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**An ambiguity-based theory of the
linguistic verbal joke in English**

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1. Preamble

It is a widely held popular belief that humour is a very mysterious phenomenon. It has become conventional wisdom that giving a recipe for a funny story or a joke is impossible, and the regularity with which one hears statements to that effect whenever the issue of humour comes up in media discussions is astounding. In order to have a grasp of humour, one needs, it is generally held, "the human touch," and, indeed, humour is often taken as an inherently human quality, something no other being or entity can possess¹. All these beliefs relating to humour are aptly captured in one episode of the immensely popular TV-series *Star Trek: The Next Generation* (Roddenberry), where lieutenant commander Data, an android striving to become human, develops a nagging desire to comprehend the nature of humour:

Data: What is there in the combination of words that makes humans laugh? I wish I knew what is funny.

Geordie: Whatever makes you laugh is funny.

Data: Nothing makes me laugh. [...]

Gaynan: Being able to laugh or making people laugh is not the be-all and end-all of being human.

Data: No. But there is nothing more uniquely human. (transcribed by the author from Roddenberry)

Despite an incredible degree of sophistication and an ability to emulate — and often exceed — human performance in almost any area, Data is helpless when it comes to understanding a simple joke, let alone telling one.

While humour is seen as an exclusively human domain, it is not equally available (still according to the popular belief) to all humans. Beyond being human, something else is required, which apparently not everyone possesses, to appreciate humor: the so-called *sense of humour*. Voices accusing other people of being devoid of any sense of humour are heard frequently, and in a variety of contexts. But in fact people who are targets of such accusations most commonly simply happen to differ in their sense of humour from the accusers — not everything is equally funny to everyone (see, for example, Cantor 1976). A case in point is the often-heard statement that feminists have no sense of humour, or that women generally are in the process of losing all their sense of humour. This statement has little factual foundation and probably stems from the current trend among (American) women to less enjoy openly self-disparaging humour, relative to other humour types (Priest and Wilhelm 1974, McGhee 1979:207-209).

In fact, healthy people with no ability to appreciate humour are a rarity (Fry 1963), although it is also true that individual differences in the preferred and dispreferred types of humour — whether socially conditioned or otherwise — may be quite substantial (Cunningham 1962, Zippin 1966, Leventhal and Mace 1970, Chapman 1973, Cantor 1976, Suls 1977, Lundell 1993, Deckers 1994). Among other factors, it is these discrepancies that are responsible for the difficulties encountered by students of humour, as well as for the divergent results of different studies.

The present study aims at tackling and overcoming some of these difficulties by trying to extract and capture some rules governing linguistic ambiguity-based verbal jokes, one type of verbal humour. As I have already mentioned, it is a widespread popular belief that no such rules can be given. Not only is it sometimes claimed that any attempts at discovering rules governing humour are doomed to failure, but that, indeed, any such attempts are detrimental to humour itself. The following excerpt from Johnson (1989) will help illustrate the point:

¹Even this seemingly safe claim has recently been called into question. Primate studies have disclosed that the higher primates are apparently capable of forms of (non-verbal) humour very similar to those of young pre-schoolers (McGhee, 1979: 104-123).

But the dullest reading in the world is the "analysis" of humor, whether by psychiatrists, ministers, sociologists, or even humorists. As E.B. White said, it's something like dissecting a frog. "It's very bad for the frog." (Johnson 1989:1)

One of the best-known personae who expressed a similar view was the poet W.H. Auden, who warned that the study of humour would kill it. Some commentators have even suggested that the analysts of humour themselves, as well as the general public, may be harmed by pursuing investigations into the nature of humour, as noted by McGhee (1979:243):

Many of us have a vaguely defined fear that too much investigation of laughter and humour may destroy our capacity to fully appreciate it. [...] It is not uncommon for newspaper journalists [...] to express concern that maybe this is one area of human behaviour that should remain safely out of the hands of scientists. The rationale for this view is usually something along the following line: "In today's complex technological society, life is hard and full of distress, but at least we have our sense of humour to pull us through. But now they're going to take it away from us!" It should be comforting to know, however, that psychologists, sociologists, and others studying humour have shown no signs of losing their sense of humour as they continue their research on humour. They only appear to have done so, because they tend to write seriously about a subject that is supposed to be entertaining and enjoyed "for the fun of it." If anything, their personal sense of humour has been enhanced by learning more about humour.

A similar fear is reflected in an intriguing short story by Isaac Asimov (1957), in which the gaining of insight into the nature and origin of jokes brings an end to jokes altogether: their reason for being has been annihilated (more about this shortly).

Such thoughts are not completely alien even to scholars working in the field of humour studies. A respected student of humour, Walter Nash, voices a somewhat similar concern in the Preface to his study of humour:

I assured myself that by the time I had finished this book I would never want to hear another joke, let alone make one. (Nash 1985:XI)

It may be that this is a tongue-in-cheek remark, or not perfectly honest (it might be meant as a preemptive strike directed against any fears to that effect that a potential reader might have — such an eventuality should not surprise those familiar with Nash's style of writing). In any case, Nash follows immediately with a disclaimer:

Such humbug. Not want to hear another joke? I am more than ever greedy for laughter, and grateful to those who create it; and I still have my wistful ambitions to make others smile. (Nash 1985:XI)

Charles Hockett, a very well-known linguist, who has done valuable work in the study of jokes, was not immune to this special type of phobia:

One reason for the long delay in publication was my fear that exposure of the reader to an explication of the nature of jokes might spoil his enjoyment of them. But now I am convinced, since jokes are clearly a form of literature, that there can be no such danger. (Hockett 1973:153, footnote 1)

I believe that claims suggesting that the study of humour may detract from the pleasure it brings are not only completely unwarranted, but could also be positively harmful, preventing some potential students of humour from pursuing their scholarly endeavours. If researchers had always listened to such advice in the past, much progress in many branches of science would have been prevented.² (It is enough to mention Galileo.) There always seem to be voices saying that some things are better left alone — voices possibly motivated by some deeply-seated, irrational fear of the unknown. Not uncommonly, furthering the knowledge of various

²Włodzimierz Sobkowiak (personal communication) remarks: "Such arguments against scientific study of humour remind me of similar ones against scientific study of molecular physics (look what the A-bomb did to Hiroshima!), genetics (the horrible idea of cloning human beings), social attitudes (those self-fulfilling prophecies!), etc. This way, all scientists should pack and go."

aspects of human behaviour figures prominently among the type of research to which particular exception is taken. Schafer (1977; cited in Hyde 1990:362) gives one example of this kind of wrong-headed opposition concerning the study of human sex and love:

Senator William Proxmire, watchdogging the spending of federal funds for research, has been very critical of research on sex and love. According to him, the last thing we need to do is understand love.

I quite agree with Hyde's view that "[love] is one of the first things we should try to understand" (Hyde 1990:362), and I am inclined to think of humour as one more area in serious need of extensive study.

It is perhaps the greatest desire of many a humour scholar to find an answer to the basic question which tormented Data: "What is funny?" Although it would certainly be desirable to arrive ultimately at a *general* theory of humour, that is one that would handle adequately all types and instances of humour, I do not believe that such an ambitious goal is attainable at the present level of our knowledge of the subject. Although some authors have claimed to have developed such broad-ranging theories, it will be seen that their success has been partial at best. Treatments so far undertaken have only been able to approach the goal of a general explanation of the nature of humour at the cost of substantial sacrifice on the part of specifics, and they still fail to account for many components of humour.

McGhee (1979:2) writes:

Psychologists today are quite aware of the complex and multifaceted nature of humor and realize that it is simply not possible at this time to develop a single broad theory that satisfactorily accounts for several key qualities of humor simultaneously.

Although McGhee specifically mentions psychologists, he expresses, I believe, a more general truth about theories of humour. With this in mind, remembering that oftentimes less is more, I intend to concentrate on a certain limited aspect of humour, with fairly modest claims as to the scope of applicability of the present description. It is to the discussion of this scope of interest that I shall now turn.

2. Scope of the study

As the title of this work suggests, its main emphasis will be on the linguistic analysis of one type of humorous stimuli, the linguistic verbal joke. Unlike Attardo et al. (1994), all that I imply by 'verbal joke' is that it be conveyed in language primarily, rather than through any non-verbal acts. It follows, then, that I will not be concerned here with the humorous content of someone slipping on a banana peel, since the stimulus here is primarily visual, rather than verbal, in nature. Humorous cartoons are likewise largely instances of non-verbal humour, and thus beyond my scope of interest here, inasmuch as they rely on the graphical mode of presentation. By verbal, then, I understand "expressed in language," which term would cover spoken language as well as a standard orthographic representation thereof. Since the present study is concerned with jokes in the English language, only instances of jokes spoken or written in this language will be considered, primarily derived from American and British printed sources. Consequently, the results of this study are not claimed to be valid in their particulars to jokes or humour in any other language, although it may well be true that many general statements made here will have at least some relevance to humour encoded in other languages.

All verbal humour, as understood here, uses language as a medium in which it is conveyed. Within this broad group, however, a major division may be drawn between linguistic and non-linguistic humour. This distinction can be traced back to Cicero's (106-43 BC) *De oratore* (1881), where a distinction is drawn between humour *de dicto* (from speech) and humour *in re* (in things). Certain authors even ascribe this distinction to Aristotle (384-322 BC, see Attardo 1994:23-25 for a detailed discussion of this controversy). The distinction has resurfaced in the works of various humour scholars of modern times under a number of different guises; Milner (1972) uses the terms *linguistic* and *situational*; Hockett (1973) has *prosaic* and *poetic*; Frumusani (1986) recognizes *linguistic* and *extralinguistic* humour; Attardo (1993, 1994) calls the two types *verbal* and *referential*; numerous other authors (Shultz and Horibe 1974, Shultz and Robillard 1980, Skowrońska 1989, Spector 1990) have *linguistic* and *non-linguistic*. Still other authors (Raskin 1987, Chiaro 1992:14-15) have called into question the very legitimacy of distinguishing linguistic jokes as a special type of jokes. Raskin (1987) claims that *all* jokes are, in fact, linguistic. The divergence of opinion is, to a large extent, a matter of convention, of agreeing on what counts as linguistic (and this point will be addressed shortly). If all jokes are taken to be linguistic then there is some sense of vacuity in the term, at least as a taxonomic device. In my view, it makes sense to have a way of marking the obvious qualitative difference between jokes (1) and (2) below:

- (1) The two drunks stopped in front of the theatre.
"Who's playing?" asked one.
"Lillian Russel, the American diva," said the other.
"Great," said the first. "I love them American swimmers." (Misztal 1990:646)
- (2) A man was told by his doctor: "You are going to make medical history, you are the only male ever recorded who has become pregnant."
The man replied: "This is terrible, whatever will the neighbours say, I'm not even married."
(*Rugby jokes*, no date:12)

Beyond the fact that both (1) and (2) are conveyed through language, joke (1) is different from (2) in that the former's amusing property depends primarily and crucially on the actual wording of the joke, and it is this attribute that, in the present approach, characterizes linguistic humour. There exist many jokes, such as (2), which are not linguistic in the above sense. For instance, it must be acknowledged that specific social or cultural structures may form a rich source for jokes. It appears to me that joke (2) would not be funny were it not for the existence of the conceptual and axiological distinction between legitimate and illegitimate offspring. Such jokes, even though conveyed through spoken or written language, are not, in the present meaning of the term, linguistic.

While the distinction between (1) and (2) above seems to be relatively unproblematic, this is not so for every joke. Given that some, though not all, jokes are linguistic, a question arises of the demarcation between the two complementary categories resulting from the distinction, once the distinction has been accepted in principle.

A follow-up question is how many jokes, or what proportion of them, belong to either category. The answer to the first question hinges on what is subsumed under the term "linguistics." Reflecting the indeterminacy of how much, and of what, belongs under linguistics, is the existence of terms such as *micro-linguistics* versus *macro-linguistics*, or *core* (also *hard-core*) versus *non-core linguistics*. As in all areas of scientific activity, there is disagreement between linguists themselves, and between linguists on the one hand and non-linguists on the other³ as to the legitimate scope of linguistics as a science. One area which is subsumed under linguistics with varying degree and emphasis by different authors and at different times is the social and situational context. The tendency among the majority of linguists has in recent decades appeared to be in favour of broadening the scope of linguistics. If this observation is indeed correct, it does not automatically follow that linguistics is effectively expanding at the cost of other sciences, for at least two reasons. Firstly, we observe a similar broadening of scope in other branches of science, so many phenomena are becoming the subject of interdisciplinary, or at least multidisciplinary study (such as humour!). Secondly, the set of phenomena recognized as amenable to scientific investigation is growing very fast nowadays and that fact in itself is fuelling the expansion of most scientific disciplines. This growth has basically two sources: 1) new (previously unknown) phenomena are coming to light; and 2) known phenomena previously seen as undeserving of or unfit for scientific study are beginning to be so studied.

Rather trivially, the proportion of linguistic jokes will be larger if we adopt a more liberal view of linguistics. In particular, the number of jokes categorized as linguistic will depend heavily on whether we treat the realm of meaning — or how much of it — as linguistic. Indeed, the study of meaning has notoriously straddled two domains which have traditionally, though not invariably, been claimed as separate: the linguistic and the extralinguistic (components of) knowledge. The range of views and theoretical solutions is very broad indeed, and the issue goes well beyond the scope of the present work. Let me just briefly observe that, at one end of the spectrum, there is the utter rejection of meaning as a viable object of linguistic enquiry by the Bloomfieldan-type structuralism. Consecutive versions of generative semantics seem to usher in growing amounts of meaning into linguistics, with pragmatics broadening the scope of the term *meaning* itself. At the other end, we have attempts at incorporating much of what had been seen as extralinguistic knowledge into one, unified linguistic(?) theory (eg. Moore and Carling 1982, Raskin 1985, Raskin 1986). While, thanks primarily to Raskin (1985), we are now in possession of a fairly well-developed (but see page 15 ff. below for criticism) theory of jokes based on semantics (in the broad sense), such a claim can hardly be made about the application of those branches of linguistics closer to the "core" to the study of verbal jokes. Among other goals, it is this seeming neglect that the present study sets out to rectify.

Whatever definition of linguistics is adopted, there is little doubt that *the humour of a substantial proportion of jokes is linguistic in that it depends crucially for its existence on the manipulation and specific use of linguistic form*. As such, it may be, and should be, the object of investigation of a linguist.

In this work, my primary concern will be linguistic verbal jokes. Before embarking upon a somewhat more detailed discussion of what a joke is, let me first state, very simply, that a joke is one type of humour, and, consequently, a verbal linguistic joke will be a specific type of verbal linguistic humour. This informal definition raises certain objections, not the least of which being its vagueness. Clearly, if jokes form *one* type of humour, we must be able to distinguish them from other types of humour. It seems reasonable to assume that at least one other type must exist, for otherwise the terms *joke* and *humour* would be synonymous. The formal flaw of the above formulation notwithstanding, we must admit that this very simple and vague definition does appeal to many readers. The reason for this seems to be that most of us probably have a quite clear idea of what we understand by the term *joke*. This fact should not be surprising: after all, the word is a very common item in everyday language, and the phenomenon itself is equally common in everyday life.

³Of course, the distinction between a linguist and a non-linguist is also at issue, but we can escape the vicious circle by using the terms in the sense 'linguists/non-linguists in their own belief.'

In my view, academics have a right to adopt their own definitions. However, they should not be exercising absolute and unrestrained liberty in doing so: certain constraints should, I think, apply, and I would now like to briefly mention three that I believe to be the most important.

Firstly, a definition of a term should be well suited to the purpose of the analyst, embracing a relatively autonomous unit of, or under, description or investigation. Secondly, the definitions used in one given analysis should be economically and efficiently distributed, so that there is no unwarranted overlap (other than proper inclusion). Finally, a definition should not depart excessively from the previous well-established usage of both the specialists and non-specialists.⁴ Of course, the question of how drastic a departure counts as excessive can be answered in more ways than one, depending on many factors; but frequency of use should be seen as an important factor, greater frequency requiring greater compliance with the prevailing usage.

Before embarking on a more specific discussion of the joke, let us dwell for a moment on an interesting question of the origin of the word *humour* in the English language.

The word derives from the Latin *humor*. Interestingly, within a relatively short span of time, this word has undergone a fairly drastic semantic shift. Originally, the word meant approximately 'moisture' or 'fluid' (witness the contemporary meaning of such cognates as *humid*, *humidity*, or *humidor*). From ancient to Renaissance times, it had been a widely held conviction of human physiology that within a human body there exist four basic fluids or *humours*: blood, yellow bile, black bile, and phlegm. For a person to be in a balanced, healthy state, an equilibrium between the four *humours* was required. If any of the fluids should be secreted in excess, the mood of a person was thought to become sanguine, choleric, melancholic, or phlegmatic — depending which of the *humours* was out of proportion. As long as correct balance was upheld, a person was said to be in "good humour."⁵

One of the heroes of *The jokester*, Isaac Asimov's short story, uses Multivac, a supercomputer of the 21st century, to determine the ultimate origin and purpose of jokes. The character states, "I never met anyone who ever claimed to have constructed a joke" (Asimov 1957:134). Outside the realm of fiction, Legman (1975:15) makes a similar observation: "Few people ever actually make up or invent jokes, or would be capable of doing so. [...] I myself never made up a joke, nor have I ever met or heard of anyone who did." The answer to the question about the origin of jokes given by Multivac was that they had been created and planted in human brains by superior extraterrestrial beings for the purpose of experimentally studying the human psychology by analyzing the different responses to jokes.

While it is perhaps true that many jokes are variations of recurrent themes, all of them must have been, at one point or another, invented. If this were not so, it would be very difficult to explain the almost instantaneous proliferation of thematic jokes following certain major events, such as O.J. Simpson jokes in 1994-1995 and mad-cow disease jokes as of March 1996. It makes sense, then, to assume that jokes are, after all, products of spontaneous human creativity (see also Koestler 1964, as well as Hockett 1973:153 for a suggestion that jokes can be created from spontaneous conversations and situations). As such, jokes may well be potentially capable of revealing some interesting facts about the workings of the human cognitive apparatus.

⁴It is this very consideration, I believe, that has compelled many scientists to coin a new term or borrow one from another language.

⁵Many readers will be familiar with Ben Jonson's play *Every Man in His Humor*; it is this early sense of *humour* that is meant in the title. For a more extensive treatment of this interesting issue see McGhee (1979:4-8), on which my account is in part based.

3. Definitions of the joke

Let us now review some of the definitions of the term 'joke' proposed by other researchers.

Probably the most elaborate definition of the joke that I have encountered so far is that given in Johnson (1976:195) and Johnson (1978:329-330):

(1) The so-called joke is the conceptualization of a process of alignment whereby the adherents of a particular conceptual system place themselves in a situation of hierarchical superiority over the object to which they refer.

(2) The logical capability to generate jokes as a form of contained antistructure is an inherent quality of any classificatory system.

(3) Once it is recognized that the joke is the product of the application of a given conceptual system, then it becomes apparent that the expression 'joke' refers only to a type of ideologically generated classification by which a part is defined by the containing premises of the encompassing conceptual schema.

(4) Investigation of such hierarchical alignments reveals that the joke process as involving a class of visible events may be described in many different folk idioms. This process whereby classificatory conflict created by social transactions is conceptually contained does reveal the self-reifying nature of conceptual systems when used as paradigms of explanation.

(5) It becomes apparent that to study the joke as a process of hierarchical alignment requires information about the total system in which the justifying conceptual system is engaged. The joke process is inextricably merged with the containing conceptual system in the total socio-economic situation which both generates and invokes them.

A joke might be the concretization of a process of hierarchical alignment, but such a process does not necessarily entail the co-occurrence of a joke.

As emerges from the above definition, for Johnson the joke is essentially a socio-anthropological phenomenon. He seems to exhibit strong sympathies towards the superiority (or aggressiveness) approach to jokes, which will be taken up again in a later chapter. Because of this bias and complexity, Johnson's definition is not suited for our purposes.

Brigitta Geltrich-Ludgate proposes a far simpler, though equally unhelpful to us, definition of the joke: "The joke is an answer to a riddle" (Geltrich-Ludgate 1983:89). Note that Geltrich-Ludgate's definition presupposes the knowledge of what a riddle is. If this definition is slightly surprising in its simplicity, then the clarification that immediately follows it is indeed puzzling: "That does not exclude that there are many jokes in riddle form" (Geltrich-Ludgate 1983:89).

Hetzron (1991) adopts the following working definition of a joke:

A joke is a short humorous piece of oral literature in which the funniness culminates in the final sentence, called the punchline. (Hetzron 1991:65-66)

Following this relatively compact definition there are a number of embellishments:

In fact, the main condition is that the tension should reach its highest level at the very end. No continuation relieving the tension should be added. As for its being "oral," it is true that jokes may appear printed, but when further transferred, there is no obligation to reproduce the text verbatim, as in the case of poetry [...] (Hetzron 1991:66)

Attardo and Chabanne (1992:169) propose a definition of a joke based on its identification as one type of text:

[...] jokes are very short narrative fictions reduced to the most economical form. The narratives are most generally focused on a short dialogue (often not more than two lines) between rarely more than two characters (never more than four). The essential pattern is that the verbal joke is oriented to and by a punch line, which lies at the end of the text. The function of the narrative is that of providing enough contextual information for the punch line to build upon, or rather to be incongruous with.

What follows in (3) below is Raskin's (1985:99) definition of the joke within the framework of his Script-based Semantic Theory of Humor (see page 15 ff.):

- (3) (107) A text can be characterized as a single-joke-carrying text if both of the conditions in (108) are satisfied.
- (108) (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 in a special sense defined in Section 4.

Attardo and Raskin in their General Theory of Verbal Humor (Attardo and Raskin 1991, see page 18 ff. below for a fuller discussion) view the joke as a six-argument vector, specifying the instantiation of each Knowledge Resource as a parameter.

For the purposes of the present study, Hetzron's brief definition seems to be the most suitable, though more practically, the working criterion for including a text as a joke example here will be either the inclusion of the text in question in a printed or electronic joke collection clearly identifying itself as such, or hearing it being told in an unequivocally joke-telling situation.

4. Theories of humour

It would go far beyond the scope of the present study, and, perhaps more importantly, beyond the patience of any but the most determined reader, to attempt to present at this point a comprehensive overview of all accounts of humour proposed so far. Some theories, conceptions, and views are now primarily of interest to researchers working on the historical development of the study of humour. Other works focus on varieties of humour rather far removed from our main concern here, that is linguistic verbal jokes. Since it is impossible to do justice to all of those, what I will try to do instead is to refer the reader to some other studies that are meant as overviews of certain trends or periods in humour studies and then proceed to discuss in some detail some recent works that bear, I believe, in the most direct manner on the present ambiguity-based approach.

A useful and informative overview of early conceptions of humor, mainly from the positions of psychology, may be found in Keith-Spiegel (1972). Milner (1972) includes a concise but valuable overview of humour scholarship throughout the ages. Johnson (1976) discusses what he chooses to call "bisociation theories of joking," ascribing the same basic idea that Koestler (1964) called "bisociation" to a number of other scholars predating and postdating Koestler. Attardo (1988) presents a brief but informative survey of trends in European humour research of the past thirty years or so. Attardo (1994) is an impressive and in-depth account of linguistic (in a rather broad sense of the term) theories of humour. Raskin (1985, Chapter 1) presents an overview of theories of humour, placing them in three main strands: incongruity-based, disparagement-based, and release-based theories. Chapman and Foot (1976), and McGhee and Goldstein (1983) are important collections covering a wide range of issues in humour, particularly related to psychology. A broad overview of psychology-rooted approaches to humour can be found in Goldstein and McGhee (1972). More concise, but useful, are Rothbart (1977) and Rothbart and Pien (1977). Morreall (1987) explores the philosophical issues in humour and laughter. Apte (1985) presents an anthropologist's view, stressing, however, the interdisciplinary character of humour studies. Other useful surveys of humour scholarship are included in Munro (1951), Mulkay (1988), and Palmer (1993). For the Polish reader, a recent work in Polish by Chłopicki (1995) is worth recommending.

Paulos (1980) presents a novel, interesting approach to analyzing jokes and humour. It is based on a relatively recent mathematical topological theory, known as catastrophe theory, developed by the French mathematician René Thom (see Thom 1975), and applied with considerable success to problems in fields mainly related to animal and human behaviour by the British mathematician E.C. Zeeman (see Zeeman 1976).

Without going into too much technical detail (and simplifying greatly), catastrophe theory concerns itself with discontinuous relations involving multiple variables which, by virtue of their discontinuous character, do not satisfy the traditional requirements for a function (in the technical sense used in mathematics). Unlike in a function, in the kind of mathematical relation analyzable through catastrophe theory, a specific vector (n -tuple, or ordered set, if you like) of values of independent variables need not necessarily correspond to one unique value of the dependent variable. Rather, the choice of one such value will depend on the path leading to one particular vector in terms of the "previous" values of these independent variables. Of course, the term "previous" is only applicable in one narrow interpretation of the model, in which there is one independent variable with a special path-generating status — in this case time. This particular interpretation, relatively easy to conceptualize (even for non-mathematicians), seems for Paulos to be the most suitable one for modelling humour.

Thom (1975) demonstrated that any quantity (such as a parameter of behaviour) that depends on two factors, is discontinuous, and satisfies two rather mild technical conditions must have a very definite shape. If we consider a simple case of two independent variables: x , y (plus t (time) as the lower-level path-determining variable), then the relation " z (dependent variable) of (x,y) " can be graphically represented in three-dimensional space as a spiral-shaped surface, a bit like a segment of a central-pole-mounted winding staircase, but with a continuous slide in place of the regular steps. Now, the most interesting aspect of this is that there is a definite area where the lower and upper ends of the surface overlap, that is the upper end overhangs the lower end. This area of overlap, when projected upon the horizontal x - y plane, will be bounded by a characteristic cusp-shaped curve. For the values of (x,y) anywhere within this area, there are *two* possible values of the dependent variable

(unlike for any mathematical function, where only one value is allowed, or none at all). Which of the two possibilities is chosen, depends on the history (previous values) of the variables.

If the independent variables change in value in such a way so as to push the dependent up to the edge of the surface representing the discontinuity, then z will either "fall over the edge" and all the way down to the lower layer, or, conversely, "jump" directly to the upper layer. This rapid change in value (of z) is the "catastrophe" referred to in the theory's name, this particular type having been given the name of *cuspid catastrophe* by Thom (1975), after the shape of the area of overlap. It is also important to note that, once this rapid change has occurred, a considerable change in the value of the independent variables would be required to bring z back to the original (pre-catastrophe) layer. This last phenomenon is generally known in the mathematical sciences as *hysteresis*.

