Relevance and lexical pragmatics

Deirdre Wilson

A common problem for linguists, philosophers and psychologists is that linguistically specified ('literal') word meanings are often modified in use. The literal meaning may be narrowed (e.g. *drink* used to mean 'alcoholic drink'), approximated (e.g. *square* used to mean 'squarish') or undergo metaphorical extension (e.g. *rose* or *diamond* applied to a person). Typically, narrowing, approximation and metaphorical extension are seen as distinct pragmatic processes with no common explanation: thus, narrowing has been analysed in terms of default rules (e.g. Levinson 2000), approximation has been treated as a type of pragmatic vagueness (e.g. Lewis 1983; Lasersohn 1999) and metaphorical extension is standardly seen as a case of maxim violation with resulting implicature (Grice 1989). I will propose a unified account on which narrowing, approximation and metaphorical extension are special cases of a more general pragmatic adjustment process which applies spontaneously, automatically and unconsciously to fine-tune the interpretation of virtually every word, and show how the notion of an *ad hoc concept* introduced by Barsalou (1987, 1992) might interact with a pragmatic comprehension procedure developed in relevance theory (Sperber & Wilson 1998; Carston 2002; Wilson & Sperber 2002) to account for a wide range of examples.[*]

1. Introduction

Lexical pragmatics is a rapidly developing branch of linguistics that investigates the processes by which linguistically-specified ('literal') word meanings are modified in use.[1] Well-studied examples include narrowing (e.g. *drink* used to mean 'alcoholic drink'), approximation (e.g. *square* used to mean 'squarish') and metaphorical extension (e.g. *battleaxe* used to mean 'frightening person'). In much of the literature, narrowing, approximation and metaphorical extension have been seen as distinct pragmatic processes and studied in isolation from each other. I will defend the alternative view that they are outcomes of a single pragmatic process which fine-tunes the interpretation of virtually every word.[2]

I will adopt a simple model of linguistic semantics that treats words as encoding mentally-represented concepts, elements of a conceptual representation system or 'language of thought', which constitute their linguistic meanings and determine what might be called their linguistically-specified denotations.[3] The goal of lexical seman-

Rivista di Linguistica, 15.2 (2003), p. 273-291 *(ricevuto nel dicembre 2003)*

tics is to investigate the relations between words and the concepts they encode, and the goal of lexical pragmatics is to account for the fact that the concept communicated by use of a word often differs from the concept encoded. NARROWING is the case where a word is used to convey a more specific sense than the encoded one, resulting in a restriction of the linguistically-specified denotation. Approximation and metaphorical transfer may be seen as varieties of BROADENING, where a word is used to convey a more general sense, with consequent widening of the linguistically-specified denotation.

The effect of narrowing is to highlight a proper subpart of the linguistically-specified denotation. Here are some illustrations:

(1) All doctors *drink*.

(2) a. As I worked in the garden, a *bird* perched on my spade.
b. *Birds* wheeled above the waves.
c. A *bird*, high in the sky, invisible, sang its pure song.
d. At Christmas, the *bird* was delicious.

(3) Mary is a *working mother*.

(4) I have a *temperature*.

In (1), *drink* might convey not the encoded sense 'drink liquid' but, more specifically, 'drink alcohol', or 'drink significant amounts of alcohol'. In (2a-d), each use of *bird* would highlight a different subset of birds. As noted by Lakoff (1987:80-82), (3) would generally indicate not just that Mary satisfies the definition 'female parent who works', but that she is a stereotypical working mother, bringing up young children while working for money outside the home; and (4) would normally convey not the truism that the speaker has some temperature or other but that her temperature is high enough to be worth remarking on.

APPROXIMATION is a variety of broadening where a word with a relatively strict sense is extended to a penumbra of cases (what Lasersohn 1999 calls a "pragmatic halo") that strictly speaking fall outside its linguistically-specified denotation. Loose uses of round numbers, geometric terms and negatively-defined terms are good examples, as in (5-7):

(5) This coat cost *1,000* dollars. ['about 1,000 dollars']

(6) The stones form a *circle, an oval, a pyramid*. ['approximately a circle']

(7) This injection will be *painless*. ['nearly painless']

As with narrowing (cf. (2) above), different degrees and types of approximation are appropriate in different circumstances; compare the interpretations of *flat* in (8a-e):

(8) a. This ironing board is *flat*.
b. My garden is *flat*.
c. My neighbourhood is *flat*.
d. My country is *flat*.
e. The Earth is *flat*.

A second variety of broadening, which I will call CATEGORY EXTENSION, is typified by the use of salient brand names (*Hoover, Kleenex*) to denote a broader category ('vacuum cleaner', 'disposable tissue') including items from less salient brands. Personal names (*Chomsky, Einstein*) and common nouns both lend themselves to category extension (cf. Glucksberg 2001:38-52). Some more creative uses are illustrated in (9-12):

(9) Federer is the new *Sampras*.

(10) Brown is the new *black*.

(11) Mint is the new *basil*.

(12) Is oak the new *pine*?

In (9), *Sampras* evokes the category of gifted tennis players of a certain type. In (10) – a typical piece of fashion writer's discourse – *black* evokes the category of staple colours in a fashion wardrobe; echoes are found in cookery and interior design writing, as in (11) ('herb of the moment') and (12) ('trendy furniture wood'). These examples of category extension are not analysable as approximations. The claim in (10) is not that Federer is a borderline case, close enough to being Sampras for it to be acceptable to CALL him Sampras, but merely that he belongs to a broader category of which Sampras is a salient member; and so on for the other examples.

