Relevance Theory and the saying/implicating distinction^{*}

ROBYN CARSTON

Abstract

A distinction between saying and implicating has held a central place in pragmatics since Grice, with 'what is said' usually equated with the (context-relative) semantic content of an utterance. In relevance theory, a distinction is made between two kinds of communicated assumptions, explicatures and implicatures, with explicatures defined as pragmatic developments of encoded linguistic meaning. It is argued here that, given a context-free semantics for linguistic expression types, together with the explicature/implicature distinction, there is no role for any minimally propositional notion of 'what is said'.

1 Introduction

It is widely accepted that there is a distinction to be made between the explicit content and the implicit import of an utterance. There is much less agreement about the precise nature of this distinction, how it is to be drawn, and whether any such two-way distinction can do justice to the levels and kinds of meaning involved in utterance interpretation. Grice's distinction between what is said by an utterance and what is implicated is probably the best known instantiation of the explicit/implicit distinction. His distinction, along with many of its post-Gricean heirs, is closely entwined with another distinction: that between semantics and pragmatics. Indeed, on some construals they are seen as essentially one and the same; 'what is said' is equated with the truth-conditional content of the utterance which in turn is equated with (context-relative) sentence meaning, leaving implicatures (conventional and conversational) as the sole domain of pragmatics.

^{*} Many thanks to Corinne Iten, Deirdre Wilson and Vladimir Zegarac for their thoughtful comments on a draft of this paper and their ongoing support and encouragement. A slightly revised version of the paper will appear in L. Horn and G. Ward (eds.) 2002. *Handbook of Pragmatics*. Blackwell.

This is emphatically not how the explicit/implicit distinction is drawn within the relevance-theoretic account of utterance understanding, a basic difference being that pragmatic processes play an essential role on both sides of the distinction. The relevancetheoretic account is rooted in a view of human cognitive architecture according to which linguistic semantics is the output of a modular linguistic decoding system and serves as input to a pragmatic processor. This 'semantic' representation (or logical form) is typically not fully propositional, so does not have a determinate truth condition, but consists of an incomplete conceptual representation which functions as a schema or template for the pragmatic construction of propositional forms. The pragmatic system is in the business of inferring the intended interpretation (or 'what has been communicated'); this is a set of propositional conceptual representations, some of which are developments of the linguistically provided template and others of which are not. The former are called 'explicatures', the latter 'implicatures'; this is the explicit/implicit distinction made within relevance theory and it plainly does not coincide with the distinction between linguistically decoded meaning ('semantics') and pragmatically inferred meaning.

The title of this paper notwithstanding, the terms 'saying' and 'what is said' do not feature in relevance theory, and the territory covered by the concept of explicature is significantly different from that of Grice's notion of 'what is said' and other semantically oriented notions of saying. Necessarily, these differences entail corresponding differences in those aspects of utterance meaning that are taken to fall under the concept of implicature in the two frameworks. Some of what are taken to be conversational implicatures on Gricean accounts, specifically certain cases of 'generalized' conversational implicatures, turn out to be pragmatic aspects of explicature.¹

The structure of the paper is as follows. After a brief general discussion of the relevance-theoretic distinction between explicature and implicature, I look at some of the different ways in which pragmatic inference may contribute to explicated assumptions (explicatures), at the conception of implicated assumptions (implicatures) that follows

¹ I leave aside here any discussion of the Gricean notion of 'conventional implicature', a category which simply does not arise within Relevance theory and which is currently seen, across various pragmatic frameworks, to be in need of radical reworking. For instance, relevance theorists have reanalysed most of the linguistic devices allegedly generating conventional implicatures as encoding procedural constraints on the inferential processes involved in deriving conversational implicatures (see, for instance, Blakemore (1987), (2000), (forthcoming), and Iten (2000)). Bach (1999), on the other hand, sees certain of these devices as contributing to 'what is said', where this is construed as an entirely semantic notion (see discussion of his concept of 'what is said' in section 7 of this paper). Note that, on both of these very different accounts, the phenomenon at issue is treated as falling on the semantic side of a semantics/pragmatics distinction.

from this, and at the nature of the relevance-driven processes of inferring these assumptions. The consequence mentioned above, that certain Gricean implicatures are reanalysed as explicatures, is considered in section 6. Lastly, I compare the explicature/implicature distinction with some of the other ways of construing an explicit/implicit distinction, most of which are geared towards preserving a conception of 'what is said' which is as close as possible to the semantics of the linguistic expression used.

2 Decoding/inferring and the explicature/implicature distinction

There are two distinctions which are central to the relevance-based account of utterance understanding. The first is the distinction between linguistically decoded meaning and pragmatically inferred meaning. This can be viewed as a semantics/pragmatics distinction though it is plainly not the only way, nor the most common way, of making such a distinction (for surveys of different ways of drawing the semantics/pragmatics distinction, see Bach (1997) and Carston (1999)). Here 'semantics' is a mapping between elements of linguistic form and certain kinds of cognitive information, rather than between linguistic expressions and truth conditions or real world referents. It is type- rather than tokenbased in that it is context-free and invariant, entirely determined by principles and rules internal to the linguistic system. The 'semantic' representation so generated provides input to the pragmatic processor which is triggered by ostensive stimuli generally, that is, stimuli that are construed as indicating a communicative intention on the part of the agent who produced them. This system has wide access to extra-linguistic 'contextual' information, including information gained from any perceptual inlet and from memory stores of various sorts. While the linguistic processor, or parser, employs a code (a natural language), the pragmatic processor does not. It is said to be 'inferential' in that its deliverances (the set of assumptions that are derived as those communicated) are not determined by fixed rules, but merely guided and constrained by a single comprehension strategy (the relevance-theoretic procedure, as discussed in Wilson & Sperber (2000)), so its output in any given instance is dependent on such variable factors as the different degrees of accessibility of candidate interpretations.²

² The term 'inference' is used in a range of different ways within cognitive science. For instance, both Marr (1982) and Fodor (1983) speak of the basic processes of perceiving a three-dimensional object (from a proximal stimulus of varying light intensities) as inferential. On this usage, linguistic decoding (that is, recognising a linguistic logical form from a particular acoustic stimulus) is also inferential. I take it that the crucial difference between this use of 'inference' and that of Sperber & Wilson is the context-insensitivity of the decoding type 'inference' processes and the context-sensitivity of the 'real' inference processes typical

The second distinction, the focal one for this paper, concerns the two kinds of assumption communicated by a speaker: 'explicature' and 'implicature'. Sperber & Wilson's (1986/95, 182) definitions are as follows:

(I) An assumption communicated by an utterance U is *explicit* [hence an 'explicature'] if and only if it is a development of a logical form encoded by U.

[Note: in cases of ambiguity, a surface form encodes more than one logical form, hence the use of the indefinite here, '*a* logical form encoded by U'.]

(II) An assumption communicated by U which is not explicit is implicit [hence an 'implicature'].

Let's consider a simple example:

- (1) X: How is Mary feeling after her first year at university?
 - Y: She didn't get enough units and can't continue.

Suppose that, in the particular context, X takes Y to have communicated the following assumptions:

- (2) a. $Mary_x$ did not pass enough university course units to qualify for admission to second year study and, as aresult, $Mary_x$ cannot continue with university study.
 - b. $MARY_X$ is not feeling very happy.

[Note: small caps are used throughout to distinguish propositions/ assumptions/thoughts from natural language sentences; the subscripted x indicates that a particular referent has been assigned to the name 'Mary'.]

On the basis of the definitions above, it seems relatively clear that (2a) is an explicature of Y's utterance and (2b) is an implicature. The decoded logical form of Y's utterance,

of pragmatic interpretation. The difference between the two processes is not, however, to be construed as entailing a difference between a dedicated mechanism and a general reasoning system, on the one hand, nor as entailing a difference between an unconscious sub-personal system and a conscious personal system, on the other hand. For helpful discussion of these and other usages of 'inference', see Recanati (forthcoming b).

still more or less visible in (2a), has been taken as a template for the development of a propositional form, while (2b) is an independent assumption, inferred as a whole from (2a) and a further premise concerning the relation between Mary's recent failure at university and her current state of mind.

The representation in (2a) is much more specific and elaborated than the encoded meaning of the sentence type 'She didn't get enough units and can't continue', which could be developed in any number of quite different ways, depending on context. A referent has been assigned to the pronoun (a concept of a particular person represented here as $MARY_x$), 'get' and 'units' have been assigned more specific meanings than those they encode, additional conceptual constituents have been supplied as arguments of 'enough' and 'continue', and a cause-consequence connection has been taken to hold between the conjuncts. These are all the result of pragmatic processes, context-dependent and relevance-governed. I separate out some of these different processes and consider them in more individual detail in the next section.

It is clear from the definitions above that the conceptual content of an implicature is supplied wholly by pragmatic inference³ while the conceptual content of an explicature is an amalgam of decoded linguistic meaning and pragmatically inferred meaning. It follows that different token explicatures which have the same propositional content may vary with regard to the relative contributions made by each of these processes. The greater the element of encoding, the more explicit the explicature. Consider the linguistic expressions in (3), each of which could be uttered in a different context to communicate one and the same explicature:

- (3) a. Mary Jones put the book by Chomsky on the top shelf in her study.
 - b. Mary put the book on the top shelf.
 - c. She put it there.
 - d. On the top shelf.