Let us now see how Paulos applies this model to jokes and humour. He takes x and y as measures of the development of each of the two possible meanings of the joke (or, more generally, some humorous story) as it unfolds. They are meant to express some quantification of the elements that contribute to both possible interpretations. The cusp will enclose the ambiguous area, and the independent variable z will represent the interpretation that the audience gives to the story at a given moment:

It [the interpretation], too, can often be assigned a rough numerical measure, z — high values for interpreting the story in terms of the first meaning, low values for interpreting it in terms of the second meaning (Paulos 1980:85).

At the moment when the second meaning becomes suddenly more likely (the punch line, according to traditional formulations⁶), there occurs a catastrophe of z "falling off" the upper layer to the lower one.

This application of catastrophe theory clearly does not allow two meanings to be active at the same time. Although Paulos remarks that "[r]apid alternation between the two is possible" (Paulos 1980:87), he does not say in what way this would be achieved. This is not a trivial question, for the very existence of hysteresis seems to prevent any rapid oscillation between the two meanings, a phenomenon which looms large in a number of other descriptions (e.g. Fry 1963, Koestler 1964, and Casadonte 1990 discussed immediately below). A solid dose of elements supporting the previous, abandoned meaning would be necessary to cross all the way back over the cusp-enclosed territory and jump back up from the lower edge to the upper layer again. Clearly, no such elements are normally available in the narrative *after* the punch line of a joke. We might speculate that such elements could perhaps be produced as a result of the joke recipient's interpretive operations, but this creates more problems for the model than it solves, because once we allow the hearer's interpretation (represented, remember, by z) to infringe on the independent variables x , y , or directly upon itself, the whole model crumbles, as it is no longer possible to maintain a coherent distinction between the independent and dependent variables.

Paulos also suggests an alternative interpretation of the independent variable z :

in jokes and humor that stimulate laughter (and generally *only* in this case), it may sometimes be more natural to take the z coordinate to be instead a rough measure of physiological excitation (Paulos 1980:87, Paulos's emphasis).

In this mutation, the theory has affinities with the release theory of humour (cf. Freud 1960) as well as with one recent connectionist model (Katz 1993, 1994).

Apart from the cusp catastrophe, Thom (1975) recognizes six more types of catastrophe, depending, among other factors, on how many independent variables are involved. Paulos also attempts to apply two of those other catastrophes, the *fold* and the *swallowtail*, to modelling jokes and humour, but these attempts appear

⁶The term *punch line* is used in everyday language. Following Hockett (1973), however, I will henceforth use the less specific *punch* so as not to suggest that the point in a joke text at which the ambiguity becomes apparent is coextensive with a "line," whatever the latter is taken to signify.

to be nowhere near as well developed or presented as the cusp catastrophe, and, consequently, will be omitted from the present discussion.

Paulos's approach is interesting and unconventional. Unfortunately, beyond the mathematical clarity of the model and graphically appealing presentation there is in fact very little that Paulos's approach offers. Indeed, in Paulos's own words,

the model should be taken largely as a useful and suggestive mathematical metaphor for two reasons: accurately measuring the x , y , and z coordinates is usually very difficult and sometimes a matter of pure convention; and the model does not in general yield quantitative predictions but merely provides one with the qualitative shape (Paulos 1980:91).

The difficult part, then, appears to lie in matching the immensely complex reality of humour with the relatively constricted mathematical model. The highly formalized descriptive apparatus of the model may suggest that the model is a faithful, accurate representation of the dynamics of jokes. Unfortunately, such a belief is very largely an illusion. There can be no talk of accuracy unless specific readily isolable components of a humorous text can be unequivocally assigned to the variables included in the model.

Another model for the process of humour that is, like Paulos's (1980) above, heavily influenced by the relatively recent advances in topological theory is compactly presented in Casadonte (1990). In contrast to Paulos, who assumes a relatively stable, though catastrophic, transition to another interpretation, Casadonte's *decompactification model* is based upon the assumption that humour arises from the "damped oscillation between two (or more) unstable solutions to a context goal" (Casadonte 1990:128). Casadonte hypothesizes that laughter is the damping mechanism responsible for the gradual decay of humour-induced oscillations. The oscillatory excitation itself would result from the presence of two subtrajectories leading to two solution paths, split catastrophically "at the point of humour" (Casadonte 1990:128) called the "*splitting* or *trigger term*" (Casadonte 1990:128, Casadonte's emphasis). As an example, Casadonte includes the following joke:

- (4) Did you hear the one about the rock musician who worried that his broken guitar wouldn't be fixed in time for the concert?

It turns out he fretted over nothing. (Casadonte 1990:128)

Casadonte identifies *fretted* as the splitting or trigger term of joke (4), "because the trigger term is composed of two (or more) *compactified* (compact and stratified) coincident 'meanings'" (Casadonte 1990:128, Casadonte's emphasis).

In my view, there is a problem with Casadonte's model, since it is only in *some* ambiguity-based jokes that the string compatible with two meanings (correctly identified by Casadonte) is coincident with the point in the joke's text at which this becomes evident to the recipient. Admittedly, this is the case for (4) above, but such a state of affairs is hardly general. As a counterexample, consider joke (5) below:

- (5) "You should meet my husband. He makes a living with his pen."

"Oh, so he is a writer?"

"No, he raises pigs." (Miszta 1990:509)

It should be evident from (5) above that the splitting and trigger types of action identified by Casadonte as one and the same phenomenon need not coincide within one and the same "point of humour." The "point of humour" of (5) is roughly identifiable as *raises pigs*, at which a second meaning is "triggered," yet it is a second meaning not of *raises pigs*, but of *pen* that is revealed, which occurs much earlier in the joke. There is some quantitative evidence (Attardo et al. 1994) that joke (5) is not at all exceptional in this respect but rather follows the more usual pattern, in contrast to (4). On the positive side, it must be pointed out that Casadonte attempts to integrate into one model not just the mechanism of humour, but also the role of laughter as a possible physiological response to humour.

An influential theory of humour, generally referred to as the Script-based Semantic Theory of Humor (SSTH for short), was proposed by Raskin (1985). Because of its widespread appeal (cf. Chłopicki 1987, Marino 1987, Chłopicki 1988, Hofstadter et al. 1989, Morrissey 1990, Attardo and Raskin 1991, Attardo 1994,

Chłopicki in press), it deserves more than just a mention, therefore in what follows I will discuss it in some detail. The theory capitalizes on Victor Raskin's script-based semantics (for whose exposition see Raskin 1985, 1986). In a nutshell, a script is

a large chunk of semantic information surrounding the word and evoked by it [...] a cognitive structure internalized by the native speaker and it represents the native speaker's knowledge of a small part of the world (Raskin 1986:43)

According to Raskin (1985), a joke is characterized by the fact that its text, or some part thereof, is compatible with two scripts, which are opposite in a special sense (see (3) on page 12 above for Raskin's exact formulation). The underlying opposition is that of real versus unreal with three major subtypes: actual vs. non-actual, normal vs. abnormal, and possible vs. (partially) impossible. Somewhat independently of this basic three-way taxonomy of script oppositions appearing in jokes, Raskin introduces another dimension along which oppositions can be classified, involving "relatively few binary categories which are essential to human life" (Raskin 1985:113), namely: good vs. bad, death vs. life, obscene vs. non-obscene, and money vs. no money. Raskin also singles out "three groups of standard script oppositions constituting sexual, ethnic, and political humor" (Raskin 1985:114), which he later liberally exemplifies (chapters 5, 6, and 7, respectively). Finally, at the bottom of the cline from the more to the less general taxonomies of oppositions, there are the actual script oppositions obtaining for the individual jokes. For instance, the two specific scripts opposed in joke (6) below are DOCTOR and LOVER:

- (6) "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." (Raskin 1985:100)

According to Raskin (1985:114), "many jokes contain an element which triggers the switch from the one script evoked by the text of the joke to the opposed script." Within the script-based theory, this element is called the semantic script-switch trigger, and it comes in either of two types; *ambiguity* or *contradiction* (also called *dichotomizing*).

The script-based theory seems to work very well on Raskin's examples, and he talks the reader through the examples with competence and charm. However, Raskin makes a claim that the two conditions listed under (3) on page 12 above form "the necessary and sufficient conditions for a text to be funny" (Raskin 1985:99). It seems doubtful to me that such a strong claim can withstand closer scrutiny, and I will now try to show why. Firstly, if (3) is to be necessary for a text to be funny, then no funny text should exist that would not meet the two conditions included in (3). Secondly, if (3) is to be sufficient, then no text meeting these two conditions should be unfunny. Let us take up the two claims following from Raskin's formulation in turn.

Firstly, let us examine joke (7) below:

- (7) Two men are sitting in a bar. After a while, one of them asks, a little annoyed: "What are you staring so intently at all the time?"
"At my coat. Yours disappeared about ten minutes ago."

Assuming that (7) is a funny text, and this seems like a safe enough assumption to me, there should be, if Raskin's prediction is correct to the extent that it is claimed to be, two scripts compatible with (some part of) the text of (7) that are opposed along the most general real vs. unreal dimension, and along one or more of the less general dimensions enumerated above. The problem is, however, that locating any such two scripts appears to be very difficult. There does not seem to be any reasonable way of recognizing a real vs. unreal situation here. In terms of the specific script oppositions that could possibly be postulated here, THEFT vs. NO THEFT seems to me the most plausible candidate (unlike COAT vs. NO COAT, a likely pair at first blush, but hardly deserving to be called scripts in Raskin's meaning of the term). The problem with the THEFT vs. NO THEFT solution is that if we accept such detailed pairs as valid script oppositions in terms of Raskin's theory, then we can find such script oppositions in just about any information-carrying texts, with no humorous value whatsoever. Consider (8) below as evidence to that effect:

- (8) John has stayed in his office long after regular hours to deal with an unusual pile-up of business. As he finally prepares to go home, he notices David, still in his office, despite the very late hour. "What are you

doing here so late at night?" he asks. "I have nothing better to do. My car has been stolen and I can't get home," answers David.

If THEFT vs. NO THEFT is accepted as a valid script opposition, then (8) should meet the (sufficient and necessary) conditions for a text to be funny. But, of course, it is not! Furthermore, it is important to realize that it is a basic characteristic of any information-carrying act of communication that new information is revealed every little while that has not been known prior to the moment at which it is revealed. If one should accept THEFT vs. NO THEFT as exemplified in (7) and (8) above as a valid script switch, then we could with equal ease say that most sufficiently informative acts of communication are replete with such instances of script switching, for the revealing of a certain fact is opposed to the assumption of that fact not being the case prior to the revealing of that fact. In short, allowing such far-fetched latitude in locating script opposition would make the script theory of humour trivial, in that it would overgeneralize by predicting funniness for a typical information-carrying text. Since this would be tantamount to the demise of the theory, it seems necessary to limit the postulation of valid script oppositions to clear cases of real vs. unreal oppositions strengthened by the presence of any one of the three basic generalizable types of oppositions, that is actual vs. non-actual, normal vs. abnormal, and possible vs. (partially) impossible. If so, however, then joke (7) above would lie outside the predictive domain of the theory and would disconfirm the theory's claim as to the necessary character of the conditions given in (3) above.

In terms of the other claim of the theory, namely that the conditions given in (3) are sufficient for humour, an unfunny text that meets those conditions would have to be taken as disproving the theory. It seems that such texts are not at all difficult to come by, as evidenced by (9) below:

- (9) A woman sees a man perched on top of a very tall tree, looking visibly perplexed. "How on earth did you manage to climb all the way up there?" she asks.
"But I didn't!" answers the man. An eagle grabbed me by my hair and carried me up here."

In terms of the script-based theory of humour, text (9) appears to possess all the sufficient (and necessary) ingredients of a joke-carrying text, namely a real vs. unreal, more specifically possible vs. (partially) impossible script opposition. In addition, it has another, non-essential, though frequent (as claimed by the theory in question) element, a contradiction script-switch trigger (for which see Raskin 1985:116) roughly identifiable as *(I) didn't*. If it can be agreed that (9) is *not* funny, a judgement which strikes me as a very reasonable one, then (9) would constitute a counterexample disproving the second part of the theory's claim stating that the conditions in (3) are sufficient for a text to be funny.

In the light of the above, it seems that the script-based theory of humour is overly optimistic in claiming to have specified the "necessary and sufficient conditions for a text to be funny" (Raskin 1985:99). Its excessive optimism is also reflected in the statement that logically follows from it:

[the theory's predictive power] has the effect of invalidating the frequent complaints and lamentations of humor theorists and practitioners about the elusive nature of humor which escapes all generalization and definition (Raskin 1985:130)

Since Raskin (1985:132) correctly observes that:

the theory can be falsified in two ways: if at least on example of a joke is produced which does not conform to the Main Hypothesis [given as (3) here — RL] or if at least one example of a text is produced which conforms to the Main Hypothesis but is not funny,

then, if our analyses of (7) and (8) are correct, the two in combination have the effect of falsifying the theory in both ways.

Rejecting the strong claim of the theory (which says something like "this is all there is to verbal humour, and it's specific to humour and nothing else") need not be the same as saying that the script-based theory of humour is worthless. Quite to the contrary, I believe that the theory says something important and new about a substantial subset of humorous texts, and, as such, it is a significant step forward in the pursuit of the elusive "nature of humour." However, the complexity of humour should not be underestimated. It may not be possible to generalize in a meaningful, non-trivial way about all humour. While we should still try to do that, it is at least as

important to theorize about the mechanics of specific types of humour, and this, incidentally, is the principal aim of the present study.

Attardo and Raskin's (1991) General Theory of Verbal Humour (henceforth, GTVH) provides, to some degree, a continuation and extension⁷ of Raskin's (1985) Script-based Semantic Theory of Humour discussed above and Attardo's five-level joke representation model (for which see Hofstadter et al. 1989:438-439; see also Attardo 1990b). The SSTH's pivotal notion of script opposition (SO) was incorporated into the GTVH as just one of the six independent Knowledge Resources (KRs) which are postulated to inform every humorous text and at the same time constitute the parameters of joke similarity. The remaining five KRs proposed by the GTVH are: Language (LA), Narrative strategy (NS), Target (TA), Situation (SI), and Logical mechanism (LM). LA is the actual wording of the joke and includes the linguistic components of the text. NS specifies the form of narrative organization in which the joke is cast, distinguishing between a simple narrative, a question-and-answer sequence, a riddle, etc. TA locates the target or butt of the joke, if there is one. SI incorporates the setting, objects, participants, and activities depicted in the joke. LM refers to the mechanism through which the two scripts are put together, the simplest of which being juxtaposition, other possibilities including figure-ground reversal, garden path, faulty logic, analogy. The KRs are ordered as follows: SO, LM, SI, TA, NS, LA, so SO is the most abstract, while LA is the most concrete of the KRs. The basis for this ordering is twofold. Firstly, the higher KRs are said to limit the choice of the KR's below them. Secondly, jokes differing in respect of lower KRs are more similar to each other than jokes differing in higher KRs. These two criteria lead the authors to specify an ordering of the KRs as given above. A study by Ruch et al. (1993) sets out to verify this ordering empirically, with partial success. The makeup of the set of KRs itself has been challenged by Chłopicki (1993) and Raskin and Attardo (1995).

The GTVH, as its name suggests, is designed as a very general, universal theory of verbal humour. It is perhaps in the nature of any attempts at sweeping generalizations that some of the discriminatory potential is sacrificed in the process. I believe this is painfully true of the treatment of language in the GTVH model. Language (LA) occupies the lowest of the six levels in the proposed hierarchy of KRs. Once the joke has been defined at all five of the higher levels in turn, the LA component selects between various "synonyms" and "paraphrases" (in Attardo and Raskin's words). Yet, as will be apparent from the present study, while some parts of the joke are free to be modified quite extensively without actually changing the joke, in some other parts — particularly but not exclusively in the punch — changing one word to a (very close) synonym, or even a mere modification of a single phonological feature of one sound segment, turns a joke into a non-joke. It seems necessary for a theory of humour applicable to jokes to be able to account for this extremely variable context-sensitive way in which language enters into jokes. In all fairness, GTVH does not entirely ignore this issue. The solution provided is this: whenever a change is made in the "wording" (incidentally, no specific mention is given of any lower-level modification) of a joke, a new, different though very similar to the original, joke is obtained. The way GTVH accounts for the radical effect *some* changes in the wording would have on the joke is through postulating that some high-level Knowledge Resources may pre-select very specific items at the lowest LA(nguage) level. There are at least two problems with this explanation.

First, it is counterintuitive to claim that *any* changes in the wording produce different though similar jokes. With very few exceptions, whenever a joke is retold, the wording *is* changed. Not infrequently, such changes are quite dramatic and may easily involve adding or deleting a number of whole sentences. However, the teller is still convinced that he or she is telling the *same* joke — and not a *similar* one! The same would hold for the hearer. If someone is trying to tell us a joke that we have already heard, we would normally recognize this fact *before* we hear the last word of the joke ("I've already heard this one!"). But if we accept the tenets of GTVH, that would not be possible, since we cannot know before hearing the joke to the very end that the wording is exactly the same (which it isn't, of course). Postulating that we are dealing with different jokes in such cases appears to be fitting the theory to its own claims rather than to the data.

⁷In one aspect, however, the GTVH constitutes a *restriction* on the SSTH in that the former, unlike the latter, stops short of claims as to the joke production process.

The second problem concerns the internal consistency of the theory. In a hierarchy based on consecutive selection of possible sets, a direct restrictive relation between the (supposedly) lowest level and (one of) the highest level(s) calls into question the legitimacy of this particular ordering, or at least its rigidity, by positing an important and sweeping exception to a principle central to the theory itself. For many jokes, such as those analyzed in the present study, it can be shown, if one should wish to operate within the axioms of GTVH, that an element of language can be elevated to the higher regions of the hierarchy and provide limited choice for other KR's in a manner shown by Attardo and Raskin to justify the component's high-level placement. This situation obtains for a substantial proportion of jokes — too substantial to be neglected — which are here referred to as linguistic jokes.

5. Selection of data

The jokes found in the body of this work come from a number of published and unpublished sources. Over a period of time I have browsed through a dozen or so joke collections in book format published in the U.S. or Britain, encompassing roughly sixteen thousand individual joke tokens. Jokes that come from any of these published sources are identified by a reference citation following the joke. Full bibliographical information on these sources is included within the general listing of references starting on page 66 of this work. Many jokes that I decided to use here, though, I did not find in published sources, and these are left without reference information. They are jokes that I either witnessed being told by a native speaker in what was obviously an attempt to tell a joke, or downloaded via the Internet from the numerous Web sites holding humour tokens.

It should be stressed that my interest in this work is restricted to *canned jokes* as opposed to *conversational jokes*. Although not always clear-cut, the distinction between the two is usually based on the amount of contextual (including co-textual) support that the two types of text require. Canned jokes are essentially context-free, in the sense that whenever situation warrants the telling of a joke, it matters little which *particular* joke will be told. Conversational jokes arise spontaneously in conversation, and are relatively context-bound. It follows that canned jokes are capable of being used repeatedly in a variety of context, whereas conversational jokes are typically limited to the context in which they originate, although some conversational jokes may be extracted to become canned jokes, provided the relevant elements of context are assimilated into the text of the joke. Mulkay (1988:57) refers to canned jokes as "standardized humorous packages." For further discussion on the differences between canned and conversational jokes see Fry (1963:43), Raskin (1985:27), and Attardo (1994:295-299). Of course, with printed collections of jokes there is no risk of confusion, as all jokes are for all practical purposes entirely context-free and thus canned.

At times, in order to make a theoretical point, I have had to modify the original text of a joke. Such altered examples are usually placed adjacently to the original texts from which they derive, and so it should be immediately clear which texts are altered examples.

In contrast to some other authors (Attardo and Raskin 1991, Attardo et al. 1994), I have been wary of inventing my own jokes. While using invented examples may at times be very expedient, as it gives ready access to an open-ended, practically unlimited joke data resource, such a methodology, especially if used extensively, may raise some doubts as to its legitimacy. One potential problem is that the resulting pieces may meet just the theory-internal criteria for being jokes and may thus promulgate circularity. To illustrate the problem briefly, consider the following token created by Ruch et al. (1993:135) to verify the GTVH's predictions as to joke similarity:

(10) Why did the chicken cross the road? Nothing ventured, nothing gained.

While the text may meet all of the requirements for a text to be a joke as formulated within the GTVH theory, there is some doubt in my mind as to whether a typical audience would agree with the theory's prediction. Now, when accompanied by an appropriate joke-prefacing device (see Cashion et al. 1986) and in a context in which a joke would be likely to be told, the audience will initially assume that what is being told *is* a joke, and if they don't find any humour in the joke, they may conclude that their joke decoding ability has failed them (that is, that they did not get it). But then in such circumstances almost any text of acceptable length might be (mis)identified as a joke.

It is impossible to assess with any generality to what extent, if at all, resorting to invented jokes undermines the validity of a study, but it should be recognized that there is a potential danger lurking in this practice. Maybe the benefit of gaining access to a virtually unlimited resource of jokes offsets the disadvantages, but since it is difficult to establish the magnitude of the danger, I have deemed it safer not to make extensive use of invented examples in this work.

6. The role of ambiguity in jokes

It has been noted by a number of independent authors (though individual formulations of this claim have differed across authors) that jokes often bring together two distinct, irreconcilable ideas. Some of these claims will be briefly presented in what follows to show that viewing ambiguity, or phenomena resembling it, as an important element of jokes is not an isolated feature of the present work.

Freud notes (1960:74):

If representation by the opposite is one of the technical methods of jokes we can expect that jokes may also make use of its contrary representation of something similar or akin.

At an earlier point (1960:41-42), Freud gives the following typology of jokes in terms of their structural properties:

- I. Condensation
 - (a) with formation of composite words
 - (b) with modification
- II. Multiple Use of the Same Material
 - (c) as a whole and in parts
 - (d) in a different order
 - (e) with slight modification
 - (f) of the same words full and empty
- III. Double Meaning
 - (g) meaning as a name and a thing
 - (h) metaphorical and literal meaning
 - (i) double meaning proper (play on words)
 - (j) double entendre
 - (k) double meaning in allusion

As far as a given verbal joke is, on a given rendition, presented in the form of a single, linear text, the only way this "double meaning" can be achieved is through the non-uniqueness of the semantic interpretation of the text. In linguistic jokes, the duality/multiplicity of semantic interpretation takes on the form of linguistic ambiguity.

Koestler (1964:35) defines an act of *bisociation* as

... the perceiving of a situation or idea L, in two self-consistent but habitually incompatible frames of reference M1 and M2.

More specifically, he defines the pun as

... the bisociation of a simple phonetic form with two meanings — two strings of thought tied together with an acoustic knot (Koestler 1964:64-65),

that is, as a special type of bisociation.

Paulos (1980:85) writes:

A joke can thus be considered a kind of structured ambiguity, the punch line precipitating the catastrophe of switching interpretations.

Raskin (1985:99), in the exposition of his Script-based Semantic Theory of Humour (for which see page 15), again expresses a similar idea (what follows has already been included at (3) above, but is repeated here for convenience):

- (107) A text can be characterized as a single-joke-carrying text if both of the conditions in (108) are satisfied.
- (108) (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 in a special sense defined in Section 4.

Somewhat further on, Raskin writes:

...many jokes contain an element which triggers the switch from the one script evoked by the text of the joke to the opposed script, the switch which makes up the joke. This element, called here the **semantic script-switch trigger**, or simply the **trigger**, usually belongs, in simple jokes, to either of the two types: **ambiguity** or **contradiction**. (1985:114, all emphasis Raskin's)

Shultz and Horibe (1974:13) state:

A thorough analysis of hundreds of verbal jokes by the authors indicated that many of them depend on some sort of linguistic ambiguity for a successful resolution.

Ambiguity has been the subject of interest for a vast number of linguistic, as well as literary, studies (among others, but far from exhaustively, Empson 1966, Shultz and Pilon 1973, Stageberg 1979, Kess and Hoppe 1981, Ruch and Hehl 1983, Hirsch-Pasek et al. 1986, Oaks 1990, 1994). As such, ambiguity has of course been defined in a number of different ways, all of which may have their own validity and usefulness within the frameworks in which they have been employed. The working definition of linguistic ambiguity that I have decided to adopt for the present study is as follows:

(11) Linguistic ambiguity is that property of a fragment of text which allows for two or more significantly different semantic interpretations to be arrived at by a substantial proportion of typical text recipients.

Although ambiguity, as seen here, is essentially the property of the text itself, I have deemed it desirable to refer to the (statistically average) human recipient (=reader or hearer) of the text as the ultimate judge of what is and what is not ambiguous. The reason for this ostensible inconsistency is the incompleteness (to put it rather mildly) of any so far proposed theoretical descriptions of the semantic system of natural language. Given a comprehensive formalized theory of semantics, a theory that would not only derive correct semantic interpretations from a syntactic representation by querying the lexicon, but that would also be capable of handling all the contextual, pragmatic and world-knowledge-related factors, no references to actual users of language would probably have been necessary, as the full knowledge of language users would be readily available in the form of a formalized theory. Unfortunately, a vast amount of work remains to be done in order to even begin to hope for such an advanced stage of development of semantics (or whatever name one would choose to give it) as a science. At our present state of knowledge, I think it is only practical and sensible to rely on human judgement. In a similar manner, and for the very same reason, I do not attempt to suggest any rigorous quantitative measure for determining when two semantic interpretations are 'significantly different.'

It should perhaps be noted that although, as indeed suggested by the etymology of the term ambiguity (> Latin 'acting both ways'), two distinct semantic interpretations are almost invariably involved in jokes, it is theoretically possible for more than two readings to be available.⁸

In serious informative texts, ambiguity seems to be an undesirable hindrance to communication, and thus tends to be eliminated (cf. Grice's Maxims of Conversation — Grice 1975, also Pepicello 1989:210), or at least

⁸Oaks (1990:48) gives an example of a three-way ambiguous sentence "My business is cleaning equipment," in which the three interpretations can be respectively paraphrased as:

- 1) My business is to clean equipment.
- 2) The kind of equipment that my business deals with is cleaning equipment.
- 3) Things are being cleaned by my business.

