zygomaticus (AU12), flexing of the orbicularis oculi (AU6 or AU7), and possibly dimpling (AU14).

The scale was applied by five different raters to code for smiling intensity of each participant in each conversation. Raters reached good inter-rater reliability (Cohen-kappa = 0.89). However, two main difficulties arose regarding the applicability of this scale. The first involved measuring smiling intensity during talk with a scale that differentiates among smiling behavior based (also) on the degree of mouth opening. While the mouth may be open because the person is talking, and thus the action of opening the mouth may have nothing to do with smiling, previous research demonstrates that mouth opening and cheek raising increase the perceived intensity of smiles independent of the actual intensity of AU12 (the "smiling" action unit according to FACS) (Messinger, 2002; Messinger et al., 2012). Second, the scale does not attempt at differentiating between genuine or Duchenne smiles, produced with AU6, and phony smiles, produced without AU6. While this did not affect the applicability of the scale, it may have an effect on the interpretation of the results: if a smiling facial expression is genuine, thus produced with AU6, it will signal the presence of humor by virtue of leaking information (Ekman & Friesen, 1969) about the state of mind of the person (happiness, mirth, enjoyment), and thus this particular smiling expression would have to be categorized as an *index* of humor, rather than a *marker*. On the contrary, a smiling expression produced without AU6 would not be considered a genuine enjoyment smile and could, thus, be categorized as a *marker* of humor.

4 New Debates

The issue regarding how humor is marked in conversation is still controversial, as research is ongoing and it is not even clear whether humor is marked or not (Pickering et al., 2009; Attardo et al., 2011; Attardo et al., 2011). New avenues for research regarding humor performance and how speakers negotiate the humorous nature of the exchange during interactions are being currently pursued thanks to the latest technological and methodological advances, as exemplified in the previous section. In addition to exploring the prosody used to produce humor with experimental methods, scholars are now moving from a "linguocentric" approach to discourse analysis (Erickson, 2004), towards a multimedia approach capable of offering a more ecologically valid picture of humorous discourse. This new "turn" includes the aforementioned research on smiling facial expressions as humor markers, but also novel applications of eye-tracking technology to explore the relationship between humor, facial expressions, and eye-movements (Gironzetti et al., 2015).

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29

Humor and Translation

Delia Chiaro

Anyone who has ever tried to tell a joke in a language other than his or her own will know how easy it is for it to get lost in translation simply because what often seems so amusing in one language may just not be funny in another. The reason for this, of course, lies in the fact that verbal humor, among other things, depends on incongruities that are present in both the language in which it is couched and on a series of cultural features that are often specific to the source culture alone. If the joke plays on the ambiguity of a word or phrase with two or more meanings and you have the good fortune to find that the same word or phrase in the target language has exactly the same meanings as in the source language, your luck is in and your task is almost accomplished. However, in the unlikely event that the words themselves do translate in exactly the same way, the culture-specificity of the joke may well remain an insurmountable challenge. Owing to the fact that good jokes play on the combination of linguistic specificity and highly specific cultural references, recipients need to be knowledgeable enough regarding events, history, people, customs, and values of the source culture to be able to know what you are talking about and recognize your attempt at non-seriousness. If you do manage to overcome all these problems with an adequate translation, whether your interlocutor will find it funny or not is yet another problem. Whichever way we look at it, verbal humor does not travel well.

Yet, challenging as it may seem, verbal humor is indeed translated, and copiously. Suffice it to think of literary translation. A gargantuan task, but the witty verbal dexterity of authors such as Boccaccio, Shakespeare, and Joyce has been successfully translated into dozens of languages. The same is true of the translation of humor on screen. From the Marx Brothers to Woody Allen, despite the added challenge of having to deal with wordplay that is frequently visually anchored, too, thanks to translation, Hollywood's comedians have successfully traveled the world as have, over the years, innumerable TV comedy series from Britain and the USA (Bucaria, 2017).

Historical Perspectives

Like many other "studies" that emerged in the mid-seventies, including Humor Studies, Translation Studies is a fairly new discipline. Generally accepted to have been established following a seminal paper by Holmes (1988; 2004), Translation Studies grew out of the fields of comparative literary studies and linguistics and, to begin with, research in the field was limited to the study

of translations of biblical, historical and literary texts. Undoubtedly, studies regarding prestigious written texts gave weight and gravitas to the new discipline and it took some time for studies in oral translation, such as interpreting, screen translation and multimedia translation, as well as automatic translation and computer-assisted translation to emerge as serious objects of study. As for writings on the translation of humor, until the mid-nineties they were virtually non-existent, and the few studies that did appear, that were not anecdotal, tended to approach the subject from a literary viewpoint, focusing very much on puns. While closely related to humor, puns can often be more clever than they are amusing. Extensive studies on literary puns include Redfern (1984) and Delabastita's work on Shakespeare's puns (1993). It has only really been since the turn of the new century that studies on the translation of humor have truly ventured beyond the kudos of the literary pun. Slowly but surely, special issues of renowned journals that have been dedicated to the subject have included studies on translating humor beyond literary contexts and have involved analyses of humor in the context of simultaneous interpreting and screen translation, and, of course, jokes (see Delabastita, 1996; Vandaele, 2002; Chiaro, 2005). More recently, translating humor in previously unexplored areas such as advertising, comic books, videogames, and global news has also been explored (Chiaro, 2010; Abend-David, 2014). In fact, from its position of near-invisibility, humor has gradually become a popular subject in Translation Studies, emerging as a widespread subject of postgraduate dissertations, while a glance at the programs of any Translation Studies conference will reveal numerous presentations on the subject, too.

However, what exactly do we mean by the term "translation"? "Translation" is a far-reaching term that principally refers to the transfer of a message from one language into another language; e.g., Greek into Latin, Chinese into English, Spanish into French. Translating between different languages, or "interlingual translation," is part of a well-known tripartite definition of translation advanced by Roman Jakobson:

1. Intralingual translation or *rewording* is an interpretation of verbal signs by means of other signs in the same language.
2. Interlingual translation or *translation proper* is an interpretation of verbal signs by means of some other language.
3. Intersemiotic translation or *transmutation* is an interpretation of verbal signs by means of signs of nonverbal sign systems.

(1959/2004, p. 139, emphasis in original)

As we can see, translation is not limited to the transmission of a message from Language A to Language B but includes rewording within a single language as well as the notion of the alteration of non-verbal signs.

The word used for "translation" in many Romance languages derives from the Latin term *traductio* (e.g., French *traduction*, Italian *traduzione*, Portuguese *tradução*, Rumanian *traducere*, etc.) meaning "transposition." Significantly, the same term, *traductio*, also designates a rhetorical device that refers to "figures of moderate similarity" (Lausberg, 1967, p. 147). Lausberg actually glosses the term *traductio* with the French terms *jeu de mot*, *calambour* and the English word "pun." Therefore, a close etymological relationship emerges between translation and wordplay. However, this connection is not exclusively etymological. If translation creates a text that is similar and reflects another pre-existing text in another language, by a stretch of the imagination, we could argue that, in a sense, a translation contains two texts in one. In other words, the translated text overlaps and corresponds to the underlying source script from which it originates.

Eighteenth-century essayist, Joseph Addison, also saw a link between verbal humor and translation, arguing that a pun is

> a Conceit arising from the use of two words that agree in the Sound, but differ in the Sense. The only way to try a Piece of Wit is to translate it in a different language: If it bears the Test you may pronounce it to be true but if it vanishes in the Experiment you may conclude it to have been a Punn.
>
> (1709/1711/1982, p. 343)

According to Addison, translation is the test of a "Piece of Wit," of verbal humor. In other words, if a term stands the test of translation, it is in itself ambiguous, a pun, a "Piece of Wit." Therefore, both Addison, who uses translation to test verbal ambiguity, and Lausberg with the "moderate similarity" of both translation and verbal humor think in a like manner. Again, linguist Charles Hockett (1960) also uses translation as a benchmark of verbal humor with regard to jokes that he labelled "poetic." According to Hockett, poetic jokes that rely heavily on linguistic ambiguity defy translation and goes as far as defining such jokes in terms of "layman's poetry." It is then Sherzer, by defining the pun as "a projection of the paradigmatic onto the syntagmatic" (1978, p. 341), who comes full circle by adding that this definition of the pun is "precisely the Jakobsonian definition of poetry."

Core Issues and Topics

Although this chapter is mainly concerned with interlingual translation, it is well worth considering the other types of translations in Jakobson's definition, which is, however, far from being unproblematic. To begin with, the concept of the interlingual translation of "some other language" raises the question of whether language varieties are considered full-fledged languages or whether they fall into the category of "other signs in the same language." Would African American Vernacular English or Cockney, to quote two varieties of English often adopted for humorous purposes, require intra- or interlingual translation? Consider the following example of Cockney repartee:

> A few nights ago, Rory's gone to the local *battle-cruiser* to catch the end of his *footer*. Nobody is watching the *custard* so he turns the channel over. A fat man's *north* opens and he wanders over and turns the *Liza* over. "Now fuck off and watch it somewhere else." Rory knows *claret* is imminent, but he doesn't want to miss the end of the game; so, calm as a coma, he stands and picks up a fire extinguisher and he walks straight past the *jam rolls* who are ready for action, then he plonks it outside the entrance. He then orders an *Aristotle* of the most *ping pong tiddly* in the *nuclear sub* and switches back to his footer.
>
> (Ritchie, 1998)[1]

Cockney rhyming slang is an anti-language created by replacing an everyday word with a phrase of two words that rhymes with it. When uttering the rhyming phrase it is usual to omit the final, rhyming word so that it remains implied. Extremely cryptic, rhyming slang probably originated in the markets of London's East End where it was used by both barrow boys and criminals so as not to be understood by the police forces. The omission of the rhyming word, or *hemiteleia*, renders the phrase even more incomprehensible to those not au fait with the slang. The passage contains several expressions in Cockney rhyming slang (italicized) that would not be intelligible to those unacquainted with it, including most people living in the British Isles (Table 29.1).

Apart from the rhyming slang itself, the passage also contains local inner London terms (in italics) such as "footer" for football match, "claret" for blood and "ping pong tiddly" for champagne, as well as the verb to "plonk," meaning to put or place—a slang term that is not restricted to Cockney. For most English speakers living outside London or belonging to the upper-middle classes, this passage requires translation. The question is, have I translated these expressions from English into English? Surely if that were the case, translation would not have been necessary. In

Table 29.1 Standard English translations of rhyming slang terms from *Lock, Stock and Two Smoking Barrels*

Cockney Rhyming Slang	*Literal and Complete Form*	*Standard English*
Battle-cruiser	Boozer (from the verb "to booze"; i.e., to consume plenty of alcohol)	Pub
Nuclear sub		Pub
Custard	Custard and jelly	Telly (television)
North	North and south	Mouth
Liza	Liza Minelli	Telly (television)
Jam rolls		Arseholes
Aristotle		Bottle

other words, whether my translations of this slang are inter- or intralingual renditions is highly debatable, but, whatever the category, this case illustrates the difficulty involved in understanding humor outside our particular culture. Where understanding humor is concerned, the concept of culture extends beyond time and place to include gender, social class, education, religion, and a wide range of interests that could range from sociolinguistics to knitting (see Chiaro, 2009, p. 213). Interaction that includes verbal humor creates a sense of empathy and comity. It would appear that we laugh 30 times more often in company than when we are alone (Provine, 2000, p. 45), so the creation of inclusion through common ground that may lead to shared laughter is a feasible notion, whatever that common ground may be.

Screen translation modalities such as dubbing and subtitling also cross Jakobson's boundaries, as do sign languages for the deaf and hard of hearing and audio descriptions for the blind. All these categories of translation fall between the classifications of interlingual, intralingual, and intersemiotic. In other words, the lines between one type of translation and another are blurry, especially today, where new technologies are constantly replacing traditional translation modalities. Humorous texts no longer travel via word of mouth or in writing alone. Cyber humor travels via smartphones and tablets and often contains as much visual content as it does verbal content. When a comic meme goes viral, what type of translation is involved? Is an interlingual translation of the verbal content sufficient, or will the meme also require an intersemiotic translation of its non-verbal content? These issues are especially complex when they concern humorous discourse.

The interlingual translation of non-serious discourse, namely, the transfer of verbally expressed humor from one language to another, manifestly touches upon two important tenets of translation theory, those of equivalence and translatability. Formal equivalence refers to a Target Text (i.e., the new language *into* which a text is translated, henceforth TT) that follows both content and structure of the Source Text (the original text in the original language, henceforth ST) as closely as possible (Munday, 2009, p. 191). The concept of translatability refers to the capacity of transferring meaning from one language to the other, i.e., from ST to TT, without it undergoing radical changes (Chiaro, 2008a, pp. 580–587). Paradoxically, radical changes are, however, inevitable simply by virtue of the fact that every language is different and translation will be physically diverse from the original. If the two languages were the same, there would be no need for translation. And humor is bound to be where most radical changes occur.

Previously we saw that linguists Hockett and Sherzer had linked humorous language to poetry; this parallel is not fortuitous. With respect to both formal equivalence and translatability, the translation of humor shares many problems with the translation of conventional poetry. Poetry breaks with linguistic conventions: word order will tend to differ from orthodox norms, lexical items tend to have unusual collocations and repetition may be present at the level of

sound, lexis, syntax, and meaning. Poetry stretches language to its extremes. The visual impact of poetry is also significant both in conventional poetry and, especially so, in concrete poetry. All these features render poetry untranslatable. Lewis Carroll's well known "The Mouse's Tale" is a poem, but also an especially complex pun. It is a tale about a tail that happens to be typeset in the shape of a tail, making it both a verbal and a pun that is visually anchored. Carroll's pun does not stop at the polysemy of tale/tail/visual tail. The poem is also structured in tail rhymes, thus giving the pun a further layer of meaning. Complex and untranslatable as it may be, the poem from *Alice's Adventures in Wonderland* exists in countless translations, even though it would be impossible to echo the tale to perfection in other languages. Where would we find a language in which the same term is used to mean both "story" and "appendage"? Even the most experienced literary translator will have to relinquish the task in the face of the formal features of Carroll's "Tale" that are bound to differ in the TT. Over and above the most obvious pun of "Tale/Tail" upon which the visual pun and rhyme scheme depend, the formal features of the poem are unlikely to be identical in the TT. Translators and readers have to arrive at a functional compromise of sorts.

```
Fury said to a mouse,
 That he met in the
  house, 'Let us
    both go to law:
      I will prosecute
         you.-- Come, I'll
            take no denial;
             We must have
           a trial: For
         really this
       morning I've
     nothing to do.'
         Said the mouse
               to the cur,
                 'Such a trial,
                    dear Sir, With
                        no jury or
                         judge, would
                        be wasting
                     our breath.'
                       'I'll be
                      judge, I'll
                    be jury,'
                 Said cunning
               old Fury:
            'I'll try
          the whole
                cause, and
                    condemn
                         you
                            to
                             death.'
```

(Carroll, 1865)

Furietta disse
al Sorcio,
che in casa
avea
trovato:
Andiamo
al Tribunale,
ti voglio
processare.
Non chiedo
le tue scuse,
o Sorcio
indiavolato,
Quest'oggi
non ho nulla
a casa mia
da fare.—
Disse a
Furietta
il Sorcio:
Ma come
andremo
in Corte?
Senza giurì
nè giudici?
Sarebbe
una vendetta!
Sarò giurì
e giudice,
rispose
allor
Furietta,
E passerò
latrando,
La tua
Sentenza
a morte.

(Carroll, 2009)

This Italian version of the poem is different from the original in several ways. First, visually the poem is not in the form of a tail because the Italian word for "tail," *coda*, does not have a corresponding homophone that also denotes a tale—the Italian term for "tale" is *racconto* and bears no resemblance to the English term. Second, in order to retain a rhyme scheme, the translator has made some changes, such as with "mouse/house" that is substituted with *casa/topino* (house/little mouse) and contains a number of additions that are not present in the original such as *o Sorcio indiavolato*—'O devilish Mouse' and *sarebbe una vendetta*—'that would be revenge.' However, the Italian poem does retain the "jurisprudence" storyline, albeit substituting and juxtaposing terms such as "law," "prosecute," "trial," etc. to fit in with the different rhyme scheme. The

poem remains on the same illogical topic as the original, it shares some formal similarities, but, at the same time, it is different. In other words, it remains a nonsensical poem, but a new nonsensical poem. Readers accept the poem to be a faithful translation even though its equivalence is vaguely reduced to subject matter and general form alone. This is an extreme example of linguistic dexterity and a well-known one. Can we be certain that readers will be aware of the changes that have taken place from ST to TT? Apart from translation scholars, most readers will resort to translations because they are unfamiliar with the source language, and, rather than comparing the text with another, they will presumably be interested in appreciating it for what it is.

A translation can only exist in virtue of a previous pre-existing text considered the original from which it stems. The consumer of a translation trusts the translation to be a bona fide copy of a pre-existing original, but at the same time, should be aware that a translation can never be an exact copy. As a philosopher, Burge explains through hermeneutic logic that translation is forced to adopt the principle of "necessary sacrifice" (1978, p. 137). Burge argues that the utterance, "The first word of this sentence has three letters" cannot be translated into French owing to the fact that the first word of that sentence can only have two letters (i.e., *Le premier mot*). According to Burge, an acceptable translation could be *Le premier mot de la phrase en anglais a trois lettres*, hence adopting the principle of necessary sacrifice. Poetry is forced to engage in necessary sacrifice if it wishes to remain within the realms of poetry; that is, if it wishes to retain its functional or dynamic equivalence. The same is true of humorous discourse.

> What has fifty legs and cannot walk?
> Half a centipede.
>
> (Laurian, 1989, p. 6)

How can we translate this riddle into French or Italian, languages in which centipedes are respectively known as *mille-pattes* and *mille piedi*—literally "thousand peds"? Mathematics provides a feasible solution:

> *Qu est-ce qui a cinq-cent pattes e qui ne peut pas marcher?*
> *La moitié d'une mille patte.*

> *Che cosa ha cinquecento piedi ma non può camminare?*
> *Mezzo mille piede.*

By giving the Continental centipedes 500 feet, rather than 50 legs, our riddles have lost their formal equivalence in exchange for what Koller (1989, pp. 100–104) labels "connotative equivalence." What in English are denoted as legs, in French and Italian become feet; what in English possesses a hundred limbs, in French and Italian possesses a thousand. Yet both Source Text (ST) and Target Text (TT) refer to the same insect in the real world; they trigger the notion of the same pest in the minds of both source language and target language recipients. Furthermore, the riddle format also exists in the ST and TT cultures, thereby answering to Koller's concept of "text normative equivalence." Finally, the riddle produces the same pragmatic or dynamic effect in ST and TT recipients, what Nida calls "dynamic equivalence" (Nida 1964). The words are different and the content is different but the joke is the same.

Scholars in Translation Studies have produced a number of dichotomies regarding equivalence. Among these dichotomies, we find Nida's distinction between "formal" and "dynamic" translation (1964; 1969; 1975) and Newmark's difference between "semantic" and "communicative" translation (1982; 1988; 1991). Focusing on the process of translation and given that

equivalence cannot be absolute, these labels are strikingly similar to one another. Dynamic and communicative equivalence replicates Cicero's (1965) concept of translating *ad sensum* (according to the meaning) that he supported against translations that were *ad verbum* (word for word). As long ago as 46 BCE, in order to help fill the divide between Greek and Roman worlds, Cicero moves away from the word-to-word translations of Greek into Latin that were so common, towards a more persuasive kind of language that communicated the gist of the ST even though forsaking exact formal equivalence (see Robinson, 1997, p. 9). Cicero attempts to provide a user-friendly translation rather than a strict reflection of the ST that we can compare to an early attempt at today's notion of dynamic equivalence (see Chiaro, 2008a, p. 576; Munday, 2009, pp. 1–3).

The subject of equivalence is especially relevant to the translation of verbal humor because humor, like poetry, takes language to its extremes so that interlingual solutions are difficult to find, thus giving strength to arguments by theorists like Toury who consider equivalence to be "any target language utterance which is presented or regarded as such" (1985, p. 20). This notion dispenses with the issue of equivalence and favors a TT-oriented approach in which function is paramount. In the case of humor, when the going gets tough the translator could insert a completely new instance of verbal humor.

Vermeer's (1989) concept of *Skopostheorie* is perfectly in line with this way of thinking. If the TT text functions like the ST, never mind fidelity, what is important is that it works. In the case of humor, as long as recipients recognize the text as being non-serious in scope, then its *Skopos*, its purpose, has been achieved.

Nick Hornby's (1992) autobiographical novel is entitled *Fever Pitch*. The book is about the author's experiences as a fan of Arsenal football club. The title is a pun on Hornby's (1) state of extreme excitement and activity and his (2) obsession for football that is played on a pitch—in this case Highbury. The Italian translation *Febbre a 90′* (Hornby 1997)—"Fever at 90 minutes" is an interesting and successful compromise. The Italian title dispenses with the original pun but retains the incongruous idea of extreme excitement at a football match that lasts 90 minutes, thus conveying a similar sport-oriented metaphor as in the ST. The translator has succeeded in maintaining the title's "invariant core." According to Popovič (1976), different translations of the same ST will all contain the same "invariant core" that represents its basic ingredients. In Carroll's "Tale" the discourse of law represents the poem's invariant core, while football is the core meaning of the title of Hornby's novel. Equivalence is slightly skewed because the "pitch" is substituted with "90 minutes," but the replacement is functional and therefore acceptable; in other words, the *Skopos* is retained.

An essential mechanism to bear in mind when translating verbal humor such as jokes, gags, witticisms, etc. is the General Theory of Verbal Humor (GTVH) proposed by Attardo and Raskin in 1991. This theory, an extension of the Semantic-Script Theory of Humor (Raskin, 1985), asserts that any instance of verbal humor consists of a single script that contains two perfectly overlapping, yet concurrently opposing scripts. While one script is evident, another script is hidden and not immediately apparent to the listener or reader. In other words, the single script of a typical joke will contain two scripts, one of which is so inconspicuous that it will only become ostensible when the punch line is revealed. In order to create humor, this "hidden" script will oppose the more apparent script in such a way as to create incongruity.

Want to hear a dirty joke? A kid jumped into a mud puddle.

This elementary canned joke contains two scripts. The first, more evident script regards a "dirty" joke that leads the recipient to expect a joke based on vulgar subject matter. The punch

line, however, reveals the second "hidden" script. By referring to "dirty" in the sense of physical "grime" rather than sexual content, the punch line exposes the two scripts. In this joke the more manifest notion of coarseness overlaps with the less apparent notion of dust and grime, also because of the common collocation of dirty + joke. Such a joke presents no particular problems in terms of translation as long as the target culture also uses dirt as a metaphor to describe jokes with specific sexual content as in its Italian and German translations:

Vuoi sentire una barzelletta sporca? Un bambino si è gettato in una pozzanghera di fango.

Möchten Sie einen schmutzigen Witz hören? Ein Kind sprang in eine Schlammpfütze.

Italian and German reflect the witticism in both form and content. Both cultures recognize the question and answer format and both cultures adopt the concept of dirt to denote lewd subject matter in a joke as well as dirt in the sense of "matter out of place." In fact, script oppositions are present in both TTs, and Italian and German recipients, like English speakers, will also possess five other "knowledge resources" or KRs (Attardo, 1994) necessary to identify the text as being humorous in intent. As well as script opposition, recipients will recognize the non-serious narrative strategy in the question-and-answer format. The joke's target, situation and logical mechanisms are discernible, furthermore, thanks to translation, as is the language. Attardo (2002), in fact, suggests that translators adhere to a hierarchy of KRs according to a metric of similarities between ST and TT.

Greater problems arise when wordplay is either extremely language-specific, or extremely culture-specific, or in the case of the worst scenario, a combination of both.

Sample Analysis

Q: Why did the computer go to the doctor? A: Because it had a virus!

Everyone who owns a computer knows that computers are prone to catching viruses. When we humans catch a virus, we are likely to turn to a doctor; equally, in the world of the suspended disbelief, a prerequisite of humor where incongruity reigns, sick computers go to the doctor, too. This joke presents no particular translational difficulty. However, if we take this argument up a notch, we find that most jokes are not so straightforward to translate:

Sum ergo cogito. Is that putting Descartes before the horse?

The KRs required by recipients in order to get the gag do not stop short at the realization of the reversal of Descartes's proposition. Recipients would also need to be aware of the fact that René Descartes conceived the phrase, that he was French and that the stereotypical French pronunciation of the name "Descartes" in English (according to the common imaginary) would be /d***I***kart/. Finally, recipients would need to be familiar with the idiom "to put the cart before the horse." The famous rejoinders to this gag, usually found in graphic form are "To do is to be" (Rousseau) and "Do be do be do" (Sinatra), two gags that defy formal translation that simultaneously echoes the "cogito."

According to Chiaro (2010, pp. 11–12) translators generally adopt one of four strategies to deal with the translation of verbal humor. First, they may leave the wordplay unchanged; second, they may replace the source humor for a new, but different instance of humor in the target

language; third, they may replace it with an idiomatic expression; and, lastly, they may simply ignore the source humor altogether.

1. *Leaving the verbal humor unchanged.*

> "*Tenez, allez voir ma mère, ella a une memoire d'éléphante de mer!*" (Back-translation "You'd better go and see your mother, she has a memory like an elephant. She's an elephant seal.")

This line is from the 2001 film directed by Jean-Pierre Jeunet, *Le fabuleux destin d'Amélie Poulin*, and plays on the homophone *mère/mer*—mother/sea, as well as the idiom *avoir la mèmoire d'éléphant* (lit. "to have the memory of an elephant"). In the Italian version of the film, the translator opts for a literal, formal translation that ignores the pun.

> *Le conviene andare a trovare mia madre. Ha una memoria da elefante mia madre. E un elefantessa.*

This is a word-for-word rendition of the ST utterance; the problem is that the Italian text is not humorous as there is no overlap, no opposition and no pun. However, this is not to say that recipients necessarily found the utterance in any way strange. In all likelihood, it simply passes unnoticed. It is unlikely that it passed as an attempt at humor.

2. *Replacing the verbal humor with a fresh, different instance of verbal humor.*

The translator can choose to replace the source of wordplay with an example of wordplay in the target language. This is of course the ideal strategy, as the recipient will have the satisfaction of experiencing verbal humor. Naturally, the choice of invariant core may well lead to a more adequate result in terms of equivalence. In the English version of *Amélie*, the translator chose to invent a blend in place of the pun:

> Go and see my mother. She's got a memory like an elephant. Mum-ephant.

This sort of portmanteaux clearly points at an attempt at non-seriousness that is very much in line with the ST.

George Carlin's famous one-liner, "I knew a transsexual guy whose only ambition is to eat, drink and be Mary," is also apparently beyond translation unless the target language happens to have an expression like "to eat, drink, and be merry" that includes a near homophone of a female name that means "happy." The feminine of the Italian term for "lively," *allegro*, is also a girl's name, so an acceptable translation of the gag could be:

> *Una volta ho conosciuto una ragazza le cui uniche aspirazioni erano mangiare, bere ed essere Allegra.*

However, by accepting that the invariant code of the text to be transsexuality, by making the object feminine, a more satisfying solution could be:

> *Una volta ho conosciuto un ragazzo le cui uniche aspirazioni erano mangiare, bere ed essere Felice.*

"Felice" is a proper noun for a male (Felix), so the translation retains not only dynamic equivalence by maneuvering the subject's gender but also the concept of "merriness," which is closer to the source gag than "liveliness."

3. *Replacing the verbal humor with an idiomatic expression.*

This may appear to be an odd strategy but one that is used frequently, especially in the case of screen translation (Bucaria, 2017). The example from *Amélie* could be translated with reference to the idiom "an elephant never forgets":

> Go and see my mother. An elephant. Never forgets.
>
> (My translation)

Idioms are not actually funny per se, but possibly jazz up the TT in a similar way to wordplay.

Did you hear about the shrimp that went to the prawn's cocktail party? He pulled a mussel.

In order to translate this homophonic one-liner by British comedian Ken Dodd, the target language would need to use the same term for pulling a muscle as the slang term meaning getting together with a person of the opposite sex. Furthermore, while prawn cocktail is a universal starter, the "cocktail party" is not:

> *Hai saputo del gamberetto che è andato al cocktail party dell'aragosta? Ha preso un granchio!*
> (Back translation "Did you hear about the shrimp that went to the lobster's party? He caught a crab" [lit. something he did misfired].)

The Italian translation is formally equivalent in terms of narrative strategy but has to overcome a number of hurdles. First, although the term and concept of "cocktail party" exists in Italian, people more commonly refer to this kind of gathering as an *aperitivo.* While "prawn cocktail"—*cocktail di gamberi*—exists as a dish, *il cocktail party di un gambero* (lit. "a prawn's cocktail party") does not have the same resonance as in the ST. Second, there is the issue of the play on muscle/mussel. For this reason, the translator inserts an idiomatic expression that remains within the field of "seafood." Of course, the result is slightly odd but recognizable as an attempt at humor.

4. *Ignoring the wordplay altogether*

This, of course, is a feasible (and frequent) strategy as the target reader is unlikely to know that the ST contained verbal humor. However, the translator is free to use a compensatory strategy and insert an instance of verbal play elsewhere in the text.

Purely linguistic ambiguity, however, is only half the story. Things get complicated when linguistic specificity combines with one or more highly specific cultural references. As Cicero pointed out, "there are two types of wit, one employed upon facts, the other upon words . . . people are particularly amused whenever laughter is excited by the union of the two" (*De Oratore* II LIX, II LXI).

PATIENT: "I've got a peanut stuck in my throat."
DOCTOR: "Then take a cup of drinking chocolate when you go to bed tonight."
PATIENT: "Will it get rid of it?"
DOCTOR: "No, but it'll go down a Treet."

Treets are the brand name for chocolate-covered peanut sweets marketed by the Mars multinational in the UK.[2] A homophone of "treat," ideally, the translation should include the same or similar idiomatic expression to refer to both (1) swallowing and (2) something that is very enjoyable. Furthermore, how can this be translated if in most countries in the world the same

product goes by the name of M&Ms? One strategy could be to replace the joke with a joke about another, different product. In Italy, Pierino is the protagonist and target of stupidity jokes. In a well-known Pierino joke, he goes to the grocer to buy some jam. The grocer asks him if he wants "*Arrigoni*," a well-known brand name that can be deconstructed to "*a + rigoni*" ("with wide stripes"), to which the boy replies "*No, tinta unita*"—"just one color." Jam replaces candy and a grocer replaces the doctor but placing the invariant core on a commercial product efficiently solves the problem.

A famous UK advertising slogan for Typhoo tea is a one-liner that plays on the homophone "tea/T"; namely, "Who puts the tea in Britain? Typhoo." This slogan has traditionally generated the following one-liners:

If Typhoo puts the "T" in Britain who put the "Arse" in Marseilles?
If Typhoo put the "T" in Britain who put the "cunt" in Scunthorpe?