Clearly, (3c) and (3d) leave a good deal more to pragmatic inference than (3b), which in turn is less explicit than (3a). It follows from the relevance-driven view of pragmatic inference that the linguistically encoded element of an utterance is not generally geared towards achieving as high a degree of explicitness as possible. Taking account of the

³ The point is that decoded linguistic meaning does not contribute conceptual constituents to the content of implicatures, not that it never plays a role in shaping that content. According to the relevance-theoretic view, there are linguistic expressions, including so-called discourse connectives such as 'but', 'so', 'after all', that encode procedural meaning which constrains the derivation of implicated premises and conclusions. See footnote 1 above and the references given there.

addressee's immediately accessible assumptions and the inferences he can readily draw, the speaker should encode just what is necessary to ensure that the pragmatic processor arrives as effortlessly as possible at the intended meaning. So, in many contexts, an utterance of the highly indexical sentence in (3c), or of the subsentential expression in (3d), will be more appropriate than either of the more elaborated ones.

The idea that linguistically encoded meaning is standardly highly underdetermining of the proposition explicitly expressed by an utterance distinguishes this view from Gricean conceptions of 'what is said' by an utterance.⁴ In fact, neither of the distinctions discussed in this section meshes with the traditional saying/implicating distinction: on the one hand, the meaning encoded in linguistic expression types falls short of 'what is said' and, on the other hand, the content of explicatures goes well beyond 'what is said', requiring for its recovery the exercise of pragmatic principles, just as much as implicatures do.⁵ 'What is said', then, falls somewhere between the two. Whether or not such an intermediate representational level is necessary is considered in section 7.

3 Pragmatic aspects of explicature **3.1** Disambiguation and saturation

⁴ Elsewhere I have discussed in detail the 'linguistic underdeterminacy' thesis, that is, the position that the linguistic form employed by a speaker inevitably underdetermines the proposition she explicitly communicates. I have tried to make a case for the view that this is not just a matter of processing convenience (saving of speaker or hearer effort) but is, in fact, an essential property of natural language sentences, which do not encode full propositions but merely schemas for the construction of (truth-evaluable) propositional forms (see Carston (1998a) and (forthcoming)).

⁵ In the discussion of explicature in this paper, I am confining myself to those of its properties which are directly relevant when making comparisons with dominant construals of 'what is said' in the semantics and pragmatics literature. I, therefore, omit discussion of so-called 'higher level explicatures', where the pragmatic development of a logical form of the utterance includes its embedding in propositional attitude or speech act descriptions, such as 'The speaker believes that ...' or 'The speaker is asserting that ...'. For discussion, see Wilson & Sperber (1993) and Ifantidou (2001). This subclass of explicatures plays an important part in the analysis of the content explicitly communicated by non-declarative utterances, another matter which I cannot address in this paper. For instance, an utterance of a sentence in the imperative mood may communicate explicatures of the form 'It is desirable to the speaker that P', 'The speaker is requesting the hearer to P'. For discussion, see Wilson & Sperber (1988) and Clark (1991) and (1993). I also leave out any discussion of the given definition of 'explicature' which, while adequate for the cases to be discussed here, needs some revision to cover the full range of assumptions that fall on the explicit side of what is communicated. For discussion, see Carston (forthcoming, chapter 3).

I put these two apparently rather different processes together in a single section because, unlike the others to be discussed, there is general agreement that they play a crucial role in determining the explicit content of an utterance. In his brief discussion of 'what is said' by an utterance of the sentence 'He is in the grip of a vice', Grice (1975, 44) explicitly mentions the need for a choice between the two senses of the phrase 'in the grip of a vice' and for the identification of the referent of 'he'. In the case of sense selection (or disambiguation), the candidates are supplied by the linguistic system itself. In the case of reference assignment, the paradigm case of saturation, the candidates are not linguistically given but, rather, the linguistic element used, for instance, a pronoun, indicates that an appropriate contextual value is to be found, that is, that a given position in the logical form is to be saturated (see Recanati (1993) and (2001) on this notion of saturation).

Saturation is generally thought to be a much more widely manifest process than simply finding values for overt indexicals. Arguably, it is involved in those pragmatic developments of the logical forms of the following utterances which provide answers to the bracketed questions:

(4) a.	Paracetamol is better.	[than what?]
b.	It's the same.	[as what?]
с.	He is too young.	[for what?]
d.	It's hot enough.	[for what?]
e.	I like Sally's shoes.	[shoes in what relation to Sally?]

Although there is no overt pronounced constituent in these sentences which indicates the need for contextual instantiation, the idea is that there is a covert indexical, or implicit argument, present in their logical form which marks the saturation requirement. The lexical items 'better', 'same', 'too', 'enough' and the genitive structure in 'Sally's shoes' carry these imperceptible elements with them as part of their syntax.

While saturation (or linguistically mandated completion) is widely recognised across different frameworks as necessary in deriving the explicit content of an utterance, there is some disagreement about whether or not pragmatic principles (or conversational maxims) play a role in these processes. Grice seems to have thought not, seeing his maxims (truthfulness, informativeness, relevance, etc) as coming into play only subsequently, in an assessment of the independently derived 'what is said', and so responsible just for the derivation of conversational implicatures, those assumptions required in order to preserve the presumption that the speaker has observed the maxims, or at least the Cooperative Principle. A similar view is held by many present day truth-conditional semanticists. For instance, Segal (1994, 112) and Larson & Segal (1995,

chapter 1) assume there is a specific performance system for identifying the referents of indexicals and assigning them to the relevant position in logical form. This system is located between the parser (which delivers structured linguistic meaning) and what they call 'a pragmatics system', which, as in Grice's conception, assesses the conversational appropriateness of 'what is said' and derives implicatures.

The obvious question, then, is 'what guides the highly context-sensitive processes of disambiguation, reference assignment and other kinds of saturation; that is, how does the system "know" when it has got the right contextual value?' The assumption seems to be that there is some sort of rule or procedure for matching the linguistic element with a contextual parameter and that the speaker's communicative intention need not be considered (hence that pragmatic maxims or principles are not involved in the process). What this procedure could be in cases such as those in (4) is a complete mystery. What it is thought to be in the case of overt pronouns and demonstratives is clear enough, but it simply doesn't work. The idea is that there is a set of objective contextual parameters which accompanies an utterance and each indexical element encodes a rule which ensures that it maps onto one of these. These contextual values include the speaker, the hearer, the time of utterance, the place of utterance, and certain designated objects in the perceptual environment. This idea seems to work well enough in the case of the first person pronoun 'I' which plausibly encodes a rule specifying that its value is the current speaker. However, consider the two occurrences of the demonstrative pronoun 'it' in the second utterance in the following exchange:

(5) A:Have you heard Alfred Brendel's version of 'The Moonlight Sonata'?B:Yes. It made me realise I should never try to play it.

It's not difficult to see what B intends each of her uses of 'it' to refer to, but the point is that the value of 'it' is not assigned on the basis of objective features of the context but is dependent on what the speaker means (that is, on her communicative intention) and it is only through the employment of some pragmatic principle or other that the addressee is able to find the right value.

We can, of course, stipulate that 'it' (or 'this' or 'that') encodes a rule to the effect that it refers to what the speaker intends to refer to, and we can add to the set of contextual parameters a sequence of 'speaker's intended referents', arranged in such a way that each demonstrative maps onto a referent as required. But, as Recanati (forthcoming b) says, while that may be fine from a formal point of view, 'philosophically it is clear that one is cheating'. To proceed in this formal way is to avoid dealing with an undeniable cognitive reality, which is that the assignment of referents to the vast range of linguistic referring expressions relies on a wide notion of context and requires the intervention of pragmatic principles or strategies which are geared to the recovery of the speaker's intended meaning.

As for disambiguation, it is generally ignored by the advocates of a non-pragmatic means of deriving the context-sensitive aspects of what is said. The evidence, again, though, is that generally this cannot be achieved independently of considerations of speaker intentions, hence of pragmatic principles or maxims (see, for instance, Recanati (1995), Asher & Lascarides (1995), Wilson & Matsui (1998, section 4)). The relevance-theoretic position is that, given the decoded linguistic meaning, all aspects of utterance comprehension, including disambiguation and reference assignment, depend on the strategy of considering interpretive hypotheses in order of their accessibility and stopping when the criterion of optimal relevance is satisfied.

3.2 Free enrichment

There is a wide range of cases where it seems that pragmatics contributes to the proposition explicitly communicated by an utterance although there is no linguistic element indicating that a contextual value is required. That is, there is no overt indexical, nor is there any compelling reason to suppose there is a covert element in the logical form of the utterance, and yet a contextually supplied constituent appears in the explicature. Consider utterances of the following sentences, whose interpretation, in many contexts, would include the bracketed element which is provided on pragmatic grounds alone.

(6)	a	The baby has a temperature.	[A HIGH TEMPERATURE]
	b.	It's going to take time for these wounds to heal.	[CONSIDERABLE TIME]
	c.	I've had a shower.	[TODAY]
	d.	It's snowing.	[IN LOCATION X]
	e.	Mary gave John a pen and he wrote down her address.	[AND THEN]
		[WITH T	HE PEN MARY GAVE HIM]
	f.	Sam left Jane and she became very depressed.	[AND AS A RESULT]

Given disambiguation and saturation, each of these would, arguably, express a proposition (hence be truth-evaluable) without the addition of the bracketed constituent, but in most contexts that minimal proposition would not be communicated (speaker meant). One class of cases, represented here by (6a) and (6b), would express a trivial truth (every person has some temperature or other, any process takes place over some time span or other), and it is easy to set up cases of obvious falsehoods (the negations

of (6a) and (6b), for instance). Others, such as (6c) and (6d), are so vague and general as to be very seldom what a speaker would intend to communicate (they would not yield sufficient cognitive effects). Across most contexts in which these sentences might be uttered, obvious implicatures of the utterance would depend on the enriched proposition; for instance, in (6a), the implicated proposition that a doctor should be called; in (6c), the implicature that the speaker doesn't need to take a shower at that time. The relevance-theoretic position, then, is that it is the enriched propositions that are communicated as explicatures, and that the uninformative, irrelevant, and sometimes truistic or patently false minimal propositions play no role in the process of utterance understanding, which is geared to the recovery of the propositional forms communicated by the utterance.