Metaphor and hyperbole may be thought of as more radical varieties of category extension.[4] For example, (13) would be an approximation if used to indicate that the water was close enough to boiling to be described as boiling, and a hyperbole if used to indicate that the water was merely hotter than expected, or uncomfortably hot:

(13) The water is *boiling*.

The metaphors in (14-16) are analysable on similar lines, as radical extensions of the linguistically-specified denotation:

(14) Mary is a *rose, a lily, a daisy, a violet; a jewel, a diamond, a ruby, a pearl*.

(15) That book *puts me to sleep*.

(16) The leaves *danced* in the breeze.

Thus, *violet* in (14) might be seen as representing the category of delicate, unflamboyant, easily overlooked things, of which violets are a salient subcategory, and so on for other examples.

Neologisms and word coinages provide further data for a theory of lexical pragmatics and shed some light on the nature of the mental mechanisms involved. Experiments by Clark & Clark (1979) and Clark & Gerrig (1983) show that newly-coined verbs derived from nouns, as in (17-19), are no harder to understand than regular verbs:[5]

(17) The newspaper boy *porched* the newspaper.

(18) They *Learjetted* off to Miami.

(19) He *Houdinied* his way out of the closet.

This suggests that lexical-pragmatic processes apply 'on line' in a flexible, creative and context dependent way, and may contribute to the explicit truth-conditional content of utterances (in Grice's terms, "what is said") as well as to what is implicated (Carston 2002; Wilson & Sperber 2002).

Any discussion of lexical pragmatics must make some assumptions about the nature of the semantic representations that provide the input to pragmatic processes. Synchronically, where the borderline between lexical semantics and pragmatics falls in individual cases is not always clear, and it may be drawn in different ways in the minds of different individuals. Moreover, the repeated application of lexical-pragmatic processes may lead to semantic change: what starts as a spontaneous, one-off affair may become regular and frequent enough to stabilise in a community and give rise to an extra sense.[6] My interest here is not so much in the details of individual

cases as in the pragmatic processes that apply spontaneously, automatically and unconsciously to fine-tune the interpretation of virtually every word, and I will therefore largely abstract away from the question of whether, or when, a word like *drink*, or *Hoover*, or *flat* may be said to have acquired an extra stable sense.[7] My account will be consistent with the view that some words are strictly defined and loosely used, while others have broader, vaguer meanings which are typically narrowed in use.

2. Some existing accounts

Many pragmatic or philosophical approaches seem to take for granted that narrowing, approximation and metaphorical extension are distinct pragmatic processes, which lack common descriptions or explanations and need not be studied together. For example, narrowing is often analysed as a case of default inference to a stereotypical interpretation,[8] approximation has been seen as linked to variations in the standards of precision governing different types of discourse,[9] and metaphor is generally treated on Gricean lines, as a blatant violation of a maxim of truthfulness, with resulting implicature.[10] These accounts do not generalise: metaphors are not analysable as rough approximations, narrowings are not analysable as blatant violations of a maxim of truthfulness, and so on. Moreover, there are internal descriptive and theoretical reasons for wanting to go beyond these existing philosophical and pragmatic accounts.

Levinson (2000:37-8, 112-34) treats narrowing as a default inference governed by an Informativeness heuristic ("What is expressed simply is stereotypically exemplified"), itself backed by a more general I-principle instructing the hearer to

> Amplify the informational content of the speaker's utterance, by finding the most *specific* interpretation, up to what you judge to be the speaker's m-intended point ... [ibid: 114]

The I-heuristic might be seen as dealing with stereotypical narrowings such as (3) above, and the I-Principle as dealing with less stereotypical cases such as (4). However, this approach leaves many aspects of the narrowing process unexplained. In the first place, there may be several possible degrees or directions of narrowing, as in (1) (where *drink* may be narrowed to 'drink alcohol' or 'drink a lot of alcohol') and (2) (where *bird* is narrowed in different ways in different

contexts). Levinson (ibid:118) notes (and experimental evidence confirms, cf. Barsalou 1987) that even stereotypical narrowing is context dependent. For example, *Englishman* in (20) would evoke different stereotypes in a discussion of cooking, cricket, sailing, seduction, etc.:

(20) John is an *Englishman.*

In the second place, stereotypical narrowing also competes with other varieties of narrowing.[11] In (21), *man* might be narrowed to an idealised rather than a stereotypical interpretation, indicating that Churchill is a man worthy of the name rather than a typical man:

(21) Churchill was a *man*.

According to the I-Principle, the hearer of (1-4) and (20-21) should choose the appropriate degree and direction of narrowing using his judgement about "the speaker's m-intended point" (i.e. the speaker's meaning) – a judgement which is therefore presupposed rather than explained by this account.

Levinson acknowledges the context dependence of I-implicatures, but maintains (ibid:118) that "at a sufficient level of abstraction" they are default inferences (generalised implicatures) which "hold as preferred interpretations across contexts, and indeed across languages". However, as illustrated in (5-19) above, broadening appears to be just as strong a tendency as narrowing at the lexical level, and it is not clear why narrowing rather than broadening should be seen as the default. Nor is it clear how an approach based on the I-principle could generalise to approximations or metaphors (which Levinson appears to treat as blatant violations of a maxim of truthfulness in the regular Gricean way). It is therefore worth looking for an alternative, more explanatory account.

