

How Many Pragmatic Systems Are There?*

1. Introduction: Grice, Recanati and Relevance Theory

An important component of recent pragmatic theorising is the view that the linguistically encoded meaning of an utterance often falls far short of determining the proposition that a speaker explicitly communicates and that the gap between the two is bridged by highly context-sensitive pragmatic processes. Crucially, processes of ‘free pragmatic enrichment’, that is, processes that are not dictated by elements of linguistic form, mediate the transition from linguistic meaning to explicit propositional content. This ‘contextualist’ position is vigorously defended by Francois Recanati (1989, 1993, 2002a, 2004a) and by relevance theorists (Sperber & Wilson 1986/95; Carston 1988/91, 2002b), among others. In this respect, Recanati and Relevance Theory (RT hereafter) differ from Paul Grice (at least on most people’s reading of Grice¹), who appears to recognise only a minimal pragmatic contribution in the determination of ‘what is said’: the provision of an occasion-specific value for referring expressions and the selection of a single sense in cases of ambiguity. In his brief discussion of these processes, Grice (1975) indicates that his conversational principles (hence considerations of speaker *m*-intentions) play no role in them.

Recanati calls the pragmatic processes that contribute to determining ‘what is said’ (or ‘explicature’ in RT terms) ‘primary’ pragmatic processes and those that are responsible for the derivation of conversational implicatures ‘secondary’ pragmatic processes. These are useful labels, which I have adopted in my own RT work, but for Recanati they are much more than that: the two kinds of pragmatic processes are of quite distinct kinds, only the secondary ones being properly inferential, the primary ones being more akin to associative processes. Hence, on Recanati’s view, linguistic communication is not fundamentally inferential, that is, addressees can, and standardly do, recover the explicit propositional content of utterances

* Many thanks to Deirdre Wilson for valuable discussion and encouragement. Thanks also to Alison Hall, Mark Jary, George Powell, Rosa Vega-Moreno and Vladimir Žegarac, who have all, in different ways, aided and abetted me in the writing of this paper. I am particularly grateful to María José Frápolli Sanz, editor of this volume, for patience and support way beyond the call of duty.

¹ Not everyone agrees with this reading of Grice as a ‘minimalist’ rather than a ‘contextualist’ with regard to what is said (see, for example, Wharton (2002)). One of the main pieces of evidence used to support a possible contextualist orientation to Grice’s thinking is his discussion of cases of ‘dictiveness without formality’ in Grice (1989b: 361). However, it seems very likely that Grice assumed that the gap here is bridged, not by pragmatic inference, but by instances of what he would have thought of as conventions of linguistic behaviour. For very helpful discussion of Grice on social convention and of the Gricean programme more generally, see Garcia-Carpintero (2001).

without any recourse to maxims concerning rational communicative behaviour or metarepresentational premises concerning mental states of the speaker, and, in fact, without the mediation of any properly inferential process at all (whether reflective or unreflective). So, despite Recanati's strong contextualist stance, his position on primary pragmatic processes is, in certain respects, a very Gricean one; indeed, his account can be seen as a 'cognitivised' version of Grice's view that the pragmatic processes needed for a full identification of 'what is said' do not involve anything like his working-out schema for implicature derivation but that 'context is a criterion' that settles the outcome of these processes.

Although first and foremost a philosopher of language, Recanati has taken significant steps toward developing an on-line cognitive account of primary pragmatic processes (see his 1995; 2004a: chapter 2). He has, so far, provided nothing comparable for secondary pragmatic processes. Rather, his main concern has been to emphasise the Gricean point that secondary pragmatic processes are to be understood as part of a more general theory of human action interpretation and so as having the philosophically central property of being rational, personal-level (as opposed to subpersonal) processes. Closely linked to this is his claim that secondary pragmatic processes, but not primary ones, meet the 'Availability Condition'; that is, for any given utterance, we have conscious access to its explicature ('what is said') and its implicature(s), and to the inferential process that mediates them.

In his most recent work, however, Recanati (2004a: 46-47) has endorsed the relevance-theoretic view that a unitary, on-line pragmatic processing system derives explicit content and conversational implicatures in parallel. This account makes crucial use of a mechanism of 'mutual adjustment', from which it follows that a hypothesis about an implicature can both precede and shape a hypothesis about an explicature. On the face of it, Recanati's approval is baffling, for it seems to imply that one and the same process (implicature derivation) is both a personal-level, explicit, reflective, inferential process and also one of the tacit, unreflective processes performed by a single, presumably subpersonal, system.

In this paper, I focus on Recanati's account of primary and secondary pragmatic processes. First, I consider his non-inferential, activation-based account of primary processes, comparing it with the relevance-based account of Sperber & Wilson, and attempt to assess its adequacy in dealing with the full range of primary processes, which include the supplying of linguistically unarticulated expressions and the interpretation of various kinds of non-literal uses of language, including metaphor and irony. Second, I consider some issues that turn on

the primary/secondary pragmatic process distinction, in particular, on the claims about conscious accessibility, and the question of how these two kinds of processes can interact with, and affect, each other, while having a fundamentally different status (associative vs inferential, subpersonal vs personal). Finally, I observe some empirical consequences of Recanati's claim that a capacity for explicit, reflective inference is intrinsic to implicature derivation and suggest how these might be tested.

2. Utterance comprehension and the primary/secondary distinction

Despite their common cause of contextualism, there are some important differences between Recanati's view of pragmatic processes and the relevance-theoretic view. I will start by giving a brief indication of how utterance comprehension works on the RT account and use this as a comparative reference point in looking at Recanati's ideas.

According to the RT account, explicatures and implicatures are derived in parallel and there is often a process of mutual adjustment between them in which, not only does explicit content influence the implicatures derived, but implicatures can affect elements of explicatures, such as the choice between word meanings in the case of ambiguity or the occasion-specific meaning taken to have been expressed by an unambiguous word (Wilson & Sperber 2002, 2004). Before showing an example of this, here is a very brief description of the central claims of relevance-theoretic pragmatics. Relevance is a property of inputs to cognitive processes quite generally: the more cognitive effects the input has, the greater its relevance; the more mental resources and effort expended in processing it, the lower its relevance. Unlike most other inputs, an utterance comes with a presumption that it is optimally relevant, that is, that (a) it is sufficiently relevant to warrant the addressee's attention, and (b) it is maximally relevant modulo the speaker's abilities and preferences. Given this, an utterance automatically triggers quite specific expectations of relevance in its addressee, that is, expectations concerning both the quantity and the kind of cognitive effects (implications) it will yield if optimally processed. The addressee (or, at least, his comprehension system) follows a path of least effort in accessing interpretative hypotheses and stops as soon as he arrives at one that satisfies his expectations of relevance². In somewhat truncated form, the relevance-driven process of deriving explicatures and

² For a much more detailed account of these ideas and their motivation, see Wilson & Sperber 2004.

implicatures is demonstrated in (1) where the utterance under scrutiny is Bob's response to Ann:

- (1) Ann: I expected Jane to be here by now.
Bob: She missed her coach.
- (a) Output of linguistic decoding of Bob's utterance:
SHE_x MISSED HER COACH₁/COACH₂
where: 'SHE_x' indicates the requirement to assign a referent
'COACH₁' = instructor, 'COACH₂' = bus
- (b) Input to the pragmatic system:
Bob has said SHE_x MISSED HER COACH₁/COACH₂
[Decoded logical form is embedded in a description of the ostensive act]
- (c) Ann expects Bob's utterance to be optimally relevant to her
[General expectation of relevance triggered in the addressees of utterances]
- (d) Bob's utterance will achieve relevance by explaining why Jane hasn't arrived yet.
[Specific expectation of the kind of cognitive effects the utterance will have]
- (e) MISSING A DESIGNATED COACH₂ IS A REASON FOR A PERSON NOT ARRIVING WHEN EXPECTED
[Highly accessible assumption in the context which, together with other appropriate premises, might satisfy expectation (d)]
- (f) JANE MISSED HER COACH₂
[Highly accessible development of the logical form of Bob's utterance which can combine with (e) to lead to the satisfaction of (d)]
- (g) JANE ISN'T HERE YET BECAUSE SHE MISSED HER COACH₂
[Inferred from (e) and (f), satisfying (d)]
- (h) JANE MAY STILL ARRIVE AT A LATER TIME
[Inferred from (g) plus background knowledge about Jane and transport possibilities, etc. One of several further cognitive implications which, together with (g), satisfy expectation (c)]

This is a very incomplete rendering of the pragmatic processes involved in Ann's likely interpretation of the utterance: for instance, the verb 'miss' can be understood in several ways, only one of which is relevant here, and the possessive relation in 'her coach' needs to be

specified (Jane doesn't own the coach), etc. All that's shown here is how the process of disambiguating 'coach' is influenced by the expectation of a certain kind of cognitive effect: an explanation of Jane's non-arrival, which is the implicature shown in (g). The choice of COACH₂ for the explicature in (f) is a result of a process of developing the decoded logical form of the utterance in such a way that, together with highly accessible contextual assumptions such as that in (e), it warrants the implicated conclusion in (g).

Here are some points to note about this account. All aspects of utterance comprehension (apart from linguistic decoding) fall under a single procedure of looking for the most accessible interpretation which meets particular expectations of relevance, a strategy licensed by the presumption of optimal relevance which accompanies all utterances (and acts of ostensive communication quite generally). The processes involved are claimed to be entirely a matter of (non-demonstrative) inference, with linguistic meaning providing crucial guiding evidence, and some of the inferences, such as that leading to the choice between the two 'coach'-concepts, are backwards inferences geared to providing a sound basis for expected implications. Evidently, on an approach such as this, the distinction between pragmatic contributions to explicit content (primary) and implicatures (secondary) does not entail any fundamental difference in the kind of process, mechanism, or system involved, nor in the procedure followed or the criterion to be met.

As well as disambiguation, the pragmatic tasks contributing to the explicit level (hence, falling under the label of primary pragmatic processes) include reference assignment, other cases of saturation and/or propositional completion, free enrichment (whether in the form of modulation of a linguistically-encoded concept or the supplying of a linguistically-unarticulated conceptual constituent), metaphor interpretation and metonymic transfer. Some of these, in particular the latter two, may fall within the construal of one of the others, but I won't concern myself with that here. The properties that Recanati takes to be characteristic of primary processes are the following:

Input: decoded linguistic meaning

Output: explicit utterance content ('what is said' or explicature)

Type of process: local, associative (not properly inferential)

Guiding criterion: accessibility (highest degree of activation in a conceptual network)

Consciousness status: unconscious (and may be inaccessible to consciousness)

Attribution of speaker mental states: none in the premises or inferential steps (only the output is understood as speaker intended)

Disambiguation offers perhaps the clearest example of how such primary processes work:

(2) *Utterance:* I'm going to the bank now to get some cash.

Linguistic decoding provides two candidate senses for the position in the evolving representation of explicit content marked out by the form /bank/: BANK1 (=financial institution) and BANK2 (=river side). Let us suppose that, for whatever reason, at the point of accessing the lexical form /bank/, it is BANK2 that is the more highly activated candidate and so is initially assigned to the position. However, by the end of the utterance, the relative degree of activation of the two concepts will have changed (this is what Recanati calls an 'accessibility shift'). At this point, BANK1 is more highly activated than BANK2 because it has received an activation boost, via a mechanism of spreading activation, from the associated concept CASH which has been activated by the lexical form /cash/, and perhaps, in addition, from a mentally represented stereotypical frame or script for 'GETTING MONEY FROM A BANK1'. So, ultimately, and in accordance with our off-line intuitions, the winning candidate is BANK1. See Recanati (1995; 2004a: 30-31) for a similar sort of account of a reference assignment process involving two candidates.

Now, consider the contrasting properties of secondary pragmatic processes:

Input: the speaker has said that p (where p is 'what is said' or 'explicature')

Output: the speaker has implicated that q

Type of process: properly inferential (global, propositional, explicit)

Guiding criteria: Gricean maxims (norms of rational communicative behaviour)

Consciousness status: both the input and output representations, and the fact that there is an inferential link between them, are conscious or, at least, accessible to consciousness.

Attribution of speaker mental states: integral to the interpretation process (appearing as premises in the reasoning process)

The deep difference that Recanati sees between primary and secondary processes is most evident in his following statement: 'The determination of what is said [explicit content] takes place at a *subpersonal* level, like the determination of what we see or hear. But the

determination of what the speaker implies takes place at the *personal* level, like the determination of the consequences of what we see or hear. (Seeing John's car, I infer that he did not leave; hearing the doorbell ring, I infer that there is someone at the door.)' (Recanati 2002a: 114). He takes this view to be backed by a number of other philosophers, in particular Ruth Millikan, who has taken a strong position against Gricean reflective reasoning being any 'kind of "mechanism" that drives ordinary language use and understanding' (Millikan 1984: 68; this view is developed further in her 2004 book).³ She recognises that mature communicators do have the ability to reflect on how linguistic communication works, to interrupt and 'tinker with the mechanisms of normal language flow' and to 'rise above these automatic mechanisms if necessary' (Millikan 1984: 69). Recanati (2002a: 114; 2004a: 39) takes it that this is what goes on in what he calls "special" cases and that the secondary process of retrieving conversational implicatures is such a special case, requiring reflective capacities that are not exercised in the 'normal language flow'.⁴

In the next two sections, I look in more detail at each of the two kinds of process in turn, but before doing so, let me mention, in order to set it aside, an issue that might seem to arise here. In earlier work (Carston 2002a), I took it that a consequence of these views of Recanati was that the two kinds of process are sequential, that is, that the derivation of implicatures takes place after the derivation of what is said (explicature). This is a conclusion that has continued to be greatly encouraged by quite recent statements made by Recanati: 'No implicature can be computed at a sublocutionary level. We have to compute truth conditions first, so as to ascribe a definite content to the speaker's speech act, before we can infer anything from that speech act.' (Recanati 2003a: 300); '... the interpretation of indirect speech acts (and other kinds of conversational implicatures) is a two-step procedure. The interpreter *first* determines the utterance's primary meaning, *then* infers some additional meaning ...' (Recanati 2004a: 74, my emphasis). It is encouraged further by the repeated use

³ In fact, very few people these days would take a 'Gricean mechanism' stance on utterance comprehension. On the relevance-theoretic account, pragmatic inferences are the domain of a fast, automatic modular system and the default ('naïve') strategy of the system involves no reasoning over attributed mental states (Sperber & Wilson 2002; Wilson 2005). And various other frameworks posit systems of default, or short-circuited, or routinised pragmatic inferences that bypass considerations of speakers' mental states. Grice himself probably did not take these complex metarepresentational reasoning schemes to be what speaker/hearers actually employ in on-line processing, recognizing that implicatures 'can in fact be intuitively grasped' (Grice 1975/89b: 31), and that there is both a laborious effortful way of making inferential moves, and a 'quick way, which is made possible by habituation and intention', the latter being desirable as often as possible, given its much lower demands on time and energy (Grice 2001: 17).