Let's briefly consider how the process of free enrichment is viewed outside relevance theory. While the issue with disambiguation and saturation processes is how they are brought about (whether with or without pragmatic principles geared to uncovering the speaker's meaning), the issue with free enrichment is more fundamental. It is whether or not there really is any such process, so whether or not there are such things as constituents of the explicit content of the utterance which do not occur in any shape or form in the linguistic representation. Philosophers of language who insist on the psychological reality of the process include Recanati (1993, 2001) and Bach (1994, 2000). However, a current school of semantic thinking, represented by Stanley (2000), Stanley & Szabo (2000) and Taylor (2001), holds that if a contextually supplied constituent appears in the explicit content of an utterance then it must have been articulated in the logical form of the utterance, whether by an overt indexical or by a phonologically unrealised element. In other words, the only pragmatic processes at work at this level are disambiguation and saturation, and any other process of pragmatic inference involved in understanding an utterance results in implicated propositions.⁶

Now, these deniers of free enrichment have their reasons. Their focus is on natural language semantics, which they take to be truth-conditional and compositional, so it is not too surprising that they would not want the meaning of a sentence to include elements that receive no mandate from the sentence itself. Relevance theorists have no quarrel with the view that pragmatically supplied constituents of explicature are not a matter for natural language semantics; in fact, it follows from the way in which the distinction

⁶ Stanley (2000) and Stanley & Szabo (2000) present some interesting arguments against the existence of unarticulated constituents, hence against the need for a process of free enrichment. In different ways, Bach (2000), Recanati (forthcoming a) and Carston (2000) address Stanley's and Stanley & Szabo's arguments and defend free enrichment as a crucial pragmatic process in arriving at the proposition explicitly communicated by an utterance. In the next round of this far from resolved dispute, Stanley (forthcoming) sets out to counter the counter-arguments.

between linguistic semantics and pragmatics is drawn in the theory, as discussed in section 2 above. Again, the underlying issue is whether there is any psychologically real level of representation between encoded linguistic semantics and explicature, a level of minimal propositionality at which saturation processes alone have taken place. This issue is picked up again in the last section.

Neo-Gricean pragmatists (such as Larry Horn and Stephen Levinson) treat as (generalized) conversational implicatures certain aspects of utterance meaning which, for relevance theorists, are pragmatic components of explicatures derived by free enrichment. These include the enriched conjunct relations in examples (6e) and (6f) above and are discussed further in section 6. So, like the semanticists mentioned above, these neo-Gricean pragmatists deny the existence of a process of free enrichment of logical form. We see here two manifestations, one coming from semantics, the other from pragmatics, of the prevailing tenacious conviction that natural language semantics must be truth-conditional, hence minimally propositional, so that any pragmatic process other than disambiguation and saturation takes us into the realm of implicature.

However, there is an outstanding problem for all of these 'saturation theorists', as we could call them, which is the existence of subsentential utterances; that is, the fact that single words or phrases can be used to express a proposition (or make an assertion). This provides perhaps the most compelling evidence for a process of free enrichment.

Of course, many apparently subsentential utterances are cases of syntactic ellipsis, so that, although phonologically nonsentential, they are, in fact, syntactically fully sentential.

- (7) X: Who ate the cake? Y: Sue.
- (8) X: Mary will come to the party.Y: Bill won't.

It seems clear enough that Y's utterance in (7) is an ellipsed version of 'Sue ate the cake' and in (8) of 'Bill won't come to the party'. So, in these cases, arguably, the logical form of the utterance is fully sentential, with a bunch of empty syntactic categories in the phonologically unrealised positions, and recovery of the missing material is either a grammatical matter or, perhaps, a special case of the pragmatic process of saturation.

But there are many cases that are not elliptical (as discussed by Stainton (1994), (1997), (forthcoming)):

(9)	Michael's Dad.	[uttered while indicating to come into the room]	the addressee a man who has just
(10)	Only 22,000 miles.	Like new.	[uttered by a used car salesman]
(11)	Great haircut.	[uttered upon encountering while]	g a friend one hasn't seen for a
(12)	Water.	[uttered by a desperately water-vendor]	thirsty man staggering toward a

These have the following characteristics: they are (or, at least, can be) discourse-initial utterances, which is not a possibility for elliptical cases, there may be a degree of indeterminacy about the propositional content of the assertion, again not a property of ellipses, and they are *bona fide* assertions, hence explicitly communicated, as evidenced by the possibility of telling a lie with them (consider this possibility, in particular, in the case of the car salesman in (10)). Note that there does not seem to be an implicature option here, since any attempt to treat the recovered meaning as an implicature would entail that nothing has been said, and so would preclude the (Gricean) derivation process from getting off the ground.

The significance of these cases is that, again, they show that, for many quite ordinary utterances, the pragmatic processes of disambiguation and saturation are not sufficient to derive the proposition explicitly communicated; rather, a pragmatic process of recovering conceptual material, without any linguistic mandate, is required.⁷ The minimal linguistic form chosen by the speaker provides all the evidence necessary for the addressee to infer the speaker's informative intention and causes him no gratuitous processing effort. Stainton (1994) gives a relevance-theoretic account of the interpretation of an example like (9), according to which a speaker who utters 'Michael's Dad', is employing a noun phrase which occurs without any further linguistic structure (specifying

⁷ Stanley (2000) disputes the position that there are nonsentential utterances which have propositional content; he argues that many cases, such as (9), are really elliptical and so, underlyingly, have a full sentential structure, and others, like (12), are not genuine linguistic speech acts at all, but fall in with taps on the shoulder, winks and other bodily gestures of a communicative sort, all of which are to be studied within a non-linguistic theory of general human reasoning. Stainton (forthcoming) takes issue with Stanley and defends the existence of non-sentential assertion; Clapp (forthcoming) also supports the existence of genuine non-sentential utterances and shows that these present a pressing problem for what he calls the 'standard model of truth-conditional interpretation'.

slots to be contextually filled), and is thereby asserting the proposition THE MAN NEAR THE DOOR IS MICHAEL'S DAD.

3.3 Ad hoc concept construction

Free enrichment is a process which involves the addition of conceptual material to the decoded logical form (Bach's (1994) alternative term for the process, 'expansion', captures this); for example, 'it's snowing [IN ABERDEEN]'. There are other cases where it seems that a better way of construing what is going on is that a lexical concept appearing in the logical form is pragmatically adjusted, so that the concept understood as communicated by the particular occurrence of the lexical item is different from, and replaces, the concept it encodes; it is narrower, looser or some combination of the two, so that its denotation merely overlaps with the denotation of the lexical concept from which it was derived. Consider a particular utterance of the sentence in (13a) (an attested example, which was produced by a witness at the trial of O.J. Simpson):

- (13) a. He was upset but he wasn't upset.
 - b. SIMPSON WAS UPSET* BUT SIMPSON WASN'T UPSET**

As far as its linguistically supplied information goes, this is a contradiction, but it was not intended as, nor understood as, a contradiction. The two instances of the word 'upset' were interpreted as communicating two different concepts of upsetness (as indicated in (13b) by the asterisks), at least one, but most likely both, involving a pragmatic narrowing of the encoded lexical concept UPSET; the second of the two concepts carries certain implications (e.g. that he was in a murdering state of mind) that the first one does not, implications whose applicability to Simpson, the witness is denying.

There are a vast number of other cases where any one of a wide range of related concepts might be communicated by a single lexical item; for instance, think of all the different kinds, degrees and qualities of feeling that can be communicated by each of 'tired', 'anxious', 'frightened', 'depressed', 'well', 'happy', 'satisfied', 'sweet', etc. In one context, an utterance of 'I'm happy' could communicate that the speaker feels herself to be in a steady state of low-key well-being, in another that she is experiencing a moment of intense joy, in yet another that she is satisfied with the outcome of some negotiation, and so on. The general concept HAPPY encoded by the lexical item 'happy' gives access to an indefinite number of more specific concepts, recoverable in particular contexts by relevance-driven inference.

The examples considered so far have involved a narrowing or strengthening of the encoded concept, but there are others that seem to require some degree of widening or loosening (as well as narrowing). Consider what is most likely communicated by the highlighted lexical item in utterances of the following sentences:

- (14) a. There is a **rectangle** of lawn at the back.
 - b. This steak is **raw**.
 - c. On Classic FM, we play **continuous** classics.
 - d. Mary is a **bulldozer**.

The area of lawn referred to in (14a) is very unlikely to be truly a rectangle (with four right angles, opposite sides equal in length); rather it is approximately rectangular, and this holds for many other uses of geometrical terms: a 'round' lake, a 'square' cake, a 'triangular' face, etc. In (14b), the steak, perhaps served in a restaurant, is not really raw but is much less cooked than the speaker wishes; in (14c), the classical music played on the radio station is interspersed with advertisements and other announcements, so not strictly 'continuous', and so on. In each case, a logical or defining feature of the lexically encoded concept is dropped in the process of arriving at the intended interpretation: EQUAL SIDES in the case of 'rectangle', UNCOOKED for 'raw', UNINTERRUPTED for 'continuous', MACHINERY for 'bulldozer'.⁸

What all these examples indicate is that there is a one-to-many relation between lexical items and the concepts they can be used to communicate. This is to be expected on the relevance-theoretic view of communication which entails that the linguistic expression used need only provide the addressee with skeletal evidence of the speaker's intended meaning, since the pragmatic processor is independently capable of forming quite rich hypotheses about communicator's intentions on the basis of contextual clues alone (for discussion of this point, see Carston (1996), Sperber & Wilson (1997)).