It remains to be demonstrated, however, that as many as three interpretations can indeed be accessed by normal recipients in an actual context.

minimized to the extent that other important factors are not excessively compromised. One such prominent factor is brevity (Grice's Maxims again). Brevity seems to be in direct conflict with the need for non-ambiguity, in the sense that there tends to be a trade-off relationship between the two. For example, "He jumped on the box" has a greater potential for ambiguity than the more elaborate "Johnnie Cochran jumped with his both feet on Marcia Clark's lunchbox." The presence of ambiguity does not, by its very nature, positively affect the information-conveying efficacy of a linguistic transaction. However, Raskin (1985) observes that within the humorous or *non-bona-fide* mode of communication ambiguity is a desirable ingredient.

I would like to claim that not only is ambiguity desirable in linguistic verbal jokes, but special elements seem to be often present in the text of a joke that enhance, or indeed generate, its ambiguity. I believe that these elements are often purposefully inserted in the joke-to-be during the process of joke creation. They will be discussed in much greater detail in a further chapter (page 47 ff).

Not only do linguistic jokes often exhibit linguistic ambiguity, but it is important that the clue enabling the recognition of ambiguity should coincide with the final part of a verbal joke, recognized as the punch of a joke (on the final location of the punch see Oring 1989 and Attardo et al. 1994). Giving the ambiguity prematurely away is often tantamount to 'blowing' the joke, that is turning it into a non-joke. While, for a correctly built joke, the recognition of ambiguity should be placed in the punch of the joke, the ambiguous string itself need not be so placed, and in most cases it appears earlier in the joke text. Attardo et al. (1994) find that roughly 80 percent of jokes investigated in their study follow the latter pattern.

7. Ambiguity at work: the theory and the practice

Let us now examine how linguistic ambiguity contributes to the funniness of a simple yet typical, I think, linguistic joke given in (12) below:

- (12) The following conversation took place between two teachers:
"Do you allow your boys to smoke?"
"I'm afraid not."
"Can they drink?"
"No, by all means, no!"
"What about dates?"
"Oh, that's quite all right, as long as they don't eat too many." (Misztal 1990:148)

In joke (12) above we are presented with an exchange between two teachers, active (i.e. speaking) characters of the joke. Teacher 1 asks teacher 2 about what types of behaviour he allows his pupils to engage in. There are three consecutive queries.⁹ The first one refers to smoking cigarettes, the second to drinking alcohol, and the third would normally be interpreted as referring to dating girls. However, the final turn by teacher 2 introduces another interpretation which is enabled by the punch of the joke, roughly coextensive with *eat too many*. At the moment of reading or hearing the punch, the recipient of the joke backtracks and locates *dates* as the ambiguous string with the alternative interpretation of 'kind of fruit'. This new interpretation is invoked because the punch introduces the concept of eating, which cannot be easily reconciled with the original reading of *dates* (*date* in the sense of 'social meeting with person of opposite sex' cannot be eaten). The two interpretations are compatible with the content of what teacher 1 and teacher 2 said, respectively. However, the recipient of the joke, once the punch has been processed, has open access to both interpretations. As I hope to demonstrate below by altering (12) to produce modified versions designated (13) and (14), the presence of two interpretations makes it possible for the joke to produce a humorous effect, arguably the most essential property of a joke. If the ambiguity is removed from the text of the joke by artificial manipulation, the humour is lost, as in (13) below, an altered version of (12):

- (13) The following conversation took place between two teachers:
"Do you allow your boys to smoke?"
"I'm afraid not."
"Can they drink?"
"No, by all means, no!"
"What about dates?"
"Oh, that's quite all right, as long as they don't go out too often."

In (13) there is no ambiguity, as only one interpretation of the word *dates* is possible. By removing the reference to eating and replacing it with a reference to meeting girls socially, a reference that is semantically consistent with the original reading of *dates*, we have effectively removed the ambiguity.

Whether such modified versions of jokes as (13) above are still jokes is largely an essentialist question. They still possess many of the textual characteristics of a joke as defined in Attardo and Chabanne (1992). However, they are not funny, and humour is a very crucial (to put it mildly) property of a joke. Non-jokes reminiscent of the modified version of the *dates* joke are, however, occasionally told, and they are capable of eliciting, if not a peal of laughter, then at least a mild chuckle. A possible explanation of any humorous potential of such "non-joke jokes" might be that the whole text has two text-type interpretations: one that it isn't a joke (it's

⁹The tripartite structure that this joke exhibits is a frequent characteristic of jokes in general, but will not be discussed here.

not funny), the other that it is a joke (length, narrative/dialogic structure, prefacing devices (on which see Cashion et al. 1986)). Such texts may thus be said to exhibit text-type ambiguity.

Another way of altering the original joke (12) which would result in a non-ambiguous text is replacing the word *dates* with another, not so polysemous¹⁰, item, for instance with *hamburgers*:

- (14) The following conversation took place between two teachers:
"Do you allow your boys to smoke?"
"I'm afraid not."
"Can they drink?"
"No, by all means, no!"
"What about hamburgers?"
"Oh, that's quite all right, as long as they don't eat too many."

Again, as in the previous altered version (13), no ambiguity is present in (14), since *hamburgers* cannot typically refer to anything else than a specific type of food.

Both of the altered versions above have had their ambiguity artificially removed, with minimal changes to the remainder of the original joke text. One hardly needs an empirical study (though, of course, such a study is perfectly feasible and may be undertaken in the future) to establish that the two altered examples do not exhibit humour — they are not funny. This fact strongly suggests that linguistic ambiguity, at least in this example, is a necessary ingredient for the humour of the joke.

Let us now look at another example joke in order to see whether a similar effect of the removing of ambiguity will be observed, and is not a unique feature of (12):

- (15) In the diner of a southbound train, a honeymoon couple noticed two nuns at another table. When neither could identify the religious habit, the husband volunteered to settle the question.
"Pardon me, Sisters," he said, pausing politely before the nuns' table, "but would you mind telling me your Order?"
One of the nuns smiled at him. "Not at all," she said cheerfully. "Lamb chops — and they're delicious!" (Hoke 1965:194)

The ambiguous string in this example is again, as in the previous example, coextensive with a word, *order*. The first reading, corresponding to the intended meaning of the husband character and consistent with the joke text up to the point of *lamb chops* is 'a community of nuns'. The second reading, which becomes accessible roughly at the point when the nun's reply is given, is 'type of food ordered'. Once the two readings are accessed, the humour of the joke is revealed. Let us alter the text of the joke in a way that would remove the ambiguity.

- (16) In the diner of a southbound train, a honeymoon couple noticed two nuns at another table. When neither could identify the religious habit, the husband volunteered to settle the question.
"Pardon me, Sisters," he said, pausing politely before the nuns' table, "but would you mind telling me your Order?"
One of the nuns smiled at him. "Not at all," she said cheerfully. "We're Carmelites!"

Removing the reference to food and making the nun's reply consistent with the original reading of the word *order* has effectively rid the joke of the ambiguity. The altered example also lacks any humorous value present in the original joke.

To force the second reading of the original joke, somewhat more extensive manipulation of the text is required:

¹⁰Whether we are dealing with polysemy or homonymy is debatable, of course, but this issue is only tangential to the argument (see Skowrońska 1989:47 for a similar view). At best, it may play a role in deciding on the type of ambiguity involved, but not as to whether there is ambiguity at all. For a fuller discussion of the distinction between polysemy and homonymy in the context of word play see Hausmann (1974:100-111).

(17) In the diner of a southbound train, a honeymoon couple noticed two nuns at another table. When neither could decide what they should order from the menu, the husband volunteered to settle the question by asking the nuns, who seemed to be enjoying their meal very much.

"Pardon me, Sisters," he said, pausing politely before the nuns' table, "but would you mind telling me your order?"

One of the nuns smiled at him. "Not at all," she said cheerfully. "Lamb chops — and they're delicious!"

Here, again, there is no ambiguity and no humour is detected.

It is also possible to recast the original joke so that the same ambiguity is still present, that is the same two readings are possible, but the sequence in which they are introduced is reversed:

(18) In the diner of a southbound train, a honeymoon couple noticed two nuns at another table. When neither could decide what they should order from the menu, the husband volunteered to settle the question by asking the nuns, who seemed to be enjoying their meal very much.

"Pardon me, Sisters," he said, pausing politely before the nuns' table, "but would you mind telling me your order?"

One of the nuns smiled at him. "Not at all," she said cheerfully. "We're Carmelites!"

In this case, it is the 'type of food ordered' reading that is the initial interpretation of *order*, whereas the 'community of nuns' reading becomes accessible roughly at the moment of revealing the punch. It should be added that that is indeed the case if the last version of the joke is presented without the immediate preceding context of the other versions. If presented as above, the reader does of course have access to both readings right from the start, since the reading which normally would only be revealed by the punch is already there — the reader has been "primed" by the original version of the joke.

As in the case of (12), (13), and (14), so too here humour is only present when the ambiguity is in place. Removing the ambiguity removes the humorous quality of the original joke.

The picture that emerges from the preceding examples and discussion points to the importance of ambiguity in linguistic verbal jokes. A typical scenario for such jokes as seen within the present framework would involve the development of a joke along the lines of the original interpretation. Since this interpretation is also *informatively unmarked* in the sense of Giora (1991) (i.e. it is the default, expected interpretation), I will use the terms *original interpretation* and *unmarked interpretation* interchangeably in reference to joke structure. Upon encountering the punch, incompatible with the unmarked interpretation, an *alternative* or *marked interpretation* is located which follows from another meaning — previously unnoticed — of an ambiguous fragment of the joke's text. In terms of joke processing, this may be achieved by the audience scanning back through the text of the joke (Suls 1972).

8. Classification of jokes according to the type of ambiguity involved

As shown in the previous chapter, linguistic verbal jokes may turn on linguistic ambiguity. Such jokes may be classified according to the type of ambiguity that they involve. Apart from a purely theoretical-descriptive interest, there are practical benefits of having such a classification which go beyond humour studies *per se*. For example, jokes classified by the type of ambiguity involved can be, and have been, used to test the perception of ambiguity in children, thus contributing to research on language acquisition and development (Shultz and Pilon 1973, Shultz and Horibe 1974, Fowles and Glanz 1977, Shultz and Robillard 1980, Horgan 1981, Hirsh-Pasek et al. 1986, Sinclair et al. 1986, Klein 1992). They can also be used to test the perception of ambiguity in language-impaired individuals, thus assisting in the research on language deficits (Spector 1990). In such studies, whether and when the ambiguity is perceived can be tested by checking if, and under what conditions, subjects get the jokes. In order for such studies to be maximally profitable, however, the jokes need to be classified consistently and correctly. As I will later demonstrate, this has not always been the case.

Type of ambiguity involved is not the sole criterion that can be, or has been, used for joke classification. Frequently used terms of classification include: theme, subject, cycle, target (butt), (level of) propriety, origin, narrative form, and length of the joke. All types of classification have their own validity as well as their own practical uses. For instance, for public speakers wishing to embellish their speeches with a joke or two a classification by subject or theme might be particularly useful. Attardo and Raskin (1991) introduce a joke representation model that includes six 'parameters of joke difference'. Such a model could potentially be used as a basis for multidimensional, hierarchical classification.

One problem in the classification of jokes has been that the values allowed for the classification variables typically come from open, unconstrained sets. Thus, there may be little correspondence between two classificatory efforts even if they claim to use the same criterion. For instance, Stanley (1980) has subject categories such as "Teaching terrors" or "In the drink," which are absent from Johnson (1989), while the latter has "Sex education" and "Politics," none of which appears in the former collection. This problem seems to be related to the predominantly semantic nature of the classificatory criteria, and it reflects the open-endedness of semantic systems. A taxonomy that would take as its basis the type of linguistic ambiguity that the joke is based upon would not be completely immune to this problem, but at least it would tread on grounds somewhat better investigated and would be more readily amenable to rigorous analysis.

My definition of ambiguity adopted for the purpose of this work has been given in (11) on page 22 above. Depending on the length, extent, or, more precisely, status within the linguistic system of the fragment of text that is open to two radically different interpretations, more than one type of ambiguity can be distinguished, in consequence yielding different types of ambiguity-based linguistic jokes. It is to the discussion of those different types of jokes that I now turn.

8.1. Lexical jokes

8.1.1. Polysemous lexical items, homonyms and homophones

We have already seen two examples of lexical jokes in (12) and (15) on pages 24 and 25 above. That I should choose lexical jokes for those examples is no coincidence. In English, lexical jokes appear to be by far the most frequent single category of linguistic jokes. Attardo et al. (1994) have found that 426 of the 441 *verbal* (this term roughly corresponds to my *linguistic*) jokes, that is 96%, were lexical, within a total sample of 2000 printed jokes (linguistic or otherwise).

In a lexical joke, the ambiguous string is coextensive with a lexical item in the text of the joke. While much has been made in the literature of the differences between polysemy, homonymy, and homophony, these

cases all share the above-stated essential feature. Since the distinction between polysemy and homonymy is often problematic, and homophony is for some authors just a special case of homonymy (McArthur 1992), it does not seem a fruitful venture to me to try and tease the three apart here. However, it would not be difficult to further subdivide the present category along these lines, should one wish to do so.

Consider joke (19) below:

- (19) "Have you ever appeared as a witness in a suit before?" asked the judge.
"Why of course!" replied the young girl.
"Will you please tell the jury what suit it was?"
"It was a pink suit," she replied quickly, "with red collar and cuffs, and buttons all the way down the front." (Miształ 1990:786)

Joke (19) is a typical example of a lexical joke. The two characters of the joke, the judge and the young girl appearing on the witness stand, apparently interpret the word-long string *suit* in the two questions of the judge as 'lawsuit' and 'type of attire', respectively. Initially, it is the judge's interpretation that is salient and exclusively accessible to the typical recipient of joke (19). The second interpretation becomes accessible when the girl starts elaborating on the physical description of the suit she was wearing on the other occasion. Once the alternative interpretation becomes accessible, it creates ambiguity — and the humour — of the joke. While the fact that it is the word *suit* that is the source of ambiguity may appear obvious, it is possible to put this fact to test by altering parts of the text of the joke. We should be looking for the minimal alteration that would remove the ambiguity. Substituting a near synonym for the suspected candidate that does not allow the same kind of polysemy or homonymy will normally point to lexical ambiguity created by that candidate. Replacing all occurrences of *suit* with *trial*, for instance, in the two questions of the judge will remove the ambiguity, and make the girl's response incongruous:

- (20) "Have you ever appeared as a witness in a trial before?" asked the judge.
"Why of course!" replied the young girl.
"Will you please tell the jury what trial it was?"
"It was a pink trial," she replied quickly, "with red collar and cuffs, and buttons all the way down the front."

As before, the reader has to take into account that having just been exposed to the original joke, the word *suit* with its two interpretations will still be salient in the reader's memory. Without such priming, however, there is no ambiguity, unless we go for the Humpty-Dumpty type of "private meaning," so that for the girl *trial* could refer to something she wears. Even when saying this, however, we are making a statement about a *word-long* string!

Replacing *suit* with *dress* (roughly the girl's interpretation) will again remove the ambiguity:

- (21) "Have you ever appeared as a witness in a dress before?" asked the judge.
"Why of course!" replied the young girl.
"Will you please tell the jury what dress it was?"
"It was a pink dress," she replied quickly, "with red collar and cuffs, and buttons all the way down the front."

In this case, there is only one interpretation of the word *dress*, and so no ambiguity is present.

Similarly, in joke (12) on page (24) above the lexical unit *dates* is the ambiguous string. It has two radically different semantic interpretations: 'social meeting with person of opposite sex' and 'kind of fruit'.

In joke (22) below we have a courtroom setting again:

- (22) Judge: "You have been sentenced eight times, and this makes the ninth. You ought to be ashamed of yourself."
Drunkard: "I say, Judge, no man should be ashamed of his own convictions." (Miształ 1990:776)

The ambiguous item here is the word *convictions*. This joke is slightly different from (19), as the character speaking the line which contains the punch is, it is reasonable to assume, aware of both readings of *convictions*.

In (19), in contrast, the little girl was only aware of one of the readings of *suit*. In (22) it is in some sense the drunkard that is telling the joke (adopting a non-bona-fide mode), and the actual teller would only be relating it.

8.2. Lexicalization of a larger unit (lexico-syntactic)

In some cases the ambiguity of a joke may stem from a string being interpretable as either a regular phrasal unit, or as a more or less lexicalized item of a more immutable, close-knit type. (23) is one case in point:

- (23) A religious and charitable woman noticed a very down-and-out sort of man standing at the corner of the street near her residence.
One morning she took compassion to him, pressed a dollar into his hand and whispered: "Never despair."
Next time she saw him he stopped her and handed her nine dollars.
"What does this mean?" she asked.
"It means, ma'am," said the man, "that *Never Despair* won at 8 to 1. (Misztal 1990:611)

The woman means *never despair* as an expression of reassurance to who she takes to be a homeless beggar. Syntactically, on this reading, *never despair* is a clause. The man, who turned out to be an unlicensed bookie, interpreted *never despair* as a lexical unit being a proper name referring to a specific racing horse.

8.2.1. Decomposition of idioms

Whether, and to what extent, idioms should be treated as autonomous lexical items is debatable (for an overview and assessment of psycholinguistic models of idioms see Cieśllicka-Ratajczak in press). Furthermore, not all idioms exhibit the same degree of linguistic autonomy. Assuming that idioms may, to some extent, be treated as separate lexical items, it seems appropriate to treat the present class of jokes as a subcategory of the lexico-syntactic class. Idioms provide a rich source of linguistic ambiguity in jokes. The meaning of an idiom is not easily predictable from the individual meanings of its elements. By interpreting a string coextensive with an idiom literally as being a simple product of the meanings of its elements an alternative reading is produced, different from the conventionalized idiomatic reading, and this generates ambiguity (see also Chłopicki 1994). Consider joke (24) below:

- (24) Recruit, after physical: "Well, Doc, how do I stand?"
Doc: "I don't know. It's a mystery to me!" (Hoke 1965:118)

This simple joke well illustrates the operation of idiom decomposition. The recruit enquires about his state of health or possibly suitability for military service with an idiomatic clause *how do I stand?* The doctor interprets the clause literally (and possibly jokingly, in a similar way as in joke (22) above) as an invitation to explain the mechanism of the recruit's being able to maintain a vertical position with an implication that the recruit's physical condition is so serious (as a result of an illness, or intoxication), that one would not expect him to be able to stand on his feet.

Another quite similar and equally simple joke is (25):

- (25) "I have changed my mind."
"Thank Heavens! Does it work any better now?" (Misztal 1990:810)

The first character of (25) announces to the other that (s)he has *changed his/her mind*, and the recipient of the joke interprets this to mean (presumably in accordance with the intent ascribed to the first character) 'reversed an earlier decision', which is a very common idiomatic expression. The second character's response compels the recipient to reinterpret *changed my mind* as a literal phrase meaning approximately 'had my brain replaced'.

That the ambiguity of such jokes indeed depends on the idiomatic interpretation of a phrase vis-à-vis a literal one can be verified by modifying the phrases slightly, so that the literal meaning would remain roughly unaffected, but the idiomatic meaning, being (by definition) dependent on the precise wording, would be lost (it

would not be likely to be accessed by the recipient of the joke). Thus, joke (24) above could be recast as (26) below:

- (26) Recruit, after physical: "Well, Doc, how is it possible that I can still stand?"
Doc: "I don't know. It's a mystery to me!"

In (26), no idiomatic reading is possible, just the literal reading, and there is no ambiguity.

Similarly, joke (25) could be recast as (27):

- (27) "I got a new brain."
"Thank Heavens! Does it work any better now?"

Again, only the literal reading is likely and there is no second, idiomatic reading.

Joke (28) below is another case of idiom decomposition:

- (28) Next-door neighbour, to small boy: "Come again, Johnny. We'd like to see more of you."
Johnny: "But there isn't any more of me!" (Hoke 1965:92)

In (28) by *to see more of you* the neighbour means 'to see you more often'. Johnny apparently interprets *more* in its literal sense, 'a greater part', and explains to the neighbour that (s)he has already seen him in full.

Joke (29) below is a somewhat less clear-cut case:

- (29) Teacher: "So, who knows who Anne Boleyn was?"
Johnny: "I do, Sir! She was a pressing iron!"
Teacher: "She was a *what*?"
Johnny: "She was an iron."
Teacher: "Where did you get this idea from, Johnny?"
Johnny: "Well, Sir, it says right here in our history book: 'After divorcing Catherine of Aragon, Henry VIII pressed his suit with Ann Boleyn.' "

Johnny is apparently unfamiliar with the phrase *to press one's suit with somebody*, meaning roughly 'to propose marriage to somebody'. Instead, he interprets *pressed his suit with* as meaning 'ironed his trousers and jacket with' and thus concludes that Anne Boleyn was an iron for pressing clothes. Whether the phrase is an idiom is an open question. It behaves grammatically more like an ordinary phrase than most undisputed idioms, being capable of a range of syntactic modifications (though not passivization: **his suit was pressed*). Semantically, the meaning of the phrase rather transparently relates to some senses of *press* and *suit* which are used outside this phrase. On the other hand, the phrase's collocational restrictions are quite stringent and idiom-like. In place of *pressed*, one could say *pleaded* (or *ple(a)d*), but that just about exhausts the possibilities. *Suit*, it seems, is irreplaceable. Consequently, in (29) it may be possible to recognize ambiguity at the single word level as well as at the phrasal (whole idiom) level. At the word level, the word *suit* is ambiguous between 'courtship' and 'trousers and jacket'; and the word *press* is ambiguous between 'plead' and 'iron'. On this interpretation, we would have two ambiguous lexical items. At the phrasal level the ambiguity is between the figurative and literal meaning of the idiom *to press one's suit with somebody*.

8.3. Syntactic jokes

Jokes based on syntactic ambiguity allow (typically) two readings that stem from two different syntactic representations. Following Huddleston (1984, 1988), I shall be making a high-order distinction between syntactic class and syntactic function. In consequence, syntactic jokes in my classification will be divided into two basic categories according to the way in which their syntactic representations differ: syntactic class jokes, in which the two readings differ in terms of their syntactic class, though they may (and often do) also differ in function; and syntactic function jokes, in which the two readings differ in terms of their syntactic function only.

8.3.1. Syntactic class jokes

Jokes based on syntactic class ambiguity exhibit (typically) two readings corresponding to two different syntactic representations, within which a fragment of text may be assigned two different syntactic class structures, and this fact makes a difference between the two readings. Quite often, the placement of syntactic boundaries will be different in the two readings. Joke (30) below will illustrate the point in a simple way.

- (30) Miss Wornout wrote on Bobby's report:
"Bobby's trying — very." (Hoke 1965:26)

The ambiguous fragment in joke (30) is *trying*. Initially, it is interpreted as a verb referring to Bobby's efforts in class — a type of evaluation that one would reasonably expect a teacher to include in a pupil's report. Once *very* is processed, however, then to accommodate this afterthought-type additional material into the preceding material a reinterpretation is called for. *Very* cannot modify a verb phrase, nor can it modify a clause. Instead, it commonly modifies adjectives, and for this reason *trying*, on the alternative reading, is interpreted as an adjective in terms of its syntactic class.

Joke (31) further exemplifies syntactic class ambiguity:

- (31) A homeowner in Minehead, England, wished to return an empty coal sack to his coal delivery man, so he left a note on the front door saying, "Empty sack in kitchen." When he returned he found a pile of coal on his kitchen floor.

On the first reading, and apparently in accordance with the homeowner's intentions, *empty sack in kitchen* would be interpreted as a noun phrase, or as an elliptical "telegraphic" declarative clause with the verb ('is') elided. On this reading, *empty sack* would be a noun phrase, with *empty* being an adjective (and an adjective phrase at the same time). On the second reading, which is triggered by the otherwise inexplicable action taken by the coal delivery man, *empty sack in kitchen* is an imperative clause headed by the verb *empty*.

A question arises at this point why we do not want to say that joke (31) is a lexical ambiguity joke, with *empty* being the ambiguous lexical item. After all, a selection of two distinct lexical items does seem to be involved. To make the distinction between the two types of jokes work, we need to postulate that the two readings in a lexical ambiguity joke have the same syntactic representation. This is consistent with the examples of lexical jokes I have provided above. Thus, in lexical jokes the two lexical items would exhibit differences primarily in their semantic, rather than syntactic, specification. Once the syntax is different across the two readings, it makes sense to give primacy to this difference, as a lower-level one. In addition, there is substantial overlap in the semantics of *empty*_{Adj} and *empty*_V, since the latter is derived from the former in a synchronically rather transparent way: *empty*_V = to make *empty*_{Adj} — still the more reason to classify the joke as syntactic. Even in the absence of such close semantic correspondence, however, we will classify such jokes as (32) below as syntactic on the strength of the clear difference in the syntactic structures underlying the two readings:

- (32) Buy your girl a bikini and watch her beam with delight.

The two readings are well paralleled by two versions with *girl* changed to *boy* plus other necessary modifications in (33) and (34) below, none of which exhibits ambiguity (with the added boon of balancing off some of the sexist content of (32) which certain readers may find offensive):

- (33) Buy your guy a pair of tanga swimming trunks and watch him beam with delight.

as opposed to:

- (34) Buy your guy a pair of tanga swimming trunks and watch his beam with delight.

The difference between the two readings is much more than a simple matter of lexical choice. The two altered versions of the original (32) involve a difference between *him* and *his*, which is clearly a grammatical difference. On the first reading of (32), parallel to (33), *beam with delight* is an embedded clause, with *her* possibly interpretable as subject. On the second reading of (32), parallel to (34), there is no embedded clause, and *her beam* is simply a noun phrase functioning as direct object of *watch*.