⁴ I do not believe that the distinction Millikan makes between the automatic mechanisms of the normal language flow and the reflective, 'tinkering' capacity matches up with Recanati's distinction between primary and secondary processes, but I do not argue the point in this paper.

(2004a: 42-43; 2004b: 50-51) of the analogy with perception (first I hear the doorbell ringing, then, on that basis, I infer that there is someone at the door.)

Apparently, however, it is a mistake to draw this conclusion: although what is said is *logically* prior to implicatures (that is, it functions as a premise in an inferential process which issues in implicature) it is not, Recanati insists, to be taken as *temporally prior*: ‘I deny that my view commits me to a “sequential model”’ (Recanati 2004a: 47). To back up this denial, he goes on to discuss briefly and endorse the phenomenon of ‘parallel mutual adjustment’ between implicature and explicature (‘what is said’), an important component of the RT account, as outlined above. If this mechanism really does play a crucial role in the interpretation process it follows that there is no generalization to be made about which of the two kinds of communicated assumption is recovered first and functions as input to the recovery of the other; the parallel adjustment process entails that neither is wholly temporally prior to the other. Recanati expresses his agreement with this, maintaining that it is quite compatible with his account of primary and secondary processes.

So let us accept that the primary/secondary distinction as characterized does not entail sequential processing. What we face now, though, is a new set of questions and gaps. First, presumably, the analogy with perception breaks down at this point: except for quite unusual circumstances, one does not arrive at the judgement that the doorbell is ringing by a process of *adjusting one’s auditory perception* to an antecedent hypothesis that someone is at the door. Second, it is unclear how Recanati can maintain both his view of the deep differences between primary and secondary processes, on the one hand, and his endorsement of the parallel mutual adjustment mechanism, on the other. Within relevance theory, this is a mechanism which operates in the pursuit of an overall interpretation of an utterance which meets specific expectations of relevance (that is, expectations concerning effort expenditure and cognitive gain) and which, all going well, is the speaker’s meaning. Although Recanati is not explicit about how much of RT he wants to take on board, I assume he does not (cannot) accept the relevance-based comprehension procedure (which applies to all aspects of pragmatic interpretation), given his entirely accessibility-based account of primary processes. As for the secondary processes of implicature derivation, they appear to be regulated by consciously available norms of rational communication. The obvious and pressing question is: *how* can these two quite distinct types of process (local, associative, unconscious, subpersonal, in the one case; global, inferential, consciously accessible, person-level, in the other case) interact in such a way as to effect adjustments to each other’s content? Specifically, how can implicatures, whose derivation takes ‘what is said’ as its input, affect

the content of ‘what is said’? Recanati (2004a) does have an answer to this, which I’ll look at in section 4, though what that answer entails is that while he offers an account of the on-line cognitive processes involved in deriving primary utterance meaning (explicature, what is said), he does not, after all, provide any account of the on-line derivation of secondary utterance meaning (implicatures). It turns out that the personal-level inferential account of implicatures is construed not as an account of actual ‘occurrent’ processes but as a matter of rational reconstruction. Before considering this, however, let’s take a closer look at the account of primary processes.

3. Primary processes: associative relations and least effort

Summing up his account of primary processes, Recanati (2004a: 32) says: ‘In the framework I have sketched, the interpretation [‘what is said’] which eventually emerges and incorporates the output of various pragmatic processes results from a blind, mechanical process, involving no reflection on the interpreter’s part. The dynamics of accessibility does everything and no “inference” is required. In particular, there is no need to consider the speaker’s beliefs and intentions.’

I will raise two questions about the adequacy of this sort of account. The first concerns cases where a candidate concept is the most highly activated one throughout and results in an interpretation which is both coherent and highly relevant, but which, according to strong offline intuitions, would not be the one chosen by the addressee. Consider the following scenario. I’m walking along with one of my students, Sarah, who turns to me and utters the sentence in (3). Let us suppose I know two people called ‘Neil’, one of whom is my young son, NEIL1, the other a colleague in the linguistics department where I work, NEIL2. So there are two candidate referents here, both of them activated when the name ‘Neil’ is uttered.

(3) Neil has broken his leg.

Suppose further that I am worried about my son, who tends to get into a lot of trouble - he is constantly on my mind. In other words, my NEIL1 concept is more highly activated than my NEIL2 concept, and so, given the blind mechanical nature of the primary process of reference assignment, NEIL1 is the winning candidate. The resulting interpretation is consistent with

my knowledge (I haven't seen the boy for several hours), perfectly coherent (Recanati sometimes alludes to a search for coherence in interpretation (Recanati 2004a: 36)) and highly relevant (it has many cognitive effects for me), though considerations of relevance appear not to enter into Recanati's account. Nevertheless, this is not the interpretation I give to the utterance - for the simple reason that I know that the speaker (one of my students) does not know anything about my family life, while she does know that I have a colleague, Neil, who teaches her syntax. So, even if initially my highly activated NEIL1 concept is the first one accessed, it is soon replaced by NEIL2. This interpretation is also coherent and sufficiently relevant.

This is explained quite straightforwardly within the RT approach, whose concept of optimal relevance includes as a crucial component of interpretation considerations of the speaker's abilities (which includes her knowledge of the world) and preferences. Recognizing that the student does not *know* (or *believe*) that I have a son called 'Neil', I take it that she did not (could not) *intend* to refer to him. Recanati's account of primary processes, on the other hand, precludes consideration of the speaker's mental states (beliefs, intentions) so, unless there is some other mechanism for altering the relative accessibility of the two NEIL concepts, I seem to be stuck with my first most accessible referent. There is one possibility here: cognitive schemas (frames, scripts) play an important role in Recanati's activation-based account, so is there some schema or script that could plausibly be thought to bring about the necessary accessibility shift in this example? A schema is an abstract representation of a situation type which may be evoked by the words used or by other salient features of the speech situation.⁵ Thus, it could be argued here that, given the situation in which the exchange took place, a 'university lecturer and student' or perhaps, a 'linguistics department' schema is evoked, which may contain within it slots for various different lecturers, one of whom is NEIL2, so that the result is that this is the more highly activated of the two NEIL concepts and is thereby (correctly) selected as the referent. I find it implausible that there is any such schema (though the constraints on what constitutes a schema have yet to be specified) or that, if there is, it would necessarily be activated in the utterance situation as