The gags work on pseudo-word formation that extracts the words "arse" and "cunt" from the name of two cities. These one-liners too would require radical changes in translation. For example, Molise and Basilicata are very small Italian regions that young people tend to joke about with the expressions: *Molise doesn't exist*. *Molisn't* and *Basilican't*. Formally, they work on pseudo-word formation, too. However, the Italian jokes, while being possible substitutes for the Typhoo joke, contain no element of taboo language. Furthermore, they are an invented blend of Italian and English. Clearly narrative strategy changes along with the specific target, but the TTs retain dynamic function.

Translation itself can also be a source of humor. The Internet is full of translational errors. These translations are usually posted by travelers who find them in signs and menus in restaurants and hotels around the world. Readers laugh at the person who botched up while trying to write in English. From the famous "Guests are encouraged to take advantage of the chamber maid" translated from Japanese to the Parisian dress shop's "Dresses for street walking," it is all too easy for an amateur translator to presume that English lexis and syntax work in the same way as they do in the source language. Someone will typically take a snapshot of the placard or sign with the unfortunate translation and post it on a social networking site for it to be forwarded via smartphone or tablet for the benefit of others. However, not all humor based upon translation is accidental, although much is probably accidental-but-on-purpose. Hockett famously describes how slips of the tongue can be seen as linguistic accidents that occur when sounds or words resemble each other, leading us to create linguistic "blends." Of course, people laugh at the unfortunate originator of the Freudian slip, but, at the same time, we also laugh with the person reporting the slip. The lack of an apostrophe and an "s" make a pot of Homemade Blackcurrant Jam turn into something cannibalistic that "tastes just like Grandma."[3] Similarly, "translation fails" reported on the Internet exemplify people who are inviting others to laugh with them at someone else's linguistic ineptitude—except in the case of translation, the other is more "other" than the autochthonous offender.

In his discussion of cross-language puns in Shakespeare Delabastita (2005, pp. 162–173) does not classify puns that work on more than one language as an "undifferentiated concept" and provides four subdivisions:

1. Bilingual (or multilingual puns (*stricto sensu*);
2. Translation-based monolingual source-language wordplay;
3. Translation-based monolingual target-language wordplay;
4. Interference-based monolingual target-language wordplay.

1. Bilingual Puns

Delabastita provides the following example from John Fowles's novel, *The French Lieutenant's Woman*, to illustrate a pure bilingual pun:

> What was happening was that Sam stood in a fit of the sulks; or at least with the semblance of it.
>
> "Now what is wrong?"
>
> "*Er, sir.*"
>
> "*Ursa?* Are you speaking Latin now? Never mind, my wit is beyond you, you *bear*. Now I want the truth. Yesterday you were not prepared to touch the young lady with a bargee's tool of trade. Do you deny that?"
>
> (as cited in Delabastita, 2005, pp. 163–164)

The pun plays on the phonetic and semantic similarity of the English "her, sir" pronounced with the accent of an uneducated person, hence with a dropped "h" and the English way of pronouncing the Latin term *ursa* for "bear." The speaker, Charles, is a Victorian gentleman who is aware that his pun is beyond Sam's understanding, yet twists the knife in the wound by insulting him with the term "bear," hence triplicating the pun.

2. Translation-based monolingual source-language wordplay

Delabastita reports an example from the *Encyclopaedia Britannica* that recounts how Sir Charles Napier, after having won a major battle conquering Sindh in present-day Pakistan, dispatched the word *Peccavi*, the Latin word for "I sinned," to his superiors in London. The back-translation would be "I have sinned," playing on "I have captured Sindh" (the province) and the verb "sinned," as both are pronounced identically (/sInd/).

3. Translation-based monolingual target-language wordplay

Q. What do you get when you cross a condom with a Torah?
A. A safer Torah.
("Sefer Torah" is a handwritten Torah scroll)
Q. According to Freud, what comes between fear and sex? A. Fünf.

These riddles play on words in another language that become puns in the target language. The puns are only puns by virtue of their phonetic "double" that exists in the source language. The first plays with the sounds of English and Hebrew, the second on those of English and German. The joke about Freud is especially complex because, in terms of the GTVH, the more apparent script implies a dirty joke because of the associations of Sigmund Freud with the notions of fear and sex. The hidden script reveals that the reader or listener had simply given a sexual meaning to the German numbers *vier* and *sechs*—which clearly need to be pronounced less than perfectly in order to retain the English meaning. This could only be translatable into another language by radical substitution with another joke.

4. Interference-based monolingual target-language wordplay

Interference of the articulatory habits of one group of speakers from one language to another is a well-known source of humor. "The Italian Man who goes to Malta" is available on the

Internet both as a written and audiovisual text. It is a joke about an Italian in Malta, who, owing to his stereotypically Italian, is continuously misunderstood by others:

> One day an Italian man went to a restaurant in Malta and wanted two pieces of toast, and the waiter gives him one, and the Italian man says "I want two piece." The waiter says "go to the toilet." The Man says, "You no understand I want two piece on my plate," then the waiter says, "You better not piss on the plate you son of a bitch!" The man says, "I did not even know her and she calls me a Son of a Beach?" Then he goes to a bigger restaurant and finds himself with a spoon and a knife but no fork. He says "I want a fock"; the waiter says "Everybody wants to fuck" and he says "You no understand I want to fock on the table" and the waiter says "You better not fuck on the table you son of a bitch!" Then later he goes to a hotel and in bed he doesn't have a sheet. "Call the manager and tell him I wanna sheet!" says the Italian man. The other guy says "Go to the toilet" and the Italian man says, "You no understand I wanna sheet in my bed!" and the other guy says, "You better not shit in the bed you son of a bitch!" The Italian man goes to the check-out corner and the check-out man says "Peace on you" and the Italian man says "PISS ON YOU TOO, YOU SON OF A BEACH! I'M GOING BACK TO ITALY!"

The difficulty of Italian speakers to distinguish between /I/ and /i:/ (piece/piss; sheet/shit) and to articulate the /ɔ:/ sound in the word "fork" gets the Italian man into plenty of trouble in Malta. Similarly, he himself feels insulted by the checkout person who wishes him "Peace on you" that he misinterprets as "piss on you" (Table 29.2).

New Debates

New debates around humor and translation involve technology. Starting with instances of humor in audiovisual products such as movies, sitcoms, advertisements, etc., these will create more translational difficulties than humor that is simply written or spoken, because the verbal content is likely to be anchored visually or acoustically (Bucaria, 2017). These products are made for an international market, so it is vital for stakeholders to bear the issue of translation in mind in order to guarantee its success. For example, verbal humor on stage and screen may depend on a particular accent or variety of the source language; how can dubbing and subtitling convey variation? Substituting a Brooklyn accent in the source product with a Sicilian accent in the target product, as often happens in the transfer of comedy from the United States to Italy, may achieve the same comedic effect, but it will radically change the intended meaning (Chiaro, 2008b). Another issue regarding screen translation involves censorship. Humor may revolve around salacious subject matter or the use of taboo language. This raises the question of how to deal with such materials in a target culture that may not be open to offensive subject matter (for an in-depth discussion on humor in audiovisual products see Bucaria, 2017).

Table 29.2 Explanation of phonetic misunderstanding in *The Italian Man Who Goes to Malta*

What the Italian Man Says	*What the Italian Man Means*	*What Others Understand*
"I want two piece" /PIS/	"I want two pieces . . ."	"I want to piss"
"I want a fock"	"I want a fork"	"I want a fuck"
"I wanna sheet" /ʃIt/	"I want a sheet"	"I want to shit"

Above all, the Internet is an important player in the production and dissemination of humor. The Internet is also a place where humor can be translated by users themselves rather than professionals. This means that video clips available on YouTube as well as other audiovisuals containing humor (e.g., *TED Talks*) may be translated and subtitled by anyone and especially by so-called fansubbers. Using computer assisted translation (CAT) tools alone may not yield good results humor-wise. Or, rather, these translations may yield the kind of failed translations discussed earlier.

Finally, new research is pointing towards investigating screen translations from the point of view of viewer reception. A protocol developed to measure audiences' humor responses to translated verbal humor on screen has been tested in several language pairs (e.g., Bucaria & Chiaro, 2007; Chiaro, 2007; Rossato & Chiaro, 2010; Amarossi, 2011; Chiaro, 2014). Results show that translation does have an impact on audiences' humor response.

Translation can be seen as a problem-solving activity that, in itself, as a process, is riddled with problems. This chapter has set out to explore translational problems that particularly apply to humorous texts, which, like poetry, present especially challenging difficulties. These difficulties are due to the extreme exploitation of linguistic features that are often combined with a series of highly specific socio-cultural references. The strategies taken to overcome these hurdles have been examined and, untranslatable as it may seem, we have seen that humor is indeed translated. Where possible, the target humor will resemble the source humor as closely as possible. Clearly, the target text can never be a perfect equivalent. In the worst scenario, the humor will be replaced by a very different instance of humor in the target language. However, only a very unimaginative or lazy translator is likely to give up the challenge and omit the instance of humor altogether.

Notes

1 Much of the rhyming slang in the film was subtitled into Standard English.
2 The brand was dropped in the UK in 1988 to be replaced by M&Ms but was reintroduced in 2009.
3 Available at: http://indy100.independent.co.uk/article/17-splendid-translation-fails—x1DZnp0y6g

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30

Audiovisual Translation of Humor

Chiara Bucaria

When offering a survey of audiovisual translation and humor, it will be useful first of all to briefly outline what we generally mean by the former and to delineate its scope. Variously referred to as audiovisual translation (henceforth AVT), screen translation, multimedia translation, or even constrained translation, this subdiscipline of Translation Studies encompasses the study of the linguistic and cultural transference of meaning in texts of a multimedia nature, which in other words implies a polysemiotic, simultaneous relationship between verbal and visual information. The types of multimedia texts that are potentially subject to this kind of interlingual adaptation include, for example, films and film trailers, television programs ranging from TV series to cooking shows and infomercials, DVD special features, websites and online content of various nature—including, for example, web series—videogames, stage plays, and news reports and documentaries.

Depending on factors such as the genre of the product to be adapted, the target audience, and the norms and conventions of the receiving or target culture, different modes of AVT will be used. The main and most widely used modes of audiovisual translation today are dubbing, subtitling, voice-over, and a number of variations of these.[1] Dubbing is an expensive process through which a target-language version of the source-language dialogue is superimposed on the original dialogue track by creating a rough draft of the script, which is subsequently synced with the characters' lip movements on screen. The adapted script is then recorded by professional dubbing actors and mixed with the original soundtrack to produce the final target-language version. Subtitling, on the other hand, according to Gottlieb "can be defined as the rendering in a different language of verbal messages in filmic media, in the shape of one or more lines of written text presented on the screen in sync with the original verbal message" (2001, p. 87). Subtitling is considerably cheaper to produce than dubbing, and the fundamental difference between the two is that the former allows viewers to simultaneously access the original dialogue while reading an abridged, adapted version of it on screen. Finally, in voice-over multimedia products a non-lip-synched version of the script is recorded over the original dialogue, with the viewers still able to hear the source-language dialogue but usually without making out the details. As mentioned earlier, the preference for one or more of these modes of AVT varies according to target-country norms and conventions—for instance, with Western Europe traditionally being split between dubbing and subtitling countries, and Eastern Europe preferring a sort of

voice-over narration in which a single *lektor* reads the parts of male and female characters alike. A further differentiation concerns the genres that certain audiovisual products belong to, with dubbing countries often preferring voice-over for documentaries and lifestyle programs, and even subtitling countries generally opting for dubbing in the case of children's programming.

The landscape of audiovisual translation modes is also further complicated by the relatively recent multiplication of platforms, devices—and consequently locations—in which audiovisual products and translation might appear and be consumed. In a traditionally dubbing country such as Italy, for example, while some of the SKY channels have been offering most of their programming in both dubbed and subtitled forms for a few years now, the recent launch of Netflix in the fall of 2015 has further and exponentially increased the supply of adapted audiovisual products, with viewers now being offered multiple options for consuming dubbed or subtitled foreign-language products. While it could reasonably be argued that subscribers to SKY and/or Netflix are still a small portion of the population, the multiplication of viewing options seems to point in the direction of a significant and possibly growing change in the consumption of foreign-language audiovisual products even in once-monolithic national lingua-cultural contexts. Lastly, the output of adapted audiovisual products is also enriched by the practice of non-professional media translation (Antonini & Bucaria, 2015), which, particularly in the case of fansubbing (or amateur subtitling), provides yet another option to consume audiovisual products and often contributes to blur the line between professional and non-professional translation practice.

Historical Perspective

In this complex and ever-changing scenario, it is easy to see how the translation of audiovisual humor may offer the academic community plenty of material ready for investigation. However, despite the fact that audiovisuals had already traveled across borders for decades and that the presence of (mainly) English-language films and TV programs had been steadily increasing in most countries, scholarship in the field of the translation of audiovisual humor was fairly slow to appear. Similar to the study of audiovisual translation in general, which did not start until the late 1980s to early 1990s, critical research concerning the issues involved in the linguistic and cultural adaptation of humor on screen is also a relatively recent occurrence.[2] Therefore, a chronological description of the developments in this field can account for only less than 30 years. Some of the first considerations on audiovisual humor were applied to dubbing—perhaps because, as appears evident from a quick survey of the early available literature, Italy and Spain, two dubbing countries—followed immediately after by subtitling. These audiovisual modes continue to be the most popular forms of audiovisual translation in which humor is investigated. Humor—specifically, verbal humor—was soon identified by scholars and professionals alike as one of the main difficulties in the interlingual transfer of audiovisual texts (as confirmed by Benincà, 1999). Specifically, the first sporadic essays appeared in collections on audiovisual translation (Gaiba, 1994; Gottlieb, 1997; Chiaro, 2000) and in translation journals (Zabalbeascoa, 1994; 1996). The main focus of this early research was almost always on verbal humor, which was analyzed by means of a comparative approach aimed at highlighting what is lost and what is gained in the balancing act that is translating humor for the screen. Similar to most early studies in AVT, the first years of this discipline were characterized by research based on case-study evidence, with—at least in the Italian context—dubbing adaptors ("dialoghisti") being invited to share their experience with anecdotes on their practice in the profession (see Baccolini et al., 1994; Heiss & Bollettieri Bosinelli, 1996; Bollettieri Bosinelli et al., 2000). The tendency was to focus the attention on the pragma-linguistic aspects of humor translation in audiovisuals, mainly in traditional fictional genres such as films or TV, while other genres and media were still largely ignored. The semiotic

complexity of filmic texts—and specifically the simultaneous interaction of the spoken dialogue, images, sounds, and possibly instances of text on screen—created fertile ground for studies focused on the difficulties inherent in translating humor based on both linguistic and cultural components and specificities. Most attention was focused on complex linguistic aspects such as wordplay (e.g., Chiaro, 1992; Delabastita, 1997)—including puns, homophony, paronymy—and on humor whose efficacy relies on cultural references that are perfectly transparent in the source culture but unknown in the target culture. In both cases, scholars either applied existing taxonomies for cataloguing the kinds of obstacles present in a given audiovisual text or created one of their own. When instances of humor translation proved ineffective in a given audiovisual text, scholars would propose alternative translation strategies usually relying on the existing literature from the main field of Translation Studies. Parallel to these issues was also a certain attention to some of the extratextual factors that might affect the practice of humor translation, such as the translators' skills and creativity (Gottlieb, 1997), sense of humor (Vandaele, 2002; Chiaro, 2005), and the priorities and constraints that translators and commissioners set for each translation task (Zalbabeascoa, 1996).

One of the most interesting debates to appear during this time is the one involving the translatability/untranslatability of humor on screen (e.g., Zabalbeascoa, 1996; Chiaro, 2000, 2005), which is closely linked to another age-old debate in Translation Studies, i.e., the possibility of perfect or even close equivalence between a source and a target text. While the issues of (un) translatability and equivalence as pertaining to the translation of humor in general are discussed in detail in Chiaro (2007), suffice here to say that when it comes to humor in audiovisuals, most scholars tend to agree that a functional approach (Vermeer, 1996) should be preferred, i.e., one that privileges dynamic equivalence between source and target texts rather than formal equivalence (Nida, 1964). In this view, the pragmatic function of the audiovisual humorous content—i.e., one that elicits a similar humor response to the one experienced by the audience of the source-language version—is acknowledged and maintained in the target-language version, even when the joke or other humor vehicle is formally different from the one in the source version (see also the next section).

More recent years have seen more systematic approaches to audiovisual humor research, relying often enough on larger samples of material, but still mainly case studies of a descriptive nature with a relatively limited variety of texts (focusing on a single film or TV series) and perhaps still a paucity of cross-genre studies. However, gradually in the 2000s more text genres were included in the research such as video games and animated series and films (Chiaro, 2010b; De Rosa et al., 2014), which inevitably brought into the debate issues concerning translating for the different audience segments targeted by these humorous texts.

The point of view of audiences was also further incorporated into a discussion of translated audiovisual humor through a number of studies (e.g., Fuentes Luque, 2003; Bucaria & Chiaro, 2007; Antonini, 2007; 2009; Antonini & Chiaro, 2009; Rossato & Chiaro, 2010) based on a purpose-built methodology aimed at assessing the perception of adapted audiovisuals. In an attempt to include "into the picture" a usually neglected but crucial component of audiovisual communication—the audience of an adapted audiovisual text—diverse viewer samples were asked to express their opinion on whether a number of dubbed or subtitled clips was in their opinion funny or not. One of the aims of this kind of research was to open a discussion on the quality of the audiovisual translation of humorous content that was not subjectively linked to the point of view of the researcher, but that was able to rely on audience feedback on a specific audiovisual text.

Finally, technological developments have made it possible for new methodologies to be applied to humor research in AVT, such as the use of corpora to assess the frequency and

occurrences of certain linguistic phenomena in source and target texts and multimodal analysis, which aims, among other things, at incorporating kinesics and other non-verbal elements in the study of adapted audiovisual texts. Eye-tracking technology for subtitling is also a relatively recent application, although its use in the context of translated humor is still in its early stages.

Over the years, the interest in the dynamics of humor and its translation in audiovisual texts has steadily increased, with academic conferences—both on AVT and more generally on Translation Studies—starting to incorporate papers and sometimes entire panels dedicated to humor in audiovisuals. Undergraduate, master's, and PhD projects focusing on aspects of audiovisual humor also started to appear across Europe, as did university courses in AVT with at least some focus on the dubbing or subtitling of humor. Academic publications also evolved from focused chapters or single papers towards special journal issues and even dedicated collections to the translation of humor on screen, as a testament to an enduring interest in this subject that still continues to this day.

Core Issues and Topics

Most of the research in the field of AVT and humor has hinged around identifying the obstacles and constraints that make it difficult and/or impossible for an audiovisual text containing humor in a given language—the source text (ST)—to be adapted in a different language as a target text (TT) that preserves the humorous content as much as possible. Given the nature of interlingual translation itself, scholarship has focused mostly on issues concerning the rendering of verbal humor, which—despite what Zabalbeascoa hypothesized in 1996 about future technological developments allowing for the manipulation of lip movements and other elements on screen—is still to a large extent the only kind of humor that can be mediated by translation in an audiovisual product.

Although, arguably, non-verbal humor is equally deserving of academic attention, research on the impact of non-verbal elements on translation remains scant. Despite their significance for conveying humor on screen, not much literature has been published on non-verbal elements in audiovisual products that travel cross-culturally (Chaume Varela, 1997; Poyatos, 1997; 2002; Zabalbeascoa, 1997; Antonini, 2007) and on the way non-verbal humorous elements are handled in translation (Antonini et al., 2003; Bucaria, 2005). Applying what Kaindl observed in the context of the translation of visual elements in comic strips to audiovisual texts, "discussion of the humorous dimension seems to be limited to verbal humor, i.e., playing with names and puns" (2004, p. 173). By virtue of its clear affinities with slapstick humor, body humor and deadpan humor (Nilsen & Nilsen, 2000), especially in its more physical form, non-verbal humor is often thought to be universally understood by viewers of different nationalities and cultural backgrounds, with classic examples including watching someone slip on a banana peel or being hit in the face by a custard pie (Chiaro, 1992, p. 6). Zabalbeascoa notes:

> in the case of other popular British comedy programmes, the *Mr Bean* series and the *Benny Hill Show*, translation is hardly necessary, as both rely heavily on mime and visual gags and are actually reminiscent of silent-film productions.
>
> (1996, p. 255)

However, the implication seems to be that non-verbal humor is always synonymous with visual humor, which is actually narrower in scope. As a matter of fact, non-verbal humor can also include the use of other non-verbal—but not necessarily visual—elements, such as music or sound in general. Think, for example, of a well-known musical theme priming in the audience

a specific kind of humorous reaction to the visual elements on screen, such as the *Indiana Jones* theme used to score a comical action sequence or Henry Mancini's *Pink Panther* theme for an awkwardly funny robbery scene. Another function of music is to create a humorous juxtaposition with divergent visual elements, as in cases in which an upbeat or cheery piece of music is contrasted with a violent scene. In order for viewers to perceive the scene as funny they are required to identify the intertextual non-verbal elements, which might not come as easily for TT audiences as for ST viewers, and the idea that all non-verbal humor is universally understood and does not require mediation might therefore be seen as partially challenging

Most humor on screen today is, however, verbal or verbally expressed (Chiaro, 2003; Ritchie, 2003). In spite of its being comparatively less frequent than other kinds of VEH—especially when it comes to audiovisuals—wordplay has been one of the most popular subjects addressed by scholars of humor and translation, both on screen and off. Many have offered their own classifications of puns, the linguistic mechanisms on which they are based, and possible translation strategies. The translation of wordplay in general has been addressed, among others, in Delabastita (1993), Zabalbeascoa (1994; 1996), Gottlieb (1997), Pisek (1997), Attardo (2002), Chiaro (2003), and Schröter (2010). While it would be too time-consuming to review all the different attempts at systematizing the study of wordplay in translation and their applications, we could perhaps say that one of the leitmotifs in the research on audiovisual translation and humor has clearly been the concern of how to identify the instances of linguistic ambiguity deliberately created for humorous purposes in the ST and how to successfully render them in the TT.

As an example of this linguistic ambiguity, Delabastita's taxonomy of puns—later applied to subtitling by Gottlieb (1997)—includes, among others, the classic wordplay mechanism of homophony, which seems to be a particularly productive device for the audiovisual medium, perhaps because of its mostly dialogic format. An example of homophony can be found in the following dialogue from the US teen drama *Pretty Little Liars*:

MONA: Spencer . . . hi.
SPENCER: You must be. Because I can't think of another reason you'd be crazy enough to show up here.

(*Pretty Little Liars*, 6:20)

In this exchange between "frenemies" Mona and Spencer, Spencer's clever repartee implies that Mona must be under the influence of drugs to have thought it a good idea to go to Spencer's mother's campaign headquarters, and it clearly relies on the homophony between the greeting *hi* and the adjective *high*. As any audiovisual translator knows, the complexity inherent in this kind of humor becomes especially evident when an attempt is made to adapt it in a different language. Chiaro (2005, p. 136) identifies the two macro-strategies available for the translation of VEH:

1. Substitute the VEH in the SL with an instance of VEH in TL, at the same location in the TT.
2. Substitute the VEH in the SL with another instance of VEH at another location in the text, i.e., move the VEH in the TT.

Which solution is chosen might depend on a plethora of different reasons, among which are the translator's own skills and the time available for the adaptation. Because the second option (also known as compensation) does not seem to be particularly viable for audiovisual texts,[3] one must

assume that when the VEH is actually identified correctly in the ST the translator will somehow try to render the humor. Chiaro (2003, pp. 16–18) identifies four specific strategies that can be used for the translation of puns on screen:

1. Leave the pun unchanged in the SL.
2. Replace the SL pun with a TL pun.
3. Replace the SL pun with an idiomatic expression in the TL.
4. Ignore the pun altogether.

Strategy 2, given the right circumstances, would be seen by many as the most desirable outcome.

While at the time of writing, this specific episode has unfortunately not been made available in the Italian dubbed version, a fansubbed version from the Italian fansubbing platform *ITASA* offers the following solution:

	Source Text	*Fansubs*	*Backtranslation*
Mona:	*Spencer . . . hi.*	Spencer . . .è fatta?	Spencer . . .is it done?
Spencer:	*You must be. Because I can't think of another reason you'd be crazy enough to show up here*	Tu devi esserlo . . .perchè non riesco a pensare a nessun motivo / per cui saresti così pazza da venire qui.	You must be . . .because I can't think of any reason / why you would be so crazy to come here.

The fansubs indeed chose to replace the SL pun with a TL pun, specifically with one relying on the linguistic mechanism of homonymy. In the Italian version Mona approaches Spencer by referring to the outcome of her mother's electoral race and asking "Spencer . . . è fatta?," which is here a successfully ambiguous phrase in that the expression can refer either to the positive outcome of a situation, something similar to "is it done?" / "is it in the bag?" or to someone (female) being "fatta," i.e., "high" or "under the influence."

As in most cases of audiovisual humor, however, hilarity is created by exploiting the interaction of more than one channel of communication. For example, a whole new set of hurdles is present when humor is not just verbally expressed but is also anchored through one or more visual elements (Bucaria, 2008; 2009). In the following example from *Gilmore Girls* (4:09), Lorelai's mother Emily has typically gone out of her way to organize a very posh tailgate party to support the home football team at Yale University, which her granddaughter Rory (Lorelai's daughter) is attending.

	Source Text	*Target Text*	*Backtranslation*
Emily:	*Lorelai, how's your steak?*	Lorelai, com'è la tua bistecca?	Lorelai, how's your steak?
Lorelai:	(holding up her fork to show the Y impressed at the bottom of the steak)*Why do you ask? Why?*	Perché me lo chiedi? Perché?	Why are you asking me? Why?

The visual component of the joke, i.e., the letter "Y" for Yale, exploits once again the mechanism of homophony with the question word "why?" to create a humorous quip, which, delivered ironically by Lorelai, is also a gentle send-up for her mother's characteristic overzealousness. The dubbed version translates the joke literally, leaving it to the viewer's imagination—or perhaps fluency in English—to pick up the added layer of humor.

The complexity inherent in the rendering of wordplay has led scholars to address the issue of whether it is possible to successfully adapt wordplay in audiovisuals. Chiaro (2007) offers a thorough description of the debate surrounding translatability and equivalence, two closely connected concepts that have been the subject of much debate in Translation Studies. However, in order to contextualize the debate as far as audiovisual humor is concerned, it should be stressed that when talking about the translation of verbal humor on screen we most often think in terms of the possibility to achieve, in Nida's terms (1964), dynamic equivalence (or sense-for-sense translation). As opposed to formal equivalence (or word-for-word translation), dynamic equivalence privileges target language solutions that are able to facilitate a more thorough understanding of the source text and not just convey its literal meaning. In this view, an efficient adaptation of audiovisual humor cannot be expected to necessarily reflect the formal structure of the source language joke, but, instead, to successfully render its intention, which is, presumably, to amuse the audience in the context of what they are watching. Therefore, as Chiaro notes in the context of puns, when an example of wordplay is labeled as "untranslatable," what is questioned is not the actual feasibility of its being somehow rendered in a target language—which indeed happens on an everyday basis—but rather the impossibility of achieving formal equivalence (2005, p. 136).

As mentioned earlier, wordplay accounts for a relatively small amount of verbally expressed humor on screen, so much so that Chiaro wonders if limiting the number of puns in audiovisuals in order to make them "not too taxing on translators" on a global level (2005, p. 139) might be a deliberate choice on the part of producers. As Chiaro notes, most verbal humor is expressed through "good lines" or Non-specific (verbally expressed humor) VEH (2006), a series of simply funny, clever lines uttered by the participants in the on-screen dialogues. The following exchange from the Charlie Chaplin dark comedy *Monsieur Verdoux* takes place on a boat, where Verdoux is waiting for the right moment to murder his wife Annabella:

ANNABELLA: [feeling the water] Warm. Oh, I wish I could swim. I'd love to go in.
VERDOUX: Would you?

From a translational point of view, Nsp (nonspecific) VEH does not seem to require the same amount of effort and imagination as wordplay and, in some cases, referential humor (see the next paragraph). However, other factors, such as the recognition of paralinguistic features (e.g., irony, intonation, mimicry) accompanying this kind of humor might be expected to become especially important indicators for translators/adaptors. In the previous example, while dramatic irony—by which viewers know more about the situation than the character him/herself—is an important factor for the understanding of the humorous situation, other non-verbal clues such as facial expressions, gestures, prosodic features play a crucial role as well. So much so that some scholars (e.g., Taylor, 2003; Balirano, 2013; Di Pietro, 2014) advocate the use of multimodal analysis and the study of paralanguage and nonverbal action (e.g., kinesics, prosodic features, hand gestures, facial expressions, camera shots, music) to aid in the understanding of the mechanisms of audiovisual humor.

Another set of textual constraints that can potentially hinder the successful translation of humor on screen is offered by cultural-bound references and allusions regarding anything from food and beverages to institutions and other realia from the source culture (e.g., Schröter, 2004; Antonini, 2007; Martinez Sierra, 2014). Commonly regarded as one of the most problematic aspects for translators in general, referential humor (Attardo, 2002) poses an even greater challenge on screen, where translators should be careful not to create inconsistencies between the translated verbal message and culture-bound elements appearing on screen. If, to use an obvious example, a joke in a US sitcom mentions chicken and waffles and these are clearly visible to the

audience, the target-language dialogue will hardly be able to incorporate food that is too different from chicken and waffles in shape, size, cultural context, etc. In countries in which this dish is not commonly known, the adaptation will then likely be a balancing act between on-screen coherence and the audience's understanding of the joke. Ultimately, in Venuti's terminology (1994), possible translation strategies will depend on how source-oriented (foreignizing) or target-oriented (domesticating) the translation task at hand is supposed/allowed to be, which might in turn vary depending on other extra-textual factors, such as the mode of AVT that is being used (e.g., fansubbing has a tendency to be more foreignizing than domesticating), who the target audience is and what channel will be airing the sitcom. It should be noted, however, that by virtue of being exposed to different cultures, over the years viewers are likely to become more familiar with foreign cultural references—particularly Anglo-American—which might have a potential impact on the adaptation strategies available to translators.

The complexity of the translation of referential humor increases in cases in which additional layers present themselves simultaneously, as in the following example from the film *Keeping Mum* (2005), where a cultural reference is paired with wordplay.

	Source Text	*Target Text*	*Backtranslation*
Grace:	*Oh, Mr Brown's on holiday.*	Il vecchio signor Brown è in vacanza.	Old Mr Brown is on holiday.
Gloria:	*Is he? Where has he gone?*	Ah, sì? Dove è andato?	Oh yeah? Where has he gone?
Grace:	*I think she said Down Under.*	All'altro mondo—eh, dall'altra parte.	To the other world—er, to the other side.