While there are open disagreements and controversies of one sort or another in the literature concerning the pragmatic processes discussed in the previous sections, there are none regarding the concept adjustment idea. This is not because of its uncontentious nature but, rather, because it is a new player in pragmatics and has not yet been addressed by Gricean pragmatists or by truth-conditional semanticists. Without a doubt,

⁸ For further discussion of the role of ad hoc concept construction within the relevance-theoretic view of utterance understanding, see Carston (1997) and (forthcoming, chapter 6), Sperber & Wilson (1997), Wilson & Sperber (2000) and Breheny (1999) and (forthcoming). For his related notion of a pragmatic process of 'transfer' which contributes to the proposition explicitly communicated, see Recanati (1993) and (1995).

though, such a process, like free enrichment, takes us well away from encoded linguistic meaning and has no linguistic mandate, so it cannot be construed as playing any part in the content of 'what is said' where that is required to closely reflect (context-relative) truth-conditional linguistic meaning. Assuming there are processes of pragmatic concept construction, they clearly belong in an account of linguistic communication rather than in a theory of natural language semantics. The issue, yet again, is whether there is a representational level which can do the double duty that seems to be required of a minimalist concept of 'what is said': to be both the explicitly communicated content of an utterance and the semantics of a natural language sentence.

4 Conversational implicatures4.1 Intended contextual assumptions and intended contextual implications

On the relevance-theoretic view, implicatures come in two sorts: implicated premises and implicated conclusions. Implicated premises are a subset of the contextual assumptions used in processing the utterance and implicated conclusions are a subset of its contextual implications. What distinguishes these subsets from other contextual assumptions and implications is that they are communicated (speaker meant), hence part of the intended interpretation of the utterance. Consider B's response to A:

- (15) A:Let's go to a movie. I've heard 'Sense and Sensibility' is good. Are you interested in seeing it?
 - B: Costume dramas are usually boring.

Understanding B's utterance requires deriving the following implicatures:

- (16) a. 'Sense and Sensibility' is a costume drama.
 - b. 'SENSE AND SENSIBILITY' IS LIKELY TO BE BORING.
 - c. B isn't very interested in seeing 'Sense and Sensibility'.

Once (16a) is derived, the other two follow fairly straightforwardly: (16b) follows deductively from the explicature of B's utterance and (16a); (16c) follows deductively from (16b) and from a further, easily accessible, assumption that people do not generally want to go to movies they expect to be boring. These are implicated conclusions. But what about (16a), an implicated premise, on which all this hinges? A assumes that B's response will meet his expectation of relevance, and the most obvious way it could do

this is by supplying an answer to A's previous question. The presumption of optimal relevance licenses him to use the most accessible of the assumptions made available by the concepts encoded in B's response in interpreting the utterance. He may already know that 'Sense and Sensibility' is a costume drama, but even if he doesn't, constructing this assumption will be relatively low cost, since it follows a well-worn comprehension route and is the most direct one for finding an answer to his yes/no question. Note that none of the inferred assumptions in (16) follows deductively from the basic explicature of B's utterance, though (16b) and (16c) are derived deductively (by modus ponens) once other particular assumptions have been accessed. So the overall picture is one of a non-demonstrative inference process, driven by the search for an optimally relevant interpretation. (The processes involved in deriving implicatures (and explicatures) are considered in a little more detail in the next section.)

As far as I can see, there is no disagreement here between relevance-theorists and Griceans; both those communicated assumptions described here as implicated premises and those described as implicated conclusions would qualify as (particularised) implicatures for Grice.⁹ Where disagreement does arise is over certain cases treated by relevance-theorists as instances of pragmatic inference contributing to explicature and by Griceans as (generalized) implicatures. The differences in theoretical stance and basic aim that underlie these divergent predictions are discussed in sections 6 and 7. These differences are also reflected in another classificatory divergence which is discussed in the next section.

4.2 Entailments and implicatures

Consider the following example (minimally adapted from Wilson & Sperber (1986)):

- (17) X: Does John drink slivovitz?
 - Y: He doesn't drink any alcohol.
 - a. SLIVOVITZ IS ALCOHOL.
 - b. JOHN DOESN'T DRINK SLIVOVITZ.
 - c. WHISKY IS ALCOHOL.

⁹ Not everyone would agree. I have heard the objection that since the alleged implicated conclusions follow deductively from a given set of premises Grice would not, in fact, treat them as implicatures. I can find no clear evidence in Grice's work that he would take this stance; the implicated conclusions meet his cancellability criterion for implicatures just as readily as the implicated premises and some of his own examples of implicature would be cases of conclusions rather than premises if translated into a relevance-theoretic account. For more detailed discussion of this issue, see Carston (forthcoming, chapter 3).

d. John doesn't drink whisky.

They present all of (a)-(d) as implicatures of Y's utterance, with (a) and (c) as implicated premises and (b) and (d) as implicated conclusions. The (a)/(b) pair are strongly communicated in that Y must recover them in order to understand the utterance; the (c)/(d) pair are communicated less strongly since assumptions with this specific content need not be recovered. I will not pursue the issue of degrees of strength of implicature here (see Sperber & Wilson (1986/95, chapter 4)). It has been pointed out by Vicente (1998) that both (b) and (d) are entailed by Y's utterance of 'He doesn't drink alcohol' and, on this basis, she claims they cannot be implicatures. However, according to the relevance-theoretic view, since they are communicated by the utterance, they are either explicatures or implicatures, and they cannot be explicatures because the utterance does not encode a logical form from which they could be developed. This prediction is backed up by the fact that the example runs exactly parallel to the following one, where there is no dispute about (a)-(d) being implicatures of Y's utterance:

- (18) X: Have you read Susan's book?
 - Y: I don't read autobiographies.
 - a. SUSAN'S BOOK IS AN AUTOBIOGRAPHY.
 - b. Y HASN'T READ SUSAN'S BOOK.
 - c. DIRK BOGARDE'S BOOKS ARE AUTOBIOGRAPHICAL.
 - d. Y HASN'T READ DIRK BOGARDE'S BOOKS.

The only difference between the two cases is that there happens to be an entailment relation between the proposition expressed and the (alleged) implicatures in (17b) and (17d), but no such entailment relation in (18). The derivation process in both cases is the same: in order to establish the relevance of Y's utterance as an answer to his question, X has to access the premise in (a) in each case, from which the conclusion in (b), which answers his question, follows. There is not even, necessarily, any difference in the accessibility of the premises in the two cases, since X may or may not already have them stored as part of his general knowledge. If he does, he can retrieve them ready-made; if he doesn't, he has to construct the premise in accordance with a standard procedure (employed also in (15)) above. In the (c)/(d) pairs in each case, there is only one possible processing route: the hearer looks into his encyclopaedic entry for alcohol, in the one case, and pulls out his assumption that whisky is alcohol, from which, given the explicature, the conclusion in (d) follows; in the other case, he consults his knowledge of

autobiographical books and retrieves the assumption about Dirk Bogarde's books, from which, given the explicature, the conclusion in (d) follows.

Consider now the following more controversial examples:

- (19) A:Have you invited any men to the dinner?B: I've invited my father.Implicature: B HAS INVITED AT LEAST ONE MAN.
- (20) A:I can't face lentil bake again tonight; I'm desperate for some meat.B: Good. I've just bought some pork.Implicature: B HAS JUST BOUGHT SOME MEAT.

These are, perhaps, more difficult to accept as cases of implicature, since it seems that the propositional form at issue in each case is not just entailed, but that the crucial shift is from a particular word to an intrinsic component of its meaning. However, following Fodor's (1981, 1998) powerful arguments against lexical decomposition (and any sort of internal structure to lexical concepts), the relevance-theoretic assumption is that lexical decoding is a straightforward mapping from monomorphemic words to atomic conceptual addresses and it is these simple, unstructured conceptual correlates of words that figure in the logical form. The conceptual address for FATHER gives access to a logical entry which specifies the inference to MAN and the conceptual address for PORK may have a logical entry that specifies the inference to MEAT (see Sperber & Wilson (1986/95, chapter 2)). In these cases, deriving the communicated assumptions that B has invited a man, in (19), and that B has bought some meat, in (20), is an entirely inferential process, in fact a straightforward logical inference, so the mechanism involved is essentially the same as that for any implicated conclusion.

This possibility of implicated entailments marks another difference between relevancetheoretic pragmatics and Gricean pragmatics. For Grice, entailments and implicatures were mutually exclusive, a view which remains widespread and which is a natural consequence of an account in which a notion of 'what is said' is doing double duty as semantics and explicitly communicated assumption (more on this in section 7). In my view, the concept of 'entailment' and the concept of 'implicature' belong to different explanatory levels, in fact different sorts of theory, the one a static semantic theory which captures knowledge of linguistic meaning, the other an account of the cognitive processes and representations involved in understanding utterances, so there is no reason at all why one and the same element of meaning should not fall into both categories.¹⁰

5 The derivation of explicatures and implicatures

According to relevance theory, the pragmatic inferential system employs the following strategy in order to arrive at the intended interpretation of the utterance:

(21) Consider interpretations (disambiguations, saturations, enrichments, implicatures, etc) in order of accessibility (i.e. follow a path of least effort in computing cognitive effects); stop when the expected level of relevance is achieved.