Lewis (1983:244-45) treats approximation as a type of pragmatic vagueness governed by contextually-determined standards of precision:

> When is a sentence true enough? […] this itself is a vague matter. More important [...], it is something that depends on context. What is true enough on one occasion is not true enough on another. The standards of precision in force are different from one conversation to another, and may change in the course of a single conversation. Austin's 'France is hexagonal' is a good example of a sentence that is true enough for many contexts but not true enough for many others.

To shed any light on how approximations are understood, this approach would have to be supplemented by some account of how the appropriate standard of precision is formulated, and how it may change in the course of a conversation. Consider (22):

(22) The lecture will start at 5.00 and end at 6.00.

As noted in Wilson & Sperber (2002:592-8), a student with several lectures to attend might accept (22) as 'true enough' if the lecture starts a few minutes late and ends a few minutes early, but not if it starts a few minutes early and ends a few minutes late. This asymmetry would somehow have to be built into the standards of precision in force. Moreover, what counts as 'true enough' for a student planning a day's lectures would not be 'true enough' for a sound engineer getting ready to broadcast the lecture live. This would have to be accommodated in an account of how the appropriate standard of precision is determined. Of course, all this is predictable enough in a common-sense way, given background assumptions and general expectations about human behaviour. The problem with the appeal to "contextually-determined standards of precision" is that it seems to be acting as little more than a placeholder for a more detailed pragmatic account.

As suggested above, Lewis's account of approximation does not generalise to category extension, metaphor or hyperbole. Approximations are appropriate in borderline cases; category extension, metaphor and hyperbole are not. Lewis himself proposes separate analyses of approximation and figurative utterances (which he treats as encoding figurative meanings in the traditional semantic way; cf. Lewis 1983; Wilson & Sperber 2002:587-9). Separate analyses could be justified by showing that there is a definite cut-off point between approximation and figurative utterances; but it is doubtful that such a cut-off point exists. Thus, (13) above has a gradient of interpretations with clear approximations at one end, clear hyperboles at the other and a range of borderline cases in between; (7) above, which I have treated as an approximation, could equally well be classified as a hyperbole; and examples such as (9-12) above, which I have treated as cases of category extension, are sometimes classified as metaphors (Glucksberg 2001:v, 47).

The lack of a clear cut-off point between approximation, category extension, hyperbole and metaphor also raises problems for Grice's analysis of figurative utterances. On this approach, (13-14) above would be analysed as blatant violations of the maxim of truthfulness

("Do not say what you believe to be false"), implicating (23-24), respectively:

(23) This water is very hot.

(24) Mary resembles a rose in some respects.

As noted by Wilson & Sperber (2002:593-4), this account of metaphor and hyperbole does not generalise to approximations, which are generally perceived as 'true enough' rather than blatantly false. Moreover, it is hard to see where on the gradient of interpretations an utterance of (7) or (13) might stop being 'true enough' and start being 'blatantly false'.

There are also well-known descriptive and theoretical problems with Grice's account. For one thing, the literal interpretations of negative metaphors such as (25) are trivially true rather than blatantly false:

(25) Mary is no angel.

For another, Grice's analysis, taken as a model of the comprehension process, predicts that hearers should consider the literal interpretation first, and move to a figurative interpretation only if the literal interpretation is blatantly false. Yet there is both experimental and introspective evidence that this prediction is false (e.g. Gibbs 1994; Glucksberg 2001). In interpreting (15) above (an example due to Dan Sperber), for instance, it may never even occur to the hearer to wonder whether the book literally put the speaker to sleep.

All this suggests that it is worth trying to develop a more general account of lexical-pragmatic processes, which acknowledges their flexibility, creativity and context dependence, and treats them as applying spontaneously, automatically and unconsciously during online comprehension to fine-tune the interpretation of virtually every word. In the next section, I will outline an account which brings together ideas from experimental studies of categorisation and metaphor,[12] on the one hand, and from relevance theory and other recent work in pragmatics,[13] on the other.

Experimental studies of categorisation by Barsalou (e.g. 1987, 1992) support the view that lexical narrowing cannot simply be analysed as default inference to a ready-made stereotype or prototype. In the first place, typicality judgements about existing categories (e.g. BIRD, ANIMAL) are quite variable across individuals, contexts and

times, and the appeal to ready-made stereotypes or prototypes does not explain this variability. In the second place, people can readily provide typicality rankings for made-up categories that they could not have encountered before (e.g. THINGS THAT CAN FALL ON YOUR HEAD), or predict the typicality rankings for familiar categories from the point of view of real or imagined individuals for whom they would be most unlikely to have ready-made prototypes stored.

Barsalou sees these facts as best explained by assuming that the content of a category on a particular occasion is not determined by accessing a ready-made stereotype or prototype, but is constructed on-line in an ad hoc, context-specific way, from a reservoir of encyclopaedic information which varies in accessibility from individual to individual and situation to situation, with different subsets being chosen on each occasion. This idea clearly has implications for lexical narrowing. However, apart from noting that the choice of a particular subset of encyclopaedic assumptions is affected by discourse context, the accessibility of information in memory and considerations of relevance, he does not provide a concrete pragmatic hypothesis about how the narrowing process might go.