Gloria is talking about Mr. Brown, the Goodfellows' neighbor and owner of the dog whose insistent barking had been keeping her awake. Unfortunately, Mr. Brown and his dog have been killed by Grace, who wanted to help Gloria spend more restful nights. When she wonders about the whereabouts of Mr. Brown, in an attempt to clear the woman's suspicions, Grace offers this quip. By stating that Mr. Brown is on holiday in Australia (Down Under), Grace inadvertently offers another piece of information about his real whereabouts, i.e., under the ground. However, the Italian dubbing predictably has difficulty conveying the joke on both the referential and the linguistic levels, although all in all "All'altro mondo—eh, dall'altra parte" can be considered as a good, non-punning effort.

Socio-cultural and diastratic variation, and the use of multilingual dialogue are also frequently adopted as humor-creating devices on screen (Chiaro, 2010a; Zabalbeascoa, 2012; De Bonis, 2014), and they are often considered some of the major causes of "loss" of meaning in the process of lingua-cultural transfer. For example, successful translational strategies are not readily available to render the African American variety in a US film or the Neapolitan variety used throughout the Italian TV drama *Gomorra*. "Heterolingual humour" (Zabalbeascoa, 2012) is bound to create even greater challenges, as the elicitation of hilarity in the audience depends so heavily on linguistic variation that is inextricably embedded in the source language context. While in subtitling linguistic variation tends to be eliminated as a rule (Díaz-Cintas & Remael, 2007), dubbing theoretically offers the options of rendering the source-language non-standard variety either with a target-language standard variety or with a target-language regional variety. As Chiaro (2010a) notes, both strategies are potentially problematic, because in the first case important characterizing linguistic features are omitted and in the second almost certainly incongruous associations are created with regional varieties from a completely different lingua-cultural context. However, as Heiss notes, "certain genres, such as comedies, for example, are in a certain sense perceived as being detached from reality and therefore offer more room for

'unorthodox' solutions in film translation" (2004, p. 211). Particularly, the animated comedy genre—where suspension of disbelief seems to be easier for viewers—has been a productive genre for the use of local regional varieties (see also Bruti, 2014; De Rosa, 2014). The most emblematic and long-lasting example of this in Italian dubbing is probably *The Simpsons*, in which groundskeeper Willie speaks with a Sardinian accent, Chief Wiggum has a Neapolitan inflection, and Homer's friend Carl an accent from the Veneto region. As alienating as this choice might sound, *The Simpsons* has been very successful in Italy over the years, which brings us to considerations concerning what constitutes a successful adaptation of audiovisual humor.

If we consider *Skopostheorie* (Vermeer, 1996) as a set of guidelines, a successful translation is one that, based on careful textual analysis, privileges the *skopos* or purpose of a text over other criteria. If we agree that the aim of a joke—and by extension a humorous audiovisual program—is to make viewers laugh, then it will follow that a successful adaptation of that joke or program will imply finding a target-language solution that will elicit some form of humor response, perhaps even by considerably modifying the text in its semantic core. The same could be applied not just to verbal humor per se but also to the use of referential humor and linguistic varieties used for humorous purposes. Clearly, this creates a delicate balance between maintaining the source-language core meaning and ensuring the correct understanding and appreciation of the humor by viewers. Considering that the successful translation of humor can arguably have an impact on the circulation and distribution (and ultimately the financial success) of film and television comedies, this balance is no easy feat. Infamous examples of "extreme dubbing" in Italy are the sitcoms *The Nanny* and *Roseanne*, in which concerns over the possibility that Italian viewers might not laugh at the capers of a Jewish nanny in New York and a working-class, straight-talking woman from small-town Illinois led dubbing script writers to "reimagine" the two heroines as immigrants from the central Italian region of Lazio and from Naples, respectively. In *The Nanny* most references to New York Jewish culture were omitted and replaced by Italian references, whereas Roseanne was dubbed with a Neapolitan inflection. While these are to be considered as examples of extreme domestication from the 1990s that would most likely appall contemporary translation scholars and practitioners, the impressive success of *The Nanny* in Italy still raises questions as to what the relationship is between source-text adherence and target-text acceptability and enjoyability when it comes to humor.

New Debates

While a certain strand of the scholarship on audiovisual translation and humor is currently still investigating the more traditional aspects outlined in this chapter, new directions have also recently emerged that reflect changes and evolutions in the production and distribution of audiovisual products containing humor. One of the most impactful aspects of audiovisual humor today is the increased use of taboo language and references, especially as far as Anglo-American fictional products are concerned. While the use of controversial and sometimes politically incorrect humor has always been a staple of more specific genres such as stand-up comedy specials and roasts, recent years have seen a proliferation of this kind of humor also in more mainstream TV series and film comedies, which seemingly adopt controversial language and themes in an attempt to remain relevant and topical in an increasingly fragmented and competitive audiovisual market. Whether or not this is a successful strategy in the pursuit of quality content (McCabe & Akass, 2007), this begs the question of how humor of such ilk will be mediated when said audiovisual products are exported to different lingua-cultural contexts that do not necessarily share a penchant for controversial or taboo comedy (e.g., Bucaria, 2005; 2007;

Díaz-Cintas, 2011). This might concern products that are full-on comedies, but also TV shows or films that make of their ambiguous genre a strength, with convention-defying dramedies such as *Orange Is the New Black, Transparent*, and *Togetherness* often challenging even award shows' genre categorization.[4] Although some research has already been carried out on issues such as ideological manipulation and censorship in the translation of audiovisual humor, the recent exponential increase in taboo-breaking film and television comedy has clearly highlighted the need for more refined analysis of this phenomenon. For example, while it might indeed be the case that in some instances humor is toned down or omitted in a translated version because of ideological concerns, more insight is needed as to where exactly in the translation process this kind of manipulation occurs—whether, for example, it is required by the commissioners of the translation or a network or distributing company, or whether it is the product of pre-emptive censorship by the translators themselves, striving to adapt to the conventions of the target culture. Conversely, even in national contexts in which manipulation (especially in dubbing) is rampant, reasons other than the ideological might be at the basis of certain translation choices or strategies, e.g., the very practical, technical constraints imposed by lip-synch in dubbing or condensation of information in subtitling, or even an objective lack of nuanced taboo vocabulary in the target language able to render the complexity of the source language. Insight into these and other aspects is hardly ever offered by mere comparative textual analysis and requires, instead, other tools such as fieldwork with the professionals involved in the translation process—for example, through interviews and participant observation—which would benefit the study of audiovisual translation in its entirety.

From a broader perspective, the study of the audiovisual translation of humor in general would now benefit from a critical look at a macro-level of analysis, one in which a larger perspective could be put to good use. While corpus-based and other purely linguistic, quantitative approaches have been and are valuable in describing *how* the textual phenomena linked to the translation of humorous dialogue occur, we now need to understand *why* things happen this way, i.e., we need to expand the scope to include industry, marketing, and distribution concerns regarding audiovisuals. While only a few years ago Zabalbeascoa rightly stated that "whatever is said about audiovisual translation, or the translation of humor, must take into account and be of interest to audiovisual communication and humor studies, and also to semiotics and cultural studies, among other disciplines (and vice versa, of course)" (2012, p. 319), the much-touted—but seldom-implemented—move towards more interdisciplinary approaches to AVT should arguably also take into consideration the contribution of the disciplines of Media and Television Studies. The advantage of incorporating a perspective that goes beyond the mere linguistic/textual analysis of audiovisual humor would lie in looking at audiovisual translation in a broader sense and as an integral part of the larger mediation process by which both film and television comedies are repurposed and repackaged for international audiences (Barra, 2011; Esser et al., 2015). The contribution of Media and Television Studies could therefore be helpful in re-contextualizing audiovisuals in general not just as texts but also as products that are part of a consumer-based system. In fact, in the current literature on audiovisual translation, rarely are crucial factors such as broadcasting context, audience segments, or paratextual elements ever mentioned, with films and television series mainly being analyzed as self-contained entities made up of text, images and sound. Perhaps due to the legacy of some scholars who have been traditionally reluctant to look at the commercial aspect of the distribution of texts, research in AVT is still very attached to a close-analysis kind of approach, one that doesn't leave much room for crucial considerations regarding issues related to marketing, scheduling and the lack of correspondence between television systems in different countries. For example, how do the

differences between the US network / cable / premium cable system and the Italian television platforms affect the ways in which taboo humor is adapted for the target audience? How—if any—has the launch of new platforms such as Netflix impacted already established practices in the translation of humorous filmic content? Are considerations on the niche character of Netflix's audience going to change the ways in which controversial humor is manipulated/censored in dubbed and subtitled products? Will taboo humor possibly become more acceptable in certain cultures because of these changes?

Another aspect of the translation of audiovisual humor that could use further investigation in the future is the relationship between humor that is based on taboo language and references in the source language vs. the norms and conventions of the receiving lingua-cultural context. For example, traditionally, manuals and good practices on subtitling (e.g., Ivarsson & Carroll, 1998; Díaz-Cintas & Remael, 2007) instruct aspiring subtitlers to minimize or omit taboo language, sometimes referencing the widespread—albeit never empirically proven—notion that reading taboo words in subtitles is more shocking than hearing the same swearwords pronounced orally. A clash seems to be occurring between what are considered the assumed norms and conventions of the target culture (Toury, 1995) and the aim of the original comedic content, the purpose of which is presumably to convey humor couched in and characterized by potentially offensive language. Interesting issues to analyze here would be whether the existing translational norms in a given context are flexible enough to accommodate new developments in the kind of audiovisual humor produced today or whether local conventions always trump the comedic intent of the source material—even at the risk of resorting to manipulation and censorship in the target version. The relationship between taboo-breaking humor and translational norms also calls into question issues relating to the ethics of translating as a professional practice, such as the positionality of the translator with respect to the rendering of taboo language and, in the case of translator training, the balance between teaching trainee translators to comply with target-language norms and at the same time to correctly convey the taboo-defying nature of the source-text humorous content (Bucaria, 2015).

Lastly, in view of the aforementioned multiplication of modes in which audiovisual content is now made available, more research should look at the ways in which non-professional translation engages with and somehow affects the practices of the professional or official translation of humorous audiovisual content. Although some scholarship already exists on this subject (Massidda, 2015), more work should be done, for instance, on if and how the differences in the end-users of official adaptations vs. fansubbing affect the ways in which these translated versions tackle humor or whether changes in professionally created target-language versions have occurred in the recent past because of the push of amateur forms of audiovisual translation.

Notes

1 Other forms of AVT include, for example, live TV interpreting and interlingual respeaking. Also, audiodescription and subtitling for the deaf and hard of hearing (SHD) are often included in the scope of AVT, although they actually fall in the realm of accessibility when they concern intralinguistic—and not interlinguistic—transfer (Jakobson, 1959).
2 For a thorough overview of humor in translation in general see Chiaro (2007).
3 As highlighted by research in the translation of video games (e.g. Mangiron, 2010; Iaia, 2014; Lepre, 2014), the strategy of compensation seems to be particularly difficult in this mode of AVT, where for the purposes of plot development through player interaction humor has to be placed in the specific spots in which it appears in the source text and cannot therefore be displaced somewhere else in the game.
4 Interestingly, *Orange Is the New Black* was categorized as a comedy for the first season, but since the 2015 Emmy Award ceremony the show has been included in the drama category.

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31

Humor and Second Language Development

Nancy D. Bell

Introduction

The following conversation took place between two intermediate learners of English and one of their teachers at the intensive English program where they studied. Although the conversation was being recorded for research purposes, a circumstance they all were aware of, it generally resembled casual talk. In this extract, they have been discussing polygamy, and S1, who is a male Muslim student from West Africa is explaining to the teacher (T) and S2, a female student from Japan, his view that people in his country perhaps overinterpret the necessity of polygamy:

S1: I think the religion require this, but the people also, they exaggerate this
T: they what?
S1: exaggeration
T: exaggerate
S1: yea, exaggerate, because the religion say, and the religion say condition also, which condition, what condition you have to that, what condition you have to do that, it's like some, some woman, they cannot give birth, they cannot have like children, so in that situation, instead of, ah, instead of firing her (laughs)
S2: firing! firing!
ALL: (laughter)
S1: instead of firing her!
T: ah, divorce
S2: ok,
S1: instead of divorcing her, you can have like a second one

(unpublished data from Salsbury, 2000)

When S1 mistakenly refers to "divorcing" as "firing," the group breaks down into laughter that is more raucous than is represented here. S2 repeats the phrase in an animated tone and then, when the laughter has died down, the teacher quietly offers a more accurate word and the conversation continues in a serious vein. It seems likely, given the laugh he inserts following the use of "firing," that S1's use of the word was simply a momentary slip or that he knew it was

wrong, but not being able to recall "divorcing" at the moment, chose his next closest option. Still, it seems unlikely that he would make the same mistake again, and in fact, he was recorded using "firing" correctly 2 weeks later. We may well ask to what extent the general hilarity that ensued following his atypical deployment of the term to refer to the dissolution of a marriage helped him to learn the difference between the two terms. While there is much to be said about the experiences of language learners as they negotiate humor in an additional language, this relationship between humor and second language (L2) development is the focus of the present chapter.

Historical Perspective

Educational research in general has not prioritized the study of humor. This neglect is fairly understandable, given that teaching and learning are usually viewed as a serious undertakings, which in turn leads us to see classrooms as sites where serious work is taking place. With the advent of more convenient recording devices and growing sociopolitical awareness of a general lack of equity in education, the early 1970s saw increasing numbers of discourse analytic and observational studies that aimed to describe and understand classroom discourse. In this research, activity that was not serious tended to simply be ignored. The dominant educational model at that time saw the instructor as the source of learning, so any examination of humor focused on the teacher, examining, for instance, how she or he used humor to foster a comfortable classroom atmosphere. At the same time, given that peer interaction was largely ignored as a possible source of learning, student-initiated humor tended to be viewed as off-task behavior and thus, if noted at all, was taken into account primarily as a matter of classroom management.

Although language instructors have always been interested in humor as a teaching tool, in this field, too, and for the same reasons outlined earlier, it has been considered a side issue or a mere novelty, and in no way part of the core of language teaching. In addition to these impediments to serious consideration of the role of humor in learning, in the study of L2 development, deviation from the textbook norms of the language being learned has typically been seen as error or incomplete acquisition. As Thomas (1983) pointed out, it is not just everyday people who are prone to make this interpretation, but language professionals as well:

> All too often . . . language teachers and linguists fail to admit the possibility of a foreign student's flouting conventions, in the same way as they fail to allow him/her to innovate linguistically. In fact, the foreign learner is usually expected to be "hypercorrect," both grammatically and pragmatically.
>
> (p. 96)

Although this attitude has loosened somewhat, this observation from over 30 years ago still holds true today in many additional language learning contexts.

In the mid-1990s, however, two developments in applied linguistics came together to bring about a new interest in non-serious language. First, sociocultural theory was becoming an important way of understanding L2 development. In 1995 James Lantolf shared his ideas about language play in a keynote address at the Conference on the Acquisition of Spanish as a First and Second Language. He saw language play as a type of private speech that provided a context for the L2 learner to experiment with the language, and he proposed that this type of activity might be necessary for L2 development. These thoughts were later published in the conference proceedings (Lantolf, 1997), and although the word "humor" did not appear in that publication, when Lantolf's ideas were taken up by Amy Ohta (1995), the "play" element was expanded to

explicitly include humor. This move to include humor in discussions of language play has largely continued to be the case in applied linguistics.

The second development contributing to the rise of interest in L2 humor research was concern with the idea of certain language as more "authentic" or "appropriate" for language learning. While the adequacy of these notions had been seriously questioned for some time (e.g., Widdowson, 1979; Breen, 1985; van Lier, 1996), they were not linked to non-serious language use until Kramsch and Sullivan's (1996) and Cook's (1997) works. Guy Cook, whose interest in literary stylistics had already led him to write on L1 language play since the mid-1990s (1994a, 1994b; 1996), delved most deeply into the topic, developing ideas from his previous work in much greater depth in his book, *Language Play, Language Learning* (2000). Cook's conception of language play emphasized the aesthetic and ludic functions of discourse, and thus also included humor. Although both terms continue to be used in research into L2 use, understanding, and development of non-serious and innovative language, language play seems to be somewhat more common, although it has generally come to encompass humor as well.

These developments sparked interest in, and provided a valid scholarly basis for taking a closer look at non-serious discourse, resulting in a flurry of descriptions of L2 humor. At the same time, applied linguistics began to change in other ways. The field moved away from portraying language and learning as stable and predictable, and began to place greater emphasis on learner agency, seeking new approaches to the object of instruction, as well as to instruction itself. As Bell and Pomerantz (2014; 2015) have argued, humor fits well with these developments. Given that L2 humor, language play, and linguistic creativity are now not only acceptable topics in applied linguistics, but are also gaining attention from increasing numbers of scholars who are considering these forms of talk in a wide variety of ways, we have even suggested that the field has recently taken a "playful turn" (Bell & Pomerantz, 2015).

Core Issues and Topics

Due to the flush of studies over the past 15 years, we are now well positioned to describe the ways that humor may well facilitate L2 development. In what follows, I have separated these effects into emotional, social, and cognitive realms; however, we must recognize that it is impossible to fully separate these and the division here is merely for presentation's sake.

Emotions, Humor, and Language Learning

Establishing a clear role for humor in education has been challenging; however, one area where it seems to have fairly clear benefits is in the emotional realm. Classroom learning can be stressful, and in this context the use of positive, non-aggressive humor has been demonstrated to make the class more interesting and enjoyable, to reduce anxiety, and to foster closer, more comfortable relations between teachers and students (e.g., Berk & Nanda, 1998; Wanzer & Frymier, 1999). This is generally unsurprising, given that this is what affiliative humor tends to do in other contexts, as well. What is more important is that there is some evidence that students, because of their reduced levels of anxiety promoted through the use of humor, will achieve better results on measures of learning (Ziv, 1988; Ford et al., 2012; Suzuki & Heath, 2014).

The work cited earlier does not refer to language learning classrooms, and it is important to examine whether or not humor functions the same way in these situations. The processing of humor involves the perception of some incongruity, followed by its deciphering. In order for the joke to succeed for the hearer, both of these phases must be pitched at the right level. As Forabosco (2014) puts it, "the difficulty has to be moderate and the process has to be relatively

effortless" (p. 137). For L2 learners, simply decoding the message may be challenge enough, and any incongruity may be overlooked, or may be culturally specific or too obscure for the hearer to detect. In addition, if incongruity is perceived, unraveling it may require substantial mental effort, causing the humor to be lost. These challenges cast doubt on whether the use of humor will result in pleasure and relaxation for L2 learners or will simply be an added stress for them (cf. Wang, 2014).

Outside of the classroom, the extent to which L2 users are successful in processing and thus participating in humor seems to depend largely on the degree to which their interlocutors are willing and able to make accommodations for intercultural communication (Bell, 2006). Within a structured learning environment, however, with teachers and aides who are trained and interested in communicating with L2 users, humor is not only more likely to succeed, but also to confer the same affective benefits described earlier (e.g., Davies, 2003; Cekaite & Aronsson, 2004; Pomerantz & Bell, 2007; Sullivan, 2000a, 2000b; Toohey et al., 2000; Forman, 2011). It has been shown that humor that belittles students or their peers, or is generally offensive or aggressive, is not appreciated by learners (Wanzer et al., 2006). Yet, at the same time, work from linguistically diverse classrooms has shown that skilled professionals can, in fact, use some forms of pointed humor for disciplinary purposes and, in doing so, can also promote positive emotions and affiliation between teacher and students (e.g., Lytra, 2004).

Given the evidence that L2 humor can bring about the same positive, relaxed effect in language learning classrooms as it does in other classrooms, we should expect that it will be likely to have the same positive effects on student achievement that have been seen in studies of other types of classrooms. This question, however, has not yet been directly addressed. An additional question about L2 development involves the extent to which humor, through these emotional benefits, might encourage greater attempts on the part of learners to produce humor. Humor often involves creative uses of language, and linguistic experimentation and play are likely facilitators of L2 development (see the next section on humor and cognition). Tarone and Liu (1995), for instance, examined the ways that a Chinese child learning English interacted across various contexts—with school staff, teachers, peers, and the researcher. They found that the child used the most syntactically complex language and displayed the broadest range of language functions when he was in the most relaxing and enjoyable context, that is, at home in play with his "adult friend," the researcher. Thus, it seems that there may be a positive, circular relationship among humor, emotions, and increasingly sophisticated L2 use.

Cognition, Humor, and Language Learning

While the tension-relieving and positive emotion-inducing properties of humor in the L2 classroom do seem likely to contribute to more effective learning, are there additional cognitive benefits that humor may bestow in educational contexts? The evidence in favor of humor as facilitative of learning ranges from mixed to somewhat positive, but often links humor to perceptions of learning, rather than measuring actual learning (Martin et al., 2006). Some studies, however, have found that humor increases the memorability of the material to be learned. These studies suggest that if humor is to be used in this way, it must be relevant to the topic at hand and carefully selected to highlight specific parts of a lesson, rather than simply be added on for entertainment value (Ziv, 1988; Suzuki & Heath, 2014). In addition, in order for humorous items to be remembered, they must be mixed with serious examples, as well (Schmidt & Williams, 2001; for reviews see McDaniel et al., 2005; Strick et al., 2010). Much of the research linking memorability and humor has been conducted either in labs or in classrooms where teacher-fronted lectures are the predominant form of interaction. Language learning classrooms

tend to have more varied participation structures, with very little lecture and more group or pair work and whole class discussion. We would expect these findings to hold, given that studies have demonstrated the positive effects of humor on memorability in both intentional and incidental learning tasks (Schmidt & Williams, 2001), as well as when information is drawn from naturally occurring conversation rather than from the decontextualized sentences used in most lab-based studies (Keenan et al., 1977).

And, in fact, some research does suggest that humor facilitates the memorability of L2 forms. Two studies have demonstrated this through classroom-based research involving activities in which learners of English worked in pairs to decipher jokes or comics involving puns. Lucas (2005) found that the activity required learners to engage in metalinguistic talk about L2 forms and meanings, and that comprehension of the items under discussion rose from 28.75% when the task began to 91.25% in follow-up interviews the next day. Tocalli-Beller and Swain's (2007) work took place over 10 weeks and, in addition to the collaborative meaning-making task with puns, they employed a production task in which each group told their joke to the class. The recorded interaction was used to identify language-related episodes (LREs) in which the participants used metalinguistic talk, including self- or other-corrections. They found that most LREs involved word meanings—which is expected, given the task—and that this talk enabled those learners who did not initially understand the words to eventually be able to understand and produce them appropriately. Furthermore, a delayed posttest 2 weeks later showed that the items were still remembered. Finally, in contrast to these two studies that employed a planned focus on linguistic form, Bell (2012) compared the effects of serious vs. playful LREs in spontaneous focus on form events. In this study, students learning English were given tailor-made tests to assess their comprehension of items that they had previously focused on either playfully or seriously in the course of classroom discussion. The results clearly showed a benefit from humor when the focus was on word meanings; however, the results were not significant when morphosyntax was involved. Although this area certainly merits more investigation, these preliminary results point to a facilitative effect on memory for humor in L2 development. The finding that learners' language awareness is raised in such talk is corroborated by observations of L2 interaction (e.g., Cekaite & Aronsson, 2005; Rydland et al., 2014).

Humor occurs often in peer interactions, and in addition to raising awareness and memorability of L2 forms and functions, it also creates a discourse context that is both demanding and entertaining. The type of talk that humor engenders often contains a number of interactional features that are thought to facilitate L2 development. Humor is enjoyable and interesting, thus it holds students' attention for a greater period of time, allowing them more interaction in the L2 and on their own terms. As Cekaite and Aronsson (2014) point out, it is often mistakenly taken for granted, particularly for child L2 learners, that peer interaction will be easily available. Peers are also often neglected as a learning resource in foreign language classrooms where the students share an L1, because they tend to default to their shared language, rather than attempt tasks in the L2. In these contexts, as well, humor can encourage L2 use (e.g., Pomerantz & Bell, 2007; Bushnell, 2008). Teacher-initiated humor, too, can encourage greater participation and model humorous L2 discourse that can then become a resource for student-initiated joking (e.g., Sullivan, 2000a, 2000b; Gardner, 2008; Forman, 2011).

Part of the pleasure that comes from engaging in humorous talk is due to the fact that humor tends to be cognitively, and often linguistically, challenging. Using humor requires learners to test the limits of their L2 abilities and often work to expand those boundaries through experimentation with new forms and functions. This type of interaction is not only important for L2 development (Swain, 1985), but when humor is involved, it also often involves iteration, another

important feature of interaction that facilitates L2 development. Iteration describes the process of repeating an activity, but with some differences each time. As Larsen-Freeman (2012) explains, utterances are never articulated or interpreted the same way, and while this tendency may often be subconscious, it can also be introduced deliberately into conversation. Iteration seems to fulfill two important, and seemingly opposed, tasks in language development. Repetition can establish greater stability in the system, as certain forms become automatized. At the same time, variation and change can be introduced through the (often small) linguistic innovations involved in iteration. Humor often displays iteration, as when a formulaic utterance—think, for instance, of a teacher's praise—is lifted from its original context and used in another, perhaps parodically between pupils. Similarly, changes to specific words or to prosody might render the phrase amusing. L2 learners are exposed to numerous formulaic or collocational sequences in interaction, and it is possible that the appearance of some of these in non-serious discourse might help them prioritize which forms to attend to (Tarone, 2000). Iteration has been found to be a frequent resource for L2 users in constructing playful talk (e.g., Bongartz & Schneider, 2003; Cekaite & Aronsson, 2004; 2014; Pomerantz & Bell, 2007; Ohta, 2008), both in casual conversation and when grappling with the demands of a classroom learning task. On a related note, humor can be used to adjust the cognitive demands of a language learning task, which can also alter the type of language that students produce (Kim & Kellogg, 2007; Tin, 2011; 2012; 2013).

Social Aspects of Humor and Language Learning

The previous section examined learning in cognitive terms; however, it is undeniable that learning is social, as well. In addition to understanding learning as an internal process involving changing mental models, we must also acknowledge that learning simultaneously takes place externally. From this perspective, Atkinson (2014) defines learning as "the ability to adapt to our environment BETTER (than formerly) through progressive interaction with/experience in and alignment with that environment" (p. 7, emphasis in original). Similarly, Kramsch (2008) proposes that we see L2 development as a process of gaining symbolic competence, which she describes as "the ability not only to approximate or appropriate for oneself someone else's language, but to shape the very context in which the language is learned and used" (p. 400). If we consider learning from this perspective—as increasingly effective engagement in social action—then the role that humor seems to play in facilitating the development of voices, registers, and styles becomes very important.

Both inside and outside of classrooms, developing bilinguals are often seen as less than full participants in interaction and experience difficulty in constructing desirable positions for themselves (Harder, 1980; Norton, 1995). The classroom normally offers limited subject positions and rarely requires engagement with the range of language functions and emotional expression seen in daily life, which can leave the L2 user with a narrow range of options. Dewaele (2005) illustrates this well when he laments the "bland language" he found himself restricted to during his first experience using Spanish outside of an instructed context:

> I could say something about the weather (*que calor* "it's hot"), I could order *tapas*, and ask for directions, but I was unable to impress Spanish girls with my sophistication and wit, which mattered a lot to me at the time. I felt like a terrible bore, acutely aware of my lack of sociocultural and sociopragmatic competence. I tried in vain to recall anything from my course books that could constitute the basis of an interesting conversation.
>
> (pp. 375–376)

Humor can provide an antidote to this problem, and offers the possibility of developing sociolinguistic competence in a range of voices (Tarone, 2000).

When serious learning tasks are reimagined in a humorous key, unusual and even outlandish language use becomes the norm, and learners are freed to experiment and push the limits of their usual L2 use. When humor is involved, L2 users have been found to joke around using a number of identities quite different from those that typically appear in classroom discourse, such as villains (Broner & Tarone, 2001, p. 372), fortune tellers (Bell et al., 2014, p. 82), cool or tough guys (Bell, 2005, p. 201; Bongartz & Schneider, 2003, p. 21), and sad, pitiful individuals with hurt feelings (Bell, 2012, p. 251). In fact, as Waring (2011; 2013) has demonstrated, play with identities seems to be one of the most common forms of humor in language learning classrooms. She suggests that such play offers a chance to engage in conversation that, like talk that occurs outside classrooms, unfolds according to the communicative needs and desires of the participants, and thus allows learners to construct contingent turns and respond to unexpected utterances.

Even students who are less proficient, more timid, or less creative can benefit from exposure to the humorous L2 constructions of others. A play frame encourages participation, even in small ways, and offers opportunities for these students to support their peers' humor through appropriation of others' contributions (Toohey & Day, 1999). At the other end of the spectrum, more daring learners may be able to discover the limits of L2 humor and learn about certain uses of the L2 that might not generally be considered appropriate. Belz and Reinhardt (2004) describe a learner of German who greatly enjoyed joking and playing in his L2 and how he unintentionally offended his German computer chat partner by referring to her as a female dog. Although he intended the term as a benign joke, he quickly discovered that it had a similar negative connotation as the term for a female dog in English (bitch). The misunderstanding was quickly cleared up and there seemed to be no hurt feelings, but by engaging in (unsuccessful) humor this learner was able to encounter a linguistic taboo in a safe environment.

New Debates

Humor is no longer the marginalized topic it once was in applied linguistic research. Its potential for facilitating L2 development and its importance in the lives of L2 users is steadily gaining recognition. Despite this, the study of L2 humor use, understanding, and development has yet to exploit the wide variety of research methods available or to delve into a number of specific questions. To date, the majority of the research findings are based on qualitative studies of interaction. These rich and detailed examinations of L2 humor have provided us with a great deal of new information and helped us to develop new questions; however, to gain a fuller picture of the ways that humor can facilitate L2 development and the extent to which it can do so, we must begin to examine specific aspects of L2 humorous interaction and to do so using the full range of research methods available. In this section I discuss three areas of inquiry that are greatly in need of investigation in order for us to better understand how humor interacts with L2 development: the comprehension of L2 humor, the developmental trajectory of L2 humor, and the effects of different pedagogical interventions involving humor.