Interpretive hypotheses are made rapidly, on-line, and in parallel. The mechanism that mediates the inferences from logical form to communicated propositions is one of 'mutual parallel adjustment' of explicatures and implicatures, constrained by the comprehension strategy. The result should consist of (sets of) premises and conclusions making up a valid argument, as in the examples in the previous section, but the important point is that the reasoning need not progress step by step from premises to conclusions. For instance, a particular conclusion, or type of conclusion, might be expected on the basis of considerations of relevance and, via a backwards inference process, premises constructed (explicatures) which will make for a sound inference to the conclusion. The process may involve several backwards and forwards adjustments of content before an equilibrium is achieved which meets the system's current 'expectation' of relevance.

I'll illustrate the process with two examples; see Sperber & Wilson (1997) and, in particular, Wilson & Sperber (2000) for more detailed discussion and exemplification. In the first example, the speaker is responding to a question just asked by the hearer. In such cases, expectations of relevance are quite constrained and specific since the question has indicated the sort of information that would be relevant (would have cognitive effects).

(22) Ann: Shall we play tennis?

¹⁰ A consequence of the view that semantic entailments may be conversationally implicated is that one of the standard Gricean diagnostics for implicature, their cancellability (without contradiction), has to be abandoned. For a more extensive discussion of this issue and of the relation between entailments and implicatures, see Carston (forthcoming, chapter 3).

Bob: It's raining.	
Explicature:	IT'S RAINING AT LOCATION _{A/B}
Implicated premise:	IF IT'S RAINING IN LOCATION $_{\rm X}$ THEN IT'S NOT POSSIBLE
	TO PLAY TENNIS AT LOCATION _X
Implicated conclusion:	ANN AND BOB CAN'T PLAY TENNIS AT LOCATION $_{A/B}$

In understanding Bob's utterance, the basic explicature constructed from the logical form has to be enriched with a location constituent in order that the implicated conclusion is properly warranted. In this case, the location is anchored to the place of utterance but, as Bob's utterance of the same sentence in the different context in (23) shows, this is not always the case. The location constituent isn't given, but has to be inferred.

(23)	Context:	Bob and Ann live in London. Bob has just got off the phone from
		talking to his mother who lives in New Zealand.
	Ann:	How's the weather over there?
	Bob:	It's raining.

The following step by step description of the pragmatic processes involved in understanding Bob's utterance in (22) is closely modelled on analyses given in Wilson & Sperber (2000):

- (24) a. Bob has uttered sentence with logical form: [it is raining] (Output of linguistic decoding.)
 - b. Bob's utterance is optimally relevant to Ann. (*Presumption of relevance*.)
 - c. Bob's utterance will achieve relevance by providing an answer to Ann's question. (*Standard expectation created by the asking of a question*.)
 - d. If it is raining in a particular location then it is not likely that one can play tennis in that location. (*Highly accessible assumption which might help to answer Ann's question.*)
 - e. It is raining at Ann and Bob's location. (*First accessible enrichment of Bob's utterance which could combine with (d) to yield an answer to Ann's question.*)
 - f. Ann and Bob can't play tennis at their location. (*Inferred from* (d) and (e); satisfies (c); accepted as an implicature of Bob's utterance.)
 - g. They can't play tennis at their location because it is raining at their location. (*Further highly accessible implicature inferred from (d) and (e), which,*

together with (f) and various other (weaker) implicatures, such as (h), satisfies (b), the general expectation of relevance.)

h. Ann and Bob will have to find some other entertainment. They could go to the cinema, etc.

Bob has not given a direct yes/no answer to Ann's question; rather, Ann has to infer an implicated answer. The extra inferential effort required by Bob's indirect reply to Ann's question is offset by extra effects, specifically, the strongly communicated implicature in (24g) which supplies a reason for the negative answer to her question, and perhaps other weakly communicated implicatures, such as those in (24h).

Two caveats are in order here. First, I have given natural language paraphrases of explicatures and implicatures here which, as always, are merely suggestive of the actual conceptual representations involved. Second, as the comments above about the mutual adjustment process indicate, the steps in the derivation are not to be thought of as sequential. Interpretive hypotheses about aspects of explicit and implicit content are made on-line and adjusted in parallel until both the hearer's expectation of relevance is met and a final stable state of sound inference is achieved.

The second example, given in (25), is not a response to a question, so its relevance is not constrained in that particular way. Let's assume that its explicature is as given in(25b):

- (25) a. He plays well.
 - b. JOHN MURRAY PLAYS THE VIOLIN WELL.

As well as reference assignment, disambiguation of the verb 'play', and supplying of an object argument 'the violin', the concept encoded by 'well' may have to be modulated, in accordance with anticipated implicatures. Suppose the speaker is the director of the National Youth Orchestra and the addressee is Mrs Murray, mother of John, who is manifestly anxious that her son might gain a place in the orchestra. The director, who is aware of what is at stake, utters (25a) to Mrs Murray. Arguably, the explicature developed from the logical form of his utterance is not identical to (25b), but involves a pragmatic enrichment of the concept encoded by the word 'well', call it WELL*, so that an implicated conclusion that John has a good chance of getting a place in the orchestra is warranted:

(26) a. JOHN MURRAY PLAYS THE VIOLIN WELL*.

- b. SOMEONE WHO PLAYS THE VIOLIN WELL* HAS A GOOD CHANCE OF GETTING A PLACE IN THE ORCHESTRA.
- c. John Murray has a good chance of getting a place in the orchestra.

This conceptual narrowing or enrichment is a response to Mrs Murray's specific expectation of relevance (that the director's comment will communicate whether or not her son's playing is good enough for the orchestra); his utterance implicates that John is good enough and its explicature is adjusted so as to warrant that conclusion.

On the basis of just these two examples and the general comments about the relevancetheoretic derivation process, it is clear that we have here a considerable departure from the widely held Gricean view of how conversational implicatures are derived and, so, of their derivational relation to the explicit content of the utterance. According to that view, they are inferentially derived on the basis of the antecedently determined 'what is said' and arise as a response to a consideration of why the speaker is saying what she said, what she means (communicatively intends) by saying it.¹¹ A problem that this serial view raises for some current neo-Gricean approaches is discussed in the next section.

6 Explicature or 'generalized' conversational implicature?

Across a wide range of contexts, utterances of the sentences in (27a)-(29a) are likely to communicate the propositions given in (27b)-(29b) respectively:

(27)Bill drank a bottle of vodka and fell into a stupor. a. b. BILL DRANK A BOTTLE OF VODKA AND AS A RESULT HE FELL INTO A STUPOR. (28)Sam and Jane moved the piano. a. SAM AND JANE MOVED THE PIANO TOGETHER. b. If Pat finishes her thesis by September she'll be eligible for the job. (29)a. PAT WILL BE ELIGIBLE FOR THE JOB IF AND ONLY IF SHE FINISHES HER THESIS BY b. SEPTEMBER.

¹¹ Interestingly, Francois Recanati, who is a staunch defender of the view that linguistic meaning grossly underdetermines the explicature (or 'what is said', to use his terminology), takes an essentially Gricean position on the derivation of implicatures and hence on the derivational relation between explicatures and implicatures. In his view, the pragmatic processes that determine explicature are distinct from and precede (both logically and temporally) those that determine implicature; see Recanati (1995) and (forthcoming b).

According to the relevance-theoretic account, these assumptions are explicatures; they are derived by pragmatically enriching the linguistically encoded logical form. According to various neo-Gricean accounts they are (generalized) conversational implicatures (see Gazdar (1979), Horn (1984), (1989) and forthcoming, and Levinson (1987), (1995), (2000)). This might look like a mere terminological difference of no great import. After all, both camps are making a distinction between two kinds of communicated assumptions: explicatures and implicatures, in Relevance theory; generalized implicatures and particularized implicatures for the neo-Griceans. However, there are substantive differences here, as the rest of this section will demonstrate: (a) the two distinctions do not coincide, (b) the Griceans recognise a level of 'what is said' which is, very often at least, also communicated, and (c) the way in which the category of generalized conversational implicature works, as developed by Levinson (2000) in particular, is directly at odds with relevance theory.

Let's focus briefly on what is perhaps the best known and most intensively studied class of generalized conversational implicatures, those involving scalar inference. Across a wide range of contexts, utterances of the sentences in (30a) and (31a) are likely to communicate the propositions in (30b) and (31b) respectively. Intuitively at least, the process looks quite similar to that in (27)-(29), that is, there is an enrichment (or strengthening) of the encoded content:

- (30) a. I've eaten three of your Swiss chocolates.
 - b. I've eaten just three of your Swiss chocolates.
- (31) a. Some of the children were sick.
 - b. Some but not all of the children were sick.

These communicated assumptions are likely explicatures on a relevance-theoretic account, and one might suppose that the neo-Gricean account would treat them as generalized conversational implicatures. But this is not so; rather, on both Horn's and Levinson's accounts, 'what is said' by an utterance of (a) in each case is as given in (c) below and the (generalized) implicature is as given in (d), the two together constituting what is communicated:

- (30) c. I've eaten at least three of your Swiss chocolates.
- d. I HAVEN'T EATEN MORE THAN THREE OF YOUR SWISS CHOCOLATES.
- (31) C. AT LEAST SOME (PERHAPS ALL) OF THE CHILDREN WERE SICK.

d. NOT ALL OF THE CHILDREN WERE SICK.

This is just one of many possible illustrations of the first two points of difference between the accounts: the distinctions made in the two theories do not line up neatly and, in fact, the Griceans distinguish three kinds of communicated assumptions: what is said and the two kinds of implicature.¹²

The relevance-theoretic view that the pragmatically inferred temporal and causeconsequence connections communicated by many 'and'-conjunctions are elements of explicit content is supported by consideration of the following:

- (32) a. It's always the same at parties: either I get drunk and no-one will talk to me or no-one will talk to me and I get drunk.
 - b. If someone leaves a manhole uncovered and you break your leg, you can sue.