Joke (35) below is a slightly problematic case:

- (35) Fair Maid: "Oh, sir, what kind of an officer are you?"
Officer: "I'm a naval surgeon."
Fair Maid: "My goodness! How you doctors do specialize." (Pocheptsov 1974:263)

On the face of it, the ambiguity seems to be a simple one between an adjective (*naval*) and a noun (*navel*), the two being phonetically identical. (35) might thus be taken as a case of syntactic class ambiguity. However, it will be observed that the difference in syntactic class is not mirrored in a similar difference in syntactic function. On both readings, *naval/navel* functions as premodifier of the head noun *surgeon* within a noun phrase. In this function, nouns are deprived of some of their typical nominal properties. They don't take the usual range of dependents (*I am a *a navel surgeon*). They don't have a distinction in number. On the other side, *naval* is not gradable (*a *very naval surgeon, a *more naval/*navaller surgeon*). Thus, *naval* is not a prototypical adjective. The traditional division into syntactic classes (or 'parts of speech') is anything but watertight and does not produce homogenous categories (Huddleston 1984, 1988). In (35), the two readings are not really so distant syntactically. On the other hand, there is no doubt that we are dealing here with two completely unrelated lexical items. They are very distant semantically, unlike in (31). It might be argued that (35) bears a strong resemblance to (36) below:

- (36) "Pardon me," said the stranger, "are you a resident here?"
"Yes," was the answer. "I've been here goin' on fifty years. What kin I do for you?"
"I am looking for a criminal lawyer," said the stranger. "Have you any here?"
"Well," said the other, "we're pretty sure we have, but we can't prove it." (Pocheptsov 1974:264)

The ambiguity here is between *criminal* meaning roughly 'specializing in criminal law' and 'engaging in crime'. It should be clear from the foregoing discussion that (36) is a lexical ambiguity joke. On closer inspection of the syntactic properties of *criminal* within the two readings we find that in one of them it is gradable, but not in the other (and so *a very criminal lawyer* fixes the meaning and is not ambiguous). Furthermore, it is correct to say *this lawyer is criminal* in the 'engaging in crime' sense, but it isn't correct in the other sense. Thus, there are at least two syntactic differences between *criminal* on one reading and *criminal* on the other reading: one, but not the other, can be accompanied by adverbs of grade; and one, but not the other, can be used in the predicative function. There is a non-trivial syntactic difference between *criminal* of the two readings, and yet we classify the joke as lexical on the grounds of an important lexico-semantic distinction between the two readings. Likewise, (35) exhibits some (not of the first magnitude) degree of syntactic difference, and a very clear lexical one. Therefore, I believe that both (36) and (35) are most appropriately assigned to the lexical ambiguity class.

8.3.2. Syntactic function jokes

In jokes based on syntactic function ambiguity, the minimal ambiguous fragment of text is a syntactic constituent which exhibits two distinct readings differing in the syntactic function — rather than syntactic class — of the constituent (see also Bader 1994). Joke (37) is a case in point:

- (37) Harriet: "When I was a nine-year-old girl, I was left an orphan."
Carrie: "Oh, yes. What did you do with it?" (Hoke 1965:105)

While *an orphan* is a noun phrase on both interpretations, and thus the syntactic class remains unaffected, the syntactic function of this noun phrase is different within each of the two readings. On the original reading, apparently the one intended by Harriet, *an orphan* would be a subject predicative of a passive complex transitive construction (corresponding to object predicative of a non-passivized clause — see Huddleston (1984, 1988)). On the alternative reading, which is introduced by Carrie's response, the same NP, *an orphan*, would be interpretable as having the syntactic function of direct object.¹¹ The point in Carrie's response which triggers the

¹¹Another difference in syntactic function between the two readings might be argued for, namely that between *me* as direct object versus indirect object in *They left me an orphan*. This would be far less convincing,

alternative reading is the preposition phrase *with it*, with the introduction of the pronoun *it*. Assuming the complex transitive construction reading, this pronoun would have no likely candidate for reference within the whole context of the joke, since *an orphan* would be coindexical with *I*, and would refer to Harriet (from the particular point in time at which she became an orphan). Since in *What did you do with it?* the *you* quite clearly refers to Harriet, it is inconceivable that *it* could refer to Harriet as well. The only plausible noun phrase with which *it* might be coindexed is *an orphan*, and this association leads into the alternative interpretation of the latter as a direct object, referring to a different entity than *I* of *I was left an orphan*.

A second example of a joke based on syntactic function ambiguity is given at (38) below:

- (38) A man eating a kebab goes up to a lady who has a yapping chihuahua at her heels.
"Can I throw your dog a bit?" he asked politely.
"Certainly." came the reply.
So he scooped the dog up and flung it a hundred yards.

On the original reading, noun phrase *your dog* functions syntactically as indirect object, and noun phrase *a bit* functions as direct object, within a ditransitive clause. On the alternative reading, it's *your dog* that functions as direct object, while *a bit* functions as postmodifier of a verb phrase within a monotransitive clause.

8.4. Phonological jokes

The term "phonological joke" refers within this framework of analysis to any joke in which the ambiguous fragment of joke text might typically have non-identical phonetic forms for the two interpretations, though this typical non-identity does not prevent the accessing of two readings by the joke recipient. Thus, getting a phonological joke may involve the recipient allowing two typically different phonetic strings to be jointly served by one phonetic form, which may be identical with one of the two, but it may also bridge the gap between the two by combining some elements of the two. This latter case is usually a matter of telling a joke skilfully, as proper attention must be given to the low-level phonetic detail of the joke's delivery in order to facilitate the accessing of both readings. One may, therefore, speak of the two different interpretations of the ambiguous fragment of the joke's text being phonologically mediated. The two readings of a phonological joke correspond to the source and target of a paronomasic (heterophonic) pun in the sense of Sobkowiak (1991). Quite beside phonetic non-identity, the two readings may yield different lexical items, or different syntactic representations, so it still makes perfect sense to speak of lexical, or syntactic, ambiguity. In essence, then, the division into phonological and non-phonological jokes is largely independent from the classification based on the type of ambiguity. A classification into phonological and non-phonological jokes may thus be said to cut across the primary type-of-ambiguity classification.

Joke (39) below will, I hope, well illustrate the point made above:

- (39) Two boys were talking about their afterschool jobs.
Harry asked Larry: "How do you like your chimney-sweeping job?"
Larry answered smugly: "It soots me." (Hoke 1965:108)

The two readings may be pronounced differently in some dialects of English, but will exhibit no phonetic difference in other dialects. Yet it is certainly not the case that (39) works well only in those dialects in which *suits* is pronounced [sju:ts] and *soots* is [su:ts]. Neither is it true that (39) works well only in those dialects in which the two are pronounced identically. In fact, it seems rather obvious that the joke works quite well, and pretty much in the same way, in both these classes of English dialects. It follows then, that the (possible) non-identity of sound is not the most essential feature of a joke as regards its potential to amuse. Far more important is the lexical ambiguity, that is the possibility of interpreting the fragment represented

however, because this is not an ambiguity in the actual clause as it stands in the joke, but rather in what might be taken as a pre-passivization form of this clause.

orthographically here as *soots* in two alternative ways: as 'soils with soot' and 'fits'. Thus, joke (39) above is primarily a lexical ambiguity joke, and, secondarily (in some dialects), a phonological joke.

Another example of a phonological joke is presented in (40) below:

- (40) Man: "I'd like to buy a pair of nylon stockings for my wife."
Clerk: "Sheer?"
Man: "No, she's at home." (Hoke 1965:145)

On the original reading, apparently consistent with the clerk's intended meaning, the clerk's query is interpretable as an adjective, which would refer back to the stockings that the customer requested. On the alternative interpretation, apparently consistent with the customer's interpretation, what the clerk said would be something like (*is*) *she here?*, which would be an interrogative clause. Again, as in joke (39), the phonetic form of the two possible readings might in many circumstances be different, although it is conceivable that, in casual style, the two might be very similar or identical. Whatever the case, the essential thing for the recipient is accessing both readings, that is perceiving the ambiguity between the adjective (or adjective phrase) and the clause. (40) is primarily a syntactic class ambiguity joke.

Consider joke (41):

- (41) A lady in a taxi arrives at a drugstore. She buys some cold tablets, pays and leaves — leaving the medicine behind. She notices this when already in a taxi.
"Stop!" she shouts. "My aspirins!"
"No need to stop." replies the driver. "Just stick it out the window."

(41) is one example where skilful telling is crucial to the success of a joke. The joke should obviously be told in an American English accent. More specifically, the /p/ in *aspirins* should have an early Voice Onset Time, the word should have just two syllables, and the vowel of the second syllable should be a centralized r-coloured vowel, rather than a sequence of [r] and a pure front vowel. Unless sufficient care is paid to the low-level phonetic detail in telling the joke, the joke may not register with some audiences, and, admittedly, it is difficult to get joke (41) in its printed form. "Not getting" or "not registering" joke (41) means missing out on the alternative interpretation of *my aspirins* as *my ass burns*. (41) is a lexical joke, and at the same time a syntactic class joke, as *my aspirins* is a noun phrase, whereas *my ass burns* is a clause. It is also a phonological joke, since the ambiguous fragment of the joke's text might typically have non-identical phonetic forms for the two interpretations.

I see no immediately obvious reason why recognizing phonetic non-identity should be limited to the segmental make-up of a given fragment of the joke, though in all studies that I am aware of dealing with "phonological" jokes it has been so limited. Suprasegmental properties, such as pitch variation, stress placement, and relative timing (rhythm) are all no less phonetically real (though perhaps less exhaustively researched and described in the phonetic literature), and reliable differences with regard to these properties can be ascribed to the distinction between the two readings of the ambiguous fragment of the joke.

Joke (42) below is a case in point:

- (42) Haughty lady: "Must I stick the stamp on myself?"
Haughty clerk: "I think you'll accomplish more, madam, if you stick it on the package." (Hoke 1965:148)

The ambiguity of (42) is in the clause *must I stick the stamp on myself*. On the original reading, apparently consistent with the intended meaning of the lady character, *on* is part of the verb phrase *stick the stamp on*, whereas *myself* postmodifies this verb phrase. An alternative reading is revealed by the construction parallel in structure to that corresponding to the alternative reading: *you stick it on the package*. On this reading, *on myself* is one complete constituent, a preposition phrase headed by the preposition *on* (in parallel to *on the package*) which functions as a complement within the verb phrase *stick it on myself*. Within our framework, (42) will be classified as a syntactic-class ambiguity joke, as the ambiguous fragment has two distinct syntactic-class structures. However, the two readings are also typically associated with different phonetic realizations, which qualifies (42) as a phonological joke. Whatever phonetic difference there is, however, cannot be expressed in

terms of segmental composition, as this is identical for the two readings (or, more accurately, whatever segmental variation is possible will not discriminate between the two readings). Rather, the phonetic difference is an intricate combination of timing and pitch movement, which reflects the syntactic difference between the two readings in the ambiguous fragment of the joke. Without going into too much detail as to what exactly the difference would be — that would necessitate a detailed instrumental study — let me briefly speculate on, roughly, what kind of differences one would expect to find. On the original reading, one would expect a prolongation of the syllable *on*, and a resetting (lowering) of pitch immediately following that syllable. On the alternative reading, one would expect a slowing-down on *stamp*, and a resetting of pitch to a lower level beginning with *on*, which would have a relatively shorter duration than the same word produced to represent the original reading, assuming that the overall tempo of speech would in both cases be similar. As in (41) above, so too in (42) skilful telling is of the utmost importance to the success of the joke. The teller should try to steer a middle course between the two phonetic forms so as to camouflage the typical difference between the two and thus improve the chances of the audience recognizing the ambiguity.

Perhaps an even clearer phonetic distinction which is not segmental in nature can be found for joke (43) below:

- (43) "Waiter!"
"Yes, sir."
"What's this?"
"It's bean soup, sir."
"No matter what it's been. What is it now?" (Miszta 1990:651)

In the printed version of the joke, the ambiguity is apparent from the spelling: *bean* versus *been*. It is not, however, just the choice between two different lexical items that forms the basis of the joke's ambiguity. The syntactic-class structure of (43) is radically different in the two interpretations, and on the strength of this we classify (43) as a syntactic-class joke (a further possibility that will actually be preferred for (43) is to recognize multiple dependent ambiguity here: see page 42 below for a discussion of multiple ambiguity). On top of this, though, the two readings of the ambiguous fragment, *it's bean soup*, would typically yield different phonetic realizations. Quite apart from the segmental composition which may very well be identical (except that for some speakers, notably American, there might be a difference in the vowel between *been* and *bean*), the clearest difference would be in the placement of the nuclear, or tonic, stress, with all the consequences stemming from this (see Cruttenden 1986). On the original "bean" interpretation, *bean* would receive nuclear stress. On the alternative "been" interpretation, *soup* would be the most likely to take nuclear stress. Again, like (41) and (42) above, (43) calls for phonetically skilful telling. If a normal pattern compatible with the *bean* reading is used, it will produce an unreasonably high level of prominence on *been* within the "been" reading, and could prevent this particular reading from being recognized (effectively removing the humour), or would at least reduce the contextual justification for the second customer introducing the *been* reading, making the customer's response more strained within the overall structure of the joke, which, in terms of the present framework, increases the ambiguity and detracts from the humorous value of the joke (*ambiguation* and its relationship to funniness will be discussed further below — see page 57). Probably the best line that a successful teller might adopt would be to give relatively equal prominence to both *bean* and *soup*, so as not to tip the balance permanently and irreparably in the direction of one reading only.

8.5. Orthographic jokes

The issue of orthographic jokes is related to that of phonological jokes which has just been discussed. It concerns the differences between jokes as to how they respond to the mode of communication. Not all jokes are equally affected by a switch from oral communication to written communication. By oral communication we mean the telling of a joke by means of spoken language. Written communication would include the more traditional sources, such as joke books, magazines, personal letters, murals, as well as the newer ones, such as television teletext and computer-mediated communication, particularly the Internet, where we have witnessed an explosion of Web sites holding humour tokens, a substantial proportion of them being jokes. The importance of

the latter medium as an exchange platform for jokes has lately grown quite dramatically, and can be expected to keep growing with the continued expansion of the Information Superhighway. If only for this reason, the role of orthography in jokes deserves more study. Essentially, the involvement of orthography cuts across the basic categorization, and it may be treated as an additional feature. It is of a continuous rather than discrete nature, and for this reason holds only weak taxonomic potential. At best, then, one can speak of a certain joke being "more orthographic" than another. To illustrate this point, joke (44) represents a high end of the scale:

- (44) When several telephone calls to a typewriter repair company failed to produce results, a man sat down and wrote the following letter:

Thmith Typewriter Thervice, Inc.
16 Joneth Thtreet
Harrithon, Miththithhippi

Thirth: Will you kindly thend a man to my buthinethth addrethth to repair thith typewriter?
Thomebody broke the "eth" key.

Yourth thincerely,

Thamuel Thimpton (Hoke 1965:115)

It is inconceivable for anyone to try to actually tell joke (44), since spelling is essential to the joke. Incidentally, joke (44) can only be seen as based on ambiguity in a rather special sense: with the string *th* seen as being interpretable as a sequence of letters *t+h* and as one letter *s*.

Joke (45) below is less doubtfully ambiguity-based (though there may be doubts as to whether it is a joke at all — it derives from the well-known family of one-liner "do-it's"):

- (45) Why do optometrists make efficient lovers?
Because they do it with the greatest of E's.

In (45) the spelling supports one interpretation which, when the joke is presented orally, will be missed by those not sufficiently familiar with the typical layout of a vision-test board. The chances of getting (45) are better in the written mode of communication.

An example in which orthography plays a facilitating, but less crucial role is presented under (46):

- (46) A not so well-to-do family had to make a tremendous financial effort in order to send the oldest son to Oxford. The son settled in well, but after only two months he sent a letter home asking for 200 pounds, so as he could buy a new suit for the freshmen's ball. After much discussion, the parents decided to send him the money. Two weeks later they received another letter, saying:
"Thanks ever so much for the money. With my new suit on, everybody at the ball said I looked like a veritable count."
"Well," said the father, "but then again Tom never could spell."

Joke (46) is orthographic in the sense that it is more difficult to get without actually looking back at the words spelled out and recognizing that the word *count* has a second interpretation once bad spelling is factored in. Manipulating letters is easier when one can look at them. The operation of the recipient of this joke is to some extent the reverse of that of my wordprocessor's spellchecker, which gives *count* as the fourth suggested replacement for *cunt*, the latter being unknown to the spellchecker, but very well known to and easily retrievable by a normal speaker of English. Aside from the role orthography plays in (46), the joke should be placed in the lexical ambiguity category.

Looking back at joke (42) discussed in the previous section, it has to be noted that the potential variation in (suprasegmental) phonetic realization that has been suggested for (42) has no parallel in two different spelling representations. Quite the reverse is true of (43), where *bean* and *been* differ in the spelling. In this sense, (42) holds more clues distinguishing between the two interpretations in its spoken version, whereas (43) in its written down form.

8.6. Deictic reference

A separate case of linguistic ambiguity jokes is that of deictic reference. Deictic elements rely very heavily on the context and the set of their potential semantic referents is very extensive. The ambiguous string is in this case an anaphoric element that ultimately (in the mind of the joke recipient) refers to two distinct entities. Consider (47) below:

- (47) Caller: "Hello? Maternity ward? I'd like to know whether Mrs. Jones, a patient of yours, has already delivered."
Receptionist: "Is this her first baby?"
Caller: "No, it's her husband."

The unit that is ambiguous here is the pronoun *this*. As it is a word-long unit, the joke could conceivably be classified as lexical. A deictic element, however, is special. Locating the reference for a deictic element would hardly involve retrieving one of a limited set of known senses that best fits the context, as would be the case for non-deictic lexical items. Rather, the context alone would be engaged. In (47), the receptionist uses *this* to refer to (the occasion of) the baby being born in the ward, while the caller interprets the word as referring to himself, in which case *this* would be used in the sense 'the person at the other end of the telephone line'. Substituting for the deictic element a formulation that allows only one of the two interpretations will remove the ambiguity. Thus, we could substitute either 'the person I'm speaking to' or 'the baby being born'. Both substitutions would yield parts of the exchange incongruous, precisely because those parts would be compatible with the other interpretation which has been excluded by artificially removing the ambiguous element.

Joke (48) below is a somewhat unclear case:

- (48) At a well-known religious college, the academics were excellent but the food was utterly monotonous. Practically every dinner it was tomato soup, creamed chicken, mashed potatoes, string beans, and ice cream with chocolate sauce. One student who took his religion seriously, but who could hardly stand the food, said the same grace every evening at dinner. He quoted from *Hebrews*, 13:8: "Jesus Christ, the same yesterday, and today, and forever." (Johnson 1989:220)

The ambiguous string here is (*the*) *same*. A deictic element, it refers in this context anaphorically to Jesus Christ (the original interpretation of the quote), as well as to the menu at the college refectory. The ambiguity that results forms the backbone of joke (48). However, there is some doubt about whether in (48) the ambiguous string is a single lexical unit. The decision would depend on what is taken as a single lexical unit. Further complication is introduced by the fact that it is possible to analyze the ambiguity as arising from an elliptical construction, the choice being roughly between 'the same being' and 'the same food'. If this were the analysis, then *the same* would not so much refer to one or the other, as it would premodify a missing element. It would be the absence of the missing element that would be responsible for the ambiguity. It could be argued, then, that the ambiguity of (48) has some grounding in syntax. There is yet another sense in which syntax might come into play here. The syntactic function of *Jesus Christ* appears to be different in the two readings. On the 'same being' reading, it could be viewed as appositive to *the same*, but not so on the 'same food' reading, where it is just an expletive, with a very loose syntactic connection to the material that follows it.

8.6.1. Deictic versus non-deictic interpretation

In joke (49) the ambiguity is between a deictic and non-deictic interpretations:

- (49) "Which is the other side of the street?"
"Over there."
"That's strange, the gentleman over there said it was over here."

The enquirer interprets *the other* as a non-deictic reference, one that, in this case, is independent from the physical location of the speaker and hearer (in a rather similar fashion to what Man Friday did with *I* and *you* in Defoe's *Robinson Crusoe*). The enquired and the "gentleman over there" interpret, we should assume in lack of evidence to the contrary, *the other* in the standard deictic manner. This disparity of interpretation by the different

characters of the joke embodies the ambiguity of the joke. It is interesting to observe at this point that the enquirer does not seem to have any problems with some other deictic expressions, namely *over there* and *over here*, despite their similarity to *the other*. In the real world, such an inconsistency might be slightly unexpected, but in the world of joke characters it is quite usual (see Paulos 1977, 1980, 1985). It appears to support the claim that the funniness of such jokes stems largely from the local duality of interpretation (ambiguity), and not so much from the parody of a character. Should the latter be the case, we might expect a parody to make as much mileage out of a parodied feature as possible by making the character misinterpret *over there* in the same way as (s)he has done in *the other* case.

8.7. Specific versus non-specific interpretation

Another type of linguistic ambiguity on which jokes can turn is the possibility of specific and non-specific interpretation (as defined by Huddleston 1984 and 1988), typically of a noun phrase. On a non-specific interpretation, a noun phrase refers to any member of a class of possible referents. On a specific interpretation, it refers to a well-defined, delimited set of identifiable referents (often just one). A simple two-liner (50) well illustrates this type of ambiguity:

- (50) "In Los Angeles a man is hit by a car every five minutes."
"Boy, I'll bet he's pretty beat up."

The first statement of (50) as originally understood uses *a man* in a non-specific sense. The statement, on this reading, means approximately 'in Los Angeles pedestrians get hit by cars every five minutes (on average)'. The response contained in the second line of the joke gives away an alternative reading of the first statement, which is a specific reading along the lines of: 'there is a man in Los Angeles who gets hit by a car every five minutes.' It does so through the use of 'he', which forces the specific interpretation (except when used within one clause coreferentially with a non-specific noun phrase, but this is not the case here), and possibly also through saying that he's *pretty beat up*, which is consistent with being hit repetitively.

(51) will serve as another illustration:

- (51) The best man at a wedding replies to the bridegroom's mother's inquiry, "No, Mrs. Smith, I am not getting married any time soon. I would like to marry a woman who is rich, smart, and obedient." Another young man intervenes at this point, "May I have her number in the meantime?" (Raskin 1987:20)

The best man in saying *I would like to marry a woman who is rich, smart, and obedient* intends to make a general statement about the kind of wife that he would prefer, should he choose to marry. He does not point to any specific candidate. On the non-specific interpretation, even the presence of such a woman is not necessarily implied, which is more clearly appreciated if one considers statements such as: *I would like to marry a woman who will never grow old*. The young man appears to interpret *a woman who is rich, smart, and obedient* as a specific noun phrase, referring to one specific person. This is made evident in the punch where he requests her telephone number. Only a specific person can have a telephone number that can be written down. Hence, an alternative reading of the noun phrase is presented to the recipient, making him or her aware of the ambiguity between the non-specific and specific interpretation.

A final example of a joke based on the specific vs. non-specific type of ambiguity is (52) below:

- (52) "I hear the bank is looking for a teller."
"I thought they hired one a month ago."
"That's the one they are looking for."

The original reading of the first line, which is consistent with the second line, informs the recipient that the bank is looking for some person to take up the position of a teller. The bank, on this reading, is looking for a non-specific person. The second line suggests that the bank should not have a need to look for a candidate, since the bank recently hired a new one, and thus the vacancy would have been filled. The third line introduces an alternative reading of the first line. *The one* can only be specific, so on this reading the bank is looking for a specific person (the newly employed teller who presumably stole some money from the bank and got away). At

this point the recipient is aware that *a teller* in the first line of (52) can be a non-specific person, or a specific person, and thus there is ambiguity between the non-specific and specific reading. Incidentally, the speaker of the first line may not be obeying the Cooperative Principle of Conversation (Grice 1975), because he may not at this point be giving a sufficient amount of information. More about that in the following section.

8.8. Pragmatic ambiguity

Pragmatic ambiguity in jokes arises when the two interpretations of the ambiguous fragment are identical with respect to their syntactic structure, lexical content, and phonetic form, but different in terms of the pragmatic function which the fragment exhibits within the two interpretations.

By pragmatic function of an utterance I here mean the way in which the utterance affects or is intended to affect the state of mind of those involved, or the state of affairs. More specifically, it is the intention or result of extracting/giving specific information; the intention or result of producing certain verbal/nonverbal behaviour in some of the participants in the linguistic transaction; the intention or result of modifying the mental attitude towards, or perceived status of, an entity on the part of some of the participants. The repetitive discrimination between intention and result that I have insisted upon is important in that it captures the ontological distinction and potential disparity between the conceived and the perceived. The ultimate goal of a bona-fide communicative interchange is to minimize this disparity.

In one type of joke this disparity is used as the source of ambiguity. Thus, it is explored for the purpose of generating humour. Consider (53) below as an example.

- (53) Two farmers had known each other all their lives, but their conversations were usually restricted to "Good morning" or "Nice day." One afternoon, however, the first farmer asked:
"Hi, Pete, what did you give your horse when he had the colic?"
"Turpentine," said Pete.
"Thanks," said his friend.
Two weeks later they met again.
"Didn't you tell me, Pete, that you gave your horse turpentine when he had the colic?"
"Yes," said Pete.
"Well, I gave mine turpentine and he died."
"So did mine," said Pete. (Misztal 1990:506)

The ambiguity of (53) is contained in the first farmer's query. (*Hi, Pete, what did you give your horse when he had the colic?*). The information that the first farmer wants to extract is how to treat his horse's colic. Stated literally, the request for information as intended by the first farmer might be something like: "Based on your previous experience with horse's colic that I know of, what medication is effective in treating this condition?" It isn't before the punch (*So did mine*) that the recipient comes to realize that an alternative reading is possible of the first farmer's original query. This is the reading that Pete apparently adopts and it treats the query as an attempt at extracting information from Pete about what Pete specifically gave to his horse when it had the colic, regardless of what positive or negative effect it had on the horse's health. The exact scope of information that the first farmer wants to extract (as conceived by the first farmer) is different from that apparently perceived by Pete. The word "apparently" is operative here, as two further possibilities arise here. Either Pete indeed perceives the first farmer's query as a literal request or else he perceives it the way the first farmer intended but pretends differently. In either case, the possibility of the alternative interpretation of the first farmer's original query is communicated to the recipient of the joke and thus generates ambiguity. In terms of Grice (1975; see also Pepicello 1987, Yamaguchi 1988, Attardo 1990a), Pete violates the Maxim of Quantity (be as informative as required), by withholding a fact relevant and crucial to the first farmer's actual intention, the fact that the turpentine led to the death of Pete's horse. The violation can be seen as either unwitting or deliberate.

Another somewhat similar example is (54):

- (54) "Jenny was washing the window on the fourteenth floor yesterday, and she fell off the window-sill."
"Good Lord, is she alive?"
"Yes. Fortunately, she fell inside."

This time it may again be claimed that crucial information is being withheld by the first character, but, more importantly perhaps, irrelevant information is given which then becomes misleading. The irrelevant piece of information is the floor number. Since Jenny fell inside, it does not matter which floor the window was on, as the distance between the window-sill and floor level is the same on every storey. Giving that information suggests that it is somehow relevant (if it is assumed that the participants respect Grice's Cooperative Principle of Conversation). The rather obvious way in which it would be relevant is that Jenny took a fourteen-floor fall, and this seems to be the conclusion drawn by the second character in the joke, since he or she expresses a serious concern for her being alive. The final line of the joke, containing the punch, clarifies what really happened within the world of the joke and introduces the alternative interpretation of *she fell off the window-sill*: 'fell inside' rather than 'fell out the window'.