First, humor is generally acknowledged to be a challenging form of interaction for L2 users to take part in, particularly for those who are at lower levels of proficiency. To date, studies of L2 production of humor have predominated even though language learners regularly bemoan their inability to understand jokes, which can occur even when they have been able to easily decipher all of the words used. This seems unusual, particularly because so much research into L2 development in general has focused on increasing learners' receptive abilities. At this point we know little, for instance, about the conditions that facilitate or constrain the comprehension

of humor, or whether some types of humor are easier to understand than others for learners at different proficiency levels. Bell and Attardo's (2010) study, based on self-reports from L2 users about problems they had in humorous talk, suggested that their challenges were the same types that any speaker might face, but simply that they encountered these problems more often. Shively et al. (2008), however, were able to tie problems L2 learners of Spanish had in interpreting irony in films, not merely to general proficiency levels, but to a lack of lexical knowledge, specifically. Furthermore, they suggested that the cognitive burden lower-level L2 users have in merely decoding L2 discourse may prevent them from attending to the prosodic and nonverbal signals of irony in context. A fuller understanding of the challenges that L2 users face in comprehending and interpreting humor will allow us to begin to address these in the classroom, tailoring instructional materials to help increase students' comprehension of humor and assist them in developing strategies for coping with a lack of understanding.

Second, and related to the issue of comprehension, we know very little about how humor develops. The development of humor has been traced in some detail for monolingual children (see reviews in Bariaud, 1989; Martin, 2007, pp. 229–241; Semrud-Clikeman & Glass, 2010), yet has not, to my knowledge, been examined in bilingual children. It seems that we could expect the general developmental path to be similar with, for instance, simple mislabelings emerging long before puns, due to a basic path of human cognitive development. However, might children being raised in bi- or multilingual environments be quicker to recognize and construct linguistic incongruities, given their daily experience in which things have multiple labels? Do they develop a greater facility to use humor to manage relationships, perhaps given their tendency towards greater sensitivity to their interlocutor's background?

With respect to the development of L2 humor in adult language learners, cognitive development is not a question, but we can still ask whether humor follows any developmental path, similar to the way in which other aspects of pragmatics have been demonstrated to proceed (Taguchi, 2010). Shardakova's (2010) study of 113 humorous responses by learners of Russian on a discourse completion task, while not designed with the intention of tracing development of humor, provides some suggestions along these lines because responses were collected from L2 users whose proficiency ranged from novice high to superior on the ACTFL scale, effectively creating a cross-sectional study of changes in humor use. In terms of quantity, the largest amount of humor was found in the middle groups, with little humor used by Advanced High/Superior or Novice High/Intermediate Low learners. With respect to the types of humor used, she found that pragmatics was most often relied upon, with occasional use of lexical or discursive strategies for humor creation and, very rarely, grammar, which was only found in participants whose proficiency was Advanced Mid or higher. Changing sociolinguistic awareness was also evident when she examined the targets of humor (self, hearer, other person, or thing). Here, Shardakova found a significant effect for proficiency, with learners with greater proficiency increasingly targeting their hearers. The use of negative humor also increased with proficiency, and was more frequently aimed at the addressee, rather than the self (the latter being the Russian preference). Here Shardakova notes that a transfer of L1 strategies was likely occurring. Studies of L2 pragmatic development of other speech acts and events provide a general picture of the stages learners may go through, while Shardakova's work provides a baseline specifically concerning humor that we can use to compare longitudinal data (e.g., Shively, 2013).

Finally, perhaps the most surprising gap in the research on humor and its relationship to L2 development is the lack of studies designed to test the effects of humor-related pedagogical interventions. Although various proposals have been made for teaching language students about humor (Wulf, 2010) or teaching an additional language through the use of humor (Medgyes, 2001; 2002; Schmitz, 2002), there is little empirical evidence available to assess the effectiveness

of incorporating humor into the L2 classroom. As noted in the section on cognition and L2 humor, there is some evidence that teaching with or through humor—that is, infusing existing, serious language learning tasks with an element of play—seems to facilitate recall and retention of L2 forms. More recently, the question of whether or not humor can be taught has also been addressed. Petkova (2013) designed an 8-week curriculum aimed at improving L2 users' perception and production of humor. The quantitative results showed significant improvements in the participants' understanding of L2 humor. Although this was not the case for humor production, the qualitative results did suggest improvement in production of humor occurred as well. Kim (2013; 2014) developed instructional activities aimed specifically at addressing the challenges that Korean learners of English face in trying to interpret sarcasm. Her course was designed to help learners understand the conceptual basis for sarcasm in English. Her study, like Petkova's, employed mixed methods, but focused solely on perception and interpretation of sarcasm, rather than production. She found significant improvement, with participants moving from reliance on their L1 schema for sarcasm, to achieving much greater ability in understanding the L2 conceptual basis for sarcasm and being able to identify why speakers might use it. In both of these studies, participants also reported feeling great satisfaction in their improved abilities.

This chapter has been limited mainly to an examination of the ways that humor might facilitate L2 development. Given that humor is a crucial resource for establishing and maintaining social relationships—as well as accomplishing a variety of social actions, its integration into applied linguistics research in general should continue, with attention paid not only to the three areas I outlined in this final section, but to the role that humor plays in the lives of L2 users more broadly.

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32

Computational Treatments of Humor

Julia M. Taylor

Computational treatments of humor attract attention from lay audiences practically every day. With artificial intelligence (AI) celebrating its 60th anniversary, questions arise of when (not even if) a computer will be able to understand humor. These questions open up interesting opportunities, but also attract people who are new to humor research to create programs that "should" add to the AI studies. Such programs typically use existing (recent) methods of AI and port them, as is, into this new field of research. Other approaches come from researchers from the humor research community who are familiar with the challenges of studying humor and its forms and, when building a system model, a well-defined (and, hopefully, understood) area of humor, use appropriate methodologies for the task, whether these methodologies are new (rarely) or old. The theories of humor themselves could be "computationalized" as well, but that task involves a collaboration of researchers from multiple disciplines, as humor itself is a multi-disciplinary field (Ritchie, 2001).

Current treatments of humor can be looked at from three dimensions (Figure 32.1). First, detection vs. generation: does the computer generate jokes, detect them, or both, as in a chat application where opportunities for both are present? Second, visual vs. text: does the computer use only text, or are some images involved as well, such as cartoon captions? Third, autonomous vs. manual: how much human effort goes into creation of humor (for example, if a computer produces jokes, are they predefined, or if a computer detects jokes, does a human help with some words and senses)? A fourth, hidden dimension is whether a particular application uses existing knowledge from humor research or application that enriches humor theories. This dimension is more subjective than others and is very difficult to quantify—ironically, something that computers are very good at.

Interestingly, in many cases, computational humor work is done by people who are not familiar with the humor scholarship, and even after scanning pertinent work to be included in the background section, they are not at ease with the issues that humor researchers face, nor what humor tools are available for use to be effective for humor research. Such systems may produce excellent evaluation numbers, but do not have enough grain size in their evaluation to be particularly useful for humor research.

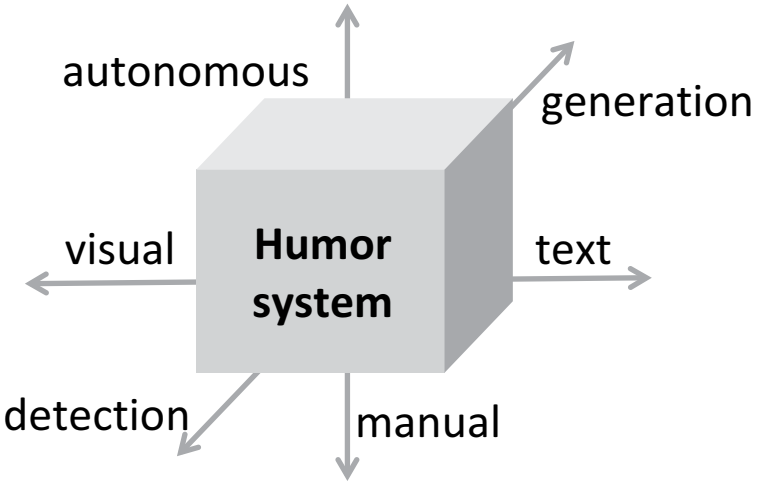

Figure 32.1 The three dimensions of humor

1 Historical Perspective

Computational humor is a relatively new field within humor studies. Its roots are positioned within an intersection of artificial intelligence and humor studies, starting with papers on a restricted set of humor, mostly puns, in the early 1990s.

Originally, computational humor referred to programs that generate or detect some subsets of humor, but in later years it evolved into a more general area, including non-linguistic humor in which a person interacts with a machine, resulting in a humorous effect. When talking about computational humor, some refer to a more narrow set of computational treatments of humor that would involve some sort of a verbal play—whether it is verbal or referential humor (see Attardo, 1994, chap. 3)—and some to a wider set of humor that might be action-based and potentially involve manipulating images on the screen that would result in unexpected and thus humorous behavior (Nijholt, 2002; 2007). Computational treatments of humor historically concentrated on the intended humor, although recently there are some strands that cover text that should not be humorous, and if potential humorous interpretations exist, the text should be changed to prevent it.

Humor studies in general, and computational approaches in particular, can be roughly divided into two categories: one that studies the essence of humor, mostly from a theoretical point of view, and one that studies relationships between people and humor and people's reaction to humor in their life (Ritchie, 2015). Research from both categories has been present in the computational approaches from the very beginning of general humor studies, with the addition of a new instrument that was added into the equation: a computer. A computer had to generate a joke that would be appreciated by a human, or a human had to generate a joke that would be recognized by a computer as non-serious information.

Immediately, from the theoretical perspective, an issue arose: the question of how much a computer had to do in order to come up with a fully formed joke that would be treated as really generated by a computer. As Raskin & Attardo (1994) argued, it is possible to create a template for a well-defined set of jokes, such as light bulb jokes, and create a table with columns used for substitution of some of the fields. A computer would then assemble information that is in the table

with the template, and the result would be a joke produced by a computer (extremely low on the autonomous score of the manual/autonomous dimension). What is not clear is whether such production should fall into the category of humor actually generated by a computer. In other words, how much work should a computer perform for the joke to be computer-generated?

From a practical perspective, a similar issue arose: suppose a computer creates a joke that is, according to theoretical considerations, a joke, but it is not fully appreciated by people. Should it be treated as a successful computationally generated joke, or not? One of the solutions to the dilemma was suggested by Binsted et al. (1997), who proposed to ask this question of whether the jokes created by a computer were reliably identified as such compared to similarly constructed jokes created by a human. If people are not able to tell them apart, then, no matter how non-humorous the jokes are, they are as good as the human-generated set and thus the experiment is successful.

1.1 Do We Need Computers with a Sense of Humor?

A bigger issue that computational approaches to humor face is the justification of the enterprise: who needs it? The usefulness and motivations of computational humor have been discussed in many articles (Raskin & Attardo, 1994; Binsted, 1995; Raskin, 1996; Ritchie, 2001; Nijholt, 2002; Binsted et al., 2006; Hempelmann, 2008). The usefulness of humor in a computerized application continued to be argued. Perhaps, one of the topics that is unstated in most of such arguments is how much humor is useful and when. Most of the arguments provided in the inception of computational humor are still valid, even as technology continues its rapid advances.

One of the motivations for computational humor is human-computer interaction. According to Binsted et al. (2006, p. 59), "if computers are ever going to communicate naturally and effectively with humans, they must be able to use humor." It could be argued that with the advances in the natural language technologies, humor is a necessary component to enable a natural interaction between humans and the gadgets that can respond to human voice, and more and more of such gadgets attempt to use canned humorous responses. Nijholt (2002) suggests that humor is necessary for embodied conversational agents if they are to show personalities.

Arguably, there is more to it than a next generation of human-friendly devices. From its inception, several researchers argued that computational framework is a great mechanism for testing the understanding of human humor phenomenon—a computational humor model that accurately predicts a behavior of one human with known characteristics, but not another, will show that we still don't know about humor perception / understanding / appreciation (Raskin, 1996). In a similar vein of reasoning, arguments have been made that gaining understanding of humor will make a step closer to understanding how the human brain works (Ritchie, 2001; Binsted et al, 2006).

2 Core Issues and Topics

Early computational systems mostly concentrated on computational humor generators—for an excellent overview see Hempelmann (2008), Ritchie (2001; 2009). The choice of humor generators is not surprising: a full-blown humor system should (at the very least)

- Understand words of language;
- Be able to represent knowledge about the world and have access to it;
- Be able to reason about this knowledge;
- Know grammar of a language and be able to apply it appropriately;
- Understand what can be funny.

This is a tall order to achieve even by the standards of today, never mind those of the 1990s when computational humor generators first appeared.

However, a problem can be restricted by using a subset of jokes to be generated, especially if they follow a predefined format. This format, or template, reduces the need of generating many syntactic structures for a language in question, reduces the need for and domain of knowledge representation to a minimum, and potentially provides a more restricted vocabulary. If a format of a joke is restricted to one or two sentences, and if most of the words in the sentence remain the same, the complexity of the problem is reduced even further. The reasoning mechanism can also be restricted to allow for a set of rules of interest. The question of funniness and creativity still remains to be tackled (see Ritchie, 2009), even when the maximum funniness potential of such jokes, whether human or computer-generated, is very low.

Computational understanding of humor had to deal with challenges of its own: the world knowledge that was required for this understanding could not be restricted—you can restrict a format to a light bulb joke, but if it is about a Dell computer support person that is changing it, the joke may have a non-templated punch line:

```
Q: How many Dell tech support people does it take to change a
light bulb?
A: Ring-ring ring-ring Ring-ring ring-ring Ring-ring ring-ring
Ring-ring ring-ring Ring-ring ring-ring. . . .
```

The vocabulary that was needed could not be restricted; moreover, some of the deliberately misspelled words would have to be understood, modeling human ability. While the sentences did not have to be generated—and that subfield of natural language processing did not have to work perfectly—another area had to be added: reasoning. If a joke was to be understood (not just merely detected), a computer would need to find the scripts (if we follow the Semantic-Script Theory of Humor, or SSTH, family of humor theories), parts of the joke that result in incongruity (if we follow a more general incongruity-based class of theories), and then detect logic that could lead to partial resolution. Following the light bulb jokes theme, consider this joke:

```
Q: How many brewers does it take to change a light bulb?
A: One-third less than for a regular bulb(Allbery, 2013).
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In order to understand the joke, a mechanism has to exist to detect that the word *light* is the key to solving this brewing problem, based on the knowledge of beer. Using knowledge that "light beer refers to beer that is reduced in alcohol content or in calories, compared to regular beers" some logical mechanism (not in the sense of the General Theory of Verbal Humor, or GTVH) has to apply this knowledge—and a fact that one-third is less than one, and that the article *a* in English language denotes one—to regular bulbs and light bulbs. The issue of funniness and creativity disappears here, however. The assumption is that if a human created a joke, it contains enough funniness value, and thus does not need to be addressed.

It is possible to restrict the task of humor understanding to humor detection. In other words, a computer would recognize that something is a joke without knowing why. For example, it could detect a first sentence of texts that are typically associated with being a joke, such as *why did x [usually chicken] cross the road*, or *how many y does it take to change a light bulb*. This task, in its basic form, removes background knowledge, reasoning, and language understanding. With the advances in natural language processing, humor detection becomes feasible and a number of articles have been published in this area (see Hempelmann, 2008 for an overview). Humor

detection can be studied from (at least) two sides: a classification task—is this a joke or not, and a clustering text—how can we cluster given jokes into some defined or predefined categories. The clustering approach is interesting as it could show computational usefulness of a humor theory, namely GTVH (if theories of humor are used for clustering), for labeling training sets as well as tagging data in the machine-learning endeavors. On the other hand, if a clustering is completely unsupervised, GTVH could be computationally verified in addition to human verification (Ruch et al., 1993).

Some of the systems that have not been reviewed in the previous computational humor overviews (Hempelmann, 2008; Ritchie, 2009) are reviewed next, sorted according to the dimension of Figure 32.1.

2.1 Humor Generators

Templated humor generators continue their existence. They are becoming more sophisticated from the natural language processing perspective, but, unfortunately, do not add a lot to humor from the theoretical point of view. Perhaps they show capability of basic AI and NLP in that some of these generators can almost be looked at as "build-your-own-car" toolkits: if you identify a template, there are many utilities that exist today that could be used to create your very own joke systems. Perhaps a silver lining is the potential to attract more students into the field.

2.1.1 Text-Based Generators

Petrovic and Matthews (2013) generate jokes of the type *I like my X like I like my Y, Z*. An example of such a joke from their article is *I like my men like I like my tea, hot and British*. According to the authors, such jokes are very popular online, allowing the authors to attempt a fully unsupervised learning—and the full non-supervision is stressed in the paper—of a well-templated joke. To constrain the template further, X and Y should be nouns, and Z should be an adjective. There are four assumptions that went into this generator (Petrovic and Matthews, 2013, p. 2):

> i) a joke is funnier the more often the attribute is used to describe both nouns, ii) a joke is funnier the less common the attribute is, iii) a joke is funnier the more ambiguous the attribute is, and iv) a joke is funnier the more dissimilar the two nouns are.

Thus, there is a relationship between X and Y, a relationship between X and Z, and a relationship between Y and Z, all contributing to the funniness factor of the produced joke. The attribute selection takes into account the grain size of the object that this attribute can describe as well as the number of senses that the attribute can have. The functions that estimate the four assumptions are learned from Google bigram data, thus using a joke-independent corpus. It could be argued that, because the language structure is not linear, bigrams would not capture the data as well as proper syntactic trees would. However, the Google bigram corpus is large enough for this issue to be overlooked. Wordnet is used to obtain the number of adjective senses as well as to estimate what part of speech a word can be. The model was evaluated on a generation of jokes for a given X by giving human raters jokes generated by humans (taken from Twitter, 32 total) and jokes generated by the computer. The results show that humans found the computer-generated jokes to be funny at 16.3%, while human generated jokes at 33.1%. Two of the examples of a joke generated by a computer are: *I like my coffee like I like my war, cold* and *I like my boys like I like my sector, bad*. While the authors do not analyze these examples, it should be noted that

narrower domains were not excluded from the noun senses, which could contribute to the low funniness rating.

Labutov and Lipson (2012) present a humor generator that is based on a humor theory, namely, SSTH (Raskin, 1985). According to the authors (p. 150), this is the first attempt "to instantiate the theory at the fundamental level, without imposing constraints on phonological similarity, or a restricted set of domain oppositions." While the paper uses SSTH and GTVH (Attardo & Raskin, 1991) interchangeably, referring to it as SSTH—but referencing only GTVH publication and quoting Ruch et al. (1993) as SSTH's verification—the computational aspect of the paper deserves attention. The authors use ConceptNet (Liu & Singh, 2004)—a network/graph that connects objects and relationships through a set of properties—for script generation. The hypothesis is that paths within the graph can serve as the script features; moreover, multiple paths can correspond to multiple scripts. The surface form of the script, retrieved from the graph, should be converted to a surface form of the question/answer format. The authors start with a seed concept of the graph (eight seed concepts were used) and generate semantic circuits that yield a meaningful surface form (300 circuits per concept were generated). Feasible circuits are learned in a supervised form. Spreading activation with fan-out and path constraints is used to find circuits with maximum semantic overlap. The authors also cluster the entire ConceptNet in such a way that concepts that belong to different scripts but are part of the same cluster represent incongruity. Examples of conceptual jokes generated by the system are

- *Why does the* $[priest]_{root}$ $[kneel]_{S1}$ *in* $[church]_{S2}$*? Because the* $[priest]_{root}$ *wants to* $[propose\ woman]_{S1}$*.*
- *Why is the* $[computer]_{root}$ *in* $[hospital]_{S1}$*? Because the* $[computer]_{root}$ *has* $[virus]_{S2}$*.*

The results (48 highest ranking two-liners) of the generator were presented to 15 graduate students who were not aware that they were ranking computer-generated jokes. The ratings from hilarious (4) to not humorous (2) to nonsense (1) were employed. The results show a mean of 1.95 with standard deviation of 0.27, which is still considerably higher than a baseline that did not use script modeling and concept clustering (mean 1.06, standard deviation 0.58). While the results show that the generated two-liners don't quite reach the hilarious mark, it is a system that uses a semantic knowledge base as its starting point and the derived scripts that are used in the generation of jokes seem to be meaningful.

2.1.2 Text-Based Humor Generators with Images

Wen et al. (2015) propose a system for a collaboration between human and computer in order to produce humorous results. They describe an online chat system, CAHOOTS, that suggests humorous images to the users that can be included in the conversation. The images were selected based on results of keywords produced from the last three utterances using term frequency-inverse document frequency (TFIDF) metric. In other words, the theme of humor, as represented by the images, was selected through linguistic means. In order to determine the success of the (humorous?) interaction, they compare their system to a regular chat system as well a system that automatically inserts funny images into a "humor-bot." The results, not surprisingly, show that when a user selects images that are appropriate for the conversation, the interaction is more enjoyable (and funny), compared to the conversations without humorous images or humorous images selected by the computer. While such an approach does not address any computational aspects of humor per se, it does demonstrate that a system does not have to be funny by itself, but it can be a collaborative step between naturally and artificially intelligent entities.

2.2 Humor Detection and Understanding

Humor can be detected by comparing a text to a known joke or by understanding whether a previously unseen type of text is a joke (no comparison is possible). When detection is used, the same technique is possible for cartoon captions, especially if the panel of the cartoon remains the same. The next section describes systems that detect or understand humor, with or without images.

2.2.1 Text-Based Detection

Within text-based humor detection, one-liners continue to attract attention. Sjobergh & Araki (2007) present an intriguing paper titled "Recognizing Humor Without Recognizing Meaning." The paper addresses a task that has been previously attempted by Mihalcea & Strapparava (2005; 2006). The authors acknowledge that humor in one-liners should include two interpretations, with a shift from one interpretation to the other, but then, with a style used in parodies, state that "Doing this kind of analysis automatically with current language processing techniques seems prohibitively difficult" (p. 1). They thus, proceed with using common words in jokes, ambiguity of words, style, and idiomatic expression. Because the authors already declared that they are not worried about meaning, they "put very little effort into selecting a good machine learning algorithm, instead focusing on the information features given to the machine learner" (p. 2). There were 6,100 jokes used for the joke classification task, compared to 20,000 used by used Mihalcea & Strapparava (2005). A set of non-joke sentences was selected from the British National Corpus, a corpus that resulted in the 79% accuracy in Mihalcea & Strapparava (2005). Twenty-five percent of data in Sjobergh & Araki (2007) was used for feature reduction, using the following method:

> Using disjoint sets of test data (i.e., training and classifying several times), we remove one feature at a time. The feature that gives the best result when not present is then permanently removed, and the process repeated. When all features have been removed, the best result achieved in the process is found, and all features that were removed when reaching this result are discarded, the rest kept.
>
> (p. 2)

Among discarded features are maximum ambiguity, alliteration, antonymy, negation, short and long idiom, vague overlap, and maximum antonymy score. The remaining features (similarity, joke words, ambiguity, style, idioms) were used in joke classification (95% training, 5% testing). The results showed that with all features, the classification accuracy was 85.4%. Individual feature accuracy ranged from 59.1% (style) to 84.1% (joke words). The classification accuracy without feature reduction was 81%. What is interesting here is that this result is compatible with the results of tenfold cross-validation of support vector machine (SVM) and Naïve Bayes results of several articles by Mihalcea, who used standard machine-learning approaches without cutting corners. While the authors do not openly state their attitude towards machine-learning attempts at humor, it can be felt throughout the paper. What this tells us is that given a large enough dataset, classification can be performed. The classifier used in this work discards features that are suggested by Mihalcea & Pulman (2007) as useful, yet the resulting accuracy is roughly the same. Moreover, this means that no insight into how humor works is achieved or even targeted.

Kiddon & Brun (2011) developed a system that detects "that's what she said" type jokes. These jokes are characterized by "a statement in a non-sexual context that could also have been

used in a sexual context" (p. 89) followed by a *that's what she said* line (historically, they probably descend from the British 19th-century jokes, ending in *as the actress said to the bishop*). In order to address this type of joke, the authors use the following observations: "sentences with nouns that are euphemisms for sexually explicit nouns are more likely" to be used; sentences that precede *that's what she said* "share common structure with sentences in the erotic domain" (p. 90). The authors use an SVM model with features that can model the characteristics of these two observations. Two sets of nouns were selected: one contained 76 nouns that were considered sexually explicit, clustered into nine categories based on what sexual object, body part, or participant they identify; and another contained 98 nouns that corresponded to body parts. In addition to these two sets of nouns, two corpora were used: one, the erotica corpus, contained "1.5M sentences from the erotica section in the textfiles.com" (p. 90) domain; another, the Brown corpus, contained 57K sentences. Various metrics were performed relating whether sentences contained nouns in either of the list, and what verbs and adjectives (do not) appear in sentences with such nouns. The SVM model was trained on 2001 positive and 2001 negative examples, with the positive examples taken from a website with user-submitted jokes of this type. It was tested on 262 jokes and 20,000 non-jokes. The authors acknowledge that the system needs a lot of improvement, but consider their contribution to the state of the art an identification of characteristics that they believe to be important to this kind of joke.

2.2.2 Text-Based Humor Detectors with Images

Recently, papers that try to rate funniness of cartoon captions have appeared. Two of such approaches (Radev et al., 2015; Shahaf et al., 2015) use the *New Yorker* Cartoon Caption Contest. Following the work of Mihalcea and Pullman (2007), Radev et al. (2015) use human-centeredness, sentiment, grammaticality, originality, concreteness, and centrality as some of the features in selecting which of the captions are funny. Radev et al. (2015) look at 50 cartoons with 298,224 captions total. For each of the cartoons, the authors considered all captions corresponding to the cartoon, tokenized by ClearNLP software; three winning captions, as identified and published by the *New Yorker*; manually labeled objects in the cartoon; most frequent n-grams in the captions; TFIDF scores for all captions; and a set of "antijokes." A number of unsupervised methods were then performed to rank the captions. The results of the methods were compared by human subjects recruited through Amazon Mechanical Turk. The results showed that funnier cartoons expressed negative sentiment, and showed human-centeredness and lexical centrality.

Shahaf et al. (2015) use the same *New Yorker* Cartoons collection to "predict the relative humorousness of captions without deep image analysis and text understanding, by leveraging human tagging of scenes and automated analysis of linguistic features" (p. 2). In this paper, 16 *New Yorker* cartoons were selected of which 10 were used, along with the thousands of captions submitted for the cartoons. Among the considered features were length of sentence, proper nouns, readability score, part of speech, perplexity (whether the caption stands out from all other data in the model), syntactic distinctiveness, as well as sentiment. The captions were compared without a single cartoon, as well as across cartoons. Interestingly, the analysis of sentiment scores within the same cartoon suggests that the positive captions are funnier, which contradicts the findings of Mihalcea and Pulman (2007) and Radev et al. (2015). The results also show that simple captions are funnier. Across cartoons, the sentiment and the readability of the caption is no longer significant; however, proper nouns and third-person words start playing a bigger role. As with many other approaches that remove the meaning of text (or understanding of the scene), the results are impressive by themselves, but provide little benefit for humor research.

2.3 Text-Based Humor Understanding

Taylor (2008) created a system that analyzed pun-like question/answer jokes for small children. The system contained three components to humor processing: orthographic, phonological, and semantic. Each of the components contained both a static collection of resources and a number of mechanisms that worked with the resources of the components and talked to the other components. For example, a semantic component contained an ontology created with knowledge from children's dictionaries and a description-logic based reasoner that could provide some inferences. The phonological component contained information from a pronouncing dictionary from Carnegie Mellon University (CMU), phoneme similarity and cost table, and a method for producing sound-alike utterances, given a word or phrased from the orthographic component. Orthographic component connected to the semantic component in such a way that words from the sentence could be mapped to their semantic representation of the description-logical based ontology. Because all concepts (objects and events) in the ontology had roles (properties for those familiar with the Ontological Semantic Theory of Humor, or OSTH), script opposition could be calculated based on the fuzzy difference in fillers of these properties. The jokes that the system handled were based either on semantic ambiguity of one of the words in the setup, or words that needed close homophones to be calculated by the system that fit into the scripts. The system asked a human to check that the semantic roles were selected correctly in the processing of the sentence, and, thus can be counted as partially autonomous. The system was tested on 100 jokes and 100 non-jokes. Both jokes and non-jokes were one of these themes: fairytale jokes, monster jokes, animal jokes (mammals and not), and people jokes. Overall, the system was successful in detecting non-jokes, as well as detecting jokes (88% precision, 64% recall for jokes). Because the detection was based on recognizing script overlap and opposition, the understanding and explanation component of why something is a joke is built-in. There were no differences in recognition of various themes of jokes; however, not surprisingly, jokes that involved phonological component had worse results.

2.3.1 Text-Based Comparison of Jokes

Friedland & Allan (2008) compare similar jokes as a mechanism for a joke retrieval system. They reject the bag-of-words approach that is suitable for some retrieval tasks and exploit joke structure to develop humor-specific approaches. The authors pose a question whether it is possible to formulate a search query for a joke, to determine if a version of it is present in a corpus, when one does not remember the exact details of it. In order to answer what this query will look like, the authors study how to cluster similar jokes. While the authors are aware of the humor theories in general and GTVH in particular, they choose to use their own ad hoc rule to describe jokes that are similar. Their reasoning for using the ad hoc rule seems to be that "there is no working model of what matters for a joke's identity" (p. 3). They thus concentrate on "the punch line, and the (abstractions of) entities that appear in the joke" (p. 3). The punch line was defined as the last sentence of the joke. The corpus that was used in the study contained approximately 11,000 jokes from 13 joke archive websites consisting of light bulb jokes, question/answer jokes, and narrative story jokes. Sixty joke clusters were labeled manually, ranging from 2 to 13 jokes per cluster, with a total of 217 jokes. In the process of capturing the joke, the authors tried to "recognize those changeable elements and replace them with abstractions" (p. 4). Interestingly, without acknowledging it, they were creating scripts. The words that contributed to the abstraction (animal, color, currency, location, music, number, organization, person, date/time, vehicle)

were annotated. One hundred eight models were created that combined various features of joke structure (punch line or not) and the annotations. A classification task was then used to determine whether any two given texts are variants of the same joke or not. When similarity of two texts was considered, the results show that the accuracy of simple bag-of-words model was 0.749, the annotation model was 0.773, and the punch line model was 0.801. Machine-learning methods were then used to classify the documents using all 108 models as features for the classification task, with the resulting accuracy matching the punch line model. The authors also performed a ranking task, which is appropriate for a "find more jokes like this one" situation. The recall values here are rather low for the punch line model, but are considerably higher for the baseline, thus reversing the pattern. What is interesting here is that while the results indicate a successful solution for the task, it is not clear whether the clusters were formed correctly according to the human judgment—there were not enough human subjects for cluster identification, and humor theories were not considered.

Taylor & Raskin (2013) describe another investigation into computational comparison on jokes. In the experiment 10 jokes, previously used in Hempelmann et al. (2012), were selected. Each of these jokes had a short and a long version taken from the Internet, and three more versions modified by humans to manipulate some of the GTVH knowledge resources. Each of the jokes was processed by OST (Ontological Semantic Technology) Lite, a system that uses reduced number of algorithms for text processing, resulting in a graph that is similar to a regular text-meaning representation (TMR) (Nirenburg & Raskin, 2004). Each of these graphs consists of vertices corresponding to concepts where words of the jokes were anchored, vertices corresponding to concepts used in reasoning and required to produce TMRs, and edges that indicated semantic relationship with which the vertices were connected. Each vertex had a weight proportional to the number of times it was referred to in a joke and the number of times it was evoked to create a necessary connection. Thus, each of 10 jokes had five versions of the graph, corresponding to five text versions. A full version of the joke was created by amalgamation of all of the versions of the same joke. The authors then computed minimalist versions of each of the jokes by looking at the vertices that appeared in each joke. Similarly, the authors calculated the minimalist punch line. The minimalist version was then used to create keywords that could be used for a web search to find similar jokes. The keywords were compared to those supplied by AMT human subjects, which showed a large overlap between the two sets.

2.4 Image-Based Understanding

Chandrasekaran et al. (2015) study cartoons as scenes and attempt to predict a funniness of a scene as well as altering the funniness of a scene, thus claiming to demonstrate an understanding of visual humor. While the paper does not use any lexical features to understand the scenes, they can be described by the semantic concepts that Amazon Mechanical Turk human subjects used to create them. There were a total of 6,400 scenes (3,028 humorous and 3,362 non-humorous) created for the experiment. Each scene contained at least 6 objects out of 150 available. The scenes were annotated using short descriptions from a short predefined list created for the experiment. The tags of interest were "person doing something unusual" or "animal doing something unusual," which corresponds to an incongruity class of humor. Replacing the incongruous object in a scene can, thus, affect the humor rating. The authors conducted an experiment where the subjects were asked to replace objects to make the scene non-funny. The original objects as well as replaced ones were modeled with neural networks. The resulting model allows a prediction of a funniness rating of a scene as well as an improvement of the funniness rating by identification of the replacement object. The models perform better than

the baseline and come closest in the systems with images to detecting the semantic element of humor.

2.5 Theory-Leading Approaches

Kao et al. (2013) use a probabilistic model of sentence comprehension to formalize incongruity and test its relationship to humor in puns. The authors use two metrics, ambiguity and distinctiveness. They notice that many sentences that are ambiguous are not funny and, thus, a metric is needed that supports "viewpoints" of a sentence, which they defined as distinctiveness. To evaluate these two metrics in the context of puns, a corpus of 230 sentences (60 puns, 40 de-punned control sentences, 130 non-puns) was created that contained the same words. Each of these sentences was measured for its subjective funniness. The de-puns were controlled to be matched with a set of puns, and the non-puns were controlled to match the puns in ambiguous words. The ambiguity and distinctiveness value was computed for each of the 235 sentences. The results showed that ambiguity differs significantly among sentence types, and correlates significantly with human ratings of funniness. Distinctiveness scores also differ significantly across sentence type and correlate significantly with human rating of funniness. Moreover, using these two metrics together, the authors were able to distinguish among puns, non-puns and de-punned sentences: the de-punned sentences were high on ambiguity, but had lower distinctiveness value, while non-puns had low ambiguity score but higher distinctiveness. Beyond predicting the funniness of a sentence, the model can also point to particular features of a sentence that make it amusing.

It should be mentioned that there are some attempts to use humor with robots, both in English and other languages. Additionally, many approaches exist that analyze Twitter, especially because hashtags of satire and sarcasm can indicate the intent of the writer. These approaches are not covered in the chapter.

3 Methodology and Sample Analysis

We will take a position here that for a computational system to successfully employ humor in verbal human computer interaction, it has to understand jokes that are told and to be able to create them in a situation when they could be used. This means that a setup could be provided by a human, and a computer could react to it with a humorous remark, or a human could say something that requires knowledge of previous conversations as both setup and punch line are rarely provided at the same time, unless somebody tells a canned joke.

We further agree with a position that while building a computational system that relies on humor theory, one understands the inadequacies of humor theory and, hopefully, provides a method of correcting it. For example, Hempelmann et al. (2012) discovered, during comparison of jokes, that it is possible for a text to contain script overlap and opposition and at the same time not to be rated as funny. Possible explanations were provided for this effect, but, to the best of the author's knowledge, not tested yet.

In order for a humor theory to be implemented (in detection and generation), tools for analyzing language have to be provided on the linguistics side and understanding of facial response (if a camera is used) on the psychological side. We will wave our hands for now in assumption that data mining algorithms could be used to detect personal preferences once the linguistic component is working well and a feedback for joke rating is provided (we envision the mechanism to be based on the meaning of jokes, not comparison to joke preferences of others).

Data mining or machine learning algorithms work much better on concepts rather than words that provide unnecessary noise. It is beneficial then to use a system that can convert a joke to a concept-based format. We will use the methodology of the ontological semantic technology (OST) to analyze a joke in this section. In the center of OST lies a language-independent ontology, consisting of concepts and relationships between them. The concepts are divided into objects and events, each of which is further divided into the physical, mental and abstract. The concepts can be defined with a varied grain size, depending on the applications that the ontology supports. The concepts are typically linked to natural language words, contained in the lexicon. Such linking specifies the central meaning of the sense of the word and can be further elaborated with the use of ontological properties. In addition to its meaning (represented in sem-struc), each sense also contains morph-struc (how forms of the word can be computed, especially important for irregular verbs and nouns), syn-struc (indicating how to connect it to other words in the sentence), and phon-struc (rather poorly defined at this point, but useful for pun-like jokes). In addition to these static resources, a suite of algorithms exists that processes information that is read from text according to the rules and restrictions specified in the ontology and lexicon. The resulting text meaning representation (TMR) is placed into InfoStore, which can be used further by algorithms that take concepts and properties as input.

The following joke is taken from the corpus used in Friedland and Allan (2008):

> Bill Clinton, Hillary Rodham Clinton, Al Gore, and Tipper Gore are flying aboard Air Force One on their way to visit the communists to share their success stories about taxing Americans.
>
> Bill: "Why don't I throw this hundred dollar bill out the window and make someone very happy."
>
> Hillary: "Well, why don't you throw 10 hundred dollar bills out the window and make 10 people happy."
>
> Al: "Why don't you two jump out the window and make me and Tipper happy."
>
> Tipper: "Why don't we all jump out the window and make everybody throughout the United States and world happy."
>
> (Aha! Jokes, http://www.AhaJokes.com/)

This is an old joke that involves a lot of reasoning and a lot of background knowledge. First, in order to understand the joke, one needs to remember that Bill Clinton was a president of the United States; he is married to Hillary Clinton; Al Gore was vice president when Clinton was president; Al Gore was then married to Tipper Gore. Second, the knowledge of what Air Force One is, is required, namely that it is an airplane that carries the US president. Third, the knowledge that if a president dies, the vice president becomes president should be available. All of these should typically be accessible to a computational system, provided that the knowledge representation formalism selected for such system can accommodate all of this information. In our case, proper names reside in a special version of the lexicon, which allows a description of these entities according to the properties of their ontological categories. Thus Bill Clinton will be referenced as:

```
Bill Clinton    BillClinton-properNoun1

                cat properNoun
                phon-struc. . .
                morph-struc         possessive:
```

```
                    add: ‘s
                    remove: null
        syn-struc   NP
                    var0: properNoun : Bill Clinton
        sem-struc   president:
                    firstName: William
                    lastName: Clinton
                    country: USA-properNoun1
                    number: 42
                    beginTerm:1/20/1993
                    endTerm:1/20/2001
                    spouse: HillaryClinton-properNoun1
                    child: . . .
```

Lexical items, such as *communist*, reside in the lexicon and can have multiple senses. The word *communist* can refer to a person who belongs to the Communist Party organization, or, in plural, to people that live in communist countries. Lexical entries would look like this:

```
communist: communist-n1
    cat: n
    phon-struc. . .
    morph-struc: noun-plural:
        add: s
        subtract: null
    syn-struc. . .
    sem-struc: person
        member-of: organization
            name: CommunistParty-properNoun1
communists: communists-n1
    phon-struc. . .
    morph-struc: noun-singular:
        add: null
        subtract: s
    syn-struc. . .
    sem-struc: people
            citizens-of: country
                regime: communism
```

The word *communists* in the sentence can activate either sense: communist-n1 can be activated by adding suffix s from morph-struc field, communists-n1 can be activated as is. Either choice, in this case, works for the processing of the joke, and the selection will be based on the highest weight derived by the system. For our purposes, we will select the first sense.

Thus, the first sentences can be represented as follows:

fly-event beneficiary: BillClinton-properNoun1

beneficiary: HillaryClinton-properNoun1
beneficiary: AlGore-properNoun1
beneficiary: TipperGore-properNoun1
instrument: AirForce1-properNoun1
destination: person
purpose: (share success stories about taxing Americans)

Interestingly enough, the purpose of the visit does not add anything to the joke, and while it should be represented—because it is part of the text—the jab against Clinton policies can be lost without subtracting anything significant from SOs, other than support for the interpretation that when a president and vice president die at the same time, it can be beneficial for the country (weak LM support?). Nevertheless, this last part of the sentence would be represented as:

share-information theme: experience-story

modality: epituctic

value: 1

topic: tax

beneficiary: citizen

country: USA-properName1

The next sentence, *Why don't I throw this hundred dollar bill out the window and make someone very happy*, can be analyzed in a similar manner: there is an object that can be thrown out of a window of an airplane (a window has to be part of something and, thus, a reasoning engine should infer that in this case it is an airplane, based on the first sentence). This object is a hundred dollar bill. Reasoning engine, again, should infer that it will land somewhere, although the location is undetermined in the joke. The hundred dollar bill, when landed from the sky, should make somebody happy because it is the money that they didn't have. This instance of reasoning is not normal reasoning, but rather common sense reasoning. Most logical systems do not possess this capability. To repeat, the surface structure of the sentence can be represented in terms of concepts, but the reasoning with these concepts that models human reasoning is very difficult at this stage.

The sentence "Well, why don't you throw 10 hundred dollar bills out the window and make 10 people happy" does not present any problems if those of the previous sentence are solved. The only additional information that should be accounted for is that 10 items of value is more than one item of value, especially if those items are the same; and if one item is enough for one item, then 10 people can have 10 items. One may wonder what will happen if the same person gets 10 hundred dollar bills and becomes very, very happy, and what would happen with nine other people that are mentioned, but this kind of over-analysis is good for a human, not a computational system. One could, of course, argue, that there is a hidden script of a woman suggesting a not-so-smart idea, and the script of DUMB–SMART is being active—something that a computer would find IF it could go through all the stages of common-sense reasoning.

The sentence "Why don't you two jump out the window and make me and Tipper happy" requires knowledge that a person that jumps out of the window can die. It also requires knowledge that when a president dies, a vice president becomes president. For the tricky part of the reasoning, a computer has to "understand" that a vice president wants to become president. Such desire is typically not stored in computational system, especially those that are logic-based, and it will be hard to infer and understand why this sentence is meaningful. Another inference here, mostly common sense, is that when a husband is happy, his wife is happy. Perhaps a bigger problem for a literal computer is, if a window is opened wide enough for a person to jump out of it, what would happen to the plane itself? And, what are the chances of, again, a literal computer, activating REAL/NON-REAL opposition?

However, it is the last sentence, unsurprisingly, that presents the most difficulties for the computer: "Why don't we all jump out the window and make everybody throughout the United States and world happy." There is obviously a progression of what to throw out of the window: one hundred dollar bill, 10 hundred dollar bills, one person, four people. But why would it make so many people happy? The answer cannot be found by any formal or even commonsense reasoner. In order to understand it, one needs to know that a president and his administration may not be popular, and that their replacement may be something that an entire country may look for. The question of the world still arises—with as many possibilities as answers, all likely to be different for an individual reader/listener based on his or her perception of the world.

Is humor understanding a hopeless enterprise then, if a joke can be interpreted by each person differently? The answer is no. As long as multiple interpretations are available to a computer, and it can adjust to somebody else's understanding, it will be in the same boat as the rest of us (Taylor, 2016), who can easily adjust to each other's spontaneous jokes, even if we thought they meant something different at first. As long as the representational capabilities as well as reasoning by a computer at a human level catch up to the desired level, computational humor may have a very bright future.

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33

Sociolinguistic Approaches to Humor

Catherine E. Davies

Introduction

Sociolinguistic approaches to humor are concerned not primarily with the linguistic forms of humor—for example, with the structure of a narrative joke, or how a pun is constructed (although these may prove to be relevant), but rather with how humor as an aspect of language use relates to society. For sociolinguistics, linguistic variation as a key dimension of social organization has always been a central concern. Sociolinguistics emerged out of dialectology, which was interested in tracking geographical differences in language use that had been laid down through settlement and migration patterns. Early work in dialectology focused on the lexicon and then expanded to phonology and morpho-syntax. In the 20th century, sociolinguistics elaborated the incipient attention to social class in the dialectology work (e.g., the "cultured" speaker) and expanded it, along with new concerns with variation by gender, ethnicity, and age. This sociolinguistic work, with some exceptions that will be discussed in this chapter, operated within a positivist framework that searched for correlations between individual linguistic features on the one hand (such as rhoticity), and social categories (such as social class), to use Labov's (1966) New York City study as an example. Thus it should be clear that "humor" would not have worked as a category in this framework, or even "joking" as an activity deployed by people in a particular social category.

This discussion of sociolinguistic approaches to humor will begin with examples of precursors in related fields such as linguistic anthropology, sociology, ethnomethodology (as an approach within sociology), and even literary studies, which attempted to address the central sociolinguistic question of how particular language usages relate to social organization. Then we will use Eckert's (2012) conceptualization of the three waves of treatment of social meaning in variationist sociolinguistics to organize a discussion of relevant scholarly work within the sociolinguistic tradition broadly conceived. This will include work that is "sociolinguistic" but not in the variationist tradition. The discussion will consider core topics, issues, and findings, and will suggest what sociolinguistic approaches to humor have to contribute to the linguistics of humor and to the study of humor more generally. The studies mentioned and discussed provide a wide range of examples of the kinds of methodologies employed in contemporary sociolinguistic (or "sociocultural") approaches to humor. The piece will conclude with a contemplation of the

future of sociolinguistic approaches to humor, considering current controversies and possible new directions.

Historical Perspective

As unlikely as it may sound, a discussion of an historical perspective on sociolinguistic approaches to humor should begin with a nod to Freud and Bergson (Attardo & Raskin, 2017). We typically think of Freud only in terms of psychology, but I believe that there is a dimension of his work that was grounded in an awareness of social organization. If the pleasure of the joke form tricks the internal censor into allowing unconscious material to come forth, material that has otherwise been suppressed through processes of socialization, then humor in this view constitutes an aggression against social frameworks. If we consider that social organization is held in place to a large degree by conventions, then humor is potentially a way for speakers to challenge social organization, in effect to push social boundaries. On the other hand, Bergson conceptualized humor as a social corrective, whereby the person who deviates is mocked through laughter.

Social organization in terms of regionalism and also ethnicity within the United States was reflected in a literature of "dialect humor" in 19th-century America. Particular social types emerged, often associated with particular areas of the United States but also with characteristics of race and class, such as the rustic frontiersman Simon Suggs. Abraham Lincoln was particularly fond of reading "letters" from a character named Petroleum V. Nasby, who appears to have been the Stephen Colbert of the Civil War era. In the first part of the 20th century, Constance Rourke (1931) attempted to describe "American" humor through a study of the national character from a literary perspective. She concluded that the objective of American humor was a kind of social unity in a nation that was still defining itself, and that a characteristic humor had emerged: "quiet, explosive, competitive, often grounded in good humor, still theatrical at bottom and full of large fantasy" (p. 232).

The earliest work that more explicitly linked forms of humor to social organization was done by linguistic anthropologists in non-Western cultures. In the 1950s Radcliffe-Brown identified a type of interactional pattern with particular social configurations within kinship groups and termed these "joking relationships." It was an unfortunate name for the phenomenon because the interaction was actually a stylized form of teasing (Haugh, 2017) about prescribed topics that served, in Radcliffe-Brown's analysis (1952), to stabilize potentially conflictual relationships. Other anthropological linguistic work such as that by Dundes et al. (1972), working in Turkey, found interactional patterns associated with gender in the form of "ritual insult" activity among young men. This activity was competitive, poetic in form, and was intended to amuse through virtuoso performance within the rules of the genre.

At about the same time, some sociologists became interested in how humor in the form of joking activity could be linked explicitly to American social organization. An early study by Coser (1960) analyzed American hospital staff meetings where there was a clear social hierarchy and found that there were patterns. Status in the organization was linked to the frequency, type, and direction of the humor. Higher status people initiated humor more often and the target of a witticism was never in a higher status position than the initiator. Higher status people would take on the informal role of the moralist with humor, whereas a low staff position correlated with humor that was either self-directed or self-protective. This study also revealed that the women participants, who displayed their senses of humor in more informal situations, almost never joked in the staff meeting contexts. The interpretive focus was structural-functional, with the conclusion that humor served as an informal socialization technique that combined

criticism with support. The workplace context has been a focus of analysis in, for example, the sociolinguistic work of Janet Holmes that is discussed later in this chapter.

The ethnomethodologists, a subset of sociologists who were reacting against the macrosociological approach that was popular at the time, began to look at the microsociological conversational behavior of white middle-class Americans and in particular at the significance of sequential ordering in conversation. One strand of this interest resulted in close analysis of the occurrence of laughter (Jefferson, 1979; Glenn & Holt, 2017; Trouvain & Truong, 2017). Another strand can be seen in a famous paper by Sacks (1974) entitled "An Analysis of the Course of a Joke's Telling in Conversation." Unlike analyses that focused on a joke's narrative structure, this approach looked at the context of the telling of the joke, in this case in a group of teenage boys, and then examined the way that the "dirty" joke, as it unfolded, served the social function of a membership test by revealing which of the boys had "gotten" the joke, displaying prestigious sexual knowledge for that social category.

A sociologist who took another approach to the connection between humor and social structure was J.C.H. (Christie) Davies (1982). He looked at the sociological characteristics of the ethnic jokes that were popular in Western industrial societies and linked them to social organization and democratic ideology. One finding was that characters in the jokes that were popular among the middle class tended to be "stupid" or "canny" (clever, crafty, calculating, stingy). His analysis was that middle-class people, who had been successful within the social organization, used jokes to project their negative stereotypes and prejudices either towards groups that were lower on the social hierarchy or towards groups that were "Other" but had somehow managed to succeed in the society. The "stupid" groups (e.g., in the United States Polish jokes that dated back to large Polish immigration of unskilled workers) were thus characterized as deserving of nothing more than the lower social status that they had achieved; the "crafty" groups were presented as having achieved their success illegitimately through trickery by being "too smart."

Turning now to early work by scholars defined as "sociolinguists," Labov (1972) was an important study that picked up on earlier scholarship on "ritual insult joking" by linguistic anthropologists and used it to understand interaction among young African American males in American inner cities. His famous paper, "Rules for Ritual Insults," analyzed not only the patterns of the genre, but also identified how it functioned socially for its practitioners. This study was in effect a contextualized discourse analysis of a "play" genre that represented sociolinguistic expertise within a particular group defined by ethnicity, gender, and class, and not a study in the "variationist" tradition that was the dominant approach in sociolinguistics during the early decades.

Core Issues and Topics

Eckert (2012) provides a framework for thinking about the history of the variationist tradition in sociolinguistics, in terms of the treatment of social meaning. She conceptualizes the evolution of scholarship in terms of three "waves." In the first wave, sociolinguists drew macrosocial categories from sociology and attempted to measure them using existing sociological techniques. The key social categories were socioeconomic class, sex (not yet "gender"), age, ethnicity, and to some extent regionality, carried forward from dialectology. At the same time they attempted to identify "sociolinguistic variables" in the form of linguistic features at the level of phonology (e.g., rhoticity) or morpho-syntax (e.g., -s absence in third person singular present tense of verbs) that might correlate with the macrosocial categories. Whereas such correlations obviously pointed to general trends in usage among groups—for example, that rhoticity in NYC was most frequent among the higher social strata and least frequent among the lower, they

also pointed beyond this positivist approach to research. If social category led to some sort of automatic use of particular linguistic features that had been identified as "variables," then the higher than predicted use of rhoticity among a lower social class group (as Labov found) would be impossible. The explanation that Labov proposed, namely, that the speakers who used more rhoticity than their socioeconomic status would predict had somehow recognized that rhoticity was associated with higher status and were using language to aspire to that higher status, pointed towards trends across the second and third waves. But in the first wave the focus for variationists remained on trying to identify correlations between linguistic variables and social categories. An example related to the social category of "sex" (defined biologically at that time) can be seen in some of the treatment of Robin Lakoff's work (1975) on "women's language." Instead of seeing Lakoff's work as an attempt, from a particular perspective, to think about broad patterns of language use across all levels of dialect in relation to the male/female social organization among white, middle-class Americans, individual features that she mentioned (such as tag questions) were treated as sociolinguistic variables, and empirical studies were generated that both validated and challenged the idea that all women spoke in that way. Attention to the social category of race can be seen in efforts to identify sociolinguistic variables associated with African American Vernacular English (AAVE). Attention to age can be seen in attempts to track language change by correlating age cohorts with usage of particular variables. As noted earlier, "humor" did not lend itself to treatment as a linguistic feature to be correlated with social categories, so we don't find any variationist work on humor in the first wave as defined by Eckert.

The First Era

This first era, from 1966 (the date of Labov's variationist NYC study) to about 1980, saw the studies by Labov and by Sacks described earlier, in which young men performed complex humorous activity, as well as Jefferson's (1979) analysis of laughter as an aspect of the sequential organization of conversation that served as a resource for affiliation among white middle-class American speakers. During this period Lakoff (1975) observed that women do not typically tell jokes in social situations because such behavior is inconsistent with the expectations that politeness imposes on them. At the same time linguistic anthropologists were pursuing more contextualized analyses of the use of humor in relation to social organization, and the ethnographic methodology within this discipline meant that analyses were oriented towards discourse. Handelman and Kapferer (1972), working in Israel and Zambia, identified joking "frames" that could be seen as setting-specific or "category-routinized." Contextualized approaches meant that the traditional social categories of socioeconomic class, sex, age, ethnicity, and regionality were studied as part of discourse processes. A male–female struggle enacted through humor in terms of the "point" of a joke was analyzed in Johnson (1973) in the social context of a Texas brothel. Hall (1974) studied dinner conversations among a mixed-sex group of American university students to explore joking as a communicative process. Murray (1979) expanded the category of "sex" towards "gender" by analyzing ritual insult activity among American gay men. Ethnicity was the focus of Basso (1979), which analyzed how Apaches joked using enactments that represented what Basso called "epitomizations of the Whiteman."

The main contribution of this era to the sociolinguistic study of humor was to lay down an ethnographic base. What the variationist tradition conceptualized as social and linguistic variables that could be extracted from context and correlated, the ethnographic focus pulled back into their original contexts to explore in greater depth and complexity. "Humor" was inevitably discovered to be part of an interactional process and thus a form of discourse. Theorizing of the analysis of the discourse was enhanced by the ideas of Bateson (1972) on metacommunication,

Gumperz (e.g., Blom & Gumperz, 1972) on contextualization, Goffman (1974) on frames, and Silverstein on indexicality (1976). Joking was seen as an expressive social activity that must be understood in terms of the emergent, self-generative form of the activity itself. This work outside of variationist sociolinguistics set the stage for the sociolinguists who were interested in humor in Eckert's next wave.

The Second Era

The second wave, extending from about 1980 to 2000, was still concerned with correlations between macrosocial categories and linguistic features (i.e., variation was seen as marking social categories), but it expanded its methodology towards the microsociological by using ethnographic methods to try to understand how the macrosocial categories were constituted. This shifted the focus to the notion of social practice, in which speakers potentially have agency, an attribute that did not fit within the conceptualization of the first variationist wave. In relation to gender, for example, Kiesling (1998) did ethnographic work in a fraternity on the construction of differential male identities in discourse. He was thus looking at social practice in a particular context, but his analysis focused on variation in the use of the vernacular [IN] (as indexing working-class masculinity) vs. non-vernacular [ING] variable. As might be expected, humor was still not conceptualized as a variable that might fit into the framework.

Sociolinguists oriented more towards discourse, and in particular those building on Gumperz's (1982) interactional sociolinguistic orientation, began to pay attention to humor during this era. Some of this work was done in the context of expanding the notion of "style" (Simpson & Bousfield, 2017) from the variationist framework's "attention to speech" model. Coupland (1985), while not dealing directly with humor, used a qualitative/quantitative methodology in his analysis of the discourse of a radio show in Wales to advocate for a multidimensional approach to style grounded in social-psychological processes. Tannen's work on conversational style (1984), drawing on Lakoff's (1979) "grammar of style," used qualitative and quantitative discourse analysis to show how humor and irony were used in conversation as an important part of interactional styles possibly associated with ethnic background, gender, sexual orientation, and geographical origin, although she was careful to point out the potential impact of context on what was displayed as individual styles during that Thanksgiving dinner conversation. Tannen discussed some extended joking episodes in her data. C.E. Davies (1984) used ethnographic data with interactional sociolinguistic methodology to identify co-constructed joking with friendly intent among Americans in terms of joking styles possibly associated with gender. In particular, using contextualized joking episodes, she proposed a style oriented towards empathy more typical of women, and a style oriented towards solidarity (through the use of a version of "ritual insult" joking) more typical of men. She used this set of typifications to critique the treatment of "joking" within the politeness framework proposed by Brown & Levinson (1987). Also using an ethnographic approach was Jenkins (1985, p. 135) in the discipline of speech communication, whose analysis of the humor in recorded meetings of a women's group built on her work on storytelling among men and women and proposed that women's humor was consistent with their predominant conversational style, which she characterized as collaborative and supportive. Lampert & Ervin-Tripp (1992), using data from European-American college students, and following a quantitative approach to discourse analysis within psychology, examined self-directed humor in relation to gender. They found that whereas women's humor of this type, often appearing as part of a self-disclosing narrative, seemed to increase social vulnerability and promote intimacy, men's self-directed humor functioned more as self-protection in relation to potential social gaffes. Norrick (1993), using a set of recordings of leisure-time interactions

among white, middle-class American speakers who were friends or extended family, found that humor in the form of a range of varieties of joking activity was important and frequent in this social context. Working with data from Pakeha (white) friendship groups in another variety of English in New Zealand, Hay (1995) used a qualitative/quantitative discourse analysis to focus on the functions of humor in relation to solidarity, power and other psychological issues, and found teasing (for which she used the term "jocular abuse") used by both men and women. Pogrebin and Poole (1988) did an ethnographic analysis of humor in an American police station in terms both of the functions that it served in that work context and its relation to the social hierarchy. Kotthoff (1996) analyzed humorous informal interaction among German-speaking friends and acquaintances as a processual, interactional phenomenon that defines social relationships. Using data from both American and Argentinian women, Boxer and Cortés-Conde (1997) explored both teasing and other-directed joking and found that conversational joking serves not only as a means of social control and identity display, but also functions to develop a "relational identity" among participants.

Speaking from anthropology during this era, Apte (1985, p. 69) concluded from a systematic survey of gender differences cross-culturally that

> women's humor reflects the existing inequality between the sexes not so much in its substance as in the constraints imposed on its occurrence, on the techniques used, on the social settings in which it occurs, and on the kind of audience that appreciates it.

Also from anthropology in 1984 was Koziski: "The Standup Comedian as Anthropologist: Intentional Culture Critic." Summarizing the state of the art in psychology on gender and humor in 1998, Lampert and Ervin-Tripp concluded that the focus in psychology on a limited range of behavior within limited settings may have produced an inaccurate view. They suggested that humorous behavior in men and women may be best understood as the effects of stylistic differences that are learned through socialization, and that methods are required that provide greater attention to function, context, and the multidimensional nature of humor.

Studies of bidialectalism and bilingualism as ways of expressing humor with particular effects also appeared during this era. Regionality in relation to humor resurfaced in two studies. Macaulay (1987) did close analyses of examples of Scottish dialect humor and highlighted how the humor showed both the social significance of linguistic dialect differences and also how such differences could remain stable. In an American context, Salmons (1988) found that joking was one of the stable uses of the dying German language in southern Indiana. In dialect stories in which the humor hinged on bilingualism, Salmons found the expression of linguistic attitudes and the reinforcement of ethnic identity. In the context of multiracial urban British youth culture, Rampton (1995) touched briefly on joking in his analysis of the phenomenon of "language crossing" in the use of Punjabi, Creole, and stylized Indian English. Woolard (1987) analyzed code-switching between Catalan and Castilian in a standup comedy performance in Catalonia during a time of tension about linguistic issues. She found that the comedian never used single-variety quotes to depict character types but rather code-switched within every utterance. She concluded that the symbolic social message, which had to be understood in terms of the structure of the entire narrative, was that the two languages and thus language communities could co-exist and interact peacefully. Heller's (1994) work in bilingual school contexts in Canada identified bilingual puns as part of the "work" that students do to manage the constant passage between languages. Holmes and Hay (1997), analyzing discourse data from workplace contexts in New Zealand, showed how humor functioned as an ethnic boundary marker between Pakeha (white) and Maori employees. In the bilingual situation of Corsica, Jaffe

(2000, p. 29) analyzed comic performances on the radio as the articulation of hybrid identity, showing how humor allowed performers "maximal use of fluidity and indeterminacy in speaker stances towards mixed codes and identities."

The contributions of this era involved expanding the ethnographic base to a social interactionist perspective in which speakers use awareness of norms, and skills in the joking activities that they have been able to learn by virtue of their participation in networks of relationships, in order to convey social information, to construct and maintain relationships, and to negotiate definitions of the situation. An attempt to integrate some quantitative methods with a qualitative, discourse-analytic approach can be seen in the work of Tannen, Holmes, Hay, Lampert and Ervin-Tripp, and a concern with defining the unit of analysis through co-constructed joking discourse can be seen in C.E. Davies (1984) and continued with Kotthoff (1999). This era also saw the beginnings of attention to humor in the discourse of comic performances that stand outside of everyday interaction (Woolard, 1987; Jaffe, 2000).

A major trend in this era was towards an understanding of the relationship between linguistic variation and the construction of "social identity" through discursive practice; a watershed in relation to this topic was the appearance in 1982 of Gumperz's edited volume, *Language and Social Identity*, and it was some of Gumperz's students (Tannen, Davies, Woolard, Heller) who paid attention to humor in various forms as they carried forward an orientation towards social identity.

The theorizing of identity, style, gender, and indexicality was significant in challenging the older, positivist framework, and laying the groundwork for the next phase. The notion of "context" was rethought in relation to language in interaction (Duranti & Goodwin, 1992). A dramatic increase in the scholarly work on the relationship between gender and language was accompanied by a theorizing of the old social category of "sex" to "gender" (Eckert, 1997), and the creation of a framework for thinking about the indirect ways that gender can be "indexed" through language (Ochs, 1992). Towards the end of this era Johnstone (1996) directed our attention to the importance of the study of "the linguistic individual." Social practice as a form of "performance" can of course be traced back to Austin and to Goffman, but Bauman's (1977) work in linguistic anthropology on the relation among language, identity, and performance reanimated this perspective, which manifested in, for example, Schilling-Estes's (1998) article on the "performance register" in relation to Ocracoke dialect. The end of this era also saw Charles Goodwin's work on action and embodiment (2000). Both social network theory (Milroy & Milroy, 1992) and the "community of practice" framework (Eckert & McConnell-Ginet, 1992) emerged during this era and would have an effect in the next wave.

The Third Era

Eckert, whose own work was highly influential in shaping the shift to the third wave within the variationist tradition, describes the third wave's theoretical underpinnings as follows (2012, p. 87):

> (a) variation constitutes a robust social semiotic system, potentially expressing the full range of social concerns in a given community; (b) the meanings of variables are underspecified, gaining more specific meanings in the context of styles, and (c) variation does not simply reflect, but also constructs, social meaning and hence is a force in social change.

This formulation freed up the variationist paradigm and allowed a confluence with the social interactionist work of the first and second wave eras. In fact, in 2008 we find an explication of

this trend in a paper by Bucholtz and Hall, aptly entitled "All of the Above: New Coalitions in Sociocultural Linguistics," which also proposed a new and more inclusive designation for the field that would subsume sociolinguistics, linguistic anthropology, and similar approaches to language, culture, and society. The focus on the construction of identity, in particular, allowed many of the traditional social categories to be considered simultaneously. Identity is not only performed and constructed in interaction with others but is also multifaceted for each individual, with different aspects of identity assuming salience in different contexts. The notion of "style" for variationist sociolinguists was foregrounded in 2001 through the publication of the edited volume, *Style and Sociolinguistic Variation*, by Eckert and Rickford. Eckert comments that third wave studies often begin with styles, "seeking out what makes them distinctive" (p. 96). Ervin-Tripp's paper in the volume explores the empirical manifestations of language ideologies in a comedy routine by Dick Gregory, where his rhetorical style-shifting in relation to features of AAVE in a comedy routine achieves both humor and political commentary.

Work on humor by sociolinguists has proliferated during this third wave. If we go back to the original social variables to see how things had changed in this era, for gender we can consider two main review articles on gender and humor (both in the *Journal of Pragmatics*) by Crawford (2003) and Kotthoff (2006). Crawford proposed moving away from any sort of characterizations of the relation of gender and humor that could be construed as "essentialist." In the social interactionist tradition, she advocated that gender be conceived as a system of semiotic resources that are enacted to construct gender in particular contexts. She also took a discourse perspective on humor, conceptualizing it as a mode of discourse and a strategy for social interaction. Humor is thus a tool both for gender construction in social contexts and, because of its particular characteristics, a means of gender deconstruction and social critique. Kotthoff also took a social constructivist stance, but in particular she highlighted humor as "situated discursive practice." Her discussion of the four dimensions of joking that the literature had revealed as particularly sensitive to gender (social alignment, sexuality, aggressiveness, and status), brought our attention to the stylization of gender through humor and the role of stereotypes, as well as to the subversive potential of feminist humor. Kotthoff highlighted the significance of Coser's early work in 1960 looking at humor in interaction in workplace meetings, a tradition carried forward by Holmes in a new era of methodology and theorizing.

Gender and humor is an important dimension of the research of Holmes and her collaborators, who have used ethnographic data from workplaces in New Zealand. A key point that emerged from her research is that humor is important in the construction of workplace culture. Her work deals with the issue of defining and quantifying humor in interaction; Holmes (2006) examines the nature of jointly constructed extended humor sequences (cf. Davies, 1984; Kotthoff, 1999; Hay, 2001; Whalen & Pexman, 2017). She found that different workplaces may have different amounts and styles of humor. Holmes's research builds on earlier claims about women's humor as part of a typical conversational strategy that is collaborative and supportive, in contrast with a typical male strategy that is competitive and contestive (albeit potentially in the service of solidarity), but she documents that both men and women draw on a range of styles in their workplace interaction. Her work moves the conversation about gender and humor to the meta-level of normativity by showing how styles of humor typical of women's and men's conversation contribute to the creation of workplace cultures that embody stereotypes of "femininity" or "masculinity" in interactional style. Schnurr and Holmes (2009) examine how stereotypically masculine ways of using humor in unmarked and marked ways within a particular community of practice both construct identities relative to power and distance relationships in the workplace, and also can be used to challenge existing gendered interactional norms. Holmes and Marra (2006) also show how successful women managers in both