⁵ A good example of a schema evoked by the words used and responsible for an accessibility shift is given by Recanati (2004a: 36-37) in discussing the assigning of a referent to the pronoun 'he' in the process of comprehending an utterance of 'John was arrested by a policeman yesterday; he had just stolen a wallet'. Suppose that initially when the pronoun is uttered the representation of the policeman is more highly activated than the representation of John; still, by virtue of the "stealing something and being arrested" schema evoked by the predicates, *John* becomes more highly accessible than *the policeman* due to activation received from the linked participant roles in the schema [person who did the stealing and person who was arrested]. Thus, and in accordance with offline intuitions, *John* is the winning candidate for referent of 'he'.

given above or that, if it was, any activation it provided would outdo that of my highly activated NEIL1 concept. But even supposing this account goes through for the example as described so far, we can change the speech situation so that it does not make salient university departments, lecturers or subjects like syntax. Suppose I run into Sarah at the local supermarket, and after some chat about the merits of organic vegetables, she says to me, ‘I hear that Neil’s broken his leg’. Given the high activation of my NEIL1 concept and the absence of any frame to effect an accessibility shift, the prediction of the automatic, non-reflective associative account seems to be that (contrary to intuitions) I will take her to have said that NEIL1 has broken his leg.⁶

My second question is a more general one, concerning how the account works for cases where there is no linguistic mandating of the pragmatic process: cases of free enrichment, meaning modulation, concept transfer and, as in the case of irony, ‘staging’. Setting aside the problem just discussed, one can see how the accessibility account is thought to work for disambiguation and saturation (including reference assignment), that is, those minimalist pragmatic processes allowed by Grice. In such cases, there is a pre-given set of candidate concepts - linguistic senses in the case of ambiguity, contextually available referents that meet the linguistically-encoded constraint in the case of referring expressions (MALE PERSON for ‘he’, PERSON CALLED ‘NEIL’ for the name ‘Neil’, etc.) – and the one among them that is the most highly activated wins out. But it is much less obvious how this automatic, low-level (‘dumb’) mechanism can account for cases of free enrichment or meaning modulation, processes which are optional and constructive, and may result in a concept which is entirely ad hoc and one-off. Recanati says: ‘If we assume that what undergoes semantic composition is the most accessible of the candidate senses associated with a given constituent, we can explain how a derived sense resulting from free enrichment (or loosening, or transfer) can be selected and undergo composition in lieu of the literal meaning from which it is derived.’ (Recanati 2003b: 2.3). Even supposing that, given a set of

⁶ On the relevance-theoretic account, there are, in fact, several manifestations of the comprehension strategy mentioned in section 2 above, differing in the degree of metarepresentational complexity they require (Sperber 1994). The simplest (naïve) strategy involves no consideration at all of the speaker’s mental states and is likely to be pursued by young children (under 4 years old), whose theory-of-mind capacity is not yet fully matured. On such a strategy, the addressee will accept the first accessible interpretation that she finds relevant, so in comprehending an example like (3) above, she would choose the most highly accessible referent whether or not it fell within the competence of the speaker to have intended it. More complex strategies develop subsequently on which the pragmatic inferential process may employ premises concerning the speaker’s beliefs and preferences. Using one of these more sophisticated strategies, the addressee won’t necessarily choose the first relevant referent; in an example like (3) above, her understanding of the speaker’s state of knowledge will lead her to the intended referent. It looks as if, on Recanati’s account, we remain forever egotistic children (whatever is most accessible to us is what we take the speaker to have referred to).

candidate senses (some literal, some derived), the accessibility-based story can account for the process of selecting one of them, there is a pressing antecedent question: where do the non-literal (unencoded) candidate senses come from, how are they brought into the scene so as to become candidates? It begs the question to say that they are derived by free enrichment or concept modulation, since the issue precisely is how those very primary processes work, what it is that drives them, on this wholly accessibility-based account.

Recanati provides an answer to this in the case of the famous metonymic use of ‘The ham sandwich’ in (4a):

- (4) a. The ham sandwich left without paying.
- b. The ham sandwich is being eaten.
- c. The ham sandwich needs some mustard.

The choice of THE GUY WHO ORDERED THE HAM SANDWICH as referent is accounted for by a combination of schema activation and encoded linguistic meaning. A café/restaurant schema is evoked and this provides several candidates for the referent of ‘the ham sandwich’: the sandwich itself, the plate with the sandwich on it, the person who ordered the ham sandwich, perhaps the person responsible for assembling the ham sandwich, and so on. Initially, when only the subject noun phrase has been processed, it is likely that the concept of the sandwich itself is the most highly activated, but further down the line, the processing of the predicate ‘left without paying’ ensures that the concept of the orderer of the ham sandwich is the most highly activated, since this is the one that coheres best with both the predicate’s requirement of a human subject and the participant roles in the café schema. Similar accounts can be given for the choice of the food itself in (4b) and the several possibilities in (4c) (unresolvable without further contextual specification).

Note that, in this metonymic case, the candidate referents are all components of a single schema evoked by the situation of utterance (probably a café setting with the utterance made by a waiter) and the encoded concept HAM SANDWICH. I doubt that this is very often the case for metaphors. Rather, the conceptual content that results from a metaphorical use and which, on this sort of account, is composed into the primary meaning of the utterance is often not a component of any existing schema at all, but is new (ad hoc), consisting of ‘emergent features or properties’, as it is put in the literature (Becker 1997, Gineste et al. 2000, Vega-Moreno 2004), that is, the derived concept has properties which are not associated with the

metaphor vehicle. Let's consider some quite ordinary examples, avoiding any extra questions that might be raised by very creative or extended metaphors:

- (5) a. The ATM swallowed my credit card.
- b. Don't let that surgeon operate on you. He's a butcher.
- c. Mary is a bulldozer/block of ice/butterfly.

The first example is discussed briefly by Recanati (2004a: 26, 76-77), who describes it as involving the construction of an ad hoc concept (call it SWALLOW*) which can apply both to creatures that do actually swallow and to ATMs (non-biological entities) that do not. This is achieved by an unreflective process of 'relaxing the conditions of application for "swallow"' (p.26). Based on Recanati's comments on 'partial schematicity'⁷ (pp. 76-77), let me try to extrapolate how an account solely in terms of associations between concepts and spreading activation might work in this case. The encoded meaning of the verb 'swallow' activates a schema about the process of swallowing, with specifications of the kind of bodily organs that perform this function, the kinds of things on which it is performed (mostly foods of one sort or another), and the normal upshot of the process (permanent disappearance of the food, its decomposition, etc.). Much of this schema cannot apply to ATMs and credit cards; the activation level of those bits that can apply (principally, the disappearance of the thing swallowed, maybe also its decomposition) is enhanced by activation that spreads associatively to them from the schema for ATMs and credit cards, and the rest is deactivated (perhaps actively suppressed, as suggested in some of the psycholinguistic literature; see Rubio-Fernandez 2005). According to Recanati, what motivates this, and primary pragmatic processes quite generally, is 'the search for coherence in interpretation' (p.36). So, in this case, it seems that the concept conveyed by the metaphor may be quite directly extractable from the schema evoked by the linguistic meaning of 'swallow'.