As noted above, experimental studies of metaphor by Gibbs (1994) and Glucksberg (2001) confirm the inadequacy of models of comprehension based on the standard Gricean approach by showing that a literal interpretation does not always have to be considered and rejected before moving to a metaphorical interpretation. Glucksberg proposes that metaphor should instead be analysed as a variety of category extension. On this approach (tacitly adopted in section 1 above), just as *Hoover* may be used to represent the broader category of vacuum cleaners of which it is a salient member, so *Sampras* may be used to denote a broader category of gifted tennis players of which he is a salient member, and *violet* may be used to denote a broader category of delicate, unflamboyant, easily-overlooked things, of which it is a salient member. Glucksberg comments:

> Good metaphors ... are acts of classification that attribute ... an interrelated set of properties to their topics. It follows that metaphoric comparisons acquire their metaphoricity by behaving as if they were class-inclusion assertions. (Glucksberg 2001:46)

On this approach, narrowing and metaphor are complementary processes, one restricting and the other extending the category denoted by the linguistically-encoded concept.

Barsalou's and Glucksberg's accounts share the assumption that encyclopaedic information associated with a mentally-represented category or concept may be used to restrict or extend its denotation in an ad hoc, occasion-specific way.[14] Thus, encyclopaedic information about attributes of various subsets of birds may be used to highlight a particular subpart of the denotation of 'bird' or evoke a broader category, e.g. the category of flying things. Glucksberg and Barsalou both mention the role of considerations of relevance in selecting an appropriate set of attributes, but make no attempt to develop a full pragmatic account of what factors trigger lexical-pragmatic processes, what direction they take, and when they stop. For many years, relevance theorists have been pursuing the idea that lexical comprehension involves ad hoc broadenings or narrowings of encoded concepts based on the use of encyclopaedic information constrained by expectations of relevance.[15] In the next section, I will consider what light the theory might shed on how the ad hoc concept construction process might go.

3. Relevance theory and lexical pragmatics

Relevance theory is based on a definition of relevance and two general principles: a Cognitive and a Communicative Principle of Relevance.[16] Relevance is characterised in cost-benefit terms, as a property of inputs to cognitive processes, the benefits being positive cognitive effects (e.g. true contextual implications, warranted strengthenings or revisions of existing assumptions) achieved by processing the input in a context of available assumptions, and the cost the processing effort needed to achieve these effects. Other things being equal, the greater the positive cognitive effects achieved, the greater the relevance of the input to the individual who processes it. However, the processing of the input, the accessing of contextual assumptions and the derivation of positive cognitive effects involves some effort of perception, memory and inference. Other things being equal, the smaller the processing effort required, the greater the relevance of the input.

According to the First, or Cognitive, Principle of Relevance (Sperber & Wilson 1995:260-66), the human cognitive system tends to allocate attention and processing resources in such a way as to maximise the relevance of the inputs it processes. As a result of constant selection pressure towards increasing cognitive efficiency, our perceptual mechanisms tend automatically to pick out potentially relevant

inputs, our memory retrieval mechanisms tend automatically to pick out potentially relevant contextual assumptions, and our inferential systems tend spontaneously to process them in the most productive way. Communicators should therefore be able to predict, at least to some extent, what stimuli an addressee is likely to attend to, what contextual assumptions he is likely to use in processing it, and what conclusions he is likely to draw.

According to the Second, or Communicative, Principle of Relevance (Sperber & Wilson 1995:266-71), utterances create general expectations of relevance. The addressee of an utterance is entitled to expect it to be at least relevant enough to be worth processing (and hence more relevant than any alternative input available to him at the time), and moreover, the most relevant utterance compatible with the speaker's abilities and preferences. This motivates the following comprehension procedure which, according to relevance theory, is automatically applied to the on-line processing of attended verbal inputs. The addressee takes the linguistically decoded meaning: following a path of least effort, he enriches it at the explicit level and complements it at the implicit level until the resulting interpretation meets his expectations of relevance; at which point, he stops. This mutual adjustment of explicit content, contextual assumptions and cognitive effects constrained by expectations of relevance is the central feature of relevance-theoretic pragmatics.[17]

This approach to utterance comprehension has two important consequences for lexical pragmatics. In the first place, there is no presumption of literalness: the linguistically encoded meaning (of a word, a phrase, a sentence) is no more than a clue to the speaker's meaning, which is not decoded but non-demonstratively inferred. In the second place, understanding any utterance, literal, loose or metaphorical, is a matter of seeing its intended relevance, and seeing the intended relevance of an utterance is a matter of following a path of least effort in mutually adjusting explicit content, context and cognitive effects, as specified in the relevance-theoretic comprehension procedure. Relevance theory therefore suggests the following answers to the basic questions of lexical pragmatics: lexical-pragmatic processes are triggered by the search for relevance, they follow a path of least effort, they operate via mutual adjustment of explicit content, context and cognitive effects, and they stop when the expectations of relevance raised by the utterance are satisfied (or abandoned).

To illustrate how this account might apply to the narrowing of *temperature* in (4), consider the following scenario. Peter has just sug-

gested that he and Mary pay a visit to his aunt in hospital, and Mary replies as in (4):

(4) I have a temperature.