workplace cultures adapt the humor styles to fit the context. The analyses in Holmes's work clearly demonstrate how humor in interaction is always multifunctional, "expressing a range of multifaceted meanings" (2009, p. 634).

Some examples will illustrate other work during this era focusing on gender and humor. Queen (2005) used a social network framework with a lesbian feminist group and a local softball team to show how stereotypes of lesbians can be deployed in joking to construct identities. C.E. Davies (2006) analyzed gendered joking styles in an American film as aesthetic typification that can be used in the service of characterization. Cortés-Conde and Boxer (2010) examined humorous self-disclosures as resistance to socially imposed gender roles. Using participant observation and semi-structured interviews, Reichenbach (2015) explored the way that women in Bahrain used humor to negotiate gender and social distance in an era of social change.

The work on humor and age has mainly focused on children's development in relation to their ability to understand and participate in humorous interaction. Lampert (1996) discusses the work on children's humor, in particular that of McGhee (e.g., 1979), which shows that there is some evidence for a parallel between children's humor and their four Piagetian stages of cognitive development. Lampert also cites some naturalistic studies concerning social and interpersonal skills that show that a 10-month-old infant can execute a verbal joke with an adult playmate (Rogoff, 1990, pp. 83–85) and that preschoolers can use their ability to imitate in the service of humor. Lampert's work had also found that among preschool children, boys were more likely to do behavioral forms of humor, and girls more likely to do verbal forms, apparently foreshadowing differences they observed among adults, as described earlier; thus it would appear that such differences are in place by age 11, at least for self-directed humor. Ervin-Tripp et al. (2004) discuss the stages of evolution of adult skills in children's conversational development in relation to humor.

In contrast with the work on children in Western countries, Matsumoto (2009) explores the role of humor in painful self-disclosures by elderly Japanese women as they experience life changes, Kotthoff (2006) discusses some studies of German speakers that demonstrated that older women joke about taboo topics, and Nardini (2000) analyzes joke telling in an Italian ladies' club in Chicago.

Whereas many studies implicitly relate to social class—for example, in that white- or blue-collar workplaces may be assumed to have certain class characteristics, there has been little specifically on sociolinguistic variation in relation to class. The notable exception is the 2010 special issue of *Humor* edited by Attardo (2010). In his introduction, Attardo makes an important distinction between a sociolinguistic phenomenon and its mediatic representation. He defines working-class humor as "humor produced by members of the working class for other members of the working class" (p. 122), and points out that because mass media represents middle-class values, we are unlikely to get a full and accurate representation of humor embodying antagonism to those values. The three most "sociolinguistic" papers in the volume are by Lynch (2010), an ethnography of a kitchen as workplace that shows how social organization is (re)produced and transformed through humor; C.E. Davies, who uses radio show data to analyze how the "you might be a redneck" joke cycle is appropriated to designate a lower social category within the Southern working class in Alabama, and to negotiate the boundaries between the good-old-boy working-class "redneck" and the lower category of "white trash"; and Senzani, who shows that the sitcom of working-class family life, *Roseanne*, offers critical humor that challenges hegemonic representations of class and gender. An earlier paper (Everts, 2003) also worked with working-class (American Midwestern) family data to provide an interactional sociolinguistic analysis of a particular family humor style of "ostensibly aggressive humor to the ends of solidarity, intimacy and the ongoing socialization of family members in a mindset of competence

and hope" (p. 369). Priego-Valverde (2003), working with recordings of informal conversation among middle-class friends in France, identified a wide range of functions including disaffiliative uses of humor to achieve aggression and disruption.

Earlier social variables of ethnicity or regionality are reflected in work since the beginning of this era in ways that we also saw in the second wave in the research that analyzed manifestations of bidialectalism and bilingualism as ways of expressing humor. In particular, the performance and constructions of social identity through humor has received substantial attention as illustrated chronologically in the following brief discussion of a series of studies. Tsang and Wong (2004) analyzed a comedic performance in Hong Kong, mostly in Cantonese but with some English, from the period just prior to the handover of sovereignty to China. The analysis showed how humor was used to construct a shared "Hong Kong identity" with the audience. Rahman (2007) also worked with comedic performances, but these were by African American comics and aimed at primarily African American audiences. She showed how the comedians exaggerated linguistic features that could be used to index two communities (African American and white middle class). She interpreted the creation of positive images for the African American characters, rooted in community values, as reflecting "a self-empowering community ideology that serves as a buffer against the effects of perceived racism" (p. 65) Analyzing code-switching with Swahili and English in a postcolonial context in Tanzania, Higgins (2007) showed how participants (journalists talking at work) produced somewhat different indexical orders for a phrase on which a joke has been built, and thus had different reasons for finding it humorous. Vine et al. (2009), analyzing the discourse of Maori and Pakeha women in meetings in a New Zealand government department, identified boundary-marking humor as an important tool in workplace culture. A key point that emerged was that the expression of social identity in discourse is complex: individuals enact different aspects of their social identity simultaneously, different aspects may be foregrounded at different moments, and "even with the same group of people in the same context, such as a formal meeting, people orient to a diverse range of dimensions of identity" (p. 135). Chun (2009) examined a Korean American comedian's performances of "Mock Asian" and offered an explanation for how what might appear to be a reproduction of American racializing discourses about Asians is rather interpretable as a critique of mainstream racist ideologies. Along the same lines as Rahman, but with joke telling from conversation recorded in Louisiana, Carmichael (2013) showed how a subset of selected phonetic features were used to perform an exaggerated Cajun English accent, and that the subset was modified in relation to culturally specific local social categories. As with Tsang and Wong, Adetunji (2013) analyzed code-switching in stand-up comedy, in this case in Nigeria. In this situation the comedians' ability to involve their audiences depended upon intelligibility through predominant use of Nigerian Pidgin, alternating with English. Leung (2014), in an American context, examined sociolinguistic interviews with Chinese-Americans with a minority heritage background (Hoisan-wa). Just as with Rahman, Leung found that the humor in her data served to counter negative ideologies and to allow speakers to reframe their heritage language in a positive way. Da Silva (2014) analyzed YouTube videos of three young Portuguese-Canadian amateur comedians to show how they used humor to challenge essentializing ideologies of language and identity by playing with caricatures, code-switching, and reappropriating a stigmatized variety of Portuguese. Archakis et al. (2014) examined the creation of stylistic humor through the representation of "standard" and "vernacular" linguistic varieties in Greek popular culture (in particular a sitcom and an advertisement) and noted that the presentation of the characters served to promote linguistic ideologies of homogeneity and language differentiation, and to stigmatize flexible code alternation, even in the face of the development of superdiversity. Finally, Moody (2014) returns us to the workplace to show how an American in a Japanese company used English and

humor to co-construct a *gaijin* (foreigner) identity with his co-workers that enabled him to function effectively in that context.

Whereas there had been some work during the second wave on humor as presented in the media in the form of comic performances of various kinds, the third era has seen much more as researchers have considered the role of humor with sociolinguistic dimensions in the public sphere (e.g., Ervin-Tripp, 2001; Tsang & Wong, 2004; Davies, 2006; 2010; Rachman, 2007; Chun, 2009; Senzani, 2010; Adetunji, 2013; Archakis et al., 2014; Da Silva, 2014). This era also saw both the beginnings of corpus linguistic methodology (Partington, 2017) applied from a sociolinguistic perspective (Günther, 2003; Koester, 2010), and also greater attention not only to the multifunctionality and multifaceted meanings of humor in discourse, but also to the need for expansion to multimodality in conversational humor (Attardo et al., 2011).

Major Findings

The major findings to date of sociolinguistic approaches to humor apparently need to be suggested both at a high level of abstraction and also with caution. It appears that humor is a multimodal aspect of interactional style that is learned as part of the socialization process and thus linked to social class, gender, ethnicity, age, and regionality. As a dimension of personal style and group styles at various levels it is part of the performance of multifaceted social identity and has an important role in the ongoing construction of social relationships. Sociocultural knowledge of the styles of other groups can be used in humor as an interactional resource. Humor is deeply embedded in social context and thus cannot be fully understood without appropriate analysis of the context. The ambiguous way that humor works in discourse in interaction means that it is always potentially multifunctional—for example, by simultaneously bringing two people closer and distancing them from a third person or another group. Its ambiguity also opens up the possibility that the social purpose of the joker could be interpreted differentially by members of the same audience. The nature of humor means that it can be used both in the service of social conservatism by simply reflecting and thus reinforcing norms, or social innovation by challenging assumptions and conventions and thus creating new social meaning.

Caution is needed because the majority of the work on sociolinguistic approaches to humor has been done with English speakers, and in particular with American English speakers (or with New Zealand English speakers, whose society is somewhat similar to the United States). Can we generalize to all societies Norrick's (1993) observation about informal interaction among friends and extended family, that humor in the form of various kinds of joking activity is important and frequent? Can we generalize from the United States and New Zealand that there appear to be stereotypical styles of joking associated with men and women, or is any pattern simply a reflection, as Apte suggested in 1985 of the positioning of women in a particular society? Another cause for caution is the focus for analysis of humor in interaction on written transcripts, which are inevitably reductionistic and fail to capture most of the context that may be essential to understanding the humor as a social phenomenon that is part of a broader semiotic system. Douglas (1968, p. 363) noted that "the joke form rarely lies in the utterance alone, but that it can be identified in the total social situation."

If we think in terms of the contribution that this particular area of the linguistics of humor has brought to the general field of the linguistics of humor and of humor research at large, it might be fair to say that it has highlighted the social embeddedness of humor. At both the macro and micro levels it has drawn attention to the idea that humor will be patterned in relation to social organization. Because of the context-bound and situated nature of humor in interaction, it is best studied using a methodology that is based in ethnography and research orientation

that has been imported from linguistic anthropology. Sociolinguistic approaches to humor have drawn analysts into trying to understand the nature of discourse and to explain how speakers can use humor to convey complex social meaning in ongoing interaction. In noting the fact that a conversation is a miniature social system, Goffman (1967) commented that

> one of its heroes is the wit who can introduce references to wider, important matters in a way that is ineffably suited to the current moment of talk. Since the witticism will never again be as telling, a sacrifice has been offered up to the conversation, and respect paid to its unique reality by an act which shows how thoroughly the actor is alive to the interaction. (p. 114)

I would add that jokers who spontaneously co-construct episodes of humor are demonstrating how thoroughly attuned they are in that moment to each other.

New Debates

There are several current issues, if not controversies, that may shape the future of sociolinguistic approaches to humor.

A big issue is how to appropriately generalize our accumulating research findings. We have been amassing a rich set of highly contextualized analyses from a number of different societies in which humor is shown to be a part of social practice. A direction for future research might be to discover ways to generalize from such studies. Some generalization has occurred through the appropriate supplementation of qualitative with quantitative methods. A significant problem in this effort arises from a key characteristic of humor in interaction that was highlighted in the work of Holmes, namely that humor in interaction is multifaceted and multifunctional. Attardo notes this multifunctionality as a particular problem (2015, p. 179).

This difficulty has emerged as social understanding of humor has expanded from a Freudian position (that humor was the disguised expression of hostility as part of conflict management in social relationships) to a wider range of social interactional functions (e.g., self-disclosure, denial of responsibility, face-saving, unmasking, ingratiation, friendship-building, and more generally the performance and negotiation of identity). Given that we also know that humor can function to convey a range of simultaneous social meanings, in what ways could it be possible to generalize? How can we know what the speakers were intending and how their humor was interpreted?

The limitations of our data have arisen largely from methodological (and related ideological) biases. Much of the early data (and most contemporary large corpus data) was collected with limited contextual information, consisting perhaps of basic demographics and analyzed from written transcripts. In the case of data that was collected in particular social contexts (e.g., informal interaction among friends, or meetings in the workplace) it might be possible to frame some general purposes that jokers might have in mind. From a practical point of view, it wasn't possible to do any sort of playback methodology with the speakers to try to discover what they were trying to accomplish with their humor and how it was received by their interlocutors. Hence the focus on the analysis of sequential interaction in Conversation Analysis to reveal uptake, and within this particular subdiscipline the development of an ideology that explicitly excluded contextual information that could not be gleaned by the analyst from the transcript itself. Another ideological dimension here is also the notion of what "scientific" research should be, i.e., whether it has to be abstracted from context and somehow "objective," or whether certain objects of study call for more hermeneutic approaches.

Now that we are in principle able to gather data on how people are using humor, in conjunction with playback methodology or other means such as interviews, other issues need to be considered. If we actually can ask people what they were doing, do they know and can they articulate it to us, or are they willing to do so? Ideological considerations could also come into play here, in that some people who adhere to a pseudo-Freudian view of psychology might never believe anything that was offered as data based on commentary by the joker because the joker is in principle assumed to be unaware of the deep psychological motivations behind the behavior. Similar problems arise in relation to interlocutors' testimony. If we simply look at instances of humor taken from a range of circumstances, as, for example, in a corpus, the problem is very difficult. The work of Holmes and her collaborators in New Zealand workplace meetings is one way of trying to focus in on contextualized intent, but it was precisely in Holmes's work that the multifunctional and multifaceted nature of humor was highlighted. Another approach to the problem, taken in C.E. Davies (1984), was to start with intent (in that case, "friendly intent") and identify and analyze instances in which people were clearly trying to achieve that purpose.

Attempts to generalize are perhaps best exemplified in the introduction of "big data" in sociolinguistic approaches to humor through corpus linguistics, as noted briefly earlier with studies of the British National Corpus (BNC) and another British corpus. Databases are proliferating, for example, through the Linguistic Data Consortium (LDC) at the University of Pennsylvania. The problems just discussed in terms of multifunctionality certainly apply here, as well as the reductionism inevitably accompanying transcription and the question of how multimodality can be accommodated appropriately. The future here may involve massive video databases, with annotation software such as ELAN.

Another approach to generalization at a high level of semantic and cultural abstraction can be found in the work of Goddard & Wierzbicka (2004), who propose "cultural scripts" that explain different interactional and joking styles among, for instance, speakers of different varieties of English. For example, Goddard (2012), comparing early interactions among speakers of British, Australian, and American English, predicts "jocular mockery" based on cultural scripts. This general approach, under the heading of "ethnopragmatics," may be one of the future directions for research.

Another, and perhaps the opposite direction, was championed in Johnstone (1996) in her work on "the linguistic individual." Sociolinguists have always been aware of the "idiolect," but there was little attention paid to it by variationists other than to the extent that it included features correlated with particular social variables. As the shift has occurred towards more social interactionist and sociocultural linguistics, the individual idiolect has become more interesting as a manifestation of a person's socialization and contact in all sorts of ways with variation in language as all of our experience becomes more globalized. The individual has also become a focus of interest through a recognition of the agency of speakers as they perform and negotiate multifaceted social identities in interaction. A key aspect of this performance is of course "style," and as Tannen noted in 1984, brand of humor may be one of the most distinctive aspects of a person's style. We know that a "good sense of humor" is considered highly desirable in American society, and there has been considerable work in the discipline of psychology in this area (Ruch, 1998), using typical psychological methodologies. As Lampert and Ervin-Tripp (1998) point out, more ethnographically focused perspectives on sense of humor are needed in research in this area, and this could certainly be a future direction for sociolinguistic approaches to humor. Such a perspective would ideally track sense of humor as an aspect of personality that is enacted and emergent in interaction, and would include more attention to multimodality as an aspect of style.

Finally, we have seen increasing research in various societies of comic performances in the media that use sociolinguistic resources. In each case the analysis yields an interpretation of what social meanings are conveyed by the performances in the service of particular functions (e.g., constructing a hybrid social identity with the audience, conveying a particular stance on linguistic ideology in a society, creating a buffer against racism). An exciting new direction, perhaps in interdisciplinary collaboration with communication studies, would be ethnographic and other methodologies for discovering audience interpretations of comic performances and even potential effects.

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34

Genres of Humor

Villy Tsakona

Introduction

It is common knowledge among (at least) humor scholars that humor surfaces in most genres. For instance, Pickering and Lockyer (2005, p. 3) point not only to the ubiquity of humor but also to the sociocultural restrictions imposed on its use: "humor infiltrates every area of social life and interaction, even rearing its head in situations where it is not normally regarded as appropriate." Hence, humor scholars currently investigate the use and functions of humor in a wide range of (con)texts: from casual interactions among intimates to parliamentary debates, from business meetings and service encounters to informal online chat between strangers, and from educational settings to most kinds of media texts.

Even though humor surfaces and is examined in a large variety of genres, there do not seem to be any taxonomies classifying these genres and hence capturing the ubiquity and diversity of humor use. The aim of this chapter therefore is to propose a taxonomy of the genres of humor, potentially including all of them. First, I present and critically discuss the already existing taxonomies that distinguish between different kinds of humorous mechanisms or functions, as well as between texts where humor is distributed, and hence functions, in different ways. Then, I argue that a taxonomy of humorous genres cannot but be based on a theoretically sound definition of genre, which will also take into consideration how humor is often employed to create humorous versions of genres or to manipulate generic conventions. Thus, I offer a brief summary of the main properties of genre as described by current approaches within genre theory and discuss how these properties relate to the use of humor and the production or realization of humorous genres. In the next section, I (hopefully) include in the proposed taxonomy all genres possibly involving humor. The criterion for classification is mainly the degree to which humor is considered indispensable for the purposes of each genre and, by implication, speakers' perceptions of the context(s) where humor should, may, or does not usually appear. An additional point of this section concerns the potential of genres to be modified and recycled: speakers' generic knowledge and their tendency to bend generic conventions allows for the recontextualization of generic features so that hybridized humorous texts are produced and new genres are created. Finally, I summarize the content of the chapter, discuss the limitations of the proposed model, and explore further areas of research on genres and humor.

Historical Perspective

Even though most humor scholars would agree that humor is (almost) ubiquitous in human interaction, they have not attempted to classify the different kinds of contexts or genres it appears in. This very ubiquity could be the main reason behind this scarcity of taxonomies: there may be no need to classify something that occurs almost everywhere. This section offers a brief overview of some of these taxonomies in order to discuss their criteria and weak points that will be (hopefully, albeit partly) addressed by the one proposed here. Among other things, it will be shown that humor taxonomies tend to focus on specific genres, thus not covering the variety of contexts where humor may emerge.

Early traditional classifications of humor are based on the levels of linguistic analysis and use a limited number of genres as illustrative examples (see among others Chiaro, 1992; Alexander, 1997; Ross, 1998; and, more recently, Goatly, 2012). So, jokes are divided into graphological, phonological, morphological, syntactic, lexical/semantic, and pragmatic or discourse ones. The examples provided in such structuralist classifications are usually canned jokes, stock witticisms, or less often, short anecdotal or fictional decontextualized exchanges and extracts from longer mass culture texts (e.g., films, sitcoms, literature). A distinction is in such cases made or implied: *jokes* refer to humorous utterances in general, while *canned jokes* to a specific genre of humor that includes texts recycled more or less verbatim in various contexts (see Attardo, 1994, pp. 295–299; 2001, pp. 61–62; also Tsakona, 2015 and references therein).

Another common type of taxonomy of humor begins with the distinction between canned jokes and conversational humor, which is spontaneous, emerges from the interaction it appears in, and can hardly be reproduced and understood in other contexts. Researchers such as Norrick (1993) and Dynel (2009), begin with this distinction when they discuss and classify the various forms of conversational humor. Norrick (1993) identifies three *functional* categories of conversational humor, that is organizational, interpersonal, and metalinguistic conversational humor, where formal categories such as banter, mocking, joke telling, personal anecdotes, wordplay, punning, sarcasm, metalingual comments, and foreign phrases are subsumed. Dynel (2009) concentrates on a wide range of formal categories, such as neologisms, humorous phrasemes, similes, metaphors, exaggerations, paradoxes, irony, sarcasm, puns, allusions, anti-proverbs, quotations, register clashes, retorts, teasing, banter, put-downs, self-denigrating humor, and personal anecdotes, thus offering a detailed account of (often overlapping) forms of conversational humor with various (also overlapping) functions (cf. Raskin, 1985, pp. 24–30).

As Zadjman (1991), Norrick (1993, pp. 14–15), and Dynel (2009, pp. 1286–1288) remark, the boundaries between canned jokes and spontaneous conversational humor are not as tight as one might expect. For example, canned jokes usually originate in casual interactions before becoming decontextualized and then "canned"; or humorous allusions, quotations, and anti-proverbs, which are classified under conversational humor, can be circulated verbatim from one context to another, thus also becoming "canned."

Less often, the content of humor becomes the classificatory criterion. For example, Raskin (1985, pp. 148–264) analyzes three major categories of canned jokes, namely sexual, ethnic, and political ones, while he also recognizes the existence of other thematic categories, such as dark, sick, toilet, school/college, and sports jokes (Raskin, 1985, p. 265). Such categorizations are implied and presupposed in a significant number of studies that focus on a specific thematic area of humor (e.g., ethnic jokes).

So far, the classifications of humor take into consideration mostly genres where humor is the sine qua non condition for their existence (i.e., canned jokes, sitcoms), and a few genres

that may be realized with or without humor (i.e., informal everyday interactions, literary texts, films). Most importantly, these classifications are not based on generic particularities and/or the position(s) of humor in the texts/genres, but on the formal characteristics of language that are perceived as responsible for the production of humor. The functions and content of humor emerge as classificatory criteria less common.

More recently, and within the framework of the General Theory of Verbal Humor (GTVH), Attardo (2001) puts forward a different kind of taxonomy, which is based on the position of humor in a text:

> The basic starting point of the theory is that humorous texts divide in two classes: those texts that are structurally similar to jokes (i.e. they end in a punch line) and those that are not. The former can be handled more or less straightforwardly by the GTVH [. . .], the latter, which happen to be more numerous, can be most profitably analyzed as consisting of two elements: a non-humorous narrative and a humorous component, which occurs along the narrative.
>
> (Attardo, 2001, p. 29)

For the texts of the second class, the concept of *jab line* is introduced: jab lines are humorous utterances that may occur in any position in the body of the text before its end (Attardo, 2001, p. 82; see also Tsakona, 2003; 2004; 2007).

Elaborating on this distinction between two classes of humorous texts, Attardo (2001, pp. 88–92) identifies five categories:

- Texts without any humorous line (i.e., serious ones);
- Texts with a final punch line (e.g., canned jokes);
- Episodic humorous texts consisting of several smaller texts that may include jab lines and/or a punch line (e.g., *1001 Nights*);
- Texts consisting exclusively of a sequence of jab lines that culminates in a punch line;
- Texts with a "bathtub placement" of humor that include smaller embedded humorous texts or punch lines at their beginning and/or end (e.g., sitcoms).

Intersecting and complementing this taxonomy is a second one also proposed by Attardo (2001, pp. 92–98; 2008, pp. 112–113). This taxonomy classifies humorous texts according to the function of humor in relation to their plot. So, the following four categories are identified:

- Narratives structurally similar to canned jokes (see also the previous taxonomy);
- Plots with metanarrative disruption, where humor violates the narrative mode by disrupting the development of the plot;
- Plots based on storylines that evolve around a central complication that is considered (and represented as) humorous;
- Plots based on serious storylines, where humor is superimposed.

Following Attardo (2001), and elaborating on the main distinction between texts structurally similar to jokes and those that include both a humorous and a non-humorous component, Tsakona (2007, p. 42) puts forward "a *continuum* of humorous texts ranging from the most prototypical one (the jokes with the single punch line) to the least prototypical one (the text including some instances of humor, but ending with a serious relief)" (emphasis in the original). More specifically, five categories are identified on the basis of the presence of a punch line and/

or jab lines and on their contribution to the creation of a surprise effect at the end of the text (see also Tsakona, 2004, pp. 266–343):

- Humorous texts including a single punch line at their end (e.g., canned jokes);
- Humorous texts including a punch line and one or more jab lines (e.g., some narrative—canned—jokes; see Tsakona, 2003 and example 1 later in this chapter);
- Humorous texts including only jab lines, some of them causing a surprise effect at the end; in such cases, the surprise effect seems to be produced via one or more combs[1] of jab lines;
- Humorous texts including only jab lines, some of them at the end of the text, without, however, causing a surprise effect; these texts have a humorous but more or less expected ending, as their final humorous incongruity has already appeared earlier in the text;
- Humorous texts including jab lines but with a serious ending.

Both Attardo's (2001; 2008) and Tsakona's (2004; 2007) taxonomies take into consideration the distribution and function of humorous lines in relation to the plot of the text. And even though it is recognized by both authors that the categories identified could apply to non-narrative texts, the examples provided by both authors belong to narrative genres, mostly including literary narratives (e.g., novels, short stories) as well as some sitcoms and films. In addition, like all other taxonomies, they consider canned jokes as a separate category of humor.

Attardo's (2001; 2008) and Tsakona's (2004; 2007) taxonomies constitute efforts to expand the variety of the genres analyzed and classified, as they involve written genres and not short decontextualized extracts or canned jokes. They also try to overcome traditional taxonomies that focused exclusively on the levels of linguistic analysis. Furthermore, in parallel with Norrick (1993; see earlier), who distinguishes between different functions of humor in spontaneous everyday interactions among peers, Attardo (2001; 2008) and Tsakona (2004; 2007) try to describe the functions of humor in longer, non-spontaneous narrative texts and its role in the development of their plots. Still, the variety of genres examined remains quite limited.

To sum up, earlier taxonomies of humor are based mostly on canned humor, short decontextualized extracts and, less often, on oral interactions. Such taxonomies explore the different linguistic mechanisms producing a humorous effect and/or the function of humor. More recently, longer (literary or media) texts are investigated and classified, and humor is examined as an important part of their plot, which may result in different humorous effects. However, the variety of genres forming the basis of all these taxonomies excludes several genres where humor may emerge more or less often. What is more, a theoretically based discussion of what *genre* is and how it could relate to the presence or production of humor in various texts is missing from all these classifications. In what follows, I will try to show that the definition of *genre* and relevant approaches from genre theory could help us account for the presence of humor in, or its absence from, certain texts/genres, and could therefore form the basis for a classification of the genres of humor.

Genres and Their (Humorous) Realizations

Even though we may not always realize it, every time we communicate we use discourse in more or less conventionalized ways. Growing up in a specific sociocultural community we gradually yet constantly become familiar with conventions concerning not only our lexico-grammatical choices, but also the "appropriate" associations between such choices, on the one hand, and the context(s) of communication and the activities we engage in, on the other. By "appropriate" we usually mean these conventions that will allow us to use discourse in an effective way, so as to

achieve our communicative or, more generally, social goals. Moreover, communicative contexts and social activities do not occur hapax but more often than not constitute recurring experiences in our lives, as we tend to look for, and eventually perceive, similarities across various occasions. Hence, as we resort to specific discoursal choices and strategies in similar contexts, discourse becomes more or less conventionalized therein. This is how *genres* are created.[2]

It should be underlined here that it is we as speakers who create such associations and become immersed in them, as we spontaneously or systematically (e.g., via education) learn to use discourse in specific ways so as to be able to participate in specific activities. At the same time, we implicitly or explicitly become familiar with discoursal choices and strategies that are considered "unconventional," "inappropriate," and eventually less effective in achieving certain goals or in completing certain tasks. By both avoiding such choices and opting for more "conventional" ones, we tend to reproduce specific patterns of language use in specific contexts.

On the other hand, convention does not necessarily entail rigidness and lack of adjustment. We are capable of and permitted to modify generic conventions according to the specific circumstances at hand and our own personal goals and needs. The impact of such modifications varies: either adjustments are minimal and local, hence the text produced is easily recognized as belonging to the genre typically used in a specific kind of context; or they become widespread and may eventually contribute to transforming the genre, thus having a more or less lasting effect on its particularities. This is how genres are renewed and recreated. Still, we do not always go along with genre modifications: we may consider them "strange" or disapprove of them and even resist them, as they seem to come into conflict with our perceptions and expectations about how discourse "should" be used in a particular context or by which discoursal choices the relevant social goals are "best" fulfilled.

Both processes of genre creation and recreation show that it is us, speakers, who exert control over generic conventions via our communicative and social practices, while at the same time we are responsible for adjusting them to the current conditions and our own private goals and needs, thus operating in what Coogan (2012, p. 205) succinctly calls "the convention/invention balance."