Consider now the nominal metaphor in (5b). What this utterance attributes to the surgeon concerned is a property (label it BUTCHER*) which is roughly paraphraseable as 'lacking skill, careless, dangerous, likely to cause damage and pain to those he operates on'. The problem here is that these attributes are not associated with the metaphor vehicle; they are

⁷ At the point in the text where Recanati discusses this notion (Recanati 2004a: 76-77), his objective is not to give any kind of detailed demonstration of how the primary process works, but to account for the fact that metaphorical use is sometimes transparent to addressees, that is, they are aware of the discrepancy between it and the literal content of the utterance. He explains this in terms of an ongoing above-threshold activation of aspects of the literal meaning which are at odds with the metaphorical meaning.

not aspects of the standard schema for butchers going about their usual business, in which they are represented as expertly cutting animal carcasses into pieces and causing no damage or pain to anyone. This is not to deny that we have a pretty clear sense of how the metaphor works - we imagine the live human body on the butcher's block being hacked at with a meat cleaver - but it is to question how this can be accounted for simply in terms of different levels of activation of concepts which are either linguistically encoded or made available through the schema associated with the metaphor vehicle, BUTCHER. It seems that something more is needed, whether something akin to a mapping between the domains (aspects of the butcher domain are mapped onto aspects of the surgeon domain), or a process of blending of the two domains to create a new one (surgeon with meat cleaver hacking at live person on block), or a relevance-driven inferential process in which the addressee considers what components of a butcher's behaviour, if applied to a surgeon, would explain why one should not let that surgeon operate on one. For the first two of these possibilities, domain-mapping and blending, it seems likely that relevance-based inference would also be required, in order to account for, in the one case, which components of the one domain are mapped onto which of the other, and, in the other case, which components of the two domains are blended to make a new domain.⁸

This problem seems to be a quite general one (although it may not arise for the ATM example and a few others). Consider the various predicates in (5c). Allowing that there will be interpretive differences across contexts and individuals, the property of being a BULLDOZER* can be roughly paraphrased as being 'obstinate, insensitive, uninterested in other people's opinions and feelings', and of being a BLOCK-OF-ICE* as being 'emotionally unexpressive, self-contained, unfriendly bordering on hostile'. Pretty clearly, these concepts are not going to be found in the encyclopaedic entries or the schemas attached to the linguistically encoded concepts BULLDOZER and BLOCK-OF-ICE, to which the communicated properties do not (cannot) apply, so that again some process or mechanism other than, or additional to, the activation (and deactivation) of existing concepts or parts of schemas is required. The process is, in a real sense, a constructive one, so unlikely to be effected by a

⁸ See Vega-Moreno (2004) for a relevance-based inferential account of this example and Vega-Moreno (2005) for discussion of a wider range of cases involving emergent properties and of some problems for the blending account of how these properties arise.

passive dumb mechanism in which ‘the dynamics of accessibility does everything and no inference is required’ (Recanati 2004a: 32).⁹

Let us now consider how Recanati’s framework deals with a very different kind of non-literal language use, that of irony, focusing on the primary meaning of ironical utterances. He discusses just the rather standardised example ‘Paul is a fine friend’ (Recanati 2001: 272-273; 2004a: 71, 77-78) but it seems clear that the account is intended to apply to novel instances of irony too. It builds on Grice’s (1978/89b: 54) few remarks about ironical utterances, that they involve (transparent) pretence and have a secondary meaning (conversational implicature): ‘By pretending to say of Paul that he is a fine friend in a situation in which just the opposite is obviously true, the speaker manages to communicate [by implicating] that Paul is everything but a fine friend.’ (Recanati 2004a: 71). So what is the primary meaning here and how is it to be accounted for on the associative, accessibility-based account of pragmatic processes? Recanati says that at the primary level one must recognize that ‘the act of asserting that Paul is a fine friend is staged or simulated rather than actually performed. And that means that one must discern two “layers” within the primary meaning of the utterance: the surface speech act which the speaker pretends to perform, and the ironical act of staging the performance of that act.’ (Recanati 2004a: 77). He emphasises that this layering, which is typical of a wider class of ‘staged communicative acts’, is internal to the primary meaning of the utterance. But what of the primary *process* responsible for deriving this complex primary meaning? Recognition that an apparent assertion is being staged is clearly a matter of a global pragmatic inference, and one which appears to depend on some pragmatic principle or other concerned with rational communicative behaviour, whether a Gricean maxim of truthfulness or something more like the Sperber/Wilson communicative principle of relevance. Recanati gives no indication of how primary processes, as he has characterised them, could account for this dual-layered primary meaning. We may, of course, agree that both of the concepts FINE FRIEND and LOUSY FRIEND will be highly activated, the former due to linguistic encoding and the latter to salient features of the situation under discussion, but that alone cannot account for the conclusion that the speaker is simulating a speech act. It is equally compatible with interpreting this as a pun or as a case of

⁹ Note that I am not claiming here that the inference need involve considerations of the speaker’s mental states. However, it has been suggested by Happé (1995), on the basis of her work testing the comprehension capacities of autistic people, that the understanding of metaphor requires a theory-of-mind capacity (the ability to pass first-order false belief tasks), something which is not necessary for the understanding of corresponding similes or literal language generally. If this is right, then the associative account with its blindness to speaker’s mental states cannot be right. (My own guess at this stage is that some metaphorical understanding requires reflective inference and some does not.)

miscommunication; something is missing from an account entirely in terms of levels of concept activation and that something seems to require considerations of rational communicative behaviour which are precluded from the ‘blind, mechanical, local and entirely accessibility-based’ account of primary processes.

I leave non-literal uses now and turn briefly to cases of free enrichment which involve an unarticulated constituent. In such cases, a primary pragmatic process is not only responsible for the concept understood but also brings about a structural change in that there was no linguistic constituent (overt or covert) in the position occupied by the concept.¹⁰ Cases frequently discussed, by Recanati and others, are given in (6), where the concept in brackets, which is a component of what is said, has no linguistic correlate in the sentence uttered.¹¹

- (6) a. I haven’t had breakfast [TODAY]
b. It’s raining [IN LONDON]
c. She took out her key and [THEN] opened the door [WITH THE KEY]
d. She insulted him and [AS A RESULT] he left the room

As before, the issue is whether, and if so, how the account of primary pragmatic processes in terms of differential levels of concept activation can explain how these cases work. In this regard, there is very little to go on in Recanati’s discussion, which concentrates on cases of reference assignment and disambiguation. The usual talk of competing candidates doesn’t seem to make much sense when the constituent is not linguistically articulated – what would they be competing for? Since there is no variable or slot in the structure requiring that a value be provided, there seems to be nothing to motivate the process. An interpretation of (6a) as

¹⁰ In his paper called ‘Unarticulated constituents’, Recanati’s (2002b) objective is to argue for the existence of unarticulated constituents against those who deny there is such a thing, specifically Stanley (2000). In that paper, Recanati distinguishes between a ‘semantic’ and a ‘syntactic’ construal (or variety) of free enrichment, and he focuses there on the semantic construal. In the current context of a discussion of primary pragmatic processes, I take it that the relevant conception is the syntactic variety, whereby an addressee recovers a conceptual constituent on entirely pragmatic grounds and incorporates it into his mental representation of what the speaker has said.