In the circumstances, Peter will have not only a general expectation of relevance but a particular expectation about how Mary's utterance is likely to achieve relevance at this particular point in the discourse: he will be expecting it to achieve relevance as a response to his suggestion that they visit his aunt in hospital. Literally interpreted, of course, her utterance is trivially true and achieves no positive cognitive effects. However, *temperature* is a scalar term, and different points on the scale should yield different implications when combined with easily accessible contextual assumptions. Assuming some version of a spreading activation model of memory, Peter's encyclopaedic assumptions about temperatures, hospital visits and the possible connections between them should be highly activated at this point. It should therefore be a relatively straightforward matter, by following a path of least effort in the mutual adjustment of content, context and cognitive effects, to arrive at an interpretation on which *temperature* expresses an ad hoc concept TEMPERATURE*, denoting a temperature high enough to make it inadvisable for Mary to visit Peter's aunt in hospital.[18]

More generally, narrowing is undertaken in the search for relevance. Hearers satisfy their expectations of relevance by looking for true implications (or other positive cognitive effects). Narrowing increases implications. A hearer following the relevance-theoretic comprehension procedure is therefore entitled to narrow the encoded sense to a point where it yields enough true implications to satisfy the general expectation of relevance raised by the utterance, together with any more specific expectations raised by the fact that the utterance has been produced by that speaker, for that audience, at that particular point. If several possible narrowings are available, he follows a path of least effort, using whatever assumptions and expectations are most highly activated (e.g. by the utterance itself and by preceding discourse). If he finds enough true implications to satisfy his expectations of relevance, he assumes that this was the speaker's meaning; if not, he tries another route.[19]

Similar analyses apply to approximation, category extension, metaphor and hyperbole. Consider the category extension in (9), which was used by many commentators during Wimbledon 2003:

(9) Federer is the new *Sampras*.

For many hearers, the encoded concept SAMPRAS would provide access to a wide array of encyclopaedic assumptions about Sampras, some of which will receive additional activation from the mention of Federer and from the discourse context, including the fact that the utterance was produced during Wimbledon 2003. Although these highly activated assumptions will differ from hearer to hearer, they are likely to include the information that Sampras is a formidably gifted natural player of a certain type, that he has won Wimbledon many times and played a leading role in the tournament over many years, and so on. In these circumstances, a hearer following the path of least effort and looking for true implications (or other positive cognitive effects) via mutual adjustment of content, context and cognitive effects is likely to arrive at an interpretation in which *Sampras* expresses an ad hoc concept SAMPRAS* which denotes not only Sampras but other players with these encyclopaedic attributes, and conclude that the speaker is claiming that Federer falls into this ad hoc category and is therefore likely to dominate Wimbledon for many years, etc.

Finally, consider how an account along these lines might apply to the interpretation of *put to sleep* in (15):

(15) That book puts me to sleep.

On the Gricean approach, (15) should have three distinct interpretations: as a literal assertion, a hyperbole or a metaphor. Of these, the hearer should test the literal interpretation first, and consider a figurative interpretation only if the literal interpretation blatantly violates the maxim of truthfulness. Yet as noted above, there is both experimental and introspective evidence against this approach when construed as a model of comprehension.

On the relevance-theoretic account, there is no presumption that the literal meaning will be tested first. The encoded concept PUT TO SLEEP is merely a point of access to an ordered array of encyclopaedic assumptions from which the hearer is expected to select an appropriate subset. Let us suppose that Mary has produced (15) in response to Peter's question *What do you think of Martin's latest book?* He will therefore be expecting her utterance to achieve relevance by answering his question: that is, by offering an evaluation of the book. Given this expectation, her utterance is likely to activate the contextual assumption that a book which puts one to sleep is like-

ly to be extremely boring and unengaging. By following a path of least effort in the mutual adjustment of context, content and cognitive effects, he should then arrive at an interpretation on which *put to sleep* expresses the ad hoc concept PUT TO SLEEP*, which denotes a broader category containing not only literal cases of putting to sleep, but other cases that share with it the encyclopaedic attribute of being extremely boring and unengaging. Only if such a loose interpretation fails to satisfy his expectations of relevance would Peter be justified in exploring further contextual assumptions, and moving towards a more literal interpretation.[20]

On this approach, broadening, like narrowing, is undertaken in the search for relevance and results from the mutual adjustment of context, content and cognitive effects, constrained by expectations of relevance raised by the utterance itself. In many cases, the mutual adjustment process will converge on a broader or narrower category than the linguistically-specified denotation, with effects that have been roughly classified in the literature as narrowing, approximation, category extension, metaphor, hyperbole and so on. The main point of this paper has been to argue that these taxonomies do not pick out genuine natural kinds. There is no clear cut-off point between the different varieties of broadening. Moreover, as noted by Carston (1997), narrowing and broadening may combine, so that a single word may express an ad hoc concept that is narrowed in some respects and broadened in others. In the domain of lexical pragmatics, these taxonomies have led to a fragmentation of research programmes and obscured some interesting generalisations that hold across the whole domain. It is worth systematically exploring the possibility of developing alternative, more unified accounts.