These examples come from Wilson & Sperber (1998, 3) and are based on ones developed by Cohen (1971) in his early argument against Grice's implicature analysis of the conjunction strengthenings. The point is that (32a) is not understood as expressing a redundant disjunction (P or P), as it should be if the inferred relations constitute implicatures (and, so, do not contribute to truth-conditional content), and the injunction to sue in (32b) is made on the condition that the leg-breaking was caused by the uncovered manhole.

Levinson (2000, chapter 3) acknowledges these sorts of examples and adds others, involving scalar inference, such as (33a) and (34a), which express the propositions given in (33b) and (34b) respectively:

¹² Both Horn and Levinson develop pragmatic systems which feature two distinct, in fact conflicting, pragmatic principles, one of which accounts for the cases in (27)-(29), the other for the scalar cases. See Horn (1984), (1989) and Levinson (1987), (1995), (2000), and, for some critical discussion of these approaches, Carston (1998b). There has been some acceptance in the neo-Gricean ranks of the role of pragmatic enrichment in determining 'what is said' (or truth-conditional content): for instance, Horn (1992), (1996) supports the enrichment analysis of the cardinal number cases, from an encoded 'at least' semantics to an explicitly communicated 'exactly' meaning, in many contexts, but does not believe it extends to the 'inexact' scalar operators, such as partitive 'some'. Geurts (1998), who is neither a neo-Gricean nor a relevance-theorist, argues that all scalars can have a 'bilateral' truth-conditional content in certain contexts. These developments shove a strong wedge between the classic equation of linguistic semantics with 'what is said' (the truth-conditional content of the utterance).

- (33) a. If each side in the soccer game got three goals, then the game was a draw.
 - b. IF EACH SIDE IN THE SOCCER GAME GOT *EXACTLY* THREE GOALS, THEN THE GAME WAS A DRAW
- (34) a. Because the police have recovered some of the gold, they will no doubt recover the lot.
 - b. BECAUSE THE POLICE HAVE RECOVERED SOME *BUT NOT ALL* OF THE GOLD, THEY WILL NO DOUBT RECOVER THE LOT.

He labels the constructions in these examples (conditionals, disjunctions, comparatives, etc.) 'intrusive constructions' because they have the property that 'the truth conditions of the whole expression depend on the implicatures of some of its constituent parts' (Levinson 2000, 213-214). The idea here seems to be that while the unembedded scalar-containing clause and the unembedded conjunction each conversationally implicates the pragmatically inferred meaning, when they are embedded in one of the 'intrusive constructions', that implicature gets composed into the semantics (the truth-conditional content) of the larger structure.

Even if we could come up with a satisfactory explanation, which I doubt, of why an element of meaning should shift its status from implicature (hence non-truth-conditional) to truth condition in this way, the following argument seems to indicate that this is just not the right way to be thinking about what is going on:

(35) Premise 1: If someone leaves a manhole cover off and you break your leg, you can sue them.
 Premise 2: Someone left a manhole cover off and Meg broke her leg.
 Conclusion: Meg can sue them.

I take it that this is an impeccably valid argument. But if Levinson's description of the phenomenon is correct, this should not be valid because the truth-conditional content of the antecedent of the conditional and the truth-conditional content of the second premise would not be the same, so the modus ponens deduction could not go through. On that sort of account, while the cause-consequence relation between the conjuncts is an element of what is said by the conditional (an 'intrusive' construction), it is merely an implicature of what is said by the unembedded conjunction in the second premise. On the explicature account, on the other hand, the validity of the argument is explained, since the conclusion follows deductively from the premises, both of them having been pragmatically enriched in the same way.

I'll finish this section with a brief mention of what Levinson calls 'Grice's circle', that is, the interdependence of what is said and what is implicated. On the basis of the examples just considered and a huge range of further cases, that he has amassed, of apparent 'pragmatic intrusion' into truth-conditional content, Levinson points out that there is a pressing problem for the standard Gricean story: the derivation of implicatures depends on a prior determination of 'what is said', but 'what is said' itself depends on implicatures (Levinson 2000, 186-187). This does seem to present an unworkable circularity if the standard Gricean assumptions are maintained: (a) any meaning derived via conversational principles constitutes an implicature, and (b) implicature calculation arises from the application of the maxims to 'the saying of what is said'. It is not, however, a problem for relevance theory, which makes neither of these assumptions. As the account of the derivation of explicatures and implicatures in the previous section showed, the pragmatic inferences involved in deriving explicatures and implicatures occur in parallel, the process being one of mutual adjustment until the propositional forms stabilise into an inferentially sound configuration which meets the expectation of relevance.

Levinson equates the saying/implicating circle with a semantic/pragmatic circle; that is, linguistic semantics is the input to pragmatic inference and semantics itself is dependent on, not autonomous from, pragmatic inference. But this is only so on the (widely held) assumption that 'what is said' (the truth-conditional content of a linguistic utterance) is 'the proper domain of a theory of *linguistic meaning*' (Levinson 2000, 186 [my highlighting]). In the next and last section, I look at various versions of such a semantically-oriented notion of 'what is said' and conclude that, given a (context-free) semantics for linguistic expression types, together with the concept of explicature, it is difficult to find any role for such a conception.

7 Semantics, 'what is said' and explicature

In Gricean theory, 'what is said' takes part in two slightly different distinctions: what is said versus what is implicated, and what is said versus what is meant (that is, what falls under the speaker's communicative intention). The second distinction seems to allow, more obviously than the first, for the possibility that 'what is said' is not meant, that it may not be part of what the speaker communicates but, rather, may be used as an instrument for the communication of something else. It is this possibility that certain truth-conditional semanticists call on when they invoke a 'pragmatic' (= implicature) account for cases like the following:

- (36) a. Everyone screamed.
 - b. The door is locked.
 - c. There is milk in the fridge.
 - d. I've had breakfast.

The idea is that what is said by an utterance of (36a) is that everyone (in existence) screamed, but what is meant, hence implicated, on any given occasion of use will almost always be something more specific (e.g. everyone watching such and such a horror movie screamed). Similarly, for (36b), what is said is that there is one and only one door (in the universe) and it is locked, but what is meant concerns the lockedness of some specific door in the context. In both cases, what is said directly reflects the (alleged) semantics of the construction and is so patently false that it cannot be part of what is meant. In both (36c) and (36d), a very weak general proposition is what is said: for (36c), that there is some presence of milk in the fridge (perhaps just a stale drip or two on a shelf); for (36d), that my life is not entirely breakfastless. Something much more specific is understood in context (for instance, that there is milk usable for coffee in the fridge; that I've had breakfast today) and, arguably, it is only these latter that are meant. See, for instance, Kripke (1977), Berg (forthcoming) and Borg (forthcoming), who explicitly take this position, and Larson & Segal (1995, 329), who assess its pros and cons for cases such as (36a) and (36b). In some discussions where this saying/meaning distinction is employed, there is a shift from talk of what the speaker says to 'what the sentence says', thereby making it quite clear that 'what is said' is a semantic notion to be kept distinct from what is communicated or meant.

Although Grice occasionally invoked this sort of distinction himself (for instance, in cases of mistaken definite descriptions, see Grice (1969, 142)), when pressed it seems that he really wanted his concept of 'what is said' to entail speaker meaning; that is, what

the speaker said was to be taken as (part of) what the speaker meant (communicated). Evidence for this comes from his discussion of cases of nonliteral language use, such as metaphor and irony. In such cases, it is clear that the proposition literally expressed is not something the speaker could possibly mean (e.g. 'You are the cream in my coffee') and, tellingly, Grice moves to the locution 'what the speaker made as if to say' (Grice 1975, 53). Furthermore, as Neale (1992) makes clear, the entailment from 'U said that p' to 'U meant that p' is an indispensable component of Grice's theory of (non-natural) meaning.

Grice seems to have wanted 'what is said' to be both speaker meant and semantic (or at least, as he put it, 'closely related to the conventional meaning of the words (the sentence) uttered ...' Grice (1975, 44)). But, as far as I can see, it's just not possible for these two properties to reside together. The problem is the (often considerable) gap between the meaning of the linguistic expression used and any of the propositions the speaker can be supposed to have meant/communicated. It's not just nonliteral uses that force a prizing apart of these two properties, as the perfectly literal uses in (36), and those in section 3 above, illustrate. On the relevance-theoretic account, this particular tension doesn't arise because the domain of the distinction at issue is that of communicated assumptions (i.e. speaker meaning). The only linguistic semantic notion in play is that of the schematic logical form which is the output of context-immune linguistic decoding, not something that could be deemed to be 'said' in any sense by the speaker.

Bach (1994) has an interesting response to this conflict in the Gricean conception. He develops a three-way distinction: what is said/impliciture/implicature. The impliciture/implicature distinction is very similar to the explicature/implicature distinction: it is a distinction between communicated propositions, 'implicitures' being the result of pragmatic processes of completion and expansion (i.e. enrichment) of the linguistic semantic content of the utterance. The third party in the distinction, 'what is said', is intended to be an entirely semantic notion, albeit not the standard truth-conditional one since it may be subpropositional (a 'propositional radical' Bach (1994, 127)), as in the case of 'Paracetamol is better' and the others in (4) above. He drops Grice's entailment from 'what is said' to 'what is meant' and imposes the strong requirement (which he takes to have been intended by Grice) of a 'close syntactic correlation', constituent for constituent, between the linguistic expression used and 'what is said' (Bach 1994, 142). This move comes at the cost of an extra interpretive level in the overall picture since he seems to acknowledge context-free linguistic type meaning (schematic 'logical form'), but this is distinct from 'what is said', which concerns the semantics of linguistic tokens (specific uses of an expression) and so is context-relative to a degree. Of course, economy considerations are overridden if the extra distinction can be shown to be

required by the facts of linguistic communication. So let's consider whether or not that is the case.