Speech Act Theory (Austin 1962, Searle 1969, Searle 1979, De Bruyn 1995) provides a useful framework for analyzing some pragmatic ambiguities, such as may be found in (55):

- (55) Andy: "Have you forgotten you owe me five dollars for these ice-skates?"
Sandy: "No, but give me time and I will." (Hoke 1965:16)

Andy does not really, at least not primarily, want to find out whether Sandy's memory still retains a record of the fact that he owes Andy money. Rather, Andy simply wants his money back, and his *Have you forgotten you owe me five dollars for these ice-skates?* can be seen as a request to Sandy to give him back the five dollars that Sandy owes him. In terms of felicity conditions, we may say that what Andy says probably isn't a felicitous question, as Andy doesn't probably care very much whether Sandy has forgotten about the debt, as long as he pays up. Sandy, on the face of it, interprets it as a direct question, more likely than not to wheedle out of returning the money, and in his response he only addresses the point of how well and for how long he will be able to retain the recollection of owing the money in his memory. The pragmatic function of Andy's utterance as intended by Andy is to make Sandy pay him back the money. The pragmatic function of the same utterance as ostensibly (though not actually) perceived by Sandy is Andy's wanting to extract information from him about whether he still has a recollection of the debt. It is worth noting that although Sandy acts on the alternative reading of the ambiguous utterance, he is aware of the original reading, so he may indeed be said to perceive the ambiguity (and not just perceive: he uses it to his own advantage; in terms of Kopytko 1995, Sandy may be characterized by the pragmatic variable of *Cunning*). In a sense, then, the teller of jokes such as (55) (and also (22) and (24) above) is as if relating the joke which is originally told by one character of the joke. This is different from jokes such as (15), or (56) below:

- (56) Departing Traveller: "Run upstairs, boy, and see if my umbrella is in room 483. I think I left it in the corner by the window."
Boy (some minutes later): "Quite right, sir, it's exactly where you said it was." (Misztal 1990:713)

In (56) the departing traveller wants to recover the umbrella that he accidentally left behind in the room. His intention in addressing the boy is to instruct him to fetch the umbrella from the room. The boy interprets this intended indirect request more directly and simply checks whether the umbrella really is at the place designated by the traveller, without fetching it. Incidentally, the boy could have been even more literal in interpreting the original request: overtly, there is nothing in the original request about coming back from the room in the first place, but the boy does that. Without this partial compliance with the intended force of the request, it would be difficult to make the joke work, since in the absence of a clear signal that the boy misunderstood the request, the audience would be likely to assume that some external circumstances, not communicated in the text, prevented the boy's returning from the hotel room, and the ambiguity of the request would not arise.

Another way of dealing with jokes (53), (55), and (56) would be to say that a joke character responding to an utterance made by another character fails to notice, or pretends not to notice, the pragmatic implications intended by the other character. In some other jokes, the situation may be reversed. Consider (57) below:

- (57) Johnny, ten years old, applied for a summer job as a grocery boy. The grocer wanted a serious-minded lad for the job, so he put Johnny to a little test.
"Well, my boy, what would you do with a million dollars?" he asked.
"Oh, gee! I don't know. I wasn't expecting so much at the start." (Hoke 1965:13)

The grocer intends the query as a direct question about what the boy would do if he happened to have a million dollars. The boy interprets this as an indirect offer of a million dollar pay. The boy reads pragmatic implications that were not intended by the grocer.

(58) is a slightly different case:

- (58) Mike: "I wish I had the money to buy an elephant."
Spike: "Why? What would you do with an elephant?"
Mike: "Who wants an elephant? I just want the *money*." (Hoke 1965:13)

On the face of it, (58) looks quite similar to (57). Spike draws an inference that Mike wants to buy an elephant which Mike sets out to correct in his last line (the punch disclosing the ambiguity of his original statement). However, whereas in (57) the grocer really does not intend to suggest he is offering the boy a million dollars (as explained by the narrator in the joke), in (58) it is likely that Mike indeed does intend to suggest the implication that he wants to buy an elephant, only later to pretend he didn't mean that. Seen in this light, joke (58) (along with (22), (24) and (55) above) would be another example of 'it's the character that's making the joke'.

8.9. Type of modality

Huddleston (1988:78-79) recognizes three types of modality: *epistemic*, *deontic*, and *subject-oriented*. Briefly put, epistemic modality modifies the truth of a semantic proposition in terms of its probability (whether it's unlikely, possible, probable); deontic modality involves the issuing of directives and is associated with notions such as permission or obligation; subject-oriented modality ascribes a certain property to the subject of a clause. As the grammatical category of mood is virtually nonexistent in contemporary English, certain lexical items may exhibit ambiguity between two different modality types. The short joke in (59) below illustrates an ambiguity between deontic (original or unmarked interpretation corresponding to probable intention of the professor) and epistemic (alternative or marked interpretation introduced by the student's response) modality:

- (59) Professor: "You can't sleep in my class."
Student: "If you didn't talk so loud I could." (Miszta 1990:143)

In turn, (60) exhibits the contrast between epistemic and subject-oriented modality:

- (60) Stern librarian: "Please be quiet. The people near you can't read."
Small boy: "Well, they ought to be ashamed of themselves! *I've* been able to read since I was six." (Hoke 1965:6)

The librarian means *can't read* as 'find it difficult to read under the circumstances' (original interpretation, epistemic modality), whereas the boy understands *can't read* as 'do not possess the skill to read' (alternative interpretation, subject-oriented modality).

8.10. Textual cohesion

In this type of jokes the ambiguity arises from the presence versus absence of semantic ties between two elements of the joke's text. Consider (61) below:

- (61) A man who has lost his door-key is caught by a policeman climbing in through the window, and invites the policeman in to prove it is really his home.
"This is my living room," he says, switching on the lights boldly; and this is my six-thousand-dollar Spanish living-room suite." And so on continuing through the whole house, including the bedroom, where a man and a woman are discovered making love passionately on the bed. "And this is my carved French bedstead, and that's my wife," finishes the man. "Now let's go downstairs and have some coffee."
They go downstairs, and as they are drinking the coffee the policeman can't prevent himself from bursting out, "But what about that guy up in the bedroom on top of your wife?"
"Oh, him?" says the man, "to hell with him! Let him make his own coffee!" (Legman 1975:73, slightly altered)

In this, somewhat longish, joke, the policeman intends to question the oddity of a situation in which a husband seems not to mind his wife having sex with a stranger in their bedroom and in his presence. The policeman demands an explanation of this unusual situation. The husband appears to assume that the policeman ties up his question with the suggestion to have coffee and with the coffee-drinking itself. Thus, the husband apparently makes a cohesive link of the policeman's question with the coffee-drinking which the policeman never intended. Of course, much of the humour of (61) comes from the situation described at length in the joke. (61), then, lies at the periphery of linguistic humour and is notoriously difficult to analyze within any frameworks that I am aware of. There may be some promise in this respect within the relevance-theoretic approach to humour (for which see Jodłowiec 1991, Jodłowiec 1993, Curcó 1995), which is in turn based on relevance theory (Sperber and Wilson 1986).

8.11. Cases of multiple ambiguity

Many jokes involve more than just a single ambiguity. With single ambiguity, a joke is constructed around an ambiguous fragment of text with two interpretations. The loci of ambiguity may be located on non-overlapping fragments of the joke's text (which more or less covers Hockett's (1973) complex and compound jokes), such as in (62) below:

- (62) Pat bought a hot dog to guard the family valuables and it slept on the stove because it was a range rover.
(Cagney 1979:46),

or in Hockett's (1973:155) example given in (63) below:

- (63) Mr. Wong, a Canadian of Chinese extraction, visited the nursery in the maternity ward, and then hastened, much perturbed, to his wife's bedside. Said he: "Two Wongs do not make a White!" Said she: "I can assure you it was purely occidental."

In both (62) and (63), the final parts (*because it was a range rover* and *Said she: "I can assure you it was purely occidental."* respectively) could be deleted without rendering the jokes unfunny. The deletion would eliminate some of the humorous potential of jokes (62) and (63), as ambiguous strings contributing to the funniness of original texts would no longer be present, but the texts would survive on the strength (though I only apply this word to (62) with hesitation) of the remaining ambiguities. In those cases I will speak of *multiple independent ambiguity*. Unfortunately, straightforward deletion of a fragment of text is not always a reliable test for independence of ambiguities. What we should more generally be looking at is whether an ambiguity can be eliminated without at the same time removing the other ambiguity (or ambiguities). For example, in (64) below recognizing one of the ambiguities assists in getting the other one:

- (64) If you had three feet, what kind of work would you do?
Yard work. (Klein 1992, no page)

Even so, there appear to be two independent ambiguities in (64): *feet* is ambiguous between 'lower extremities' and 'units of linear measurement', and *yard* can mean either 'piece of ground' or 'unit of linear measurement'. Indeed, it can be shown that the two ambiguities are independent by removing only one of them, as in (65):

- (65) If you were three feet tall, what kind of work would you do?
Yard work.

We can also remove the *yard* ambiguity, as in (66), but some other (not necessarily ambiguous in itself) way of enhancing the 'unit of measure' reading should be provided (see the discussion of ambiguity on page 47 ff below):

- (66) If you had three feet, what kind of work would you do?
I'd be a baseball player.
Why?
For a basketballer, three feet would be too short.

Another example of independent ambiguity of this kind is given in (67):

- (67) Noah and his wife stood on the deck of the Ark and watched the flood receding.
"Right," said Noah, "now it's up to you to go forth and multiply."
All the animals left two by two, filing out of the Ark and disappearing into the distance.
"Well, that's it, dear," said Noah, sitting down for a cup of tea. Then, out of the corner of his eye, he spotted two snakes hiding beneath the kitchen table. "What are you two doing here?" he asked angrily, "I told you to go forth and multiply."
"We can't," hissed the snakes. "We're adders." (Davro 1987:123)

On the other hand, there are jokes with *multiple interdependent ambiguity*, where the individual ambiguities cannot be isolated from one another. Often, we seem to be dealing with lexical plus syntactic class ambiguity, where the syntactic combinatory properties of a given lexical item prevent it from being freely combined with both syntactic representations of a phrasal construction of which the lexical item is a constituent, as in an elaborate joke given in (68):

- (68) Three small siblings had a pet sparrow, which, alas, died. The children were very sad, and they decided to give the dead bird a really good burial service. Their families were faithful members of the church, so the children had some ideas of how to go about it.
The first step was to dig the grave in a carefully chosen spot in a corner of the yard. Then they solemnly prepared for the actual interment. One child held the sparrow over the grave, and another recited, "In the name of the Father, and the Son, and in the hole he goes." (Johnson 1989:262)

Thus, only two unitary interpretations can be maintained: 'in the hole he goes' and '(in) the Holy Ghost' despite the fact that we have two lexical ambiguities ('Ghost' vs. 'goes' and 'Holy' vs. 'hole he') and a syntactic class ambiguity (different phrasal structure: VP with a fronted PP constituent vs. PP with an NP constituent). This fact follows from the rampant ungrammaticality of strings like **in the hole he Ghost* or **in the Holy goes*.

At other times, the selectional restrictions may be more semantic in nature, such as in (69) below:

- (69) What did the little termite in a pub say to his father?
Beat me, Daddy, I ate the bar. (Johnson 1989:127, slightly modified)

Joke (69) only works for recipients who are familiar with the boogie-woogie piece "Beat Me, Daddy, Eight to the Bar" (see Raskin 1990 and Attardo 1994:268 for the concept of *sophisticated jokes*). In this case, the original title song contrasts with the "as spelled" interpretation. As in (68) above, so too in (69) we have two lexical and one syntactic ambiguity, but again the VP interpretation 'I ate the bar' necessitates the choice of *ate* rather than *eight*, since the latter cannot head a VP (syntactic restriction). As for the choice between *bar*='counter' and *bar*='unit of timing in music', both would fit syntactically into the VP, but the verb *to eat*, when used of a furniture-consuming creature such as a termite, strongly favours the 'counter' interpretation, and so this preference is semantically motivated.

9. Other ambiguity-based classifications

Several other authors have proposed to classify jokes (and riddles) according to the type of ambiguity that they involve. MacKay and Bever (1967, reported in Shultz and Horibe 1974 and Fowles and Glanz 1977) recognized two types of linguistic ambiguity present in verbal jokes: surface structure and deep structure, which correspond to the two levels of representation within several versions of transformational grammar. Some other authors have adopted MacKay and Bever's categorization, with additions. Shultz and Pilon (1973) as well as Shultz and Horibe (1974) distinguish four types of linguistic ambiguity occurring in jokes: surface-syntactic, deep-syntactic, lexical, and phonological. Here is how Shultz and Horibe (1974:14) distinguish between surface-syntactic and deep syntactic ambiguity:

Surface structure ambiguity results when the words of a sentence can be grouped or bracketed in two different ways with each bracketing expressing a different semantic interpretation. For example, the phrase "man eating shark" can be bracketed as ((man) ((eating) shark))) or as (((man) (eating)) (shark)). In the former case, there is a man who is eating shark; in the latter, a shark who eats men. In surface structure ambiguity, two different deep structures are projected onto two different surface structures. Deep structure ambiguity, on the other hand, results when two different deep structures are projected onto a single surface structure. For example, the request "Call me a cab" can be interpreted as either "Call a cab for me" or "Say that I am a cab."

It appears from the above as well as from some other examples given by Shultz and Pilon (1973) and by Shultz and Horibe (1974) that their surface structure ambiguity roughly corresponds to my syntactic class ambiguity, whereas their deep structure ambiguity jokes in some, though not all, cases would here be classified as syntactic function ambiguity jokes (this is the case with the "call me a cab" joke, whose syntactic function ambiguity is discussed in Lew 1996).

A third category that Shultz and Horibe (1974:14) recognize is lexical ambiguity or polysemy (I have taken the liberty of changing the order of presentation of the types):

Lexical ambiguity or polysemy occurs whenever a given lexical item has more than one semantic interpretation.

Shultz and Pilon (1973:728) further clarify: "e.g., 'club' can refer to either a large stick or a social organization." This example is probably inspired by the following joke, popular with humour researchers and usually attributed to W.C. Fields:

- (70) Do you believe in clubs for young boys?
Only when kindness fails.

Apparently, then, Shultz and Pilon (1973) and Shultz and Horibe (1974) see lexical ambiguity as synonymous with polysemy, dealing with different senses of the same lexical item. This, of course, raises a difficult and contentious question of what counts as "one lexical item." Surely not every scholar would agree that the two interpretations of *club* are indeed instances of one and the same lexical item, given the semantic distance between the two. The difficulty involved in teasing apart homonymy and polysemy has been one of the reasons that the two are lumped into one and the same category in the present approach.

A fourth, and final, category recognized by both Shultz and Pilon (1973) and Shultz and Horibe (1974) is phonological ambiguity, and is defined by Shultz and Pilon (1973) in the following way:

Phonological ambiguity occurs when a given phonological sequence can be interpreted in more than one way. This can result from either a confusion about the boundaries between words (e.g., "eighty cups" vs. "eight tea cups") or the condition of homophony where two historically distinct words happen to have similar pronunciations (e.g., "pear" vs. "pair"). (Shultz and Pilon 1973:728)

Within the present framework, phonological ambiguity is not distinguished as a separate major-order type of ambiguity but rather phonological non-identity can be an additional feature of jokes involving syntactic or lexical ambiguity. The definition of phonological ambiguity as presented by Shultz and Pilon (1973) (a very similar definition is also given in Shultz and Horibe 1974) leaves me in doubt as to what really counts for those

authors as phonological ambiguity. The *eighty cups* example would suggest that phonological non-identity might have a role to play in distinguishing phonological jokes from other jokes. This is, however, contradicted by the first sentence in the quotation above. In view of this, the *pear* — *pair* example is really puzzling. Shultz and Pilon (1973) talk about *similar pronunciations* here. Does that mean non-identical? Webster's Third New International Dictionary (Gove 1971) provides four pronunciation variants for both *pear* and *pair*, and both sets of variants are identical, and given in the same order. Longman Pronunciation Dictionary (Wells 1990) overtly marks the homophony of the two words under *pear*. We may thus assume that we are indeed dealing with homophony here, in the sense of 'identity of sound'. Unless the authors imply, though, that *pear* and *pair* are different in their (synchronic, as opposed to historical) phonological representations, it is difficult to see what would make the ambiguity phonological but would at the same time disallow the inclusion of jokes such as (70) within the phonological category. One difference between the two cases is that *club* 'society' and *club* 'truncheon' are historically related whereas *pear* and *pair* are not. The only indication of this that speakers may be conscious of is the identity versus difference in spelling. Neither Shultz and Pilon (1973) nor Shultz and Horibe (1974) mention spelling, however. Since the youngest subjects in both studies were six years old, and the stimuli were presented orally, this is hardly surprising. What is surprising is that both studies set out to verify that subjects perform differently when presented with different types of ambiguity. Basing a distinction on historical origin of words is then in one sense like expecting to find that the six-year-old subjects are aware that *pear* and *pair* are historically distinct, but not *club* 'society' and *club* 'truncheon'.

Although the primary concern of Green and Pepicello (1978) has been the role of ambiguity in riddles, their classification may have a bearing on jokes, since the borderline between riddles and jokes is fuzzy. An attempt at sharpening this boundary made by Johnson (1975) has not met with universal approval, and so, for instance, Attardo and Raskin (1991) see the riddle as one of the possible narrative forms of the joke. Given this, and the fact that some authors (Spector 1990, Klein 1992) have no hesitation in applying Green and Pepicello's classification to jokes, I feel that this classification deserves to be dealt with here. In fact, Pepicello himself claims in a later article that:

Green and Pepicello (1978) and Pepicello (1980) [which will be given critical assessment below — RL] outlined a number of basic grammatical strategies which appear in children's riddles and which also appear in a wide range of jokes told by both children and adults. (Pepicello 1989:208)

In essence, Green and Pepicello (1978) recognize three types of linguistic ambiguity: phonological, morphological, and syntactic. The issue of phonological ambiguity has already received sufficient attention in this work, and further arguing against phonological ambiguity at this point would have been repetitive. Suffice it to say that even on their own terms, Green and Pepicello appear inconsistent at times. This is how they illustrate phonological ambiguity:

[...] take the sentence

I. John lives near the bank.

The ambiguity here lies in the word *bank*, in that it may refer to a building, a mound of earth, or the side of a river. Such an ambiguity is purely a phonological one, in that we are dealing with three separate lexical items which have identical phonological forms. They are the same parts of speech, nouns, and differ only by semantic features. (Green and Pepicello 1978:6-7)

The argument here is logically rather unsound. We are (correctly) told that the items have identical phonological representations, and this fact, for Green and Pepicello, seems to be evidence enough to treat the ambiguity as phonological. But an equally (in)valid argument could be presented to show that the ambiguity is syntactic, and in fact Green and Pepicello do remark that "they are the same parts of speech."

The category of morphological ambiguity is no less murky. For example, the riddle under (71) below:

(71) "When is coffee like the soil? When it is ground" (Green and Pepicello 1978:8)

is claimed to be based on morphological ambiguity because "there is a play on the homophony between a simple lexical item ([...] the noun *ground*) and a verb plus its past participle morpheme ([...] *ground*)." Apart from the fact that "a past participle morpheme" can only be postulated here in a rather abstract sense (the

difference between *grind* and *ground* being realized by apophony) it is hard to see why a mere involvement of one morphologically simple and one morphologically complex lexical item should be reason enough to postulate morphological ambiguity. In some other types of examples, such as (72) below:

(72) "What kind of ears does a train have? Engineers" (Green and Pepicello 1978:8)

postulating morphological ambiguity is more justified, though this is not how jokes like (72) would be classified within this framework. What really matters here from our point of view is that within one interpretation we have the lexical item *engineers*, within the other interpretation two **other** items, *engine* and *ears*. Hence, we would postulate lexical ambiguity in (72), but also syntactic class ambiguity, as the syntactic structures would be differently represented for both representations. In contrast, it matters little what the actual morphological makeup of *engineers* is, since a portion of a word in one interpretation can be used in a riddle (this type rarely occurs in jokes other than in riddle form) as a separate lexical item in the other interpretation whether it represents a separate morpheme in the first interpretation or not, as should be obvious from (73) below:

(73) How could you say in one word that you had come across a doctor?
Metaphysician. (Stanley 1980:22)

(73) is also a compelling case of syntactic class ambiguity (on top of lexical).

Pepicello (1980) seems to apply the terms lexical and phonological ambiguity interchangeably to examples like (74) below:

(74) What turns but never moves? Milk. (Pepicello 1980:2)

He also devotes some space to phonological phenomena in riddling, mainly to stress placement, but he fails to notice that nonidentity of phonetic form does not conflict with lexical or syntactic ambiguity.

The term lexical ambiguity is adopted by Spector (1990) and (following Spector) Klein (1992) to cases like (74) above. Other than that, the two authors adopt Pepicello's classification.

Hirsch-Pasek et al. in their 1986 study recognize six types of linguistic ambiguity in jokes: phonological, lexical, surface structure, underlying structure, morpheme boundary, and morpheme boundary with phonological distortion. The surface structure and underlying structure categories are the same as in Shultz and Horibe (1974) and require no further attention. Phonological ambiguity "results when two similar phonetic sequences (which differ only in a single phonological segment) identify two separate words, which have different meanings" (Hirsch-Pasek et al. 1986:115). This corresponds, to some extent, to our lexical ambiguity with phonetic non-identity, although one wonders about the one-segment difference limit. Perhaps in the six joke tokens of this type used in the experiment the limit was observed (only two of them are provided in the paper, so one cannot say for sure), but any jokes involving a greater phonemic distance will be left without a fitting category. According to Hirsch-Pasek et al. (1986:116) morpheme boundary ambiguity is recognized "when a polysyllable can be interpreted as a single morpheme or as a sequence of morphemes, e.g., *engineers* / *engine ears*." This is very unclear, as to me **both** interpretations given in the example constitute three-morpheme sequences, and by no stretch of linguistic imagination is any of them a *single* morpheme. Equally puzzling is the sixth and last type, defined as "an ambiguity that results from the interaction of a phonological problem [...] acting together with a morpheme boundary problem [...] e.g., *let's hope* / *let's soap*" (Hirsch-Pasek et al. 1986:116). To me, the example matches the description of phonological ambiguity, but I fail to see which "polysyllable" in the example quoted above can be interpreted as a single morpheme versus a sequence of morphemes.

10. Ambiguators

In (11) above I have given the definition of ambiguity adopted for the purpose of the present study. A crucial part of that definition is the stipulation that there be two semantic interpretations associated with a fragment of text. If it is indeed the case, as I have been trying to demonstrate, that ambiguity plays a central role in a class of jokes that I have referred to as linguistic jokes, then it may be that the process of linguistic joke creation incorporates some strategies for producing ambiguity. Since investigating the process of joke creation lies beyond the scope of the present study, I will here concentrate on identifying elements within the already existing joke texts that appear to facilitate the perception of ambiguity. Such elements will be generally referred to as ambiguitors, and their presence as ambiguitation. Their importance in jokes has already been hinted at on page 23 above. It is here that we will look in much more detail at the different types of ambiguitors. As has already been pointed out, in a typical non-humorous mode of communication the decoding of a communicated message largely consists in selecting the most appropriate semantic interpretations of text chunks by eliminating the ones that, for a number of complex reasons, are less appropriate in a given context, so that for each chunk one semantic interpretation is computed by the decoding apparatus of a human recipient (for suggestions of how this might actually be achieved, see for instance Moore and Carling 1982, 1988).

If it is indeed the case that a single semantic interpretation is typically sought during normal processing of linguistic input — an assumption which appears reasonable if a system of communication is to function efficiently — then it may be postulated that special conditions must obtain for the recipient of a text to arrive at not one, but two different interpretations. These special conditions may relate to the content of the text itself, but also conceivably to any concomitants accompanying the linguistic transaction consisting in the telling, or reading, of a joke. Among these concomitants, the characteristics of the recipient and, if present, of the teller, as well as the current and past status of the social relationship between them, and the setting of the transaction may all be of importance.

An ambiguitor then, as understood in the present approach, is a device purposefully embedded in the joke aimed at enhancing the probability of the alternative (marked) reading relative to the original (unmarked) reading. The marked reading may be suitably highlighted and/or the unmarked reading may be suppressed.

While the role of ambiguitors is fairly uniform, that is to enable an ambiguity which potentially resides in some fragment of a joke's text, their form can vary significantly, and choosing it skillfully (in the process of joke creation, or re-creation, if the joke is only partially retained in the memory of the teller) may go a long way towards the success or failure of a joke (see Hockett's (1973:171) way IV of blowing a joke).

Ambiguitors, as seen here, should be distinguished from Dallin Oaks's (Oaks 1990, 1994) *enablers (of grammatical ambiguity)*. The latter concept refers to the specific, mostly systematic but not exclusively, syntactic and lexico-syntactic properties of the English language with grammatical ambiguity-generating potential. Thus, while Oaks's enablers identify the kinds of phrasal and quasi-phrasal strings potentially capable of carrying two meanings through syntactically divergent representations, the role of ambiguitors is to make sure that the two potential readings (not necessarily corresponding to two *syntactic* representations) are in fact brought to the mind of the recipient. The two directions of study are complementary rather than competitive.

10.1. Examples of ambiguitors

10.1.1. Narrative ambiguitors

Let us now take a closer look at some instances of ambiguitors in jokes. First, consider joke (75) below:

- (75) They had just turned the corner from one of the most beautiful of steep valleys.
She exclaimed: "What a beautiful gorge that was!"
"Yes, it wasn't bad," he replied, his mind flashing back, unromantically, to the restaurant in the valley, "but I could have done with a bit more apple pie." (Miszal 1990:595)

The reader will, I hope, agree that (75) is hardly a side-splitting joke. The reason why I think it is a rather mediocre joke is that it has a very obvious ambigator,¹² which fact, however, makes it a suitable candidate for illustrative purposes. The original (unmarked) reading of the ambiguous word *gorge* is 'ravine'. The alternative (marked) reading is 'copious meal'. The latter interpretation is somewhat unexpected in the context, definitely less so than the former, so the creator (or creators) of the joke chose to insert a narrative passage *his mind flashing back, unromantically, to the restaurant in the valley*, to increase the chances that the alternative reading would be activated, resulting in the desirable ambiguity on which (75) turns. This narrative passage is a clear instance of an ambigator. Through a reference to a restaurant, the audience is informed that the characters took a meal on the way. The audience can then tie the last line of the male character with the reference to a restaurant and more readily reinterpret *gorge* along the lines of the (marked) eating-related reading.