Address of the Author:

Deirdre Wilson, Department of Linguistics, University College, London, Gower Street, London WC1E 6BT <deirdre@ling.ucl.ac.uk>

Notes

* Earlier versions of this paper were presented at the European Society for Philosophy and Psychology (Turin, July 2003) and the International Pragmatics Association (Toronto, July 2003). I would like to acknowledge the support of the AHRB under grant MRG-AN9291/APN16356 “A unified theory of lexical pragmatics” during the later stages of the research. Many thanks to Dan Sperber and

to Robyn Carston (my co-applicant on the AHRB project) for valuable ideas and inspiration, and to Tim Wharton (postdoctoral researcher on the AHRB project), Rosa Vega-Moreno, Paula Rubio-Fernandez and the members ofthe UCL Pragmatics Reading Group for enjoyable and fruitful discussions on the topic of this paper.

[1] For a variety of approaches, see e.g. Grice (1967); Ducrot (1972, 1973, 1980, 1984); Searle (1979); Lakoff & Johnson (1980); Sperber & Wilson (1985, 1998); Cruse (1986); Hobbs & Martin (1987); Lakoff (1987); Merlini Barbaresi (1988); Lahav (1989); Sweetser (1990); Horn (1992, 2000); Aitchison (1994); Bach (1994, 2001); Gibbs (1994); Copestake & Briscoe (1995); Franks (1995); Recanati (1995, 2004); Rips (1995); Bertuccelli Papi (1997); Carston (1997, 2000, 2002); Noveck, Bianco & Castry (2001); Blutner (1998, 2002); Lascarides & Copestake (1998); Ruiz de Mendoza (1998); Lasersohn (1999); Fauconnier & Turner (2002); Wilson & Sperber (2002, 2004); Merlini Barbaresi (2003).

[2] For elaboration of this view, see e.g. Carston (1997, 2002 chap. 5); Sperber & Wilson (1998); Wilson & Sperber (2002, 2004).

[3] For an approach along these lines, see Fodor (1998). For relevance-theoretic accounts of concepts, see e.g. Sperber & Wilson (1986/95 chap. 2, 1998); Sperber (1996 chap 6); Carston (2002 chap 5); Wilson & Sperber (2002).

[4] See e.g. Recanati (1995); Carston (1997, 2000); Sperber & Wilson (1998); Glucksberg (2001); Wilson & Sperber (2002).

[5] For more complex cases requiring a greater effort of memory or imagination, see Lehrer (this volume).

[6] See e.g. Lyons (1977); Hopper & Traugott (1993); Bertuccelli Papi (2004).

[7] Appeals to polysemy are probably justified in many cases. However, since each encoded sense of a polysemous word may undergo further pragmatic processing, polysemy does not eliminate the need for lexical pragmatics.

[8] See e.g. Horn (1984, 1992, 2000); Levinson (2000); Blutner (1998, 2002). For discussion, see Lakoff (1987).

[9] See e.g. Lewis (1979); Lasersohn (1999). For discussion, see Gross (2001).

[10] See e.g. Grice (1975); Levinson (1983).

[11] For an interesting survey of many varieties of narrowing, see Lakoff (1987).

[12] See e.g. Barsalou (1987); Gibbs (1994); Glucksberg et al. (1997); Glucksberg (2001).

[13] See e.g. Recanati (1995); Carston (1997, 2002); Sperber & Wilson (1998); Rubio Fernandez (2001); Vega-Moreno (2001); Wilson & Sperber (2002).

[14] For further discussion of Glucksberg's and Barsalou's accounts, see Carston (2002:chapter 5, especially notes 1, 14).

[15] See e.g. Sperber & Wilson (1983, 1986/95, 1998); Sperber (1989, 1997, 2000); Wilson (1990-2003, 1995); Carston (1997, 2000, 2002); Sperber & Wilson (1998); Papafragou (2000); Wilson & Sperber (2002, 2004). In earlier versions of the theory, implicatures based on loose and metaphorical uses of concepts were not seen as affecting explicatures via backwards inference during the mutual adjustment of explicit content, context and cognitive effects (for discussion of these notions, see section 3 below). In later versions, with the introduction of mutual adjustment process (e.g. Sperber & Wilson 1998; Wilson & Sperber 2002, 2004), and particularly thanks to Robyn Carston's work (e.g. Carston 1997, 2000, 2002:chap. 5), the idea of ad hoc concept construction has been more fully incorporated into the theory.

[16] For detailed accounts of the current version of the theory, see Sperber and Wilson (1995); Carston (2002); Wilson & Sperber (2002, 2004).

[17] Mutual adjustment is seen as taking place in parallel rather than in sequence. The hearer does not first identify the proposition expressed, then access an appro-

priate set of contextual assumptions and then derive a set of cognitive effects. In many cases (notably in indirect answers to questions, or when a discourse is already under way), he is just as likely to reason backwards from an expected cognitive effect to the context and content that would warrant it. For discussion, see e.g. Sperber & Wilson (1998); Carston (2002); Wilson & Sperber 2002, 2004).

[18] On the treatment of ad hoc concepts in relevance theory, see Sperber & Wilson (1998); Carston (2002:chap. 5); Wilson & Sperber (2002).

[19] It might be interesting to make a detailed comparison between this analysis, based on theoretical characterisations of relevance and expectations of relevance, backed by relevance-oriented accounts of cognition and communication, and an alternative analysis based on Levinson's I-principle, with its largely uncharacterised notion of "speaker's m-intended point".