In contemporary postmodern societies, the adapting and transformative potential of genres seems to gain prominence. Generic conventions are creatively violated and genre-mixing or genre hybridization is common practice among speakers (Fairclough, 1992, p. 221; Bhatia, 1997, pp. 363–364; Jones, 2012, pp. 7–10). As a result, lexicogrammatical and discoursal choices are reappropriated and acquire new social meanings as they emerge in new contexts. Such a tendency for recontextualization of generic conventions relates to humor in (at least) two ways that are relevant to the present discussion: first, humor as a discoursal strategy becomes more widespread and surfaces in more contexts nowadays; second, diverse and "incompatible" generic features are combined to create humorous texts and genres.

More specifically, humor could be considered a discoursal strategy that is typical of, or indispensable to, some genres, but is severely restricted in others; generic conventions include or discourage the use of humor respectively (see the introduction to this chapter). In between these two categories there seem to be genres where humor is not obligatory but may occur whenever speakers think that its use serves their situated communicative goals. The aforementioned tendency for recontextualization of generic conventions involves the transference and hence appearance of humor in an increasingly wider variety of texts and contexts, where it may not be normally or conventionally expected. In any case, its presence in, or absence from, specific contexts is monitored by the speakers participating therein and by their own opinions on whether humor constitutes an "appropriate" or "inappropriate" discoursal means for attaining generic goals.

Furthermore, humor may *result* from incongruities in terms of genre expectations, that is, from the fact that the boundaries between different genres are often blurred as speakers deliberately and more or less playfully combine discoursal features coming from different genres. This "generic crossing in a text" (Coutinho & Miranda, 2009, p. 44) has been shown to form one of the most common strategies for the production of humor in general and satire, parody, and pastiche in particular[3] (see among others Antonopoulou, 2003; Simpson, 2003; Coutinho & Miranda, 2009; Antonopoulou & Nikiforidou, 2011; Tsiplakou & Ioannidou, 2012; Antonopoulou et al., 2015). In such cases, humorists rely on their addressees' generic knowledge: the latter are expected to recognize the recontextualized generic features, so as to grasp the new meanings such features acquire in their new environments and via their combinations with other, "incompatible" ones.

In the next section, I will present the proposed taxonomy of genres based on the (more or less optional) presence or absence of humor. Furthermore, I will show how mixing and recontextualizing generic features and conventions may produce humorous incongruities.

Methodology and Sample Analysis

Genre theory could be useful in the framework of humor research in (at least) two ways: it could help us classify humorous texts and genres, and also allow us to account for humorous texts created by the violation of generic expectations. These two points will be discussed here via examples coming from various studies within humor research that explore how humor is constructed in diverse genres and communicative settings. The analysis of the examples draws on the analyses provided in the original sources of the data but may be enriched to satisfy the purposes of the present chapter. Due to space limits, only two examples are provided for each category of the taxonomy. Moreover, the list of genres in each category is based on existing humor literature but is certainly not exhaustive. Space restrictions do not allow for a more comprehensive list of references that would provide more detailed information on the research on various genres.

The Continuum of the Genres of Humor

Given that humor appears to emerge in most genres, the main criterion for the proposed classification of humorous genres is the centrality of humor in them, namely how expected or unexpected its presence is in each one of them. So, I identify four categories:

A. *Humor as an obligatory feature of the genre—genres produced predominantly for the amusement of the audience*, such as jokes, comedies (films, plays), cartoons, sitcoms, TV satire, standup comedy, and Internet memes. Such genres would not be the same and, most importantly, would not even exist as such without the presence of humor in them; humor is the sine qua non condition for them. In contrast to all the following categories, these genres are produced exclusively in a humorous form and primarily for a humorous purpose.

Canned jokes are the first genre that comes to mind for this category. Canned jokes include subgenres such as narrative jokes, riddle-jokes, and one-liners (see Tsakona, 2015, and references therein). They end in a punch line causing a surprise effect but may also include one or more jab lines, as does the following one (where the humorous lines are italicized):

(1) At four o'clock in the morning, a hotel receptionist receives a phone call from *a guy who sounds drunk and asks him at what time the bar opens.* "The hotel bar opens at noon, sir," replies the receptionist. An hour later, the receptionist receives another phone call from *the same*

guy who sounds even more drunk: "At what time does the bar open?" "As I told you, sir, the bar opens at noon," answers the receptionist. After one hour, *the guy calls again and sounds even more drunk than before: "At what time did you say the bar opens?"* The receptionist replies: "The hotel bar opens at noon, but, if you cannot wait, you can ask from the room service to bring you something to drink in your room." "*No, I don't want to get into the bar," says the man. "I want to get out of it*."

(Tsakona, 2003, p. 323; translated from Greek)

The jab lines of the joke setup evolve around the unexpected events of drinking alcohol as a matter of the utmost urgency (and not just a pleasure) and of pestering (rather than asking) for information. The final punch line ("*No, I don't want to get into the bar," says the man. "I want to get out of it*") constitutes the surprise ending where the audience realizes that the man on the phone is not eager to enter the bar and start drinking, but is anxious to get out of it (for a more detailed analysis, see Tsakona, 2003, p. 323). Such fictional stories are circulated to amuse addressees, usually in informal contexts.

Howlers are similar to jokes (especially to one-liners) in that they are more or less reproduced verbatim in order to produce a humorous effect via the mistake they are based on:

(2) My friend's 3-year-old son recently made us laugh by pointing out various mistakes of car, and then asking if ours was a Ford FIASCO!

(H. Gullen, Twickenham; *Woman*, February 14, 1989; cited in Chiaro, 1992, p. 21)

This extract shows how spontaneous mistakes become howlers when they are recontextualized—here narrated in a letter to the magazine *Woman*—thus entering public circulation. Instead of Ford "Fiesta," the boy said Ford "Fiasco," thus creating a pun pointing to the problematic features of the family car. Like canned jokes, howlers predominantly aim at entertaining their audience via the creation of a humorous effect.

B. *Humor as an optional but expected feature of the genre—genres that may often include humor and may aim, among other things, at creating a humorous effect*. For example, everyday interactions among peers, conversational narratives (or personal anecdotes; see Norrick, 1993; Archakis & Tsakona, 2012), most kinds of literary texts (novels, short stories, poems; see Attardo, 2001; Tsakona, 2007), animation films, aphorisms, epigrams, online posts and interactions, proverbs, advertisements, birthday cards, graffiti, bumper stickers, and new baby congratulation cards belong here. The presence of humor in these genres is not obligatory (as was the case with category A): humorous texts belonging here constitute "humorous *realizations* [. . .] that modify a serious genre" (Kotthoff, 2007, p. 292; my emphasis).

Oral conversational narratives can be either serious or humorous. Example (3) is a humorous one (see the utterance in italics). Nineteen-year-old Alice narrates an embarrassing personal experience that is framed as humorous; her audience consists of four older female family members and friends, all eating *kourabiedes* and other Christmas sweets a few days before Christmas:

(3) **Alice**: Well last year I had a funny incident with rosewater, I was embarrassed in front of the whole neighborhood. [. . .] So last year my mother sends me to get some rosewater to put it in kourabiedes. I go [to the pharmacy, where rosewater is often sold in Greece] and tell him [i.e., the pharmacist], I forgot to tell him that I want it for cooking, I say, I want some rosewater, and he gives me a plastic bottle of some company, which of course the bottle was green, transparent but green. And I look at it and say, *is rosewater green*?

AUDIENCE: ((laughter))
ALICE: ((laughing)) No dear, he says, the bottle is green.
AUDIENCE: ((laughter))
ALICE: ((laughing)) Well, please give this to me, I've got to get going.
(from the author's personal corpus; translated from Greek)

The humor of this narrative is based on Alice's confusion and mistake: when she saw the green bottle of rosewater, for a moment she thought that it was the rosewater that was green, not the bottle. All interactants (including Alice) consider her behavior incongruous and hence funny, on the (implicit) premise that she should have known (and remembered) that rosewater is not green. The same event could, however, be narrated without humor and without aiming at causing laughter, if the narrator appeared, for example, to be disappointed by her own confusion and/or frustrated for being embarrassed in front of the pharmacist.

Aphorisms can also be serious or humorous. The following humorous one is attributed to Oscar Wilde:

(4) Examinations consist of the foolish asking questions the wise cannot answer.

Wilde here employs a role reversal to create humor: the teachers would be expected to be characterized as "wise" and the students as "foolish" (especially if they do not want to become "wise" like their teachers). Instead, the teachers are represented as ignorant, asking questions to students who seem to know much more (see Antonopoulou & Tsakona, 2006, p. 13).

C. *Humor as an optional but unexpected feature of the genre—genres where humor may occasionally occur but it is not normally or always expected*. In contrast to the genres belonging in category B, where the presence of humor was quite common, and those belonging in category D, where humor seems unexpected, here the occurrence of humorous utterances is neither very common nor severely restricted. For example, business negotiations, service encounters, news reports, newspaper articles, political speeches, parliamentary debates, school textbooks, andclassroom interactions are included here.

Let's consider the genre of live text commentary. As Chovanec (2012, p. 143) suggests, "sports reporting is a genre that is not—per se—associated with humor, although humor may be present, sometimes to significant degree, in particular sports commentaries." The following extract is illustrative. It comes from the live text commentary of the football match between Greece and Sweden at the European Football Championship in 2008 in Salzburg; the online commentary was hosted by the online version of the *Guardian*:

(5) **22 min**: Gekas as a central striker is supposed to be an improvement on Greece's 2004 version, but he's been anonymous thus far. Karagounis's poor cross is cleared.

25 min: "At the risk of taking us into Carry On territory," writes Mr. Burke. "I am somewhat duty bound to advise that even in event of a Larsson hat-trick it may require the use of the telescope at Jodrell Bank to notice any movement in my strides. Mrs. Burke enjoys knitting and needle point." It's "Carry On Giving the Ball Away" in Salzburg now.
(Chovanec, 2012, p. 139)

In general, the match is evaluated as boring and tedious, hence the journalist and his audience found time to engage in humorous exchanges. More specifically, humor is here used as "time filler" (Chovanec, 2012, p. 142), when the match is uneventful and the journalist wishes to keep

the communication channel open for his audience and maintain its attention. Hence, he inserts a humorous comment sent by a member of the audience, Mr. Burke, who contributes to an ongoing (humorous) discussion: Mr. Burke's words are quoted verbatim in the "25 min" post (for a more detailed analysis, see Chovanec, 2012, pp. 151–152).

Classrooms could also be considered a context where humor could not be easily and frequently produced by the majority of teachers. Research on the exploitation of humor in class may not be scarce anymore (see, among others, Lytra, 2007; Pomerantz & Bell, 2007; Norrick & Klein, 2008; Forman, 2011) and, more often than not, attests to positive results for the learning process and the collaboration between students and teachers. Such a use, however, is not unanimously accepted by teachers and researchers who sometimes still claim that classroom humor may distract students and teachers from their tasks, encourage disparaging behavior, and damage the teacher's face and prestige (see, among others, Wallinger, 1997).

D. *Humor as an untypical feature of the genre—genres where humor hardly ever (or never) occurs*, such as religious genres, laws, court decisions, and funeral speeches. Humorous utterances in such genres are rather unexpected than expected.

Humor scarcity can be attested in legal and judicial contexts. In a case discussed in Hobbs (2007), however, the plaintiff sued a driver who lost control of her car and struck an oak in front of his house, for the "injuries" sustained by the tree. Although the trial court dismissed the suit, the plaintiff brought the case before a court of appeals, which also dismissed the case giving a unanimous opinion in the form of a humorous poem:

(7) We thought that we would never see

A suit to compensate a tree.
A suit whose claim in tort is prest
Upon a mangled tree's behest;
A tree whose battered trunk was prest
Against a Chevy's crumpled crest;
A tree that faces each new day
With bark and limb in disarray;
A tree that may forever bear
A lasting need for tender care.
Flora lovers though we three,
We must uphold the court's decree.
Affirmed.

(Hobbs, 2007, pp. 54–55)

The judges wrote a parodic version of a schoolchildren's poem, thus highlighting the incongruity of the suit itself (for a more detailed analysis, see Hobbs, 2007, pp. 54–57).

Furthermore, although most religious genres (e.g., sacred books, biblical tales, masses, hymns, sermons) would not be considered suitable for humorous incongruities, humor, and religious discourse are not always incompatible. This is illustrated in Bell et al.'s (2011) study on church marquees in the United States, whose content may sometimes be humorous:

(8) We're all in the gutter but some of us are looking up to Jesus

(Bell et al., 2011, p. 196)

This marquee text creatively plays with Oscar Wilde's famous quotation "We are all in the gutter but some of us are looking at the stars," thus producing humor. As Bell et al. (2011, p. 187) suggest, via such advertising marquees, churches may be "seeking to attract attention and perhaps get sinners to reconsider their ways through the messages they read on [them]."

The categories identified here seem to form a continuum with the obligatory presence of humor on its one end and the absence of humor on the other. Genres are placed at different points along this continuum according to how (un)typical the presence of humor is considered in them. It therefore appears that, even though humor indeed surfaces in most communicative settings, there can simultaneously be limitations to its use (see the introduction). The use of humor as well as the restrictions imposed on such use originate on speakers' ideologies and perceptions of what is considered "appropriate" or "inappropriate" speech behavior in each context. Thus, in some genres, speakers think that humor is an indispensable discoursal strategy (category A), while in others they deem its use most unconventional and irrelevant (category D). In between these two poles, speakers may opt for humorous realizations of "serious" genres (category B) or may occasionally embed humorous utterances in activities usually perceived and constructed as "serious" (category C).

The Recontextualization of Genres as a Source of Humor

In this section, the focus is on what happens when generic conventions are recontextualized. Relevant research shows that the blending of generic conventions does not solely aim at creating brand new genres or newer versions of old genres (Bakhtin, 1986; Freedman & Medway, 1994; Bhatia, 1997), but may also involve the creation of a humorous effect. Generic structures and/or lexico-grammatical features typical of a specific genre may be reframed, thus resulting in a humorous incongruity (see among others Antonopoulou, 2003; Simpson, 2003; Kotthoff, 2007; Coutinho & Miranda, 2009; Antonopoulou & Nikiforidou, 2011; Tsiplakou & Ioannidou, 2012; Antonopoulou et al., 2015).

The following extract comes from an everyday interaction among teenager friends that was recorded for research purposes. Interlocutors start by commenting on the recording process as they are not familiar and comfortable with it, yet. Soon their everyday interaction is colonized by the discourse of (Greek) televised matchmaking programs and/or that of beauty contests (see endnote 7 for transcription conventions):

(9) **Dimitris**: Worse, I'm rather inhibited by this thing recording me () ((he shows the tape recorder))

KATERINA:	( )//
DIMITRIS:	//*Next time we'll have a camera too so that they can see that apart from everything else he's a good looking guy* ((referring to himself)). *No, anyone who is interested* (A) ((laughter)) to () *with Martha and I'll take her job too* ((laughter))
KATERINA:	((laughter))
DIMITRIS:	*My name is Dimitris.*
KATERINA AND DIMITRIS:	((laughter))
DIMITRIS:	*My surname is ( ) I'm one point eighty five meter tall//*
KATERINA:	*//One ninety//*
DIMITRIS:	*//Tall, blond well built* ((laughter)) *but exactly as I am saying it, with a wonderful face, a wonderful personality//*

KATERINA: //( ) *exactly*//
DIMITRIS: //*With many*/ ((laughter)). I can't//
KATERINA: //*With great six packs* ( ) //
(Archakis & Tsakona, 2012, p. 101; translated from Greek)

Dimitris humorously presents himself as a candidate for marriage or for a title in a beauty competition (see his jab lines appearing in italics). Katerina plays along with his humorous scenario (her jab lines also in italics), thus also contributing to the hybridization of discourse: informal interaction and TV matchmaking/beauty contest discourses are mixed in an effort to produce humor and entertain the participants (for a more detailed analysis, see Archakis & Tsakona, 2012, pp. 99–105).

A second example involves the mixing of the dog-training genre and the advertisement one:

(10) A man loses his dog so he puts an ad in the paper. And the ad says, "Here, boy"
(Spike Milligan, in Carr & Greeves, 2006, p. 12; cited in Goatly, 2012, p. 154)

Humor results from the incongruous (and eventually ineffective) recontextualization of an oral order to the dog in the personal advertisement text. Hybridization of generic conventions is also attested in example (7), where the discourse of the decisions of the court of appeals is mixed with the children's poem, and in example (8), where elements from a well-known aphorism are recontextualized in a church marquee. Such hybridization resulting in incongruities in terms of genre expectations is also a defining feature of Internet memes, which reframe and combine diverse semiotic resources to create a humorous effect (see among others Shifman, 2014).

Finally, it is interesting to note here that a particular kind of recontextualization of humorous discourse may eventually contribute to the creation of specific humorous genres and to the dissemination of humor. Genres such as joke books or, more recently, stand-up comedy, websites, and emails include jokes extracted from oral or digital, spontaneous interactions and recontextualized as "canned," so as to be distributed to larger audiences. Without these collections, canned jokes, if they existed, may not have been that popular. As Goatly (2012, p. 146) aptly remarks, "joke books and comedy routines are a secondary *parasitic* form of the original contextualized joke" (my emphasis; see also Zadjman, 1991; Attardo, 2001, pp. 61–63). Thus, conversational humor recontextualized as canned helps sustain "parasitic" genres where humor is indispensable and which in turn further reinforce the circulation of canned jokes in an endless chain of recycling. The same could be suggested for howlers that have become decontextualized from their original texts (e.g., student essays, TV shows) and are recontextualized in various collections (see example 2).

New Debates

In this chapter I explored different aspects of the interplay between genre and humor. First, I provided an overview of the already existing taxonomies of humorous texts and mechanisms, which has revealed that so far most (if not all) of them have taken into consideration a small number of genres where humor appears. I also showed that the classificatory criteria vary from one taxonomy to another. In addition, by placing emphasis on formal aspects of humor, earlier taxonomies of humor identify formal and functional similarities and differences between humorous texts and across humorous genres. Then, after introducing the main characteristics of genre, I explored two (of the) ways generic conventions and their reframing relate to humor and humorous genres: on the one hand, humor can be considered a discoursal strategy

normally appearing in certain genres and transferred in others where it may not be conventionally expected; and on the other, the mixing and hybridization of generic features can result in the production of more humorous texts and (new) humorous genres.

The present taxonomy evolves around on the presence (or absence), and the more or less typical/common use, of humor. The main classificatory criterion involves the extent to which the humor surfacing in certain realizations of genres is common and expected or not. This taxonomy tries to account for speakers' perceptions of when and where humor is expected to be used or not. In other words, the categories of this taxonomy reflect speakers' practices and ideas on when, where, and for what purposes the use of humor is deemed "(in)appropriate" and potentially "(in)effective." In this sense, the present approach attempts to bring to the surface the connections between the production of humor, on the one hand, and specific communicative settings and social activities, on the other.

In general, humor emerges as a discoursal strategy available to speakers wishing to modify genres or to adjust them to their own private goals and needs. This is attested in those genres that may be realized with or without humor (categories B–D) as well as in speakers' tendency to playfully mix and renew already existing genres.

Nevertheless, no classification is without limitations; hence new debates eventually open. In the one proposed here, some genres could be inserted in more than one (adjacent) category. For example, aphorisms/quotations have been included in category B, together with other genres that may have serious or humorous realizations. Aphorisms/quotations, however, are often classified as a kind of one-liners (see among others Dynel, 2009), which would be placed in category A as a subgenre of canned jokes. The present classification has tried not to place strong emphasis on formal criteria (i.e., the fact that aphorisms, like other kinds of one-liners, are usually brief utterances carrying a single humorous element), but to concentrate on the more or less common/typical presence of humor in each genre.

Moreover, the inclusion of a specific genre in a specific category does not have universal value: the same genre may be classified in a different category in different sociocultural communities. For example, humor may surface in religious sermons in certain religious communities in the United States (thus this genre could be classified in category C), but would be considered most inappropriate—or even blasphemous—in Greek Orthodox masses (thus this genre would be placed under category D).

Finally, this presentation of the proposed classification could not de facto refer to all the genres of/with humor, as many of them are either less common and culture-specific (cf. Oring, 2008, pp. 191–192) or they have not (yet?) attracted the attention of scholarly research.

It has been argued that "the consequences of genres and form for the interpretation and appreciation of humor is [an] understudied field in humor scholarship" (Kuipers, 2008, p. 388; see also Attardo, 2001, p. 23). The present study cannot but, unfortunately, confirm this observation, as humor researchers have for a long time focused on specific genres of humor (e.g., canned jokes and informal interactions), and only recently have they expanded their interest to other genres. By bringing to the surface the variety of genres where humor is attested, the present taxonomy would (hopefully) like to foster further research on less explored genres as well as on genre-recontextualization practices, which seem to be a common means for the creation of humor in postmodern societies, especially in the media.

If, as Kuipers (2008, pp. 387–388) suggests, genre may affect humor interpretation and appreciation, this could also be another promising area of research for humor scholars. For example, they could, among other things, investigate the interplay between the categories of genres proposed here and the perception of humor as *non-bona-fide communication* (Raskin, 1985). In particular, it could be hypothesized that where humor is more or less expected (i.e., in categories

A and B), the audience would interpret it as non-serious, inaccurate, and inconsequential discourse. On the contrary, in contexts and genres where humor is not expected (i.e., in categories C and D), its interpretations could vary: some members of the audience could interpret it as non-serious and inaccurate discourse, while some others could seek for "hidden" serious, offensive, aggressive, etc. meanings. Hence, the proposed model lends itself to a testable hypothesis for the psycholinguistic investigation of humor and genre.

Last but not least, the interplay between genre and function could become a central focus of humor research. Discourse analysis, sociolinguistics, and ethnographic approaches to humor, among other fields, have brought to the surface the variability and multifunctionality of humor depending on its context of use and the particular goals its producers wish to attain. Cross-cultural and cross-generic analyses and comparisons would further contribute to the never-ending discussion of what humor is and why it exists.

Acknowledgements

The author is grateful to Eleni Antonopoulou, Argiris Archakis, Marianthi Georgalidou, and Anna Piata for valuable feedback on this chapter.

Notes

1 A *comb* is "a type of strand which shows the occurrence of more than three lines (jab or punch) within a narrow space" (Attardo, 2001, p. 87), whereas a *strand* is "a (non-necessarily contiguous) sequence of (punch or lab) lines formally or thematically linked" (Attardo, 2001, p. 83).

2 On genre see among others Bakhtin (1986, pp. 60–102), Freedman & Medway (1994), Miller (1994a; 1994b), Bhatia (1997), Johns (2002), van Leeuwen (2005, pp. 117–138), Bawarshi & Reiff (2010), and Coogan (2012). Cognitive approaches to genres viewing them as schemas based on actual language use and enabling us to produce and comprehend discourse, are also relevant here (see among others Paltridge, 1995; Steen, 1999; Stockwell, 2006).

3 Humor is here used as an umbrella term including all related phenomena, such as satire, parody, pastiche, and irony (Ruch, 1998).

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35

Online and Internet Humor

Eric Weitz

Introduction

The sweeping advancement of digitally driven life over the past generation has given way to new kinds of spaces for individual engagement, commercial activity and social interaction. Even before the rush to social media at the beginning of the century, Slevin (2000) was anticipating the potential for new, complex experiential groundings brought about by online life:

> I shall also want to explore how organizations, groups and individuals using the Internet are continuously and routinely engaged in negotiating the boundaries between real and virtual time-space. When they are online they have a foot in both worlds. We must therefore try to understand how these discontinuous worlds interlock.
>
> (p. 7)

With the contemporary fullness of online life still effectively in its teenage years, this chapter will attempt to highlight some key points of interest with regard to humor studies and our digital age. It will maintain an emphasis on language-based expression and the ways we have come to live with our senses of humor, individually and socially, in online activity. Two texts will serve to introduce several of the issues that attend a useful overview of online and Internet humor.

The ABC sitcom, *Modern Family* (Lloyd et al., 2015), aired an episode in February 2015 titled "Connection Lost," thoroughly embedded in our plugged-in, day-to-day involvement with the Internet and social media. One of the characters passes the time in an airport waiting area, trying to track down the daughter with whom she had an argument before leaving the house. Having accidentally dropped her phone down the toilet, her laptop computer supplies a home screen for connections to all the family members through smartphones and tablets and the videotelephony application, FaceTime.

This episode serves as state of the art cultural snapshot and comic critique of a rabidly networked lifestyle that many of us know so well. No conventional camera work appears in the 21-minute episode, which was shot entirely through the devices that have become standard personal equipment in the mainstream contemporary landscape. The show conventionally

constructs a fast-paced humor stream, cutting among three close, paternally related families. Claire, the episode's connecting character, is led to believe through a series of technologically enabled misunderstandings that her daughter is pregnant and eloping to Las Vegas. The popular show routinely draws upon classic humor tropes like slapstick, foolishness, and wit while exploiting a mock documentary style. Importantly, while this episode displays online technology's ability to place us face-to-virtual-face with other users, it reveals from the start that linguistic activity forms the basis for communication through texting, labeling, and the word-based nature of online searching and shopping.

Contrast with this commercially powered, humor-saturated text the single, passing joke found on a colleague's Facebook timeline, this from a US-born academic, now working (and therefore publishing) overseas. She had announced in a status post, "Well, I think I am taking the plunge. I will be using UK rather than US spelling in my book." A first comment followed shortly thereafter, "TRAITOR," followed by a second comment: "Traitour." British English dictionaries, of course, contain a family of words that end in "our" rather than the American English "or" (e.g., humour/humor), the joke being that "traitor" *could* be one of them by ending in "or" (but is not), and its inferred addition of insult to injury. The response received positive comments and a number of likes, as good an indication as any of humor support in this very circumscribed, personal context. The "traitour" joke, in fact, could not be made in live conversation. It hinges on the divergent spelling of a word that in non-joking cases would sound the same in both language systems, and so its voicing defeats the comic purpose.

These two examples viewed side by side point up the vastness of scale between fully loaded commercially produced humor and casual online conversation among a relatively small group of friends—both of which and more merit our full and varied analytical attention. Despite the ability to disseminate and consume video and imagistic content, a salient element of online engagement lies in the configuring of human interaction as spatially compartmentalized communication rooted in reading and writing rather than co-present speaking and listening. In many cases, a study of language and online humor no longer need transcribe an original event's phenomenal traces; the linguistic exchange in its orthographic form supplies the text of the interaction itself, ready for inspection.

Historical Perspective

The first era of the World Wide Web, now called Web 1.0, refers to the capabilities of static web pages and our ability to access them from individual computers. Our current technological age, Web 2.0, describes the wherewithal for users to interact dynamically with one another and to build upon each other's content (Jordan, 1999; Slevin, 2000; Green, 2010; van Dijck, 2013). For humor studies, the upgrade from 1.0 to 2.0 represented a move from online activities largely restricted to joking *for* an audience to the capacity to joke *with* each other as participants in real time. Of the various broad types of social media enabled by Web 2.0 technologies, the two most relevant are "social network sites" (SNSs), which foster individual and group interaction, such as Facebook, Twitter and Instagram; and "user-generated content" (UGC) sites, which promote the production and circulation of such texts, like YouTube, Flickr and Wikipedia. Importantly, these kinds of platforms overlap in content and techniques. Moreover, currents of online production have become permeable and cross-pollinating, with top-down, commercial production appearing alongside bottom-up, user-generated texts.

As will be noted in several contexts in this chapter, humor is seen as a particularly desirable element for a vast online marketplace with so many entities setting out their stalls. Its attributes display a natural fit for viral and memetic success (Shifman, 2014). It is suggested, for example,

that sketch-based, "bit-driven sensibilities" suit online comic patterns (Marx, 2011); that the quick-hit hook of the comic moment gains advantage in the now-here/now-there rhythm of Internet surfing (Gurney, 2011); and that in the trend-happy context of Internet culture, high status attaches to those counted among the ground-zero in-group for a viral joking thread (Zappavigna, 2012). Technology and (mostly) commercial platform architecture have led to new online genres, such as the blog and the mash-up; smartphones have generated the on-the-spot video snippet and the selfie; the tweet and GIF are short, humor-friendly forms. We may or may not now have occasion to tell fewer jokes face to face, but Kuipers (2002) considers the joke cycle about the 2001 World Trade Center attacks as a tipping point in popular humor dissemination, at which disaster jokes expressed through image and text on the Internet began to gain ascendancy over jokes passed among people orally.

Core Issues and Topics

Internet as Repository of Humor Production

Current scholarly attention to online and digital culture tends to characterize as "old media" any technologies prior to the digital age (Green, 2010), which from a humor perspective might include anything from the satirical pamphlet to the political cartoon, film, and television comedy. With the rise of the digital age and "new media," the Internet affords an unprecedented personalized access to humor-related performances in the broadest application of the term, an archive open to the connected public for comic performance past and present. It is possible to visit some of the great comic performers from as far back as recording technology has allowed. Alongside clustered videos, we are now as an Internet culture able to search for and access favorite comic texts spanning decades and more. Shifman, who has written about the strong presence of humor in online circles, notes its capacity to carry twin banners for past and future: "The humor and Internet nexus features interpenetrating dynamics of continuity and change, as popular online 'humor hubs' function both as 'carriers' of old humor types and as 'generators' of new types and topics of humor" (2007, p. 204).

A full analysis of this apparent goldmine of humor-related performance would address, among other topics, the hermeneutics of online reception in terms of comic bits cut off from their narrative and/or historical contexts; the effect upon humor consumption for the "greatest hits" format of paraded punch lines, as well as the viewer's ability to control the performance (e.g., skipping, pausing, repeating); a sort of nth-order consideration of humor response when we are able to revisit favorite bits in quick repetition and across extended periods of life; and an investigation of the reception context itself in terms of dispositions towards laughter in private, varied circumstances even for a single viewer through the day or week.

Migration of Joking to Online Contexts