10.1.2. Proper name coinage or use of proper names

What appears to be a rather frequently employed type of ambigator is an ad hoc coinage of a proper name. This is a very convenient (if perhaps unoriginal) method of generating ambiguity.

Browsing through any desk-size dictionary of English gives the impression that most lexical items are polysemous: they have a number of distinct senses. These senses, however, do not freely occur in any contextual environment. In an actual text, whether spoken or written, the exact meaning of lexical items is negotiated via an intricate (and still largely mysterious to linguists) network of grammatical and semantic links and correspondences with the co-occurring lexical items, as well as with the whole baggage of non-linguistic context. Because of this, it is not generally usual to have more than one such "dictionary sense" carried by a single occurrence of a lexical item within a typical, well-structured text (and, one would like to add, it's a good thing it is so, for otherwise the communicative purpose of language would be ill-served).

However, a relatively easy way of endowing a lexical item with additional referential meaning is to force its use as a proper name for something or somebody. In this fashion, ambiguity can be generated as in joke (23) above (page 29). The phrase *Never despair* in (23) is given an extra semantic interpretation by assigning to it a proper name value. It is thanks to this mechanism that the phrase becomes ambiguous.

It is worth pointing to another difference between the proper name coinage ambigator as exemplified in (23) and the purely narrative ambigator illustrated in (75) above, since in the latter case the formal linguistic requirements for the existence of two meanings are present outside the context of the joke, there is knowledge in the minds of most native speakers of English of the two meanings of *gorge*. This is more than can be said of *Never despair* in (23), which is presented with special proper name meaning in an arbitrary fashion just for the occasion.

Existing and well-known proper names can also be tapped for ambiguity, if they can be given non-proper-name interpretation as well, as exemplified by (76) below:

- (76) Artillery Commander: "Fire at will!"
Recruit: "Where is Will?" (Misztal 1990:155)

The arbitrariness, and thus ambigator status, of such devices will be typically less striking than that of ad-hoc proper name coinage, but it will be the more apparent the more unusual (infrequent) the proper name is. Joke (77) below will provide an illustration:

- (77) Thor, the God of thunder, boasted an unusaly high sex drive. On one occasion, after an encounter with a particularly challenging partner, he felt compelled to disclose his identity:
"I am Thor."
"Tho am I," said the girl.

¹²The issue of the relationship between the quality of the joke (in terms of its funniness) and ambiguation will be taken up on page 57 below.

On the other hand, proper name coinage is more open-ended and thus potentially more productive as an ambiguity-creating device than the use of already existing names, although resorting to phonetic nonidentity (see **Phonological jokes** on page 33 above), as in (77), may give a boost to productivity. This strategy is taken to its extreme in knock-knock jokes, whose highly conventionalized structure enables ambiguity to be perceived with even high degrees of phonetic divergence. Recipients' ambiguity-discovering efficiency is particularly high then, since those recipients who are familiar with knock-knocks will know *a priori* the precise location of the ambiguous string.

10.1.3. Different languages

A potentially very productive ambiguity-creator consists in the introduction into the joke of characters differing in their linguistic systems. This strategy has rather obvious benefits from the point of view of ambiguity-generating potential: a fragment of text can be given two distinct semantic interpretations, the ambiguity resulting rather naturally from the different processing within the two linguistic systems. The most conspicuous difference of this type results from the clash of two different languages, as in (78) below:

- (78) During the Second World War, a German spy in London goes into a pub for a drink. Using his immaculate British accent, he addresses the bartender: "Two Martinis, please."
"Dry?"
"Nein! Zwei, bitte!"

In (78), the phonetic sequence corresponding to English *dry* is similar to that representing German *drei*. The bartender's intention is to produce an English word, but the spy apparently switches his decoding apparatus into German, perhaps because he fails to make sense of the string within English, or else because this isn't the first pub he went to that night (the interesting point is that jokes, unlike some longer humorous pieces of literature, can thrive without any such deep justification).

Joke (79) below may serve as another example of one phonetic string being decoded within two languages, this time French and English:

- (79) He: "Je t'adore!"
She: "Shut it yourself, you fool!"

Further examples of humour exploring English and French can be found in Leeds (1992).

10.1.4. Different dialects of one language

In a less manifest case of a bringing together of two distinct linguistic systems, speakers of two dialects of the same language may be involved, as in (80) below:

- (80) A visitor from England startled at dead of night by a terrifying hoot asked his American host:
"What can that terrifying sound mean?"
"It's an owl," the host explained.
"Right, but 'oo's 'owling?" (Pocheptsov 1974:283)

The dialects contrasted in (80) are British and American English, with h-dropping being attributed to British English, a feature stereotypically perceived by Americans as typical of British speakers, which stereotype has some factual grounding (Wells 1982).

Within Britain, h-dropping is popularly associated with the Cockney accent, hence jokes like (81) below:

- (81) Doctor, to Cockney patient: "Now, my man, what about this ear?"
Patient: "This 'ere wot?" (Pocheptsov 1974:242)

The next example is based on dialectal variation within the US:

- (82) Agent: "Now, there is a house without a flaw!"
Harvard Man: "My, what do you walk on?" (Misztal 1990:498)

Joke (82) explores the stereotypical (and once factual) feature of a cultivated New England accent, namely non-rhoticity (r-lessness).

10.1.5. Different developmental stages of a language

Linguistic variation is not limited to the geographical dimension. For example, there are significant, consistent differences between the linguistic competence of an adult and that of a child. This is simply a result of the regular ontogenetic development of language. The language of a child, especially of a young one, represents a given non-final developmental stage. Thus, the presence of adult-child pairs in jokes may be seen as an ambigator, a purposeful device allowing two distinct linguistic systems to go to work on a single fragment of text, yielding ambiguity. Here are some examples:

- (83) A lady sent her little girl to see the doctor. When she returned, the fond mother said:
"Mary, did the doctor treat you?"
"No, he charged me two dollars." (Misztal 1990:832)
- (84) Big sister's date was trying to make friends with the young son of the house as he waited for her to finish dressing.
"I think I have met all of your family except your Uncle Joe," he said. "Which side of the house does he look like?"
The small boy hesitated. "The side with the bay window," he said finally. (Hoke 1965:92)
- (85) The youngsters at Sunday-school were told to draw their conceptions of the Flight into Egypt. One little girl turned in a picture of an airplane with three people in the back, all with haloes, and a fourth up in front without one. Perplexed about the fourth person, the teacher asked the girl who it was.
"Oh," replied the youngster, "that's Pontius, the pilot." (Misztal 1990:988)

Jokes (83), (84), and (85) above, as well as (28) on page 30 earlier on, hinge on the divergence between the adult's and the child's typical lexicon, but any other difference can become the basis for ambiguity — like the difference in syntactic parsing in (86) below:

- (86) Mother: "Mary, will you run across the street and see how old Mrs. Smith is today?"
After a few minutes, Mary: "Mother! Mrs. Smith says it's none of your business how old she is today!"

10.1.6. Use of joking stereotypes

It is a little disputed fact within humour scholarship that verbal jokes tend to cluster in *cycles* (Dundes 1987), which display a similarity of theme, setting, or character(s) featured in the jokes. As joke recipients become familiar with a given cycle of jokes, they build a mental set which evokes a set of associations attached to this cycle or any of its constituent elements. This appears to be serving a concrete purpose in joke lore, as the mere inclusion of an element indicative of an established cycle evokes in a very economical, "shorthand" way a set of assumptions about some specific entity which remain active during the interpretation of jokes. These sets of assumptions will be here called *joking stereotypes*. It is worthy of note that, to be part of a joking stereotype, a given feature need not be objectively present; nor need it be identical to a true (or *bona-fide*, to extend Raskin's (1985) usage of the term) stereotype, in that it need not reflect the true beliefs (correct or otherwise) of the holder(s) of the stereotype (see Davies 1990 and 1991 with his *comic stereotypes*, also Raskin 1985:177-179 and Attardo and Raskin 1991:301-302 for a similar view). This point is saliently demonstrated with an example of rabbits, as reflected in joke (87) below:

- (87) A man opens a refrigerator and sees a rabbit sitting on the top shelf munching on a carrot. "What on earth are you doing in there?" the man asks.
"Well, it said Westinghouse, so I'm westing," answers the rabbit.

It is part of a generally held joking stereotype of rabbits that they pronounce the English /r/ sound as [w] (a labial-velar approximant). This feature of the rabbits' joking stereotype enables the ambiguity 'Westinghouse (=popular brand of refrigerators)' vs. 'resting house'. It would be perverse to claim that most recipients of (87) seriously believe that rabbits possess this particular feature of speech, or that those animals are capable of any

speech in the first place. Even so, such recipients are not prevented from getting the joke. Apparently then, a stereotypical set of features of rabbits is invoked that is known to be factually untrue, yet is assumed to be locally true, within the realm of the joke. Of course, some features explored in jokes may well correspond to reality, such as the systematic differences between the linguistic systems of children and adults discussed above; but the important point is that they don't necessarily *have* to be objectively real.

Joking stereotypes frequently concern groups of people, and thus the inclusion of stereotype-carrying characters is widespread in jokes. For example, one could name ethnic groups (eg. Polish, Irish, Russian, Greek), geographical (different parts of the country), rural vs. urban characters, occupational (university professors, lawyers, policemen), age-defined (children, the elderly). Some of the above are stereotypically characterized by specific habits of speech which may generate ambiguity. In terms of contributing to linguistic ambiguity, "dumb" and "smart" stereotypes may be particularly useful, by capitalizing on the implicature linking general low cognitive ability with impaired linguistic competence. Dumb stereotypes (Davies 1990) are often represented as ethnic groups (Polish-Americans or Italian-Americans in the US, the Irish in England and Scotland), inhabitants of foottowns (Kerry in Ireland), and rural folk in general. In what follows, I shall concentrate exclusively on this last stereotype.

A set feature of a dumb character in general, and of a rural one in particular, is poor vocabulary range. This is in evidence in joke (88) below:

- (88) An angler was stopping at an inn, and, desirous of getting some bait, he said to the servant-girl:
"Can I get horse-flies round here?"
The girl looked wooden. "Have you never seen a horse-fly in these parts?" he asked.
"No, sir," said the girl, "but I once saw a cow jump over a gate." (Misztal 1990:709)

The girl, unfamiliar with the term *horse-fly*, is baffled by the first query of the traveller. Once the query is rephrased in a form allowing an interpretation that does not involve this lexical item, she interprets the string in a way different than intended by the angler.

Another vocabulary gap in a rural character is the basis of (89) below:

- (89) A young woman had just returned to her farm home after several years in the big city. She was exhibiting the contents of her trunk to the admiration and amazement of her mother, who had bought her clothes for forty years at the village general store.
"And these," said the daughter, holding up a delicate silken garment, "are teddies."
"Teddy's. You don't say. Young men are certainly different from what they used to be."
(Potcheptsov 1974:255)

Insofar as the lexicon is part of the linguistic system of a speaker, jokes such as (88) and (89) could also conceivably be placed under the **Different dialects of one language** label above. There are no sharp boundaries between the different types of ambiguators exemplified in this chapter.

Since greater mobility is more readily associated with urban lifestyle, it is not surprising to find jokes such as (90) below, where the author of the joke chose to include an extra narrative ambiguator (*unused to travelling*) communicating this point explicitly:

- (90) Booking Clerk (at small village station): "You'll have to change twice before you get to York."
Villager (unused to travelling): "Goodness me! And I've only brought the clothes I be standing up in!"
(Potcheptsov 1974:159)

10.1.7. Infrequent lexical items and constructions

Esoteric words and expressions in jokes may help achieve ambiguity, as in (91):

- (91) One Irishman phoned another and said, "Come on over, we're having a wake."
His friend said, "I dunno, we've got a bad case of incipient laryngitis in the house." "What the hell," said the other Irishman, "this lot here will drink anything; just bring it." (Cagney 1979:41)

The rationale for the use of rare words and expressions is that it makes sense for a joke character to experience difficulties with understanding them correctly, that is in the established meaning. A private meaning is then introduced as the alternative interpretation which, as in (91) above, arises from contextual support, but phonetic similarity may also play a role, as in (92) below:

(92) After several years of married life without child, the husband sends the wife to a doctor. The doctor soon discovers that the reason is lack of physical intercourse.

"There is nothing physically wrong with you, my lady, but you have a deficiency of passion, and if you ever give birth to anything, it will be a miracle."

"Well, what did the doctor tell you?" asks the husband.

"He said I got a fish in my passage, and if I ever give birth to anything, it will be a mackerel."

There is, however, a delicate balance to be struck here. The word or expression must not be too obscure, or there will be a risk of the recipients missing the original interpretation themselves. Again, this is where the introduction of a dumb (and thus linguistically nonproficient) character becomes a useful accompanying ambigator, so the dumb interpretation can be used against the normal or smart one. Once a dumb stereotype with which the audience is familiar features in the joke, it is easier for the audience to accept that this particular character may fail to understand a word or phrase in the way it would be understood by most. Naturally, jokes (88) and (89) could again be easily included in this section, so non-exclusiveness, and even some degree of complementarity (or perhaps conspiracy) of ambiguators should be assumed.

The contrast in intellectual/linguistic proficiency between characters may also be achieved by the introduction of unusually competent ("smart") characters, sometimes to be contrasted with a dumb character, such as in joke (93) below:

(93) The dizzy blonde snuggled up to her escort:

"How about giving me a diamond bracelet?" she breathed into his ear.

"My dear," replied the companion, "extenuating circumstances coerce me to preclude you from such an extravagance."

"I don't get it," said the girl.

"That's just what I said," was the reply. (Misztal 1990:213)

10.2. Internal versus external ambiguation

So far I have included examples illustrating the presence in the texts of jokes of devices boosting the likelihood of the audience perceiving two readings. However, one should bear in mind that a joke is not told, or read, in a contextual vacuum. Jokes may be told in structured sequences during so called *joke-telling* or *joke-capping sessions* (Coulthard 1977, Geltrich-Ludgate 1983, Mulkey 1988, Norrick 1993). Jokes may also be read from printed joke collections. In these situations there is a clear sense of awareness that the texts communicated are humorous, rather than serious, in nature. Even when a joke is inserted into an otherwise serious conversation, it is usually accompanied by a signal indicating this fact. The signal may be non-verbal, such as a facial expression, gesture, voice quality, or verbal, in that a joke is preceded by an appropriate formulaic phrase generally known to precede a joke, such as "Have you heard the one about ...?" (Nash 1985, Cashion et al. 1986). Furthermore,

the signal of intent may embrace the whole form of the joke, as immediately perceived by the recipient. Many jokes are bedded in a fossil syntax, a received verbal structure that we recognize as belonging wholly or in the main to humorous practice. (Nash 1985:35)

This all strongly suggests that there exists a special humorous or non-bona-fide (Raskin 1985, Mulkey 1988, Raskin and Attardo 1994) mode of communication, in which speakers are less committed to the truthfulness of what they are saying than in the serious or bona-fide mode (see, however, Zhao 1988). If it is at the same time true that a significant proportion of jokes depend on linguistic ambiguity, a claim I have been trying to substantiate all along, then it makes sense to postulate that the humorous mode of communication is marked by an increased (relative to the serious mode) sensitivity to ambiguity.

In view of the preceding, it is possible to recognize ambiguation in a broader sense, so as to include the signalling of the passage to the humorous mode (see also Zajdman 1991). I will refer to this complex of devices as *external ambiguation*, as their location is usually outside the core text of the joke, except insofar as the wording of the joke may carry a modal meta-message "I am a joke" as suggested by the quote from Nash (1985) above. For contrast, ambiguators of the types discussed and illustrated in the preceding sections will be termed *internal ambiguation*, since these devices are embedded in the text of the joke.

As an illustration of how external ambiguation may send a joke recipient searching for ambiguity, consider my personal experience of how I recovered ambiguity in a verbally communicated joke, volunteered by a member of the audience during the annual session of Speech Science students at Eastern Michigan University on 11th December of 1992, immediately following Kathryn Klein's (Klein 1992) presentation. The joke is given as (94) below, partly in conventional orthography, but partly in phonetic transcription to more closely represent the actual rendition of the teller of this joke:

(94) If a new Dodge [v]iper costs \$15,000, what does a [v]indshield cost?

As, apparently, the joke escaped everybody in the audience (there was no laughter), the teller offered additional explanation: "It's a difficult one, it's a phonological, you know." At that point, I had already been able to identify [v]indshield as *windshield*, realize that a character was being represented who realizes the phoneme /w/ as a labiodental fricative [v] (could be Jewish, German, Russian, or any other whose joking stereotype incorporates this feature), and work out (applying the discovered characteristic to the remainder of the joke's text) [v]iper as representing *wiper*. However, with *windshield* and *wiper* alone, text (94) would be a feeble parody of a foreign accent rather than a fully fledged joke, and so it did not seem likely that the person would enlist the attention of the audience to tell it. Searching for ambiguity which would make (94) a joke, I found *wiper* vs. *viper* as a possibility, and thus hypothesized that Viper might be a model of a Dodge car. With this assumption the joke worked fine, and I later confirmed by talking to people knowledgeable in the automotive industry that such a model does indeed exist, but is not well known, which would account for the lack of original reaction of the audience to the joke. Of course, the ideal scenario probably assumed by the creator(s) of (94) would be for the recipients to be familiar with Dodge Viper, which would be the unmarked, original reading, and only after the specific phonetic realization is communicated through [v]indshield, is the recipient supposed to discover the marked, alternative interpretation of [v]iper as 'wiper' — the reading apparently intended by the character of the joke.

10.3. Local versus global ambiguation

Another distinction that can be made is that between *local* and *global ambiguation*. This distinction is based on the manner in which a given ambigator is distributed within the text of a joke. If it is restricted in scope to only a portion of the text, i.e. it is introduced in a later part of the joke's text, then it may be termed local. A local ambigator is a limited, transient element of a joke. In contrast, an ambigator that is not so limited, but rather pervades the whole, or most, of the joke, will be referred to as global. Joke (75) on page 47 above exemplifies a local ambigator in the form of *his mind flashing back, unromantically, to the restaurant in the valley*. Another example is dropping the tray in (95) below:

(95) Lord Peter is defining "faux-pas" to his flunkey. "Well, now I come to think of it, you yourself provided a good example this morning."
"I, m'lud?"
"Yes. You will recall that her Ladyship and our distinguished visitor were out early picking blooms in a rose-garden? As they entered, her Ladyship, alluding to a thorn he'd had in his hand, asked, 'Is your prick still throbbing'"
"Yes, m'lud."
"Well, on hearing this you dropped the tray of coffee you were serving. THAT was a faux-pas!"
(Legman 1975:72)

Disregarding the fact that (95) seems to be straddling the borderline between a typical verbal joke and a more elaborate textual form, the mention of the dropping of the tray sends a signal to the recipient (as did the

dropping of the tray itself to Lord Peter's visitors in the story embedded in (95)) that "there is something there," that there is an additional, hidden meaning in the preceding text. This signal no doubt assists the audience in perceiving the alternative interpretation, but in joke (95) it serves a parallel function on a different level, namely informing the recipient of (95) that the discovery of an alternative sexual reading may have been made by Lord Peter's guests upon the dropping of the tray.

A typical global ambigator would be the featuring of a stereotyped character in a joke, such as is illustrated in jokes (83), (84), and (85) above. Such characters are normally introduced early on in the joke's text, and their presence pervades the whole text of the joke, and this is why such ambigators usually fit into the global category.

Another major type of global ambigator would be what we might call a stage-setting device, introducing those situational details of the joke's scene which support the alternative reading to be finally revealed in the punch. An example of this is the first sentence of (96) below:

- (96) An attractive young woman was about to enter a church in a topless dress. She was intercepted by the curate.
"I'm very sorry, but I can't let you go into the church like that."
The young lady protested: "But I have a divine right ..."
"... and a divine left too, but you still can't come into the church like that." (Misztal 1990:951)

A similar global ambigator of this kind is the fragment (*on Coronation Day*) in joke (97) below:

- (97) Father (on Coronation Day): "Where is Mother, Ted?"
Ted: "Upstairs waving her hair."
Father: "Goodness, can't we afford a flag?" (Stanley 1980:52)

In terms of joke processing, it may be tentatively suggested that the difference between the global and local ambigator would be such that the audience would be presented with the local ambigator "just when they need it most," to be instantaneously employed in the recovery of ambiguity, whereas a global ambigator would be communicated at an early stage in the joke, to be used at a later moment.

10.4. Aggressiveness versus ambiguation

Proponents of the broadly conceived aggressiveness-based approach to humour (also known variously as the superiority or disparagement approach; see Keith-Spiegel 1972, Gruner 1978, and Raskin 1985 for an extensive list of references) argue, in the most general of terms, that enjoyment of humour arises from the feeling of superiority from winning over an opponent defeated, or put down, in an act of humour. In its strong version, an aggressiveness-based approach claims that *all* humour works like this (e.g. Gruner 1994, 1995, 1996) and can be sufficiently and satisfactorily explained in this way. This position is aptly captured by Gruner (1996):

For forty years hence, I have been able to explain to myself and others in "superiority theory" language each and every instance of humor I have encountered.

But many humor "experts" and researchers, while admitting that "superiority" explains **much** humor, resist the notion that it can explain **all** humor. (all emphasis by Gruner)

As far as jokes go, a type of example beloved of the champions of aggressiveness-based approaches involves jokes featuring stereotyped groups of humans such as I have enumerated on page 51 above. While I do not wish to contend the claim that some jokes may at times convey aggressive intent, it is worth remembering that so does non-humorous language on some occasions — and yet few linguists would want to claim that the primary function of language is aggression. Likewise, I do not believe that the primary function of jokes is to attack or put down; rather, the primary function of jokes is to amuse. It seems to me that the emphasis on the aggressive aspect of humour typical of superiority theories is unwarranted. Some theories (such as Bradshaw

1977) have a special parameter of 'butt' or 'target' of a joke¹³, implying that every joke must have a butt or target. Aggressiveness-based approaches would tend to explain the presence of characters from certain groups as chiefly serving to put down or disparage (members of) these particular groups. An alternative, or at least complementary, line of explanation that emerges from the ambiguity-based paradigm that I am advocating here is that the presence of characters belonging to different groups may be a convenient device that allows the introduction of two differing linguistic systems: an ambigator. When the two systems are applied to a certain fragment of the joke's text, the difference may result in two distinct readings. In other words, the difference between two linguistic systems directly, and the presence of characters possessing such divergent systems indirectly, generates the ambiguity of the joke necessary for the humour.

I do not wish to make a plea here for the aggressiveness-based approach to humour to be scrapped completely. It may be useful, but should not be indiscriminately applied to all types of jokes (such as linguistic jokes), not even those involving distinct groups of characters. In an earlier section I have presented a few jokes involving children. I have not attempted any quantitative study in this respect (nor am I aware of any), but, having browsed through many collections of jokes (roughly sixteen thousand running joke tokens), I am under the impression that jokes with children characters are extremely common. Are we to say that their predominant purpose is to disparage children? This does not seem a very plausible explanation to me. After all, isn't it the case that childhood, at least in Western culture, is an embodiment of innocence, kindness, and a host of other positive values? Moreover, many people who are very fond of children apparently tell and are amused by such jokes. I would like to suggest that one of the reasons why children figure so prominently as joke characters is that (as I argued on page 50 above) since their linguistic competence is not yet fully-formed or developed, children provide an excellent ambigator, capable of justifying a broad range of types of linguistic ambiguity. Similarly, contrasting urban and rural characters may be seen as an ambigator related to dialectal variation within English (see page 51), if it is taken into account that there are systematic differences between urban and rural speech (Trudgill 1974, Callary 1975, Bailey et al. 1994).

As an extended example of excessive, in my view, attention to the aggressive aspect of jokes consider joke (98), given in Norrick (1993:107-108):

(98) Red Adair is coming back from Indonesia. He's been over there a while putting out fires, and he stops off in Las Vegas. On his way back to Houston, he sits down at the bar next to a guy and he starts up a conversation, and the guy starts talking about what a terrific town Las Vegas is. He says, "Not only is there gambling and good golf and all this stuff, but the entertainment here is just spectacular. Two nights ago I saw the greatest song-and-dance man ever: Lenny Davis Jr., and the guy was terrific. He's very old at this point, but, boy, he can still hoof."

And Red Adair looks at the guy and says, "Lenny Davis Jr.? You mean *Sammy* Davis Jr.?"

"Sammy, Lenny, I don't know. But the guy was great. I tell you the entertainment here is terrific." And he says, "And last night. You know who I went to see? I saw the best country and western singer I've seen in my life. This gal was just terrific. Sings like an angel. Molly Parton."

And Red Adair looks at the guy. "*Molly* Parton? Everybody knows that it's *Dolly* Parton. How can you call Dolly Parton Molly Parton?"

So their talk goes a little further and the guy says, "By the way, you look familiar to me. Who are you?"

And he says, "Oh, I'm Red Adair."

And he says, "Oh, are you still sleeping around with Ginger Rogers?"

It must be observed that Norrick (1993) himself in several places moderates other authors' claims about the apparent importance of aggressiveness in jokes. It is therefore surprising to find him suggesting that the

¹³One recent influential theory, the General Theory of Verbal Humour (Attardo and Raskin 1991 — see page 18 above), has Target as one of its six parameters. However, the authors stress that this parameter is optional.

above joke poses an act of aggression against the person who "pathologically confuses names" (Norrick 1993:132), and that

the expression of aggression through jokes and joking lets us present a particular personality with our own attitudes and feelings. It lets us probe for similar attitudes and feelings in our listeners. And it may help us let off steam and relieve tension which might find less salubrious expression otherwise. (Norrick 1993:133)

To me, it does not seem very likely that probing the feelings of the recipient of the joke would loom anywhere prominent in the intentions of a teller of a joke like (98) above. How much interest would anyone normally have in someone else's attitudes towards people who habitually distort other people's names? Rather, it seems much more likely to me that confusing names is a deliberate ambiguity-generating device — an ambigator. In this particular case, the ambiguity is built around an interesting linguistic abnormality of the joke's character. It appears that in the lexical representations of people's first names, certain phonological contrasts are lost, or weakened, for that speaker (see Hockett 1967:929-930 for arguments why personal names might be particularly open for confusion). Mainly consonants seem to be affected, because the vowels are left more or less intact. I will not go into any speculations as to the detailed nature of these processes, but it is clear that in the final analysis they lead to the creation of ambiguity, in the sense that what for other people is two different names may turn out to be one and the same name for our character. In the punch this factor culminates in a failure to make a crucial distinction: between the other character in the joke, Red Adair, and another even better-known person — Fred Astaire. Simultaneously, it is revealed that the neutralization processes also apply to family names. Finally, it is interesting to consider the reason for which the name of Ginger Rogers was the only one that was left untouched. It is the context of Ginger Rogers that allows the recipient of the joke to recognize the ambiguity between Red Adair and Fred Astaire because of a strong association between Fred and Ginger (ambigator!). Should the name of Ginger Rogers be distorted, it might go unrecognized, and so might the Fred Astaire vs. Red Adair ambiguity. And, as I have shown in (12) — (14) above, the loss of ambiguity renders a joke unfunny.