A crucial feature of the account concerns the role played by context in determining what is said. Bach (1997, 2001) assumes that there is a narrow semantic type of context quite distinct from the wide pragmatic context that comes into play in the derivation of implicitures (or explicatures) and implicatures. This general idea was aired in section 3.1 in a discussion of the process of demonstrative pronoun saturation where it was found to be unworkable. Bach is aware of that problem and insists that narrow context is restricted to just 'a short list of variables, such as the identity of the speaker and the hearer and the time and place of an utterance' (Bach 1997, 39), so that it applies only to 'pure' indexicals such as 'I', 'you', 'here', and 'now' which, it is claimed, can be contextually saturated without the need for consideration of the speaker's communicative intentions (hence without any guidance from pragmatic principles). In fact, the concept of a pure indexical is very dubious. With the possible exception of 'I', all the examples standardly cited are intention-dependent; for instance, 'here' could refer to the spot on which the speaker is standing, the room she is in, the building, the city, etc. Furthermore, as noted earlier, disambiguation cannot be achieved by narrow context alone, but has to involve speaker intentions, which precludes it from any role in determining a purely semantic 'what is said'.

So what we seem to end up with as 'what is said' is a set of propositions or propositional radicals with perhaps a few indexical values fixed but most not. What is this good for? According to Bach, it provides the linguistic basis for figuring out the implicitures (explicatures) and implicatures of the utterance (that is, what is communicated). But that's what decoded linguistic expression type meaning does, and, in fact, the two differ only in that 'what is said' may have the odd referent filled in. Both are (or may be) subpropositional so it's not as if 'what is said' on this account can function in the way envisaged in the Gricean programme (that is, as the truth-conditional content of the utterance and so the propositional basis for the calculation of implicatures). It looks very much as if this semantic notion of 'what is said' is redundant. For a more extensive investigation of Bach's idea, see Carston (forthcoming, chapter 3, section 3.5).

Any *semantic* notion of 'what is said' is likely to endorse the view that: 'the constituents of what is said must correspond to the constituents of the utterance' (Bach 1994, 137). Coupling that with the widely held assumption that sentence semantics is propositional and so truth-conditional, leads to the endorsement of a principle along the following lines, where 'what is said' is to be understood as the proposition strictly and literally expressed by an utterance (see discussion in Reimer (1998)):

(37) An adequate semantic theory T for a language L should assign p as the semantic content of a sentence S in L iff what is said by a speaker in uttering S is that p.

There are (at least) two ways to go in developing a linguistic semantics that adheres both to this principle and to the 'syntactic correlation' requirement. One is to accept that the proposition expressed by a sentence is often trivially true or patently false, is seldom meant by the speaker and is quite remote from the proposition that native speaker intuitions deliver. The other is to take intuitions about truth-conditional content to be the primary data of a semantic theory and, so that the 'syntactic correlation' requirement is met, to postulate the imperceptible presence of a range of constituents in the logical form of the sentence (or subsentential expression). Space precludes anything more than a brief word on each of these ways of marrying 'what is said' and natural language semantics.

The second position - intuitive truth conditions and covert indexicals in logical form - has been given recent prominence by Stanley (2000). For instance, since an utterance of (38a) can be understood (in a particular context) as expressing the proposition in (38b), there must be a covert marker in the logical form of the sentence which indicates that a contextual value for a location is to be supplied. Similarly, mutatis mutandis, for the italicised elements in the propositions expressed by utterances of (39a)-(41a):

- (38) a. It's snowing.b. It's snowing *IN ABERDEEN*.
- (39) a. On the table.
 - b. *THE MARMALADE IS* ON THE TABLE.
- (40) a. Every bottle is empty.
 - b. EVERY BOTTLE *IN THIS CRATE* IS EMPTY.
- (41) a. She seized the knife and stabbed her husband.
 - b. X SEIZED THE KNIFE AND A FEW SECONDS LATER X STABBED HER HUSBAND WITH THE KNIFE.

The cost of this approach is high - myriad hidden elements in logical form - and, if the view of relevance theorists and others (see endnotes 6 and 7) is right, it is an unnecessary cost, since these constituents can be recovered on pragmatic grounds alone by a process of free enrichment (see sections 3.2 and 5 above). On that view, the proposition explicitly communicated by an utterance may contain unarticulated constituents; that is,

constituents which are not present in the logical form of the sentence or subsentential expression uttered. The italicised constituents in (38b)-(41b) are likely candidates. The conceptual semantics of the sentence is exhausted by the schematic, possibly subpropositional, decoded logical form, and it is at this level of encoded linguistic meaning, not at the level of the intuitive truth-conditional content or explicature, that the principle of semantic compositionality holds (for discussion of this point, see Powell (2000) and Carston (forthcoming, chapter 2)).

The remaining truth-conditional semantic variant of 'what is said' eschews both hidden elements in logical form and the possibility of unarticulated constituents in 'what is said' by the utterance of a sentence. What you see or hear is what you get. Borg (forthcoming) advocates a truth-conditional account which yields, for instance, the following truthstatements:

- (42) a. 'It is snowing' is true (in L) iff it is snowing.
 - b. 'Mary can't continue' is true (in L) iff Mary can't continue.

The right hand side specifies the semantic content of the sentence mentioned on the left, and that is what a speaker says when she utters the mentioned sentence. Semantic compositionality is satisfied since there is a one-for-one correlation between linguistic constituents and constituents of 'what is said'. These are very general, highly permissive truth-conditional specifications; for instance, (42b) is true provided there is something (anything) that Mary is unable to continue doing: running, staying up late, seeing John, pursuing university studies, etc. In fact, it seems likely that the sentence 'Mary can't continue' is always true (since there is bound to be some activity or other that Mary cannot continue at any given moment). The strong intuition that this sentence is usually used to express something much more specific, which may be true or false, is an intuition about speaker meaning/communication, not about linguistic meaning/saying, and so is a matter for a theory of communication (or speech acts), not for semantics.

One might have qualms about the apparent prediction of this approach that sentences such as 'Mary can't continue', 'John's book is on a shelf', 'It's night-time' are virtually always true, and others, such as 'Everyone was sick', 'The door is closed', 'It isn't night-time' are always false. One might have qualms about the consequence that quite often every proposition the speaker communicates/means by uttering a linguistic expression is an implicature; that is, she communicates nothing explicitly. But where this picture really seems to come unstuck is, yet again, with indexicality.

Borg acknowledges that in order to accommodate overt indexicality the truth-statements would have to be relativized to features of context, perhaps in the form of Higginbotham's (1988) 'conditionalized' truth-statements, such as the following:

(43) If u is an utterance of 'she is happy', and the speaker of u refers with 'she' to x, and x is female, then [u is true iff x is happy].

Let us suppose that this does provide an adequate account of the semantics of the sentence type 'she is happy'.¹³ Still, it does not provide an adequate account of 'what is said' by a particular utterance (a tokening) of the sentence since this inevitably requires pragmatic work (consideration of speaker intention) in fixing the referent of the pronoun.

So there simply does not seem to be any wholly semantic notion of 'what is said', a point which has been made forcefully by Recanati (2001). Of course, various minimalist notions of 'what is said' can be defined; they are 'minimalist' in that they keep pragmatic contributions to a minimum, for instance, allowing just reference assignment and disambiguation, or just saturation, or just whatever it takes to achieve truth-evaluability. But none of the results of these subtractions from the full range of pragmatic processes involved in explicature derivation has been shown to have any cognitive reality. Given decoded linguistic meaning and a pragmatic processor which takes this as its input in deriving what is communicated (explicatures and implicatures), it is difficult to see a role for a further notion of 'what is said', whether subpropositional or minimally propositional, which articulates a meaning that lies somewhere between linguistic meaning and explicature.

¹³ A truth-conditional account of the semantics of a linguistic system is never going to be fully adequate because there is a range of linguistic devices (lexical and syntactic) whose encoded meaning does not affect truth conditions (this includes expressions whose meaning is analysed by Griceans as cases of conventional implicature). Note also that communicated propositions (explicatures and implicatures) and all propositional thoughts have truth-conditional content. On the relevance-theoretic view, this is the appropriate domain for a truth-conditional semantics (a semantics that captures the relation between propositional representations and the world represented), with linguistic semantics being rather a mapping or translation from one kind of representation (linguistic) into another (conceptual). For discussion of these and other issues arising for a truth-conditional approach to natural language meaning, see Carston (forthcoming, chapter 2, section 2.5).