¹¹ Some cases involving unarticulated constituents may be reconstrued as instances of meaning modulation (ad hoc concept construction). Recanati (2004a: 25) mentions example (6c) as a case in point, saying that instead of involving the linguistically unarticulated constituent [WITH THE KEY], it could be a matter of pragmatically narrowing the encoded general concept OPEN to the more specific concept OPEN-WITH-KEY. However, it is not clear to me that, having effected this conceptual narrowing, we wouldn’t still need to supply the unarticulated constituent in order to represent the intended meaning that she opened the door *with the key mentioned in the first conjunct* (Recanati 2004a: 23-24). Consider in this regard: ‘He picked up the hammer and vigorously hammered in the nail’, where the verb ‘hammer’ encodes HIT-WITH-HAMMER but still the meaning intended – that he hammered in the nail *with the hammer mentioned in the first conjunct* – has to be pragmatically inferred.

saying that the speaker (referent having been assigned) hasn't had breakfast *tout court* may not be very plausible or relevant, but considerations of plausibility and/or relevance are not supposed to play any role in primary processing. Such an interpretation would be highly accessible (since it involves little more than straight decoding and one very simple instance of reference assignment) and it is perfectly coherent. Similar comments could be made about the other examples. In each case, it is difficult to see how an interpretation which involves the linguistically unmotivated addition of a constituent of content could be more accessible than one that does not.

It is perhaps significant that it is with regard to examples such as these that Recanati expresses his approval of the RT mutual adjustment mechanism, whereby explicit utterance content can be enriched so as to provide inferential warrant for independently motivated hypotheses about implicatures (Recanati 2004a: 47). So, for instance, in (7), B indirectly communicates (via implicature) that she doesn't want a meal at that time, but this is only warranted by what she has said (her explicature) if it is enriched with the constituents shown in brackets (or similar ones):

- (7) A: Will you have supper with me now?
B: I've eaten [A MEAL] [THIS EVENING]

This does indeed provide a basis for explaining how the recovery of unarticulated constituents is motivated and it makes good sense in the context of the Relevance Theory account where the fundamental goal of comprehension is taken to be the derivation of sufficient cognitive implications, at a low enough processing cost, to satisfy the expectation of relevance raised by the utterance. This expectation guides the interpretation process, allowing a substantial element of backward inference from hypotheses about intended implications (implicatures) to premises (including the explicature) that might yield those implications. It is much less clear how it can be integrated into an account like Recanati's according to which the recovery of the components of what is said is simply a matter, for any given constituent location in the structure, of the most highly activated concept taking the position, a process, apparently, not constrained by any bid for relevance or by any other conversational maxims or principles.¹²

¹² A reasonable riposte here would be that we should suspend judgement on this until we have considered Recanati's account of the secondary pragmatic process of implicature-derivation. However, as will be discussed in the next section, his concern is with certain conditions on that process (principally its availability to consciousness) rather than with how the actual spontaneous, tacit on-line process works, so we do not get any idea of how it might interact with the associative primary processes.

In short, it remains to be demonstrated how, on this associative account, linguistically absent constituents of propositional content can be recovered.

Finally, although these non-inferential processes are not governed by Gricean maxims or by any other principles of rational communicative behaviour, Recanati does briefly advert to a search for coherence in arriving at primary meaning (what is said): ‘the tendency to prefer coherent interpretations (with a high degree of fit between the various semantic values)’ (Recanati 2004a: 36) and he cashes this out in terms of a preference for interpretations which instantiate available cognitive schemata. He doesn’t seem to view the search for coherence as having the status of a pragmatic principle in his ‘accessibility based framework’, but rather as a quite general cognitive proclivity, which plays a central role in determining the most accessible interpretation. Whether or not this framework proves able to explain the specific processes of free enrichment, staging, concept transfer, etc., there is a more general and basic question concerning what, on this account, motivates the utterance interpretation process in the first place. Utterances (and other ostensive stimuli) are attention pre-empting in a way that most other environmental phenomena are not. What is it about utterances that virtually inevitably triggers attentional focus and the expenditure of some processing effort? On the RT account, it is that such stimuli carry a presumption of their own optimal relevance, that is, a presumption that effort expended will be offset by cognitive effects gained. Mere accessibility, even coherence-based accessibility, doesn’t seem to be sufficient to motivate the automatic investment of attention and effort typical of our cognitive response to utterances. What is the cognitive benefit of a coherent, highly accessible interpretation which is nonetheless irrelevant, that is, does not connect up with existing assumptions and thoughts? Without the prospect of benefit, there seems to be little foundation for ongoing effort.

4. Secondary versus primary pragmatic processes: conscious (un)availability

At least since his 1989 paper, Recanati has maintained that what is crucial about conversational implicatures is that the secondary pragmatic process by which they are derived is a global, inferential process which is consciously available to all individual speakers and hearers who are capable of producing and comprehending implicatures, that is, the process is a personal-level one. In this regard, Recanati sees himself as very much a Gricean: ‘Grice said that “the presence of an implicature must be capable of being worked out” (Grice, 1989, p.31). For an implicature to be worked out, two conditions must be satisfied: (i) both what is

said and what is implied must be grasped, and (ii) the inferential connection between them must also be grasped. Many followers of Grice have (wrongly) interpreted this as requiring that *the theorist* be capable of working out whatever conversational implicature is posited to explain a given semantic phenomenon; but Grice clearly had in mind the participants in the talk-exchange themselves: it is the speaker and hearer who must be capable of working out the implicatures ...' (Recanati 1993: 245). He emphasises that 'we have *distinct conscious* representations for "what is said" and for "what is implicated" by a given utterance' and 'the inferential connection between these representations is as consciously accessible as the representations themselves' (Recanati 1993: 245). This *Availability Condition* distinguishes secondary processes from primary processes, which, he claims, do not meet it.

There seem to be two slightly different ways of construing this condition, at least on the basis of the quote above, one stronger than the other. As is well-known, Grice provided a general schema or pattern for the working out of implicatures, starting with the premises that the speaker has said that *p* and that the speaker is observing the conversational maxims (or at least the Co-operative Principle), then moving through a number of steps of reasoning involving the attribution of mental states to the speaker, some of them quite meta-representationally complex (e.g. 'she intends me to think, or is at least willing to allow me to think, that *q*'), ending with the conclusion that the speaker has implicated that *q* (Grice 1975/89b: 31). It is the capacity to reconstruct a line of reasoning of this sort that a number of followers of Grice have taken to be a requirement on the theorist. What is not entirely clear is whether Recanati's *Availability Condition* includes a requirement that hearers be consciously aware of performing such inferential steps as these, or it is the less demanding requirement of awareness that 'what is implicated' is inferentially grounded in, or justified by, 'what is said' (without awareness of the inferential steps). This second, weaker interpretation is supported by passages in later work (Recanati 2002a: 118; 2004a: 42). If that is the right interpretation, then there still is a distinction between what is required of the theorist, who has to be able to provide a step-by-step 'working out' of an implicature, and of the speaker/hearer, who (merely) has to be aware that there is an inferential connection.