[20] For further discussion of this example, see Wilson & Sperber (2004).

Bibliographical References

AITCHISON Jean (1994), *Words in the Mind: An Introduction to the Mental Lexicon,* Oxford, Blackwell.

BACH Kent (1994), "Conversational impliciture", *Mind & Language* 9:124-162.

BACH Kent (2001), "Speaking loosely: Sentence nonliterality", in FRENCH & WETTSTEIN (2001:249-263).

BARSALOU Laurence (1987), "The instability of graded structure: implications for the nature of concepts", in NEISSER (1987:101-140).

BARSALOU Lawrence (1992), "Frames, concepts, and conceptual fields", in KITTAY & LEHRER (1992:21-74).

BERTUCCELLI PAPI Marcella (1997), "Implicitness", in VERSCHUEREN et al, eds.

BERTUCCELLI PAPI Marcella (2000), "Is a diachronic speech-act theory possible?", *Journal of Historical Pragmatics* 1:57-66.

BLUTNER Reinhart (1998), "Lexical pragmatics", *Journal of Semantics* 15:115-62.

BLUTNER Reinhart (2002), "Lexical semantics and pragmatics", *Linguistische Berichte* 10:27-58.

CARRUTHERS Peter & Jill BOUCHER, eds. (1998), *Language and Thought,* Cambridge, Cambridge University Press.

CARSTON Robyn (1997), "Enrichment and loosening: complementary processes in deriving the proposition expressed?", *Linguistische Berichte* 8:103-127.

CARSTON Robyn (2000), "Explicature and semantics", *UCL Working Papers in Linguistics* 12:1-44. Revised version to appear in DAVIS & GILLON (forthcoming).

CARSTON Robyn (2002), *Thoughts and Utterances: The Pragmatics of Explicit Communication*, Oxford, Blackwell.

CARSTON Robyn & Seiji UCHIDA, eds. (1998), *Relevance Theory: Applications and Implications*, John Benjamins, Amsterdam.

CLARK Eve & Herbert H. CLARK (1979), "When nouns surface as verbs", *Language* 55:767-781.

CLARK Herbert H. & Richard GERRIG (1983), "Understanding old words with new meanings", *Journal of Verbal Learning and Verbal Behavior* 22:591-608.
COPESTAKE Anne & Ted BRISCOE (1995), "Semi-productive polysemy and sense extension", *Journal of Semantics* 12:15-67.
CRUSE David (1986), *Lexical Semantics*, Cambridge, Cambridge University Press.
DAVIS Steven, ed. (1991), *Pragmatics: A Reader*, Oxford, Oxford University Press.
DAVIS Steven & Brendan GILLON (forthcoming), *Semantics: A Reader*, Oxford, Oxford University Press.
DUCROT Oswald (1972), *Dire et ne pas dire*, Paris, Hermann.
DUCROT Oswald (1973), *Le preuve et le dire*, Paris, Mame.
DUCROT Oswald (1980), "Analyses pragmatiques", *Communications* 32:11-60.
DUCROT Oswald (1984), *Le dire et le dit*, Paris, Minuit.
FAUCONNIER, Gilles & Mark TURNER (2002), *The Way We Think. Conceptual Blending and the Mind's Hidden Complexities*, New York, Basic Books.
FODOR Jerry (1998), *Concepts: Where Cognitive Science Went Wrong*, Oxford, Clarendon Press.
FRANKS Bradley (1995), "Sense generation: a 'quasi-classical' approach to concepts and concept combination", *Cognitive Science* 19:441-505.
FRENCH Peter & Howard WETTSTEIN, eds. (2001), *Figurative Language*, Blackwell, Malden MA.
GIBBS Raymond (1994), *The Poetics of Mind*, Cambridge, Cambridge University Press.
GLUCKSBERG Sam (2001), *Understanding Figurative Language: From Metaphors to Idioms,* Oxford, Oxford University Press.
GLUCKSBERG Sam, Deanna A. MANFREDI & Matthew MCGLONE (1997), "Metaphor comprehension: How metaphors create new categories", in WARD et al. (1997:327-50).
GRICE H. Paul (1967), *Logic and conversation*, William James Lectures, reprinted in GRICE (1989).
GRICE H. Paul (1989), *Studies in the Way of Words*, Cambridge MA, Harvard University Press.
GROSS Steven (2001), *Essays on Linguistic Context-Sensitivity and its Philosophical Significance*, Routledge, London.
HOBBS Jerry & Paul MARTIN (1987), "Local Pragmatics", *Proceedings of the International Joint Conference on Artificial Intelligence*, Milano:520-23.
HOPPER Paul & Elisabeth TRAUGOTT (1993), *Grammaticalization*, Cambridge, Cambridge University Press.
HORN Laurence (1984), "Towards a new taxonomy for pragmatic inference: Q-based and R-based implicature", in SCHIFFRIN (1987:11-42).
HORN Laurence (1992), "The said and the unsaid", *Ohio State University Working Papers in Linguistics (Proceedings of SALT II)* 40:163-92.
HORN Laurence (2000), "From *if* to *iff*: conditional perfection as pragmatic strengthening", *Journal of Pragmatics* 32:289-326.
HORN Laurence & Gregory WARD, eds. (2004), *Handbook of Pragmatics*, Oxford, Blackwell.
KITTAY Eva & Adrienne LEHRER, eds. (1992), *Frames, Fields, and Contrasts:*