References

- Asher, N. & Lascarides, A. (1995). Lexical disambiguation in a discourse context. *Journal of Semantics* 12, 69-108.
- Bach, K.(1994). Conversational impliciture. Mind and Language 9, 124-162.
- Bach, K. (1997). The semantics-pragmatics distinction: what it is and why it matters. *Linguistische Berichte* 8, Special Issue on Pragmatics, 33-50. Reprinted in K. Turner (ed.) (1999), 65-84.
- Bach, K. (1999). The myth of conventional implicature. Linguistics and Philosophy 22, 327-366.
- Bach, K. (2000). Quantification, qualification, and context: a reply to Stanley and Szabo. *Mind and Language* 15, 262-283.
- Bach, K. (2001). You don't say. Synthese 128, 15-44.
- Berg, J. (forthcoming). Is semantics still possible? Journal of Pragmatics
- Blakemore, D. (1987). Semantic Constraints on Relevance. Oxford: Blackwell.
- Blakemore, D. (2000). Indicators and procedures: nevertheless and but. Journal of Linguistics 36, 463-486.
- Blakemore, D. (forthcoming). Discourse markers. In L. Horn & G. Ward (eds.) *Handbook of Pragmatics*. Oxford: Blackwell.
- Borg, E. (forthcoming). Saying what you mean: unarticulated constituents and communication. Ms. Department of Philosophy, University of Reading.
- Breheny, R. (1999). *Context-dependence and procedural meaning: the semantics of definites*. University College London PhD thesis.
- Breheny, R. (forthcoming). Maximality, negation and plural definites. Ms. Research Centre of English and Applied Linguistics, University of Cambridge.
- Carston, R. (1996). Enrichment and loosening: complementary processes in deriving the proposition expressed? *UCL Working Papers in Linguistics* 8, 61-88. Reprinted in *Linguistische Berichte* 8, Special Issue on Pragmatics, 103-127.
- Carston, R. (1998a). *Pragmatics and the Explicit/Implicit Distinction*. University College London PhD thesis.
- Carston, R. (1998b). Informativeness, relevance and scalar implicature. In R. Carston & S. Uchida (eds.) *Relevance Theory: Applications and Implications*, 179-236. Amsterdam: John Benjamins.
- Carston, R. (1999). The semantics/pragmatics distinction: a view from relevance theory. In K. Turner (ed.) 1999, 85-125. Elsevier Science.
- Carston, R. (2000). Explicature and semantics. UCL Working Papers in Linguistics 12, 1-44. Also to appear in S. Davis & B. Gillon (eds.) Semantics: A Reader. Oxford University Press.
- Carston, R. (forthcoming). *Thought and Utterances: The Pragmatics of Explicit Communication*. Oxford: Blackwell.
- Clapp, L. (forthcoming). On the interpretation and performance of non-sentential assertions. To appear in R. Elugardo & R. Stainton (eds.) *Ellipsis and Non-Sentential Speech*. Kluwer.
- Clark, W. (1991). *Relevance Theory and the Semantics of Non-declaratives*. University College London PhD thesis.
- Clark, W. (1993). Relevance and 'pseudo-imperatives'. Linguistics and Philosophy 16, 79-121.
- Cohen, J. (1971). Some remarks on Grice's views about the logical particles of natural language. In Y. Bar-Hillel (ed.) *Pragmatics of Natural Language*, 50-68. Dordrecht: Reidel.
- Davis, S. (ed.) (1991). Pragmatics: A Reader. Oxford: Oxford University Press.

- Fodor, J. (1981). The present status of the innateness controversy. In J. Fodor. *Representations*, 257-316. Sussex: The Harvester Press.
- Fodor, J. (1983). The Modularity of Mind. Cambridge, Mass.: MIT Press.
- Fodor, J. (1998). Concepts: Where Cognitive Science Went Wrong. Oxford: Clarendon Press.
- Gazdar, G. (1979). *Pragmatics: Implicature, Presupposition, and Logical Form*. New York: Academic Press.
- Geurts, B. (1998). Scalars. In P. Ludewig & B. Geurts (eds.) *Lexicalische Semantik aus Kognitiver Sicht*, 95-117. Tubingen: Gunter Narr Verlag.
- Grice, P. (1969). Vacuous names. In D. Davidson & J. Hintikka (eds.) Words and Objections, 118-145. Dordrecht: Reidel.
- Grice, P. (1975). Logic and conversation. In P. Cole & J. Morgan (eds.) Syntax and Semantics 3: Speech Acts, 41-58. New York: Academic Press. Reprinted in P. Grice (1989), 22-40.
- Grice, P. (1989). Studies in the Way of Words. Cambridge, Mass.: Harvard University Press.
- Higginbotham, J. (1988). Contexts, models, and meanings: a note on the data of semantics. In R. Kempson (ed.) (1988), 29-48.
- Horn, L. (1984). Towards a new taxonomy for pragmatic inference: Q-based and R-based implicature. In
 D. Schiffrin (ed.) *Meaning, Form and Use in Context: Linguistic Applications (GURT '84)*, 11-42. Washington: Georgetown University Press.
- Horn, L. (1989). A Natural History of Negation. University of Chicago Press.
- Horn, L. (1992). The said and the unsaid. *Ohio State University Working Papers in Linguistics (SALT II Proceedings)*. 40, 163-192. Ohio State University.
- Horn, L. (1996). Presupposition and implicature. In S. Lappin (ed.) *The Handbook of Contemporary Semantic Theory*, 299-320. Oxford: Blackwell.
- Horn, L. (forthcoming). Implicature. In L. Horn & G. Ward (eds.) *Handbook of Pragmatics*. Oxford: Blackwell.
- Ifantidou, E. (2001). Evidentials and Relevance. Amsterdam: John Benjamin.
- Iten, C. (2000). '*Non-truth-conditional' Meaning, Relevance and Concessives*. University College London PhD thesis.
- Kempson, R. (ed.) (1988). *Mental Representations: the Interface between Language and Reality*. Cambridge: Cambridge University Press.
- Kripke, S. (1977). Speaker's reference and semantic reference. Midwest Studies in Philosophy 2, 255-276.
- Larson, R.& Segal, G. (1995). Knowledge of Meaning: An Introduction to Semantic Theory. Cambridge, Mass.: MIT Press.
- Levinson, S. (1987). Minimization and conversational inference. In J. Verschueren & M. Bertuccelli Papi (eds.) *The Pragmatic Perspective*, 61-129. Amsterdam: John Benjamins.
- Levinson, S. (1995). Three levels of meaning. In F. Palmer (ed.) *Grammar and Meaning*, 90-115. Cambridge: Cambridge University Press.
- Levinson, S. (2000). *Presumptive Meanings: The Theory of Generalized Conversational Implicature*. Cambridge, Mass.: MIT Press.
- Marr, D. (1982). Vision. San Francisco: Freeman & Co.
- Neale, S. (1992). Paul Grice and the Philosophy of Language. Linguistics and Philosophy 15, 509-559.
- Powell, G. (2000). Compositionality, innocence and the interpretation of NPs. UCL Working Papers in Linguistics 12, 123-144.
- Recanati, F. (1993). Direct Reference: From Language to Thought. Oxford: Blackwell.

Recanati, F. (1995). The alleged priority of literal interpretation. Cognitive Science 19, 207-232.

Recanati, F. (2001). What is said. Synthese 128, 75-91.

- Recanati, F. (forthcoming a). Unarticulated constituents.
- Recanati, F. (forthcoming b). Does linguistic communication rest on inference? *Mind & Language, Special Issue on Pragmatics and Cognitive Science*
- Reimer, M. (1998). What is meant by "what is said"?: A reply to Cappelen and Lepore. *Mind and Language* 13, 598-604.
- Segal, G. (1994). Priorities in the philosophy of thought. Aristotelian Society Supplementary Volume LXVIII, 107-130.

Sperber, D. & Wilson, D. (1986/95). *Relevance: Communication and Cognition*. Oxford: Blackwell; Cambridge, Mass.: Harvard University Press. Second edition (with postface) 1995.

- Sperber, D. & Wilson, D. (1997). The mapping between the mental and the public lexicon. UCL Working Papers in Linguistics 9, 107-125. Reprinted in P. Carruthers & J. Boucher (eds.) (1998). Language and Thought: Interdisciplinary Themes, 184-200. Cambridge: Cambridge University Press.
- Stainton, R. (1994). Using non-sentences: An application of Relevance theory. *Pragmatics and Cognition* 2, 269-284.

Stainton, R. (1997). Utterance meaning and syntactic ellipsis. Pragmatics and Cognition 5, 51-78.

Stainton, R. (forthcoming). In defense of non-sentential assertion. Typescript, Carleton University.

- Stanley, J. (2000). Context and logical form. Linguistics and Philosophy 23, 391-434.
- Stanley, J. (forthcoming). Making it articulated. Mind & Language, Special Issue on Pragmatics and Cognitive Science
- Stanley, J. & Szabo, Z. (2000). On quantifier domain restriction. Mind and Language 15, 219-261.
- Taylor, K. (2001). Sex and breakfast. Synthese 128, 45-61.
- Turner, K. (ed.) (1999). The Semantics/Pragmatics Interface from Different Points of View (CRiSPI 1). Elsevier Science.
- Vicente, B. (1998). Against blurring the explicit/implicit distinction. In J. Mateo Martinez & F.Yus Ramos (eds.) (1998). *Revista Alicantina de Estudios Ingleses, Special Issue on Relevance Theory* 11, 241-258.
- Wilson, D. & Matsui, T. (1998). Recent approaches to bridging: truth, coherence, relevance. UCL Working Papers in Linguistics 10, 173-200.
- Wilson, D. & Sperber, D. (1986). Inference and implicature. In C. Travis (ed.) *Meaning and Interpretation*, 45-75. Oxford: Blackwell. Reprinted in S. Davis (ed.) (1991), 377-393.
- Wilson, D. & Sperber, D. (1988). Mood and the analysis of non-declarative sentences. In J.Dancy, J. Moravcsik. & C.Taylor (eds.) *Human Agency: Language, Duty and Value*, 77-101. Stanford, CA: Stanford University Press.
- Wilson, D. & Sperber, D. (1993). Linguistic form and relevance. Lingua 90, 1-25.
- Wilson, D. & Sperber, D. (1998). Pragmatics and time. In R. Carston & S. Uchida (eds.) *Relevance Theory: Applications and Implications*, 1-22. Amsterdam: John Benjamins.
- Wilson, D. & Sperber, D. (2000). Truthfulness and relevance. UCL Working Papers in Linguistics 12, 215-254.