However, the picture is altered when Recanati (2004a: 49-50) responds to the question of how it is possible to reconcile his acceptance of the RT mechanism of mutual adjustment of explicature (what is said) and implicature with the very distinct types of pragmatic process (primary and secondary) that he claims to be responsible for them. This would be pretty near impossible if the conscious availability of the inferential secondary process was taken to be a requirement on the process *as it occurred* (that is, while interacting with local primary

processes that are unavailable). Drawing on some ideas from Garcia-Carpintero (2001), Recanati distinguishes between two kinds of personal-level inferences: those that are conscious explicit *occurrent* inferences, ‘reasonings which we make by carefully going through their steps’, and those that, although they may occur as spontaneous, tacit (unconscious) processes, are such that ‘the cognitive agent to which [they are] ascribed ... is *itself* capable of making the inference explicitly and of rationally justifying whatever methods it spontaneously uses in arriving at the “conclusion”’ (2004a: 50). Recanati’s proposal, then, is that secondary processes are personal-level inferences of this second sort, that is, although they are usually not explicit or consciously available as they occur (on-line, as the psychologists put it), the individual must have the off-line ‘reflective capacities for making the inference explicit’. This reflective capacity is, he emphasises, *constitutive* of the capacity to derive conversational implicatures (but not of the capacity to derive what is said). This does take us some way to seeing how he can embrace processes of mutual adjustment in deriving what is said and what is implicated, although there is now a gap in the account: we are given no idea of how the actual tacit on-line process of implicature derivation works, that is, what the ‘methods spontaneously used’ might be (presumably, they are not associative as the primary processes are claimed to be).

While this move from *occurrent* to (merely) *dispositional* reflective inference is clearly a weakening of the conscious availability condition, it is also, in another respect, a strengthening in that it seems that, not only must the individual be able to become consciously aware that there is an inferential connection between what is said and what is implicated, but she must also be able to make the inferential steps explicit, that is, to provide a rational reconstruction of the inferential link between premise and conclusion. So, what many followers of Grice have taken to be a task for the theorist really is, for Recanati, a requirement on individual speaker/hearers: they must be able to construct a pattern of reasoning from what is said to what is implicated which goes (roughly) along the lines of Grice’s working out schema.

I would like now to consider two particular components of Recanati’s Availability claims, bearing in mind the weaker dispositional construal of conscious accessibility. First, as regards primary pragmatic processes, the claim is that only their output (what is said) is consciously available, so neither the processes themselves nor the decoded linguistic meaning and elements of background information which provide the input to the processes are available to consciousness (Recanati 1993: 247; 2004a: 14, 19-20). Second, given that what is said is consciously available as a *distinct representation* from what is implicated, within

overall speaker meaning (what is communicated), Recanati takes it that speaker-hearers have reliable intuitions about what is said and that these intuitions can be called on as support for his contextualist position as against various minimalist positions. Let's consider these points in order.

Is it true that linguistic (expression-type) meaning and the extralinguistic contextual information on which primary processes depend are unavailable to speaker-hearers? Consider again the metonymic use in (8a), which, for Recanati, has the explicit content (what is said) given in (8b) (and, we may suppose, an implicature such as (8c)):

- (8) a. The ham sandwich is getting impatient.
b. THE PERSON WHO ORDERED A HAM SANDWICH IS GETTING IMPATIENT.
c. THE WAITER SHOULD SERVE PROMPTLY THE PERSON WHO ORDERED A HAM SANDWICH.

In comprehending (8a), the process that takes us from the literal concept of the item of food to the person who ordered it is highly transparent (available to conscious reconstruction). In fact, for people who haven't met this kind of use before, it's not only consciously available, but actual conscious reasoning may be necessary in order to derive the intended meaning. Its availability is reflected in the perfectly coherent, albeit deliberately uncooperative or playful, response by B in (9):

- (9) A: The ham sandwich is getting impatient.
B: Don't be silly – sandwiches can't get impatient.

The situation is similar for a range of other primary processes, including metaphorical transfers, recovery of unarticulated constituents, strengthenings and loosening of word meanings. Consider the exchange in (10), where, again, the idea is that B understands the metaphor perfectly well, but his response shows his awareness of the literal meaning of A's utterance:

- (10) A: Juliet is the sun.
B: Oh right, full of hydrogen and helium is she?

Recanati (2004a) considers some metaphorical uses where the relation between the literal and the figurative meaning is transparent; he describes them as ‘cases in which there is a felt duality *internal to the primary meaning of the utterance*’, a duality which is importantly different from the primary/secondary (or *external*) duality because ‘normal interpreters are aware of the (secondary) processes through which the secondary meaning is derived, but they are not aware of the (primary) processes through which the primary meaning is derived.’ Recanati (2004a: 79). This raises a number of questions. First, it is debatable that normal speaker-hearers have no (dispositional) awareness of the primary process involved in cases of transparent metaphor – given awareness of the duality of meaning of, for instance, ‘the sun’ in (10) (and, of course, awareness that Juliet is not literally the sun), a speaker-hearer is surely highly likely to be capable of consciously recognising that one meaning is derived from (grounded in) the other. Second, on the usual assumption that the literal meaning of a metaphor is not speaker-meant, there is a tension between this account of (transparent) metaphor and Recanati’s insistence that the primary meaning of an utterance (what is said) is a component of speaker meaning. And, third, even if the explanation does work for certain cases of extended metaphor (and/or irony, to which he also applies it), it does not carry over to the transparent metonymic case – the speaker did not mean that the bread-and-meat object was getting impatient – nor to the next group of examples, (11)-(12), which are cases where a quite ordinary (non-figurative) process of pragmatic enrichment appears to be consciously available.

- (11) A: Everyone came to my party.
B: That’s rubbish. Tony Blair didn’t come, nor did Madonna or Osama Bin Laden, and, anyway, your house couldn’t fit every single person.
- (12) Mother to young child just before bedtime: Have you brushed your teeth?
Child (grinning): Yes I have - [*pause*] - last night.

In the case of (11A), it will be obvious to any normal hearer that the speaker intended to communicate that everyone in some specific group (say, all the members of her pragmatics class) came to her party. The deliberately obtuse response in (11B) indicates the availability of the input (i.e. the unqualified quantifier) to the pragmatic process which supplies the

quantifier domain¹³ and quite probably also an ability to provide some justificatory reconstruction of how the intended primary meaning is derived. The example in (12) is an attested case where a child of four shows his awareness both of the primary meaning the mother intended and of the linguistic input to the pragmatic process (the open temporal parameter), and perhaps also of the process itself (certainly there is awareness *that* there is some process of fixing the relevant time).

An interesting case here is Grice's (1975/1989b: 32) 'open garage' implicature example, which Recanati (2004a: 46) reanalyses as a case of sense modulation, a primary process, as follows:

- (13) A: I am out of petrol.
B: There's a garage round the corner.
What is said: THERE'S A GARAGE* ROUND THE CORNER
[where GARAGE* = garage that is open and has petrol to sell]
- (14) I didn't say the garage was open – I just told him where it was.