It has been suggested that the networked architecture of the Internet replicates human structures both bodily and socially (Caldarelli and Catanzaro, 2012; Zappavigna, 2012). We appear to be biologically wired to connect with others, evidenced according to an evolutionary line of thought that laughter serves the group as a signal of "All clear!" or "False alarm!" (Hurley et al., 2011). The choral surge of group laughter is missing from online experience and in, one regard, this is comparable to age-old humor transactions between writers of comic literature and their individual readers. In the era of Web 2.0 multi-user, dynamic engagement, however, the notion of posting, forwarding, and sharing that leads to a humorous text going viral or attaining

memetic popularity might be seen to approximate the effect of sending the message through the group as quickly as possible, thereby actualizing the laughter response in cybernetic terms.

An impression arises within the short history of Internet-related research output that the humor transaction as interpersonal practice remains skeletally consistent with face-to-face joking. In transposing our real-life joking patterns to the virtual sphere, we have made adjustments, adaptations, and unforeseen elaborations arising from technological apparatuses and their implications for online discourse. When a joking mood takes over a comment stream on Facebook it may simulate a comparable splash of humor-based interaction in a real-world public space, but key modifications attend the event. Even a cursory look reveals differences between real-time, real-space joking and its virtual double: Whatever the mental circuitry that leads to a quick-fire humorous rejoinder in the overlapping chatter of a party atmosphere, spontaneous joking in an online context necessitates interceding steps that stretch the time between a thought and its public utterance and eliminate the possibility of overlapping responses. Participants are able to take at least a bit of time to think about how best to "perform" their jokes, how to phrase or otherwise construct them, and they even have the capacity to edit posts after the fact.

Indeed, the broad topic of online and Internet humor invites quite a bit more examination with regard to electronic versions of the conversational joking treated by Norrick and company. For example, the analytical tool of the "adjacency pair" of yoked utterances remains at the same time relevant and vastly reconfigured (Vandergriff & Fuchs, 2012). Concepts like "joke-first" and "banter" (Norrick, 1993) are readily identifiable in bi- and multi-vocal online interaction. Comment threads easily divert into conversational tributaries, while a "first-pair part" of an adjacency pair may bring about any number of "second-pair parts," with possible separation by hours or days.

Holcomb points out that the issue of "timing," so integral to live joking transactions, is inescapably suspended in a networked fabric—we have little control over when a posted comment actually shows up on participating screens and what may appear in the meantime. Norrick concludes in 2001 and in the context of face-to-face interaction, that, "timing in the conversational joketelling performance is compounded of disparate elements: features of the basic joke text, teller strategies, standard joke prefaces, formulas and patterns, the teller's style of delivery and audience response" (p. 272). All of these elements remain relevant as transposed to the pragmatics of online interaction, and merit scholarly attention.

Humor has proven an effective tool for getting attention in advertising (Eisend, 2009), and there is no reason to doubt that it has some comparable positive effect in the marketplace of the Internet, up to and including user-to-user(s) interaction. Goffman's performance-based approach to social interaction (1959) finds resonance with social media's aspirational image of the public square. In Goffman's terms, we present ourselves to the world, ever attempting to perform or "control the impression" we make on other people, according to "setting" or context. He calls us "actors" and describes our interactive challenges as "dramaturgical problems," which translates with renewed relevance to a social arena in which written words maintain primacy over the face-to-face utterances he presumes.

In the context of Facebook profiles, Strain, Saucier, and Martens (2015) note research that aligns with what Hurley et al. assert (2011)—that humor affords a "quick probe" for establishing common attitudes and compatible knowledge pools. It is given succinct description by Norrick in his work on conversational humor (1993), in that

> joking allows us to manipulate talk and participants in various ways, by presenting a self, probing for information about the attitudes and affiliations of our interlocutors, realigning

> ourselves with respect to them, and, of course, injecting humor into a situation, which helps to relieve tension and foster friendly interaction.
>
> (p. 5)

Like face-to-face transactions, humor or wit remain appealing personality indicators—see Zappavigna (2012), with regard to the status of humorous wit within the meme community and the cachet of being retweeted. The dynamic between in-groups and out-groups constitutes the social fulcrum for the humor transaction and supplies at least one means for finding allies and nurturing solidarity with them (Baym, 1995; Bjarneskans et al., 1999; Shifman, 2014).

Virtual Laughter

As noted by Vandergriff and Fuchs, means of humor support other than embodied laughter are required in online communication. Davison (2012) traces the birth of the emoticon to one Scott E. Fahlman, who in 1982 proposed the keystroke series, colon-hyphen-close parenthesis or :-), an evocation of a sideways, pre-digital smiley face. It served in the context of an online bulletin board as a marker of humorous intent against inflammatory responses to misapprehended humor bids.

Hay's (2001) elements of humor response to a joking attempt remain key considerations for reception in cyber-territories: (1) recognition, (2) understanding, and (3) appreciation. These "implicatures," as Hay calls them, allow for distinctions among (1) an awareness that a joke has been made, (2) whether it has been comprehended, and (3) whether its message has been at least superficially endorsed. Each of these eventualities (i.e., not 1, 1 but not 2, 2 but not 3, all 3) would likely lead to a different shade of response. Hay allows for a further implicature, (4) agreement, and the gap between it and appreciation (i.e., 3 but not 4) admits the possibility that one might laugh in spite of oneself or against one's better judgment. There is every reason to believe that Hay's implicatures hold validity for online engagement, but due to the time-space (dis) continuum, there is less a sense of conversational flow in reaction to humor bids. Vandergriff and Fuchs (2012) point out that a response of silence to a humor token—an important if dreaded possibility in real life—cannot be translated directly to online interaction; and they note the frequent resort to further humor as a support response, another way in which online behavior parallels face-to-face interaction.

Day-to-day Internet engagement reveals further expression of humor support than noted earlier, in, for example, a convention in text messages and online comments for aside descriptions of paratextual response, such as ⋆busts a gut⋆ or ⋆groan⋆. Emojis, small pictorial characters of Japanese provenance, offer an array of facial expressions and other symbols, some of which include simple movement. Transcription of laughter syllables—what we might call "e-laughter" (Larson, 2015)—can be probed for gradations of appreciation, agreement and attitude, with "ha ha" and "he he" and their variations in length, spacing, and other orthographic representation having the potential to harbor subtle distinctions of humor support (or lack thereof).[1] Internet slang has extended upon "lol" to include, for example, "rotfl" for "rolling on the floor laughing" (with the optional "mao," "my ass off"), and on to "yomank," standing for, "You owe me a new keyboard," implying the respondent's uncontrolled burst of laughter has led to sudden surrender of recently imbibed food or drink. A variation on "Badum-tish," sometimes included by a user pre-emptively at the end of what they acknowledge to be a weak or obvious joking effort, approximates the sound of a vaudeville-era rim shot (and at least one website offers a pastable link to the sound effect itself).

Remediation, Modularity, Variability

The concept of remediation is nothing new, as characterized from a media-studies perspective by Bolter and Grusin (2000). It includes, for example, illustrations of Bible stories to cinematic adaptations of Jane Austen's novels, and it has been seen as "a defining characteristic of the new digital media" (p. 45). The "Connection Lost" episode of *Modern Family* adopts a once-off remediated style in which new-media contexts are viewed through the old-media televisual eye. If humor stands to benefit from up-to-the-minute defamiliarizations of everyday experience, the episode exposes for amusement the addictive multitasking and blithe surrender of privacy brought about by online and social media, along with its routine betrayals and unknowing self-betrayals. At the same time, it reinvents timeworn comic dramatic practice for a digital age, in, for example, the aside (or disattended breakaway) exchange carried out by text message between Claire and her brother, Mitchell, in the background of a FaceTime conversation with Cam, Mitchell's spouse.

The social aspect of online joking remains of major interest, however, for the ways in which virtual spaces provide new kinds of opportunities for old impulses towards collaborative humor. John (2012) has characterized "sharing" as the "fundamental and constitutive activity of Web 2.0," yoking and further customizing pre-digital senses of distribution and communication in ways that have transcended its online usage (e.g., "sharing economies"). Gurney (2011) observes how digitally constructed objects like video clips can be broken down into individual elements, the better for users to manipulate. The concept of modularity, a defining attribute of digital media (Manovich, 2001), aligns naturally with principles of group, collaborative joking.

Connected to modularity is variability, another attribute of digital media and a key element of group-driven humor:

> The comedic kernel has always acted in this way. Once a joke, gag, or sketch proves successful in generating laughter, the impulse is to reuse or reconfigure the material so that it can be incorporated into other social situations and media platforms.
>
> (Gurney, 2011, p. 10)

Gurney charts the history of Abbott and Costello's seminal "Who's on First?" routine, from a possible earlier prototype by vaudevillians Wheeler & Woolsey through their own series of remediations on stage, radio, and television. The sketch's comic DNA saw several recombinations in latter 20th-century television up through a *World of Warcraft* machinima version called "Who's the Tank?"

The Meme

The process by which cultural units spread through the population relates to the concept of the *meme*, a most relevant topic for discussion with regard to online and Internet humor. "Meme" is a cultural concept introduced by Richard Dawkins in *The Selfish Gene* (1976/2006), intended to invoke the evolutionary agency of the gene in the ways that thought, behavior, and style disperse through the population. Shifman (2014) distinguishes between concepts of the viral, a spreading through the population of a single cultural unit (like a cartoon or video), and the memetic, which always includes a combination of elements. Mindful that memes pre-existed the digital revolution, Shifman defines the Internet meme as: "(a) a group of digital items sharing common characteristics of content, form, and/or stance, which (b) were created with awareness

of each other, and (c) were circulated, imitated, and/or transformed via the Internet by many users" (p. 41).

In this online context, memes can be seen quite generally as vehicles for playing on the Internet, as it were, as observed by Zappavigna (2012): "Internet memes are deployed for social bonding rather than for sharing information. Humour is a very common strategy supporting this bonding, and memes are most often humorous, involving a witty observation or simply the absurd but catchy" (p. 101). Zappavigna designates the following templates for inclusion among the meme models on social media:

- Phrasal templates—phrases with "slots" available to be modified (e.g., In Soviet Russia, [object] [plural verb] you!);
- Catchphrases (e.g., "This is relevant to my interests");
- Image macros (e.g., LOLCats);
- Initialisms—an invitation to respond to a theme (e.g., WDYDWYD [Why do you do what you do?], TGIF (Thank God It's Friday]).

(p. 105)

Shifman, who advances a list of nine meme genres,[2] breaks them down into three useful groups: those based on the "documentation of real-life moments," like photo fads and flash mobs; genres based on "explicit manipulation of mass-mediated content," like reaction Photoshops and lipdubs; and genres derived from "a new universe of digital and meme-oriented content," like LOLCats and rage comics (2014, p. 18).

Some meme types require easily acquired, non-specialist technological intervention, thereby making for a most populist of new-media comic forms. An image can be repurposed through basic editing software alone (e.g., a photo of Pope Francis's 2015 visit to the United States, in which a gust of wind fully spread out his cape, led to re-presentation of the image as, for example, a UFO or an egg in a frying pan). The "image macro" amounts to a variation on the old-school, supply-a-caption game for a photograph or other visual image, and requires little more than an easy-to-use application. The usual form feeds on a popular image or photo, with a top and bottom caption. A photograph of a dog wearing glasses and posed over an open book, for example, throws up the following response (among many others), adopting a generic, bipartite joking structure: At the top of the photo appears, "This homework looks hard . . .," and at the bottom, "Do you want me to eat it?" The humor work involves a triangulation among photo, setup and punch line in terms of cultural knowledge and shared experience. The top line might qualify as a punch line in its own right, by way of an anthropomorphic (and therefore playful) explanation for the dog's facial expression. The bottom line extends or tops the joke with reference to the oldest excuse in the book for failure to hand in class assignments—and whimsically rewrites the history of unsubmitted homework by inferring collusion all along by the canine species.

Garin (2015) discusses the concept of cultural "stickiness" with regard to the character of videogame hero Super Mario as clown figure. He characterizes stickiness in terms of visual traits that are "iconic, physical, easy to expand" (p. 306), and therefore lend themselves to imitation for "cosplay" (dressing up like fictional characters) and user-generated content like "fanvids." He connects it to a "vaudeville aesthetic," identified by Henry Jenkins (1992), in arguing that Super Mario is also sufficiently unbeholden to any given narrative so that he can easily be dropped into vastly different situations. The resulting adaptability gives way to the potential, like Charlie Chaplin's Little Tramp, to bring a ready-made persona to diverse comic contexts: "This is what a character like Mario fosters, the possibility to intertwine self-contained and stand-alone

adventures, similar to silent comedy reels, where the gestures, looks and movements of the clown are more important than any plot" (Jenkins, 1992, p. 306).

Joking and the Virtual Body

Garza (2002) crystallizes in phenomenological terms the vital interpersonal element that alters upon entrance to online life:

> The terms of admission to the Internet are that one leaves their embodiment aside. In this way the fleshy vital other is either absent altogether, reduced to points of light or pixels, or further reduced to flashing letters on a chat-room screen.
>
> (p. 196)

There would appear to be a few channels of interest for humor studies arising from an approach that examines issues of perception and bodied experience involved in online joking.

Intentionality, a phenomenological trope, becomes a vital element of online humor analysis. Gurney identifies one of the candidates for earliest viral video in a 26-second 1997 clip that was circulated by email well before the era of ever-ready online sharing. It was called "Bad Day" or "Bad Day at Work" (and can be found as "Really Bad Day at Work" in the Reference list) and shows an open-office-plan worker erupt in fury at his desktop computer, finally whacking it out of his cubicle with the keyboard. The important thing from our perspective is that the original clip was intended seriously to promote a new video surveillance service, while its extraction and subsequent proliferation saw it reframed as a comically unvarnished expression of rage against office drudgery, embodied in one man's surrender to exasperated violence against his workplace machine.

With the proliferation of smartphone capabilities, there may be no joking intention whatsoever in the taking of the original photo or video, or no awareness by the potential butt of a joke as reframed in subsequent posting (see, for example, YouTube channels like "America's Funniest Home Videos," "Fail Army," and any number of pranking sites sharing video evidence of events for which at least one of the participants is not in on the joke).

These postings stand to play on a certain low-empathy factor for geographically dispersed users without real-world connections. Peacock addresses this factor in her work on slapstick performance as "comedy and pain" (2014), noting a kind of laughter as a *shocked* release from startlement; she also observes that an "*ouch* laugh" (p. 68) may arise from a mirror-neuron induced empathy, gratefully (and, perhaps, triumphantly) relieved of personal consequences. Two elements of her analysis suggest more broadly applicable insights into the online disinhibition factor: First, the application of Hay's (2001) implicature, especially between steps two and three, understanding and appreciation, are discussed as subject to the influence of other parties to the transaction and their potential negative reaction to one's laughter, such as hurt feelings or disapproval. In online transactions, the laugher can indulge private reactions without immediate need for social response, let alone repair. If an online reaction is demanded, it can be denied, justified, or at least crafted more purposefully than the real-life bodied burst. Second, Peacock prefaces this section with the issue of joking permission or framing: "What is also clear is the importance of the establishment of a play or comic frame that is recognised clearly enough to support the notion of disengagement" (p. 67). In light of a social predilection for humor in computer-mediated communication noted by Vandergriff and Fuchs (2012), many users may incline towards a default joking disposition for any viewing suggestions that come their ways; and prior to more rigorous data analysis it would seem that the majority of user-posted videos justify a presumption of humorous framing.

Digital technology allows for a separation of phenomenal elements, which are then ripe for recombination or other (re)assembly. The concept behind "Mean Tweets" on *Jimmy Kimmel Live!* is described here in Kimmel's words from the "Mean Tweets—President Obama Edition" (Mean Tweets, 2015): "from time to time we give celebrities a chance to read some of the mean things people tweet about them." It plays upon the text of an abusive (or at least uncomplimentary) online utterance, the words of which, though representing speech, remain intended as literary product. With celebrity guests invited to read some of them aloud, it sets up an embodied performance of the words that doubles back upon the speaker, and would in conception amount to a head-on face-losing collision. In fact, the celebrity more than absorbs the negative impact of the insult by being seen as a good sport, and sometimes has a chance non-verbally or otherwise to return the uncharitable favor. The audience is generally supportive of the celebrity reader, seeming to laugh at the remarks for the bluntness of disparagement over and above any appreciation or agreement with their sentiment. This comic sub-form calls attention to the dehumanizing, disinhibiting capacities of tweeting and other microblogging forms.

"Trolling" and "flaming" represent terms for online behavior that refer to negative or hostile interaction, and represent an area for further pursuit as they would appear to carry abusiveness and cruelty to levels unlikely in real-life social situations. They sometimes involve expressions of or reactions to humor and so merit attention in research contexts in the areas of disparaging or failed humor. Among friends and acquaintances on social-networking sites, there is often a built-in braking mechanism on abrasiveness and cruelty. On hardcore bulletin boards like Reddit and 4chan, or other forums allowing anonymous comments (or fabricated usernames), unrestrained disinhibition is possible and more likely (Laineste, 2013), no doubt as a result of license claimed by users in a virtual social space without palpable connection or consequence.

Milner (2013) characterizes a "logic of lulz," associated with trolling, as an approach to online participation based in "mischief, irony and disruption" (p. 87). Furthermore, he allows for the possibility that seemingly anti-social contributions retain the capacity to keep full-blooded debate honest: "Trolling—at its best—may not be narrowly rational, but it can be a way to stir issues that are often left invisible in more narrow or polite discussion" (p. 88). Kenny (2009), for one, argues that the humorous workings of parody and pranking on the Internet offer viable avenues for the critique of power. A practice of media-enabled protest called "culture jamming" is associated with a Bakhtinian sense of carnivalesque laughter in one study (Wettergren, 2009); another explores the effect of parody in the age of posting, sharing, and retweeting to exert an effect on brand image and customer loyalty (Sabri & Michel, 2014). In an article on the rhetoric of disparagement humor, Simon Weaver calls for further critical rhetorical humor analysis in the context of online joking (2015).

Methodology and Sample Analysis

Punning and Wordplay—GTVH

The prevalence of text-based joking in computer-mediated humor has important implications for the language-based scholar, quite obviously in the area of punning and wordplay. In this way, Attardo and Raskin's General Theory of Verbal Humor (GTVH) withstands the leap to cyber-joking,[3] and here I use the abbreviations for each of its six knowledge resources (KRs) (Attardo, 2001, 2008).

In search of a range of texts for study with regard to the brief of this chapter, I put out a call to friends on Facebook for passages of online group joking in which they had taken part. The first response came almost immediately: "It is a classic tragedy, our relationship with social

Medea." Stated as, perhaps, a high-minded declaration (NS in the GTVH), with the two senses of the closing word (SO) pried apart by the alteration of a single letter (LM), the joke calls for background knowledge (SI) about classical Greek drama, and, crucially, a competence in spelling. The joke is crafted (LA) in a sort of reverse phrasing (i.e., rather than the simpler, "Our relationship with social Medea is a classic tragedy") so that the joke's hinge can be placed in the last possible word. The joke would involve low-grade ridicule (TA) of the cult of social media and, perhaps, the inefficiency of language systems in general. Notably, the humor mechanism does not benefit from phonological expression, and would in fact suffer from oral delivery (like the earlier "traitour" joke)—therefore, its most advantageous performance mode is on the page (real or virtual). The joke also suggests elements of Raskin's two sophistication classifications (2012): allusions requiring specialist or intellectually "superior" knowledge (i.e., classical Greek tragedy and Euripides's *Medea*); and "missing-link" or the number of logical steps it takes to get the joke (i.e., and not necessarily in this order: query about joking on Facebook > reference to a not apparently related subject domain, i.e., classical tragedy > relationship with social media > Medea/Media > faddish stampede to Facebook and others > tragedy in a conversational sense > co-present meanings). Without the overdetermination of an orally concretized humor spring, there is that slight bit more of an onus on the reader to have knowledge of and identify the competing spellings.

The original query asked for existing examples, but the user took the "joke-first" option—and which, once enjoined, can serve as a challenge for others to enter the humorous fray. In one of the possibly millions of such instances, a late-night confession by an Irish university student concerning her standing knowledge of county names (comparable, perhaps, to an American's ability to reel off a complete list of US states) led to the equivalent of several pages of pile-on punning from other night owls. Once the commonly known anglicized versions of county names had been exhausted it veered into cross-language joking with the Irish-language county names. This cross-language word play suggests the capacity for multilingual joking with ever-widening networks of users coming from different cultures.

One also sees conscious efforts to initiate virtual joke sessions, in terms of an explicit brief; for example, "Today, Plato Quotes and Eminem Lyrics started following me on Twitter. What exactly did I say?" Other times a first "serve" through which the nature of the challenge is discernable might throw down an implied challenge, in this case, to conflate a literary work with a dessert, e.g., "Adventures of Huckleberry Flan? . . . Nineteen Petit-Four?" Of a 64-comment thread, an 18-comment splinter thread illustrates the effect of forced order upon a conversation with a will to diverge. Following a few entries, such as, "Life of Pie" and "For Whom the Jam Rolls," one contributor responds to a preceding attempt, "Excellent work! (But sadly not a book.)," answered by, "There's loads of films in that thread?" Another attempt is followed by, "Pick up your Espresso Machine! Sorry I missed your call! I'm away at the moment, anyway!" Interspersed in, and perhaps inextricable from the play mood, one can see some of the negotiations ("The rules got misinterpreted. But we're better than that. And more pedantic") and repair strategies ("I'm fired, amn't I?") that might appear in face-to-face interaction.

Comic Irony and Bakhtinian "Voices"

Two authors in the collection of essays, *Humor in Interaction* (Norrick & Chiaro, 2009), deploy theoretical strategies derived from the work of Mikhail Bakhtin on dialogism and heteroglossia (1981; 1994). Notions of *voice* (Kotthoff, 2009), "double-voicing" (Priego-Valverde, 2009), and speech genres can help illuminate the ability of the online joker to signal humorous intent and to stage by linguistic means the construing of script opposition (SO). This approach to language

contends that all verbal/written utterances draw upon existing models of what has been said/written before, comprising a sociocultural repository of roles and registers inherent in the precise phrasings we choose/hear. These theoretical concepts are quite opportune for discussion of the process by which we translate speech into literary form and then back again for the purpose of joking interaction (see also the concept of "stance" in Shifman, 2014).

By way of illustration, a Facebook user posted a photo of a puppy taking the sun and framed by the doorway. Following several straightforward expressions of appreciation from various users, came: "You got a dog? No one told me? Got any other pics?" This comment could well be taken for the earnest enunciation it appears to represent: a query from a friend with eyebrow raised as to how such a personal development could have escaped his notice. There is little in the words themselves of cueing that would cause one to look for humorous intent or a second voice, so to speak. As in face-to-face joking, context is all: the user who posted the photo—what we could call the "first-pair part" of an adjacency pair—had for a number of months been sharing photos of the family's new puppy, and so it was unlikely that any regularly connected Facebook friend would have failed to see the household's beloved new addition. Passing friends of the commenter would catch the glint of an enunciation at some variance from his "real-life" voice (e.g., "Got any other pics?"). There can be read, here, a performance of surprise in the wording that emerges from the repertoire of a chattier persona than the one who left the comment. It directs those who know the history and the respondent to look for ironic double-voicing, thereby finding room for amusement at the pointed framing of the original user's relentless stream of dog pictures. It would be entirely possible, however, for someone to take this post at face value. There may, indeed, be a whiff of a broader cultural critique, as it is a commonly aired online notion that photos and videos of pets and children make up an excessive amount of user-shared material.

Further to the representation of Bakhtinian voice or speech genre, users employ typographic representations (Holcomb, 1997; Zappavigna, 2012) to control the performative features of oral, bodily supported discourse, by, for example, using serial exclamation points or question marks, uppercase letters, and parentheses to signal volume or tone modulation; running together of words to suggest quickening of pace, and illustrating emphasis or prolongation with transliterated spelling or multiplication of letters (e.g., "pleeeezzzze"). Needless to say, these representational strategies have everything to do with the sounds, dynamics, rhythms, and characters intended for the writing of humorous performance.

Life-Event Humor and the Fail

Pennington & Hall (2014) note that, akin to topics for humor in face-to-face conversation (Hay, 2001), their analysis revealed, "the most common attempts at humor on FB [Facebook] were personal life event humor" (p. 16). Their research also suggests that this type of humor tends towards self-deprecation.

Along these lines, the following status update was posted on Facebook, by a user I shall call Ron:

> Think I just got confused for a Tinder match in a coffee shop. The look of relief on her face when I wasn't "Peter" was a tad unnecessary *sulks*. Hope it works out for them. Maybe they'll invite me to the wedding . . . #meandpeterareliketwins

Ron describes an event that just happened and that may have dented his self-esteem in the moment, but no doubt gains far more positive face in the overall scheme of things. Anyone aware of Ron's life situation as a happily married family man in his forties would perceive an

orientation that points to (and perhaps betrays an inkling of relief at) a sense of safe remove from the Tinder (online matchmaking) scene. He describes the waiting woman's unflattering moment of realization in stoically injured terms, before going that bit overboard in imagining the soon-to-meet couple's future.

Ron supplements the narrative utterance with two of the social-media conventions noted previously. Without qualifying as hyperbole, the *sulks* would at least seem to suggest some degree of a playful gap between the genuine affect and its characterization intended to amuse. Zappavigna applies a principle discussed in face-to-face humorous exaggeration, called "contrast of magnitude" (Colston & O'Brien, 2000). In this context we are invited to read the degree of alleged damage as amusingly out of proportion with the actual toll taken. Second, the hashtag appendix

#meandpeterareliketwins

would appear to carry no intention to start an actual hashtag thread, but enters a humor bid of its own. Its ostentatious specificity and its colloquial formulation suggest ironic reference to the unlikely mistaken identity. Online practice loves the shortcut, a central mechanism for joking structure. "Hashtaggery" offers a language-based labeling convention of particular (but not sole) use on Twitter, which limits the number of characters in a post to 140. As Highfield (2015) has discussed, it lends itself to wordplay and linguistic ingenuity with multiple layers of joking opportunity.

For purposes of supplementary analysis, we might import a concept from a system intended for longer narratives. The *jab line*, borrowed from an extended version of the GTVH (Attardo, 1998) is formally distinguished from the *punch line* by its placement in the text as a humor trigger anywhere other than in the final position (as a joke by definition ends with a punch line, while a humorous text tends to serve a broader or more sustained project). The second sentence, the behavioral aside, the next two sentences taken together, and then the hashtag rejoinder at the end, all can be seen as carrying humorous intent as described earlier. Although not necessarily intended for texts the size of microblogs, the *jab* concept applied to Ron's post suggests how a series of humorously fashioned *lines* allow for the sense of a comic voice constructed through a series of modest *jabs* (possibly even including the final *line*, the hashtag serving as a concluding rejoinder rather than a crowning *punch line*). This concept may be worth pursuing in that *voices* adopted for online posting and interaction incline towards the humorously tinged or playful, and not always towards the outright joking—and this could point to a difference between a given speaker's *voice* in real-life conversation and a more consciously composed online user's *voice*.

The inclination to share everyday misfortunes or miscalculations in a register that places oneself at least in part as the joking target finds a generic manifestation in Internet "fail humor," given a full chapter by Zappavigna (2012). Although #fail-related posts are sometimes directed at other people, politicians and entities (none more than Twitter itself), Zappavigna finds the bulk serve as communally directed, individual coping efforts against the varied adversity of on-the-ground life itself:

> Microblogging offers the opportunity for people to express frustration at such minor adversity that might otherwise be considered too inane to bother communicating face-to-face. A kind of blurring of the public and private, the individual and collective, results as we express these day-to-day happenings, affording opportunities for new kinds of social connection.
>
> (p. 167)

Zappavigna contends that our ability to share quotidian frustrations and indignities in humorous ways serves us psychically and bonds us socially to a vast group, most of whom we will never know as more than a username (which she calls an "ambient" audience). There is something reminiscent of Freud's appreciation of humor as an individual's psychic shield against adversity (1989), here extended to socially bonding effect. Zappavigna's contention, "The hashtag virtually and symbolically binds this post to the stream of other possible fail experiences that might be expressed by other users," urges thought upon the hashtag's possible operation as virtual extension of laughter's socializing affinities. She suggests further that "what we are witnessing is the evolution of a new kind of sociality, in which collective and detailed expression of daily experiences is not necessarily inappropriate when viewed through an interpersonal lens" (p. 169).

New Debates

As has been suggested throughout, the Internet in various ways spawns new spaces worthy of scholarly interrogation, many of them based on old debates about the workings and effects of humor and laughter in society. A common theme in critical enquiries sees the Internet and new media as sites of contention between, on the one hand, the state and corporate harvesting of data and technological control, and on the other a capacity of power in the online masses to express themselves individually and collectively beneath, between or around attempts at herding (see, for example, van Dijck, 2013). This tension represents a new world with different characteristics for discussions on the capacities of humor to bring about social or cultural change (among others, Davies, 2011; Weitz, 2015). Other areas of potential imbalance include the persistence of both male and English-language hegemonies (Shifman, 2007; Milner, 2013).

Digital data amounts to a gift for scholarly research in that it is by definition searchable, collectible and computable and never really goes away, meaning that corpora of all sizes, shapes, and rationales await analytic scrutiny. Humor will always find ways to adapt to and mine the pragmatics, contexts, and materials of human interaction, and those of us driven to study this most human of behaviors face an ongoing challenge to consider the eventualities and their consequences.

Notes

1 I have seen a variation deployed to backtrack upon a previous critical comment—"heh true. Didn't read that paragraph I guess :)"—in which the beginning laughter syllable appears intended as an expression of sheepish laughter, supported by the concluding emoticon.
2 Shifman acknowledges his list as non-comprehensive: reaction Photoshops, photo fads, flash mob, lip-synch, misheard lyrics, recut trailers, LOLCats, stock character macros, and rage comics.
3 I suggest in my book, *Theatre & Laughter* (Weitz, 2015), that Attardo and Raskin's GTVH retains weight-bearing capabilities well beyond the field of linguistics, with provisional additions to accommodate elements of embodied performance.

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