11. What is funny?

The question of what is funny has perplexed philosophers, scholars, and other thinkers since ancient times (Chłopicki 1995). It is one of the central questions that humour studies attempt to find an answer to. In more precise terms, the problem lies in identifying all those, and only those, stimuli (in a broad sense of the word), that are humorous. While this in itself is a formidable task, an even more elementary problem is deciding on the criteria a given stimulus has to meet to be classified as humorous or non-humorous. Until fairly recently, the (tacit) assumption had been that whatever induces laughter is humorous (see page 5 above). At present, humour scholars have all but discarded this assumption. The reason for their dissatisfaction with this formulation is that laughter as a physiological mechanism (as described in Fry 1963 or 1994; see also Hoof 1972 on types of laughter and smiling in humans and their possible phylogenetic development) occurs in a wide variety of situations, only some of which may with any common sense be described as involving humour. For example, Munro (1951) gives the following as non-humorous causes of laughter: tickling; laughing gas (nitrous oxide); nervousness; relief after a strain; the defence mechanism of "laughing it off"; joy or the expression of high spirits; play; release from restraint; make-believe; the victory expression of "ha ha!" after winning a game or contest (see also McGhee 1979:25 and Pfeifer 1994 for other non-humorous causes of laughter). Koestler (1964:31) calls laughter a paradoxical reflex, because it is, Koestler claims, the only massive and sharply defined physiological response produced by stimuli on a high-order complexity level, and also because it serves no apparent biological function.

Furthermore, there is a considerable degree of volitional control over laughter-type behaviour, so that even unequivocally humorous stimuli may not lead to laughter, as the latter may be suppressed through conscious effort. Most people have, I think, experienced moments of intense hilarity, when social circumstances have compelled them to suppress a laughter response, through an effort of will and/or through some motor activity, such as clenching one's teeth or biting one's tongue.

How much we laugh at a given humorous stimulus depends on a number of factors, and the amount of laughter does not necessarily correspond to audience's evaluation of how funny the stimulus was (Leventhal and Mace 1970, Chapman 1973, Lundell 1993). For these reasons, a distinction should be maintained between *mirth response* and *evaluation of funniness*, prevalent in the more recent literature. For all the reasons outlined above, an evaluation or rating by a recipient of a humorous stimulus of its funniness seems better suited for the purpose of identifying humorous stimuli than does mirth response, although the relationship between the two parameters remains to be of interest to humour researchers (eg. Deckers 1994).

Whether a given recipient evaluates a joke (or other stimulus) as funny, and to what degree, depends on a wide range of factors, including the following: cultural and ethnic identity, set of attitudes, identification with characters and subject, mode of delivery of the stimulus, mood, sex, age, family traditions, situational setting, and most certainly a host of other factors.

Moreover, different factors contribute with different weight for different people. Social and personality differences in humour appreciation are important and active fields of humour studies (Cunningham 1962, Zippin 1966, Leventhal and Mace 1970, Chapman 1973, Cantor 1976, Suls 1977, Lundell 1993, Deckers 1994). Still, even with this extremely complex array of factors, humour researchers have been tirelessly searching for a small number of invariants that would more or less context- and subject-independently predict how funny a joke (or other humorous stimulus) would be. In this vein, several theories have been advanced which I will discuss briefly before suggesting a new approach of my own.

One influential theory (or, as some scholars see it, a whole group of related theories) of humour which claims to be capable of making predictions as to funniness is incongruity theory. The central claim of this theory is that humour arises from incongruity, that is departure from what is normal or expected, or "disjointed, ill-suited pairings of ideas or situations" (Keith-Spiegel 1972:7). The theory has found experimental support in a series of weight-lifting experiments originated by Nerhardt (1970). In these experiments, subjects were asked to lift a number of boxes with weights hidden inside. Mirth response and self-reporting of perceived humour was

found to be greater in those cases for which the weight of the final box departed more markedly from the expected weight as determined by the history of previous weights presented in the course of the experiment to a given subject (Nerhardt 1976). These results, among other factors, led some champions of the incongruity approach to postulate that the funniness of jokes increases with increasing amounts of incongruity. This is not a view shared by all proponents of incongruity theories, since some of them (Shultz 1972, Suls 1972) argue that incongruity alone is not a sufficient condition for humour (except possibly for younger children). These authors may be more precisely classified as representative of the incongruity-resolution approach to humour. A classic argument against incongruity as a sufficient condition for humour is that snow in May is not funny.

Another possible predictor of funniness that has been proposed is the amount of cognitive effort (McGhee 1974, 1979) to achieve a resolution of an incongruity. In this approach, a maximum degree of funniness would be achieved for an optimal level of cognitive effort, which would be fairly high, that is the relationship between humour appreciation and cognitive effort would be curvilinear with a maximum for a fairly high level of effort. While this may seem intuitively correct, this cannot be all that there is to jokes (or humour), since, for all practical purposes, we get a continuum of cognitive effort in any type of problem-solving activity, such as math problems, and it does not seem that problems within a certain range of cognitive effort required to solve them are particularly funny.

Arousal¹⁴ potential of jokes and arousal level of recipients has also been proposed as a determinant of joke funniness and humour appreciation. Studies disagree (see Berlyne 1972, Godkewitsch 1972, Chapman and Foot 1977, McGhee 1979, and references therein) as to whether the relationship between arousal and funniness is monotonic (funniness increasing with growing arousal) or bitonic (increasing up to a certain point, and then decaying with a further increase in arousal). These two possible types of relationships may be related to *arousal boost* and *arousal jag*, two distinct ways which may give rise to positive hedonic value (pleasure) as suggested by Berlyne (1972).

11.1. Funniness of jokes as a function of ambiguity and ambiguation

An alternative predictor of funniness level that I would like to propose for ambiguity-based jokes is that:

- (99) funniness of a joke grows monotonically with growing amount of ambiguity and falls monotonically with growing amount of ambiguation.

The formulation in (99) calls for some explanation and justification.

First, I should clarify that by funniness I mean a relatively objective property of the joke text (either verbally or visually presented) as determined by typical recipient response. There is no deterministic relationship between this sense of *funniness* and subject-dependent *funniness for x*, where *x* is a given joke recipient. The reason for the distinction is that for a given individual a joke may not be funny, and that for a number of possible reasons. One case is when the joke is not *correctly assimilated*: simply, someone will not get the joke by failing to perceive the ambiguity on which the joke is based. Another possibility is the combined effect of personal and socially-induced differences in humour type preferences, as discussed above.

Second, it should be clear from (99) that the relationship between funniness on the one hand, and amount of ambiguity and amount of ambiguation on the other, is merely postulated to be such that funniness increases with growing amount of ambiguity and decreases with growing amount of ambiguation. Although it might have been tempting to express the postulated relationship in a neat mathematical formula, something like

¹⁴By *arousal* here is meant "the overall activity level of an organism" (Godkewitsch 1972:146), rather than sexual excitement specifically.

$$\text{funniness} = k \cdot \frac{\text{ambiguity}}{\text{ambiguation}},$$

such a formulation would imply more about the nature of the relationship than the weaker statement of (99), namely it would ascribe *proportionality* to the relationship between funniness and ambiguity, and *inverse proportionality* to the relationship between funniness and ambiguation, which would, of course, be a much stronger statement. Also, since it is doubtful that ambiguity, and even more so ambiguation, can non-arbitrarily be assigned values on an interval scale rather than a non-additive ordinal scale (Sydenham 1982), such a formula would make little sense outside pure mathematics.

There is some degree of correspondence between the first part of the formulation in (99) above and both the amount of cognitive effort and, less directly, amount of incongruity approaches to funniness. The first correspondence stems from the fact that searching for ambiguity (which is, as I argued earlier on, characteristic of the joke-receiving mode of communication) probably requires increased cognitive effort on the part of the joke recipient. The second correspondence may be explained by the kinship between ambiguity and incongruity. If incongruity is taken to be "disjointed, ill-suited pairings of ideas or situations" (Keith-Spiegel 1972:7), then at least "ill-suited pairings of ideas" is not altogether incompatible with what I understand by the term *ambiguity* here (see (11) on page 22 above). As for the second part of (99), it has not figured in any of the proposed approaches to joke funniness discussed above. Ideas somewhat resembling mine, however, have previously been expressed by at least two other authors. Victor Raskin notes the detrimental effect of what we would call an elaborate ambigator involving characters speaking two different languages on the quality of the joke:

One problem with such jokes is that the context should always justify why a person has to speak a foreign language [...] The set-ups for such jokes have to be rather elaborate as a result, and they tend to be lengthy. (Raskin 1985:182)

Charles Hockett, in discussing ways to blow a joke, writes: "Way IV — probably the most important way — of making a joke poor is for the build-up to be contrived." (Hockett 1973:171)

For (99) to be meaningful, there must be some way of distinguishing more ambiguity from less ambiguity, and more ambiguation from less ambiguation.

Taking up ambiguation first, one factor in quantifying ambiguation, which follows from the above quotation from Raskin (1985), is the verbal length of the "set-up" (roughly, the part of the joke that comes before the punch). It seems intuitively correct to say that (granted participants are aware that a joke is being told) the longer the joke teller goes on, the more reward recipients appear to expect at the end if they are to evaluate the waiting as worth their while.

There is more to ambiguation, though, than mere verbal length. I have already argued above, while discussing ambigators and their types, that ambiguity in jokes involves two readings, of which the original one is typically unmarked, usual, whereas the alternative one is marked, unusual. I have further argued that the role of ambiguation is to enable the alternative reading to be activated in the typical joke recipient *despite* its relative unnaturalness. Ambigators, then, will often be found to foreground a marked situation or event, i.e. one whose *probability to obtain* is relatively low. If this raises optimism as to getting at a seemingly highly objective and potentially verifiable (provided sufficient information is available about what occurs in reality and with what frequency) measure of ambiguation, two problems stand in the way. Firstly, the judgement of what is likely to obtain is made by the joke recipient, not on the basis of objective statistical data, but on the basis of his or her accumulated experience, which depends on perception and varies from one individual to another. Secondly, reading and listening to jokes also belongs to human experience, and it is a kind of experience that might reasonably be expected to be highly salient in a joke-receiving context, since this set of experiences has originally been assimilated in a similar (i.e. joke-telling) context. After a recipient has once encountered an improbable element in a joke, this element will seem less improbable on subsequent occasions of hearing a similar joke. Joke cycles seem to capitalize on this phenomenon, which may partially account for the relative popularity of joke cycles in general.

According to (99), whether the ambiguity of a given joke is excessive or not depends on the amount of ambiguity that it serves to justify. Within the present framework, a linguistic joke involves a cost-and-reward trade-off. When ambiguity is excessive relative to ambiguity, the audience may feel cheated, because undue demand has been placed on their attention for too little reward. Joke (100) below will serve as a fitting example:

(100) At an international congress on machine translation, it was proposed to recommend that the editors of scientific journals in all countries print all articles in a special simplified style adapted to the practical limitations of machine processing, a style to be called *MT-clear*. The authorities in each country would then be free to develop, for use for classified military documents and the like, a special style of the very opposite sort, to be called *MT-proof*. The participants agreed that there was no need to take any special action about still a third style, prevalent in the work of politicians and philosophers: the *MT-headed*. (Hockett 1973:161-162)

The notion of the ambiguity-ambiguity trade-off may be used to explain ambiguity-based shaggy-dog stories, in which heavy ambiguity terminates in a very weak ambiguity. The common feeling in recipients of shaggy dogs of having one's attention unduly imposed on for little reward may suggest that joke recipients may possess some (possibly not fully conscious) knowledge of this trade-off relationship, so that having been exposed to a lot of ambiguity, and at the same time recognizing a certain rough minimum threshold of acceptable quality for jokes, they build up an expectation of a high ambiguity content at the end, which does not, however, arrive.

As regards quantifying ambiguity, multiple ambiguity (independent or interdependent) will outrank single ambiguity, and within the multiple category, double ambiguity will count as less ambiguity than triple, etc. The issue of two-way versus three-way (or more) ambiguity, in the sense of the number of readings associated with the same string, does not in practice arise, since jokes based on more-than-two-way ambiguity¹⁵ are extremely rare, if at all present (I am not aware of any). I would like to conclude this section with an example of a joke which is characterized by a lot of ambiguity, but it has impressive multiple ambiguity, and thus, unlike (100) above, is quite funny.

(101) A certain rich man had a wastrel son who was the family's despair. Finally, the old man, whose name was Nuts, bought his son a laundry business in a remote country town, also appointing a reliable manager. All was peace for a time; then came an urgent call from the manager to go down at once. Sure enough, the manager was at the station:

"It's terrible, Sir, you son has put half the laundry girls in the family way."

"That's bad, but could be worse."

"Worse than that Sir, he scarpered, gone away!"

"That's bad, is that the lot?"

"Much worse Sir, the local paper's on to the story, and they're going to splash it..."

The old man was sure there was nothing money could not do, so he called on the local editor, and offered a good bribe to suppress the scandal, "for the sake, not of my worthless son, but his ailing mother."

The editor said too much was known already, he dare not kill the story, but for a hundred quid he could print it in a form well understood in the town, but not likely to be picked up by the National press.

This being agreed, an anxious father awaited the weekend and read: "Special Ironmongery Announcement — NUTS SCREWS WASHERS AND BOLTS." (Rugby jokes no date:44)

11.1.1. Less ambiguity, less funny

A way of verifying (99) is to compare the funniness of jokes that differ only in ambiguity, or only in ambiguity. This procedure is well-known in numerous scientific endeavours, and, through fixing all parameters except the investigated one, gives the researcher reasonable (or at least the best that can be hoped for)

¹⁵An example of a potentially three-way ambiguous sentence is provided in footnote 8 on page 22 above.

confidence that any observed changes result from the manipulation of the single investigated parameter. The compared pairs (or, more generally, sets) of jokes may be termed *minimal pairs (sets) of jokes*.

The relationship between amount of ambiguity and funniness has already been partially demonstrated by modifying (12) (page 24 above) to produce ambiguity-removed versions (13) and (14), and (15) to produce (16) and (17), where jokes (12) and (15) are funnier than (13), (14), (16), and (17), respectively. A further test consists in reducing the ambiguity of multiple (independent¹⁶) ambiguity jokes, and this I have done by deleting portions of (62) and (63) (page 42 above), and by modifying (64) to produce (65); in all cases the modified jokes are less funny than the originals, which gives support to the first claim of (99).

As new evidence (and primarily to smuggle in another joke, since the point has, I trust, been argued convincingly with the use of previous examples) consider (102) below:

(102) A panda wanders from China into Hong Kong and by nightfall has found its way to Wanchai, the red-light district. It finds a hooker, and they go to her room. The hooker says, "I've never done it with a panda before — what do you want me to do?" The panda replies, "First I'll engage in some cunnilingus to warm you up, then we'll have intercourse in the regular way." And that's exactly what happens. But as soon as he has finished, the panda gets up and starts to leave. "Wait," says the hooker, "I don't think you know what the word 'prostitute' means," and she gets her dictionary, opens it, and reads to the panda. "Prostitute: a lady of the night *who gets paid* for her sexual services." But the panda takes the dictionary, flicks back a few pages and reads out "Panda: an animal that eats, roots, shoots and leaves." (Goldstein 1990:49)

In terms of ambiguity, the punch of (102) contains a syntactic class ambiguity and four lexical ambiguities, and thus is very rich in this respect. To enable this impressive array of ambiguities, a number of ambiguityators are conspiring in (102). One is the inclusion and subsequent anthropomorphization of the panda, so that the animal can solicit the services of a human prostitute, and communicate with her verbally. Another is the prostitute referring to a dictionary in order to get payment that is due her. Finally, there is the addition of a comma following *eats* in the punch. If we consider (102) without the comma, with the last line something like "Panda: an animal that eats roots, shoots and leaves," as it might correctly appear in a dictionary, then at least two lexical ambiguities (*eats* and *roots*) would be removed relative to the original version of (102). Without the comma, (102) would be less funny. Adding the comma makes it more difficult for the reader to extract the unmarked reading (it suppresses the unmarked, plain definition meaning), and enables the additional two lexical ambiguities, and it does so at the cost of a certain arbitrariness — as is the case with all ambiguityators — but the reward of additional ambiguity is worth the cost.

11.1.2. More ambiguity, less funny

In the previous section, minimal pairs were constructed from authentic¹⁷ jokes and their modified versions. A safer solution would be to use authentic jokes throughout, but I did not find any suitable candidates for minimal pairs differing just in ambiguity. In the case of ambiguity, I did manage to collect such tokens, and therefore I will use authentic jokes differing in their ambiguity, but identical, or nearly identical, with respect to ambiguity. Let us consider the first minimal pair of jokes, (103) and (104) below:

¹⁶I have not been able to find any jokes allowing me to rigorously set multiple independent ambiguity against multiple interdependent ambiguity with the same degree of "multiplicity." Impressionistically, independent ambiguity seems to hold an advantage over interdependent ambiguity (logically, too, since interdependent ambiguity is in one sense many, but in another only one ambiguity, as component ambiguities cannot *per definitionem* exist without the rest).

¹⁷By *authentic joke* I mean a joke that either appears in one of the printed sources included in the bibliography listing, was posted on the Web as a joke, or was told in conversation to which I was witness, rather than a joke that I may have invented myself.

(103) What did the leper say to the prostitute?
"Keep the tip."

(104) "Did you hear about the man who got a job in Africa circumcizing elephants?"
"Well, the pay wasn't much, but the tips were tremendous."

In both jokes above, we are dealing with virtually the same lexical ambiguity (if we ignore the fact that the word is used in the plural in joke (104)). The token-word *tip* represents, respectively:

1. the lexical item meaning 'penis glans',
2. the lexical item meaning 'extra pay'.

Although the ambiguity in both jokes is the same, (103) seems to me a much better (funnier) joke of the two, despite the fact that I encountered it when already familiar with (104). In the above pair, it seems likely that the difference in funniness that I detect is due to the higher degree of ambiguation in (104). It consists in introducing a highly improbable situation, circumcizing elephants. In contrast, in (103) we have a fairly typical situation, paid sexual services, and it does not seem very unlikely that a man suffering from leprosy should seek such services. (104) also suggests, again very improbably, that someone would be interested in hiring people to circumsize elephants. It is very difficult to imagine a possible reason for anyone to have an interest in circumcizing elephants, so the recipient's "suspension of disbelief" is further taxed here. In (103), part of the character's anatomy comes off. Although from a strictly medical point of view such an extreme symptom would not be likely (certainly not in a person still capable of sexual intercourse) the coming off of whole limbs belongs to the popular stereotype of leprosy, and thus the event described in joke (103) is not likely to appear improbable to a non-medical audience.

It cannot be ruled out that the difference in funniness between (103) and (104) may be due to another factor, namely the more explicit sexual content of (103).¹⁸ Let us then examine a further pair, (105) and (106), where no difference in sexual content is present:

(105) Lecturer: Gentlemen, order!
Student: One lager for me.

(106) "Order, order in the court!"
"Ham and cheese on rye, your Honour."

Jokes (105) and (106) are again both based on identical syntactic class plus lexical ambiguity. The token-word *order* is ambiguous between two interpretations:

1. the lexical item functioning as head of a noun phrase, belonging to the syntactic class of nouns ('silence!');
2. the lexical item functioning as head of a verb phrase (and, ultimately, imperative clause), belonging to the syntactic class of verbs ('place your orders!').

Between the two, (105) appears to be funnier than (106). The proposed explanation for this observed difference in funniness is that joke (106) exhibits a greater amount of ambiguation relative to (105).

Firstly, a court setting imposes very stringent restrictions on the range of activities that can take place. Eating in the courtroom is not usually allowed, and ordering food is even harder to imagine. This is also to some (though a much smaller) extent true of the university lecture hall in some countries, but not in the US, at least not in the institutions I have had occasion of visiting, where it is common practice for students to fetch and consume snacks during the class.

Secondly, it is highly significant that the character in (106) uses the correct term (sanctioned by court etiquette) when addressing the judge, namely "your Honour." This strongly indicates that this character is familiar with court proceedings, and specifically with the legal jargon employed in a court of law. It is therefore

¹⁸See Freud (1960) and Katz (1993) for possible arguments in favour of this explanation.

very strange that the character should not have heard before and understood the formulaic appeal for silence in the court. Note that in the lecture hall setting the phrase is no longer that formulaic, and the lecturer is free, and likely, to use a wide range of other verbal and non-verbal strategies to stop the students from talking or otherwise interfering with the lecture. The improbability of the man misunderstanding the judge's request for silence indeed makes it possible to perceive the character himself as joking, an untypical (though not impossible — see jokes (22), (24), (55), and (58) above) situation for joke characters, who are expected to remain in the bona-fide mode of communication (in the sense of Raskin 1985; see Grice 1975, Yamaguchi 1987; see also the *humorous mode* of Mulkay 1988).

To depart for a moment from verbal jokes proper, let us speculate what character we would expect a good comedy director to give the line to, if (s)he wanted to achieve a humorous effect through (105). To me, the most likely candidate seems to be someone who has never been to court before and has no knowledge of court proceedings; most probably someone naive or poorly educated who doesn't read a lot or watch television or films. Only then would the character's incorrect reaction be readily taken as made in the bona fide mode — it would not be as improbable as it would for a well-educated person or an experienced court-goer.

Before proceeding to the analysis of further examples, let us consider the above pair from the point of view of an incongruity-based approach. Let us assume that the amount of incongruity is related positively to joke funniness. If it is incongruity that is funny, then zero incongruity means no humorous value, and more incongruity should be related to more humour, at least up to a certain level. Such a theory would predict the courtroom joke to be funnier than the lecture hall version, because the statement about food or drink is more incongruous in a courtroom setting. In my view this is an incorrect prediction. From the point of view of the ambiguity theory, incongruity is a necessary evil in a linguistic joke, a side-effect of an attempt to bring two differing interpretations together. In terms of joke creation, if it were incongruity that were mainly responsible for the humour in this joke, the hypothetical joke-creating effort, once the setting of the joke was in place, would concentrate on finding the most incongruous statement that could be made in court. A probable way in which joke (106) could have come into existence might be for someone to realize, upon hearing the phrase being used in court, that the same phrase could mean something different in a different situation, namely when ordering food. The simplest way to combine the two meanings and generate ambiguity was to keep the courtroom setting, which took care of the unmarked interpretation of the phrase in question, and introduce some reference to food, which would trigger the second, marked meaning.

In (107) and (108) a minimal pair of jokes is presented turning on syntactic class ambiguity of 'flew' versus 'flu':

(107) Saint Peter: "How'd you get up here?"
New Arrival: "Flu." (Crampton 1957:100)

(108) What illness do retired pilots get?
Flu. (Stanley 1980:24)

Of the two jokes, (107) seems to be the funnier. Again, an explanation in terms of (99) would be for (108) to have more ambiguity, with identical ambiguity for both jokes. Specifically, the way *retired* supports the past tense interpretation in (108) is quite strained, whereas the ingenuous setting of (107) introduced by identifying the first character as Saint Peter as well as his question quite naturally support both interpretations without recourse to any obviously arbitrary elements.

Although not a minimal pair, jokes given in (109) and (110) below may be of interest here:

(109) A teacher of English grammar was to teach a course at a local prison. He spent hours wondering how he should begin his class with such unusual students. Unfortunately, his final choice could hardly have been less felicitous: "I hope all of you know what a sentence is."

(110) "Why do they call electric chairs period furniture?"
"Because they end a sentence."

Both (109) and (110) are based on the lexical ambiguity in *sentence*. (110), additionally, has a *period* ambiguity. The introduction of this extra ambiguity is however achieved at the cost of opening (110) with a question based on a blatantly untrue presupposition: 'people call electric chairs period furniture.' For this reason, (110) does not seem to be significantly funnier than (109), although it clearly has more ambiguity. The comparison of (109) and (110) transparently, I think, illustrates the relationship between ambiguity, ambiguation, and funniness captured in (99).

In closing this section, let me come back for a moment to joke (90) given on page 51 above, and compare it to a slightly modified version given as (111) below:

(111) Booking Clerk (at small village station): "You'll have to change twice before you get to York."
Villager: "Goodness me! And I've only brought the clothes I be standing up in!"

A careful reader will notice that the difference between (90) and (111) is that a small portion of (90) — namely (*unused to travelling*) — has been deleted in (111). If, as seems unquestionable to me, (111) is a better joke than (90), why was the disputed parenthetical note present in (90)? It serves as a narrative ambiguity ensuring that a recipient of (90) understands that the villager is not familiar with the 'change trains' meaning of *change*. Without this extra ambiguity, the risk of a recipient missing the ambiguity (not getting the joke) is higher. The choice between (90) and (111), then, is a choice between almost guaranteed mild amusement, and slightly less fail-safe but better amusement.

12. Conclusion

In conclusion, I would like to point to some weaknesses of the present study, and suggest possible directions for further research.

One limitation of this work has been its exclusive concentration on English. Clearly, if there is some such thing as the nature of humour, it should have a universal core throughout all languages. Although some studies find that many jokes are universal in that they span national, linguistic, and cultural borders (e.g. Legman 1968, 1975), languages do differ in the ease with which they generate linguistic ambiguity, and in the ways in which they do it. In Polish, for instance, syntactic class ambiguity is far more difficult to achieve than it is in English, because syntactic classes very often have overt morphological markers (of case, gender, person) which are class-specific and for this reason incapable of class-ambiguity. One should not, then, assume *a priori* that all languages are exactly alike with respect to linguistic humour.

The problem of data selection has already received some treatment above (page 20). To a large extent, the selection of jokes used in the present study has been arbitrary, and so may not constitute a representative sample of jokes in general. This may be seen as a flaw, but it is a deliberate decision on my part motivated by two factors. Firstly, this study was meant not as a treatment of all possible jokes, but rather of a specific class of them. Secondly, I had not been successful in finding any satisfactory non-arbitrary criteria to guide me in arriving at a truly representative sample of jokes. Since arbitrariness could not have been eliminated, I thought it simpler to settle for overt arbitrariness, rather than to seek to disguise it in selection criteria.