New Essays in Semantic and Lexical Organization, Lawrence Erlbaum, Hillsdale NJ.
LAHAV Ron (1989), "Against compositionality: the case of adjectives", *Philosophical Studies* 55:111-129.
LAKOFF George & Mark JOHNSON (1980), *Metaphors We Live By*, Chicago, University of Chicago Press.
LAKOFF George (1987), *Women, Fire and Dangerous Things,* Chicago, University of Chicago Press.
LASCARIDES Alex & Anne COPESTAKE (1998), "Pragmatics and word meaning", *Journal of Linguistics* 34:387-414.
LASERSOHN Peter (1999), "Pragmatic halos", *Language* 75:522-551.
LEVINSON Stephen (1983), *Pragmatics*, Cambridge, Cambridge University Press.
LEVINSON Stephen (2000), *Presumptive Meanings: The Theory of Generalized Conversational Implicature,* Cambridge MA, MIT Press.
LYONS John (1977), *Semantics*, volume II, Cambridge, Cambridge University Press.
MERLINI BARBARESI Lavinia (2003), *Complexity in Language and Text,* Italy, Editore Plus.
NEISSER Ulrich, ed. (1987), *Concepts and Conceptual Development,* Cambridge, Cambridge University Press.
NOVECK Ira, Maryse BIANCO & Alain CASTRY (2001), "The costs and benefits of metaphor", *Metaphor and Symbol* 16:109-21.
PAPAFRAGOU Anna (2002), *Modality: Issues in the Semantics-Pragmatics Interface*, Amsterdam, Elsevier Science.
RECANATI François (1995), "The alleged priority of literal interpretation", *Cognitive Science* 19:207-32.
RECANATI François (2004), *Literal Meanings*, Cambridge, Cambridge University Press.
RIPS Lance (1995), "The current status of research on concept combination", *Mind & Language* 10:72-104.
RUBIO FERNANDEZ Paula (2001) *Inhibition of core features in metaphor interpretation*, Cambridge, Research Centre in English and Applied Linguistics (RCEAL) Working Papers.
RUIZ DE MENDOZA Francisco J. (1998), "On the nature of blending as a cognitive phenomenon", *Journal of Pragmatics* 30:259-274.
SCHIFFRIN Deborah, ed. (1987), *Meaning, Form and Use in Context: Linguistic Applications (GURT 1984),* Washington DC, Georgetown University Press.
SEARLE John (1979), "Literal meaning", reprinted in SEARLE (1993:117-136).
SEARLE John (1993), *Expression and Meaning*, Cambridge, Cambridge University Press.
SPERBER Dan (1989), Lecture on Relevance and Word Meaning, Relevance Theory Workshop, University of Essex.
SPERBER Dan (1996), *Explaining Culture: A Naturalistic Approach,* Oxford, Blackwell.
SPERBER Dan (1997), "Intuitive and reflective beliefs", *Mind and Language* 12:67-83.

SPERBER Dan (2000a), "Metarepresentations in an evolutionary perspective", in SPERBER (2000b:117-37).

SPERBER Dan, ed. (2000b), *Metarepresentations: An Interdisciplinary Perspective*, New York, Oxford University Press.

SPERBER Dan & Deirdre WILSON (1983), Draft of *Relevance*, chapter 8, ms. Department of Linguistics, University College London.

SPERBER Dan & Deirdre WILSON (1985), "Loose talk", *Proceedings of the Aristotelian Society* 86:153-71. Reprinted in DAVIS (1991:540-49)

SPERBER Dan & Deirdre WILSON (1986/95), *Relevance: Communication and Cognition*, Oxford, Blackwell (second edition with Postface, 1995).

SPERBER Dan & Deirdre WILSON (1995), "Postface" to the second edition of *Relevance*, Oxford, Blackwell.

SPERBER Dan & Deirdre WILSON (1998), "The mapping between the mental and the public lexicon", in CARRUTHERS & BOUCHER (1998:184-200).

SWEETSER Eve (1990), *From Etymology to Pragmatics*, Cambridge, Cambridge University Press.

VERSCHUEREN Jef, Jan-Ola OSTMAN, Jan BLOMMAERT & Chris BULCAEN, eds. (1997), *Handbook of Pragmatics Online*, Amsterdam, John Benjamins.

VEGA MORENO Rosa (2001), "Representing and processing idioms", *UCL Working Papers in Linguistics* 13:...

WARD Tomas B., Steven M. SMITH & Jyojsna VAID, eds. (1997), *Creative Thought: An Investigation of Conceptual Structure and Processes*, Washington DC, American Psychological Association.

WILSON Deirdre (1990-2003), *Concepts*, Philosophy of Language/Issues in Pragmatics lectures, Department of Linguistics, University College London.

WILSON Deirdre (1995), "Is there a maxim of truthfulness?", *UCL Working Papers in Linguistics* 7:197-212.

WILSON Deirdre & Dan SPERBER (1998), "Pragmatics and time", in CARSTON & UCHIDA (1998:1-22).

WILSON Deirdre & Dan SPERBER (2002), "Truthfulness and relevance", *Mind* 111:583-632.

WILSON Deirdre & Dan SPERBER (2004) "Relevance theory", in HORN & WARD (2004: 607-632).