Another problem that I had to face was arriving at funniness evaluations of the jokes included in this study. I have relied primarily on my own personal judgements in this regard. As some of the claims made in this work are rather sensitive to judgements of funniness, this is not a trivial matter and ideally it should be handled through controlled experiment on a representative sample of native speakers of English. Unfortunately, in the Polish setting I did not have access to such a sample, and this is why I had to rely on my own evaluation mostly. In an effort to make the judgement more intersubjective, I tested the minimal pairs jokes informally against several people's (native speakers or with native-like proficiency in English) judgements, varying the order in which the jokes were delivered, and found them to agree very closely with my own judgements. Therefore, while I cannot be certain that my perception of funniness is in those cases representative of the majority of people, I have some confidence that to a large extent it is. At the same time, I would welcome offers from humour scholars working in English-speaking countries of collaboration in conducting a questionnaire study so that those results of the present work that involve judgements of funniness can be tested through controlled experiment.

What I have achieved in this study is an improved typology of ambiguity-based verbal jokes, recognizing and tackling the inconsistencies of some other taxonomic efforts to date; further, I have proposed a new concept of ambiguator as an ambiguity-generating device and shown how it works in actual jokes; I have also suggested a new possible invariant predictor of funniness in linguistic verbal jokes.

While this study certainly has not answered all of the fundamental questions that humour research is faced with, I hope that it is a cautious but significant step forward in understanding the nature of humour.

References

- Apte, Mahadev. 1985. *Humor*. Ithaca: Cornell University Press. **Błąd! Nie zdefiniowano zakładek.**
- Asimov, Isaac. 1957. "The jokester." In: Asimov, Isaac. *Earth is room enough*. Garden City, NY: Doubleday. 149-161.
- Attardo, Salvatore. 1988. "Trends in European humor research: toward a text model." *Humor: International Journal of Humor Research* 1 (4), 349-369.
- Attardo, Salvatore. 1990a. "The violation of Grice's maxims in jokes." In: Hall, Kira, et al. (eds.). *Proceedings of the 16th Annual Meeting of the Berkeley Linguistics Society*. Berkeley: Berkeley Linguistics Society, 355-362.
- Attardo, Salvatore. 1990b. "Token-jokes and type-jokes." In: Hughes, Shaun F.D. and Victor Raskin (eds.). *Proceedings of the 1988 WHIM Conference Held April 1-4, 1988 at Purdue University*. West Lafayette, Indiana - Tempe, Arizona: ISHS - Purdue University, 122-123.
- Attardo, Salvatore. 1993. Review of Chiaro, Delia. 1992. *The language of jokes: Analysing verbal play*. London: Routledge. *Humor: International Journal of Humor Research* 6 (3), 325-334.
- Attardo, Salvatore. 1994. *Linguistic theories of humor*. Berlin: Mouton.
- Attardo, Salvatore, Donalee Hughes Attardo, Paul Baltes, and Marnie Jo Petray. 1994. "The linear organization of jokes: analysis of two thousand texts." *Humor: International Journal of Humor Research* 7 (1), 27-54.
- Attardo, Salvatore, and Jean-Charles Chabanne. 1992. "Jokes as a text type." *Humor: International Journal of Humor Research* 5 (1-2), 165-176.
- Attardo, Salvatore, and Victor Raskin. 1991. "Script theory revis(it)ed: joke similarity and joke representation model." *Humor: International Journal of Humor Research* 4 (3-4), 293-347.
- Austin, John. 1962. *How to do things with words*. Oxford: Clarendon Press.
- Bader, Markus. 1994. "Syntactic function ambiguities." *Folia Linguistica* 28 (1-2), 5-66.
- Bailey, Guy, Tom Wikle, Jan Tillery, and Lori Sand. 1994. "Some patterns of linguistic diffusion." *Language Variation and Change* 5, 359-390.
- Berlyne, Daniel E. 1972. "Humor and its kin." In: Goldstein, Jeffrey H., and Paul Edward McGhee. *The psychology of humor: Theoretical perspectives and empirical issues*. New York: Academic Press, 43-60.
- Bradshaw, John. 1977. "Verbal jokes as de-transformed utterances and as speech acts." In: Chapman, Anthony J., and Hugh C. Foot (eds.). *It's a funny thing, humour. International conference on humour and laughter*. Oxford: Pergamon, 61-64.
- Cagney, Peter (ed.). 1979. *Official Irish joke book no. 4*. London: Futura Publications.
- Callary, Robert E. 1975. "Phonological change and the development of an urban dialect in Illinois." *Language in Society* 4, 155-170.
- Cantor, Joanne R. 1976. "What is funny to whom?" *Journal of Communication* 26, 164-172.
- Casadonte, Donald. 1990. "A hypothetical decompactification model for the process of humor." In: Hughes, Shaun F.D. and Victor Raskin (eds.). *Proceedings of the 1988 WHIM Conference Held April 1-4, 1988 at Purdue University*. West Lafayette, Indiana - Tempe, Arizona: ISHS - Purdue University, 128-131.
- Cashion, Joan L., Michael Coady, and Keith Erickson. 1986. "'You'll love this one...!' An exploration into joke-prefacing devices." *Journal of Language and Social Psychology* 5 (4), 303-312.
- Chapman, Anthony J. 1973. "Funniness of jokes, canned laughter and recall of performance." *Sociometry* 36, 569-578.
- Chapman, Anthony J., and Hugh C. Foot (eds.). 1976. *Humour and laughter: Theory, research and applications*. London: Wiley.

- Chapman, Anthony J., and Hugh C. Foot (eds.). 1977. *It's a funny thing, humour. International conference on humour and laughter*. Oxford: Pergamon.
- Chiaro, Delia. 1992. *The language of jokes: Analysing verbal play*. London: Routledge.
- Chłopicki, Władysław. 1987. *An application of the script theory of semantics to the analysis of selected Polish humorous short stories*. Unpublished MA dissertation. West Lafayette: Purdue University.
- Chłopicki, Władysław. 1988. *An application of the script theory of semantics to the analysis of verbal humour in selected English and American short stories*. Unpublished MA dissertation. Kraków: Jagiellonian University.
- Chłopicki, Władysław. 1993. "Character frames as the basis of joke analysis." Paper presented at Humor 1993, 11th International Conference on Humor: International Journal of Humor Research and Laughter, Luxembourg, 30 September - 3 October, 1993.
- Chłopicki, Władysław. 1994. "Humour as the ultimate form of language study — in search of the literal meaning." In: Stamirowska K., Z. Mazur, and A. Walczuk (eds.). *Literature and language in the cultural context*. Kraków: Universitas, 187-194.
- Chłopicki, Władysław. 1995. *O humorze poważnie*. Kraków: Polska Akademia Nauk.
- Chłopicki, Władysław. In press. "Wprowadzenie do semantyki skryptów V. Raskina." In: *Zbiór referatów Pracowni Semantyki Wypowiedzi IFP UJ*. Kraków: Jagiellonian University.
- Cicero. 1881. *De oratore*. London — New York: Oxford University Press. [Originally 55 BC]
- Cieślicka-Ratajczak, Anna. In press. "Toward a model of idiom representation and processing." *Studia Anglica Posnaniensia* 31.
- Coulthard, Malcolm. 1977. *An introduction to discourse analysis*. London: Longman.
- Crampton, Gertrude. 1957. *Your own joke book*. New York: TAB Books.
- Cruttenden, Alan. 1986. *Intonation*. Cambridge: Cambridge University Press.
- Cunningham, Anne. 1962. "Relation of sense of humor to intelligence." *Journal of Social Psychology* 57, 143-147.
- Curcó, Carmen. 1995. "Some observations on the pragmatics of humorous interpretations: a relevance theoretic approach." *University College London Working Papers in Linguistics* 7, 27-47.
- Davies, Christie. 1990. *Ethnic humor around the world: A comparative analysis*. Bloomington: Indiana University Press.
- Davies, Christie. 1991. "Ethnic humor, hostility, and aggression: a reply to Elliott Oring." *Humor: International Journal of Humor Research* 4 (3-4), 415-422.
- Davro, Bobby. 1987. *Bobby Davro's laugh-a-minute joke book*. London: Knight Books.
- De Bruyn, Pieter. 1995. "The role of indirect speech acts in the construction of jokes." Paper presented at the 13th International Humor Conference, July 31 - August 4, Birmingham, England.
- Deckers, Lambert. 1994. "The relationship between facial reactions to humor and funniness ratings within and across subjects." Paper presented at the 12th International Humor Conference, June 22 - 26, Ithaca, NY, USA.
- Dundes, Alan. 1987. *Cracking jokes: Studies of sick humor cycles & stereotypes*. Berkeley: Ten Speed Press.
- Empson, William. 1966 [originally 1930]. *Seven types of ambiguity*. New York: New Directions Publishing.
- Fowles, Barbara, and Marcia E. Glanz. 1977. "Competence and talent in verbal riddle comprehension." *Journal of Child Language* 4, 433-452.
- Freud, Sigmund. 1960. *Jokes and their relation to the unconscious*. New York: Norton. [Originally 1905. *Der Witz und seine Beziehung zum Unbewußten*. Leipzig and Vienna: Deuticke.]
- Frumusani, Daniela. 1986. "Context și convenție în producerea/receptarea glumei." *Studii și Cercetări Lingvistice* 37 (6), 509-516.
- Fry, Willam F. 1963. *Sweet madness: A study of humor*. Palo Alto, California: Pacific.

- Fry, Willam F. 1994. "The biology of humor." *Humor: International Journal of Humor Research* 7 (2), 111-126.
- Geltrich-Ludgate, Brigitta. 1983. "Teenage jokesters and riddlers: a profile in parody." *Maledicta* 7, 85-98.
- Giora, Rachel. 1991. "On the cognitive aspects of the joke." *Journal of Pragmatics* 16 (5), 465-485.
- Godkewitsch, Michael. 1972. "The relationship between arousal potential and funniness of jokes." In: Goldstein, Jeffrey H., and Paul Edward McGhee. *The psychology of humor: Theoretical perspectives and empirical issues*. New York: Academic Press, 143-158.
- Goldstein, Jeffrey H., and Paul Edward McGhee (eds.). 1972. *The psychology of humor: Theoretical perspectives and empirical issues*. New York: Academic Press.
- Goldstein, Laurence. 1990. "The linguistic interest of verbal humor." *Humor: International Journal of Humor Research* 3 (1), 37-52.
- Gove, Philip Babcock (ed.). 1971. *Webster's third new international dictionary*. Springfield, Massachusetts: G. & C. Merriam Co.
- Green, Thomas A., and William J. Pepicello. 1978. "Wit in riddling: a linguistic perspective." *Genre* 11, 1-13.
- Grice, H. Paul. 1975. "Logic and conversation." In: Cole, P., and J.L. Morgan (eds.). *Syntax and semantics*, vol. 3, *Speech acts*. New York: Academic Press, 41-59.
- Gruner, Charles R. 1978. *Understanding laughter: The workings of wit and humor*. Chicago: Nelson-Hall.
- Gruner, Charles R. 1994. "The mirage of 'innocent' humor." Paper presented at the 12th International Humor Conference, June 22 - 26, Ithaca, NY, USA.
- Gruner, Charles R. 1995. "The pun. 'First' and 'second' degree." Paper presented at the 13th International Humor Conference, July 31 - August 4, Birmingham, England.
- Gruner, Charles R. 1996. *Laughing equals winning. A comprehensive theory of the game of humor*. Unpublished text on disk.
- Hausmann, Franz Joseph. 1974. *Studien zu einer Linguistik des Wortspiels. Das Wortspiel in Canard Enchaîné*. Tübingen: Niemayer.
- Hetzron, Robert. 1991. "On the structure of punchlines." *Humor: International Journal of Humor Research* 4 (1), 61-108.
- Hirsh-Pasek, Kathy, Lila R. Gleitman, and Henry Gleitman. 1986. "What did the brain say to the mind? A study of the detection and report of ambiguity by young children." In: Sinclair, Anne, Jarvella, Robert J., and Levelt, Willem J.M. (eds.). *The child's conception of language*. Berlin: Springer Verlag, 97-132.
- Hockett, Charles F. 1967. "Where the tongue slips there slip I." In: *To honor Roman Jakobson*. The Hague: Mouton, 910-936.
- Hockett, Charles F. 1973. "Jokes." In: Smith, M. Estellie (ed.). *Studies in linguistics in honor of George L. Trager*. The Hague: Mouton, 153-178.
- Hofstadter, Douglas, Liane Gabora, Salvatore Attardo, and Victor Raskin. 1989. "Synopsis of the workshop on humor and cognition." *Humor: International Journal of Humor Research* 2 (4), 417-440.
- Hoke, Helen. 1965. *More jokes*. New York: Franklin Watts.
- Hooff, J.A.R.A.M. van. 1972. "A comparative approach to the phylogeny of laughter and smiling." In: Hinde, Robert A. (ed.). *Non-verbal communication*. Cambridge: Cambridge University Press, 209-241.
- Horgan, Dianne. 1981. "Learning to tell jokes: a case study of metalinguistic abilities." *Journal of Child Language* 8 (1), 217-224.
- Huddleston, Rodney. 1984. *Introduction to the grammar of English*. Cambridge: Cambridge University Press.
- Huddleston, Rodney. 1988. *English grammar: An outline*. Cambridge: Cambridge University Press.
- Hyde, Janet Shibley. 1990. *Understanding human sexuality*. New York: McGraw-Hill.
- Jodłowiec, Maria. 1991. "What makes jokes tick?" *UCL Working Papers in Linguistics* 3, 241-253.
- Jodłowiec, Maria. 1992. *The role of relevance in the interpretation of verbal jokes: A pragmatic analysis*. Unpublished Ph.D. dissertation. Kraków: Jagiellonian University.

- Johnson, Eric W. 1989. *Treasury of humor*. Buffalo: Ivy Books.
- Johnson, Ragnar. 1975. "The semantic structure of the joke and the riddle: theoretical positioning." *Semiotica* 14, 142-174.
- Johnson, Ragnar. 1976. "Two realms and a joke: bisociation theories of joking." *Semiotica* 16 (3), 195-221.
- Johnson, Ragnar. 1978. "Jokes, theories, anthropology." *Semiotica* 22 (3-4), 309-334.
- Katz, Bruce F. 1993. "A neural resolution of the incongruity-resolution and incongruity theories of humour." *Connection Science* 5 (1), 59-75.
- Katz, Bruce F. 1994. "Towards a unified theory of humour." *Cognitive Science Research Papers* 356, Brighton: University of Sussex.
- Keith-Spiegel, Patricia. 1972. "Early conceptions of humor: varieties and issues." In: Goldstein, Jeffrey H., and Paul Edward McGhee (eds.). *The psychology of humor: Theoretical perspectives and empirical issues*. New York: Academic Press, 3-39.
- Kess, Joseph F., and Ronald A. Hoppe. 1981. *Ambiguity in psycholinguistics*. Amsterdam: Benjamins.
- Klein, Kathryn A. 1992. "The effects of training on linguistic humor comprehension by 5th grade students." Paper delivered at the annual session of Speech Science students at Eastern Michigan University on 11th December, 1992.
- Koestler, Arthur. 1964. *The act of creation*. London: Hutchinson.
- Kopytko, Roman. 1995. "Linguistic politeness strategies in Shakespeare's plays." In Jucker, Andreas (ed.). *Historical pragmatics*. Amsterdam-Philadelphia: John Benjamins, 515-540.
- Leeds, Christopher. 1992. "Bilingual Anglo-French humor: an analysis of the potential for humor based on the interlocking of the two languages." *Humor: International Journal of Humor Research* 5 (1-2), 129-148.
- Legman, Gershon. 1968. *Rationale of the dirty joke: An analysis of sexual humor*. New York: Grove Press.
- Legman, Gershon. 1975. *No laughing matter: Rationale of the dirty joke (second series)*. New York: Breaking Point.
- Leventhal, Howard, and William Mace. 1970. "The effect of laughter on evaluation of a slapstick movie." *Journal of Personality* 38, 16-30.
- Lew, Robert. 1996. "Exploitation of linguistic ambiguity in Polish and English verbal jokes." *Papers and Studies in Contrastive Linguistics* 31, 127-133.
- Lundell, Torborg. 1993. "An experiential exploration of why men and women laugh." *Humor: International Journal of Humor Research* 6 (3), 299-317.
- MacKay, Donald G., and Thomas G. Bever. 1967. "In search of ambiguity." *Perception & Psychophysics* 2, 426-436.
- Marino, Mathew. 1987. Review of Raskin, Victor. 1985. *Semantic mechanisms of humor* (Synthese Language Library 24). Dordrecht: D. Reidel. *International Journal of the Sociology of Language* 65, 115-120.
- McArthur, Tom (ed.). 1992. *The Oxford companion to the English language*. Oxford — New York: Oxford University Press.
- McGhee, Paul Edward. 1974. "Cognitive mastery and children's humor." *Psychological Bulletin* 81, 721-730.
- McGhee, Paul Edward. 1979. *Humor, its origin and development*. San Francisco: W.H. Freeman and Company.
- McGhee, Paul Edward, and Jeffrey H. Goldstein. (eds.). 1983. *Handbook of humor research*. Vols. I and II. New York: Springer.
- Milner, George Bertram. 1972. "Homo ridens: towards a semiotic theory of humour and laughter." *Semiotica* 5, 1-30.
- Misztal, Mariusz. 1990. *Life in jokes*. Warszawa: WSiP.
- Moore, Terence, and Christine Carling. 1982. *Language understanding*. New York: St. Martin's Press.
- Moore, Terence, and Christine Carling. 1988. *The limitations of language*. London: MacMillan.

- Morreall, John (ed.). 1987. *The philosophy of laughter and humor*. Albany, NY: SUNY Press.
- Morrissey, Maureen M. 1990. "Script theory for the analysis of humorous metaphors." In: Hughes, Shaun F.D. and Victor Raskin (eds.). *Proceedings of the 1988 WHIM Conference Held April 1-4, 1988 at Purdue University*. West Lafayette, Indiana - Tempe, Arizona: ISHS - Purdue University, 124-125.
- Mulkay, Michael. 1988. *On humour: Its nature and its place in modern society*. Cambridge: Blackwell.
- Munro, D.H. 1951. *Argument of laughter*. Melbourne: University Press.
- Nash, Walter. 1985. *The language of humour: Style and technique in comic discourse*. London: Longman.
- Nerhardt, Göran. 1970. "Humor and inclinations of humor: Emotional reactions to stimuli of different divergence rate from a range of expectancy." *Scandinavian Journal of Psychology* 11, 185-195.
- Nerhardt, Göran. 1976. "Incongruity and funniness: towards a new descriptive model." In: Chapman, Anthony J., and Hugh C. Foot (eds.). *Humour and laughter: Theory, research and applications*. London: Wiley and Sons, 55-62.
- Norrick, Neal R. 1993. *Conversational joking: Humor in everyday talk*. Bloomington - Indianapolis: Indiana University Press.
- Oaks, Dallin D. 1990. *Enablers of grammatical ambiguity*. Unpublished doctoral dissertation. West Lafayette: Purdue University.
- Oaks, Dallin D. 1994. "Creating structural ambiguities in humor: getting English grammar to cooperate." *Humor: International Journal of Humor Research* 7 (4), 377-401.
- Oring, Elliott. 1989. "Between jokes and tales: on the nature of punch lines." *Humor: International Journal of Humor Research* 2 (4), 349-364.
- Palmer, Jerry. 1993. *Taking humour seriously*. London: Routledge.
- Paulos, John Allen. 1977. "The logic of humour and the humour of logic." In: Chapman, Anthony J., and Hugh C. Foot (eds.). *It's a funny thing, humour. International conference on humour and laughter*. Oxford: Pergamon, 113-114.
- Paulos, John Allen. 1980. *Mathematics and humor*. Chicago and London: University of Chicago Press.
- Paulos, John Allen. 1985. *I think, therefore I laugh: An alternative approach to philosophy*. New York: Columbia University Press.
- Pepicello, William J. 1980. "Linguistic strategies in riddling." *Western Folklore* 39, 1-16.
- Pepicello, William J. 1987. "Pragmatics of humorous language." *International Journal of the Sociology of Language* 65, 27-35.
- Pepicello, William J. 1989. "Ambiguity in verbal and visual riddles." *Humor: International Journal of Humor Research* 2 (3), 207-215.
- Pfeifer, Karl. 1994. "Laughter and pleasure." *Humor: International Journal of Humor Research* 7 (2), 157-172.
- Pocheptsov, Georgij. 1974. *Language and humour*. Kiev: Vysca Skola Publishers.
- Priest, Robert F., and Paul G. Wilhelm. 1974. "Sex, marital status, and self-actualization as factors in the appreciation of sexist jokes." *Journal of Social Psychology* 92, 245-249.
- Raskin, Victor. 1985. *Semantic mechanisms of humor* (Synthese Language Library 24). Dordrecht: D. Reidel.
- Raskin, Victor. 1986. "Script-based semantic theory." In: Ellis, Donald G., and William A. Donohue. (eds.). *Contemporary issues in language and discourse processing*. Hillsdale: Lawrence Erlbaum Associates.
- Raskin, Victor. 1987. "Linguistic heuristics of humor: a script-based semantic approach." *International Journal of the Sociology of Language* 65, 11-25.
- Raskin, Victor. 1990. "Sophisticated jokes." In: Hughes, Shaun F.D. and Victor Raskin (eds.). *Proceedings of the 1988 WHIM Conference Held April 1-4, 1988 at Purdue University*. West Lafayette, Indiana - Tempe, Arizona: ISHS - Purdue University, 125-127.
- Raskin, Victor, and Salvatore Attardo. 1994. "Non-literalness and Non-bona-fide in language: An approach to formal and computational treatments of humor." *Pragmatics and Cognition* 2 (1), 31-69.

- Raskin, Victor, and Salvatore Attardo. 1995. "Logical mechanism: The elusive knowledge resource of the joke." Paper presented at the 13th International Humor Conference, July 31 - August 4, Birmingham, England.
- Roddenberry, Gene (producer). *Star trek: The next generation* [TV series].
- Rothbart, Mary K. 1977. "Psychological approaches to the study of humour." In: Chapman, Anthony J., and Hugh C. Foot (eds.). *It's a funny thing, humour. International conference on humour and laughter*. Oxford: Pergamon, 87-94.
- Rothbart, Mary K., and Diana Pien. 1977. "Elephants and marshmallows: a theoretical synthesis of incongruity-resolution and arousal theories of humour." In: Chapman, Anthony J., and Hugh C. Foot (eds.). *It's a funny thing, humour. International conference on humour and laughter*. Oxford: Pergamon, 37-40.
- Ruch, Willibald, Salvatore Attardo, and Victor Raskin. 1993. "Toward an empirical verification of the General Theory of Verbal Humor." *Humor: International Journal of Humor Research* 6 (2), 123-136.
- Ruch, Willibald, and Franz-Josef Hehl. 1983. "Intolerance of ambiguity as a factor in the appreciation of humor." *Personality and Individual Differences* 4, 443-449.
- Rugby jokes*. No date. London: Sphere Books.
- Schafer, Sigrid. 1977. "Sociosexual behavior in male and female homosexuals: a study in sex differences." *Archives of Sexual Behavior* 6, 355-364.
- Searle, John R. 1969. *Speech acts. An essay in the philosophy of language*. Cambridge: Cambridge University Press.
- Searle, John R. 1979. *Expression of meaning: Studies in the theory of speech acts*. Cambridge: Cambridge University Press.
- Shultz, Thomas R. 1972. "The role of incongruity and resolution in children's appreciation of cartoon humor." *Journal of Experimental Child Psychology* 13, 456-477.
- Shultz, Thomas R., and Robert Pilon. 1973. "Development of the ability to detect linguistic ambiguity." *Child Development* 44, 728-733.
- Shultz, Thomas R., and Frances Horibe. 1974. "Development of the appreciation of verbal jokes." *Developmental Psychology* 10 (1), 13-20.
- Shultz, Thomas R., and Judith Robillard. 1980. "The development of linguistic humour in children." In: McGhee, Paul Edward, and Anthony J Chapman. (eds.). 1980. *Children's humour*. Chichester: John Wiley and Sons, 59-90.
- Sinclair, Anne, Robert J. Jarvella, and Willem J.M. Levelt (eds.). 1986. *The child's conception of language*. Berlin: Springer Verlag.
- Skowrońska, Natalia. 1989. *English and Polish linguistic jokes: A contrastive study*. Unpublished MA dissertation. Poznań: Adam Mickiewicz University.
- Sobkowiak, Włodzimierz. 1991. *Metaphonology of English paronomasic puns*. Frankfurt am Main: Peter Lang.
- Spector, Cecile C. 1990. "Linguistic humor comprehension of normal and language-impaired adolescents." *Journal of Speech and Hearing Disorders* 55, 533-541.
- Sperber, Dan, and Deirdre Wilson. 1986. *Relevance*. Oxford: Basil Blackwell.
- Stageberg, Norman C. 1979. *Ambiguity in action: A bawdy count*. Cedar Falls: University of Northern Iowa Press.
- Stanley, Richard. 1980. *The end*. Harmondsworth: Puffin Books.
- Suls, Jerry. 1972. "A two-stage model for the appreciation of jokes and cartoons: an information-processing analysis." In: Goldstein, Jeffrey H., and Paul Edward McGhee. *The psychology of humor: Theoretical perspectives and empirical issues*. New York: Academic Press, 81-100.
- Sydenham, P.H. (ed.). 1982. *Handbook of measurement science. Vol. I: Theoretical fundamentals*. London: John Wiley and Sons.

- Thom, René. 1975. *Structural stability and morphogenesis; an outline of a general theory of models*. Reading, Mass.: W.A. Benjamin.
- Trudgill, Peter. 1974. "Linguistic change and diffusion: Description and explanation in sociolinguistic dialect geography." *Language in Society* 3, 215-246.
- Wells, John Christopher. 1982. *Accents of English*. Cambridge: Cambridge University Press.
- Wells, John Christopher. 1990. *Longman pronunciation dictionary*. Harlow: Longman.
- Yamaguchi, Haruhiko. 1988. "How to pull strings with words." *Journal of Pragmatics* 12 (3), 323-337.
- Zajdman, Anat. 1991. "Contextualization of canned jokes in discourse." *Humor: International Journal of Humor Research* 4 (1), 23-40.
- Zeeman, E. Christopher. 1976. "Catastrophe theory." *Scientific American*, April, 65-83.
- Zhao, Yan. 1988. "The information-conveying aspects of jokes." *Humor: International Journal of Humor Research* 1 (3), 279-298.
- Zippin, David. 1966. "Sex differences and the sense of humor." *Psychoanalytic Review* 53, 209-219.