Queried later, a disingenuous B could respond as in (14), showing the (at least dispositional, perhaps even occurrent) availability of the linguistic meaning of 'a garage'. Just as Grice required (and demonstrated when discussing this example), the process that takes us from the literal meaning of 'a garage' to 'a garage that is open and selling petrol' (or his more tentative: 'a garage that is, at least as far as B knows, open, etc.') is explicitly reconstructible as a rational inferential process, with a premise that the speaker is observing the maxim of Relation, and inferential steps concerning what she must, therefore, have intended the hearer to think on the basis of her utterance. On Recanati's reanalysis, however, this is a primary process and so is predicted to not be available to consciousness.

In arguing that primary processes do not meet the availability condition, Recanati (2002a: 118) says: 'The interpreter is not aware that his judgment, to the effect that the speaker has said that *p*, is inferentially derived from a prior judgment, e.g. a judgment to the effect that the speaker has uttered sentence *S*.' What this entails is that global *sentence meaning* is not consciously accessible, which is almost certainly right. Given the early onset (as soon as the first utterance sounds impinge) and speed of pragmatic processing, it is very

¹³ Examples (9) and (11) are adapted from Stanley (2005), who uses them for his different purpose of trying to establish which aspects of intuitive content are, and which are not, genuinely semantic (in his terms).

unlikely that a hearer ever forms a representation of pure sentence meaning as a whole (even subpersonally). But what the discussion above suggests is that quite a lot of the lexical or phrasal meaning, which is the input to primary processes, is available to ordinary speaker-hearers, and they are well aware that there is some process (whether it is to be thought of as inferential or not) that goes from elements of conventional linguistic meaning to elements of explicitly communicated content. So, at the very least, there is a lot more to be said here than simply that secondary processes are (dispositionally) available to consciousness while primary ones are not, a statement that seems to leave primary pragmatic processes lumped in with linguistic processes, like lexical access and syntactic parsing, which are indeed inaccessible to consciousness (tacit, sub-doxastic). The current observations call for some finer-grained distinction within the realm of availability: perhaps a distinction between availability as a global process and availability as a local process. The examples above seem to indicate that (at least some) primary pragmatic processes are (at least dispositionally) consciously available as local processes. Given that they *are* local processes - very often the result of a specific constituent adjustment made in aid of providing inferential support for an implicature hypothesized on the basis of expectations of relevance - it is hardly surprising that what we are aware of is not a global mapping from sentence meaning (logical form) to what is said (explicature) but rather a variety of local mappings from linguistic constituents to communicated concepts.

On the basis of the examples so far considered, it might seem that among primary processes, it is the optional, non-minimal ones (i.e. various kinds of ‘free’ enrichment) that are available; that is, precisely those cases which Grice would have treated as conversational implicatures and so would have expected to meet his calculability requirement (that is, to be rationally reconstructible by the *speaker-hearer*, on Recanati’s interpretation of Grice). What about the minimal processes of disambiguation and reference assignment? Trying to follow the pattern of the previous examples, let’s suppose the exchange in (15) has taken place and is followed, some time later, by the exchange in (16). Here, B’s response to A’s challenge is odd, scarcely coherent:

(15) A: Who won the election?
B: [*looking at Tom*] He did.

(16) A: You were wrong. It was Sam, not Tom, who won the election.
B: I only said HE won the election – I didn’t say TOM did.

Presumably, the difference between this case and the earlier examples is due, at least in part, to the obligatory nature of the process of reference assignment and the fact that without it no fully propositional entity can be derived. (There must be more to it than this, though, given that other, apparently obligatory, cases of saturation – of which (12) might well be one - do not lead to the incoherence of (16)).

However, what is significant here is that nothing seems to follow concerning the (un)availability of the process of reference assignment. The inputs to the process (linguistic meaning and extra-linguistic contextual information) are certainly not inaccessible to consciousness (contrary to Recanati 1993: 247; 2004a: 14). Naïve native speakers (for instance, students in their first week of a linguistics programme) have no problem in giving a fair rendering of the expression-type meaning of ‘he’, ‘she’, ‘here’, ‘there’, etc. There is also no difficulty in making explicit the basis on which a tacit process of reference fixing has been made. For instance: if asked why they think that a speaker was referring to Tony Blair (rather than Cherie Blair or Jacques Chirac), they will respond that they know this because the speaker said [=uttered] “he” [rather than “she”] while pointing at (or demonstrating in some other ostensive way) Tony Blair and that this behaviour only makes sense if the speaker intended to be understood as referring to Tony Blair. They thereby show that their referential hypothesis has a rational basis and that they are (dispositionally) aware of the hypothesis itself, and of the evidence on which it is based, and are able, on reflection, to make the connection explicit. Recall that one property that primary and secondary pragmatic processes are widely acknowledged (and certainly by Recanati) to have in common is their reliance on background information, or what is sometimes called ‘wide context’. How odd, then, that in the case of primary processes the relevant contextual facts are claimed to be only tacitly known (sub-doxastic, subpersonal) while they are consciously accessed (or at least accessible) in the case of secondary processes (Recanati 1993: 247; 2004a: 20, 46). With regard to reference assignment, it’s not that the contextual information is only tacitly known, but rather that it’s so obvious that hearers are likely to find it weird to be asked how they know who the speaker is referring to (only an academic would ask that!).

At the least, we can conclude that the availability of the ingredients of primary processes distinguishes them from the subpersonal processes of linguistic decoding (or visual perception), which are neither occurrently nor dispositionally available, but have to be investigated by more indirect scientific methods. Now, it might be that Recanati would be prepared to concede these points about primary processes, while insisting that they make no

difference to what, in the end, is the fundamental claim in his 2004 book, which is that it is *constitutive* of conversational implicatures that they meet the Availability Condition while it is not constitutive of ‘what is said’ (explicature). So, even if the pragmatic processes involved in deriving ‘what is said’ can be rationally reconstructed, that is a contingent matter – the ability to understand utterances by performing these primary processes in no way *depends* on having the reflective capacity for making elements of the processes explicit. In the case of secondary utterance meanings, on the other hand, the claim is ‘that there would be no conversational implicature if the interpreters did not have that reflective capacity’ (Recanati 2004a: 50). As it stands this is mere stipulation, but it does appear to have some testable empirical consequences.

Young children (below the age of four) who lack a fully developed explicit concept of belief (as investigated by standard false belief tasks), presumably, do not have the reflective capacity in question, so the issue to investigate is whether they are or are not able to produce and comprehend implicatures. Unfortunately, there is strikingly little research on this question and what there is seems equivocal. It has been repeatedly shown that children who are otherwise quite communicatively competent tend not to derive scalar ‘implicatures’, such as the inference from ‘some of the F’ to ‘not all of the F’ (see summary in Noveck 2004). But there are just too many unresolved issues around the process of scalar inference to make it a good test case for the current question; for instance, it’s not even clear yet whether it is a secondary or a primary pragmatic process (a point discussed a little more below), and it may be that it requires a metalinguistic ability, that is, an ability to compare linguistic forms (‘she said “some” when she could have said “all”, so ...’), which may develop relatively late. There is some meagre evidence that children between 2 and 3 years old can produce and understand indirect requests (Newcombe and Zaslow 1981; Papafragou 2002), but, while most pragmatists would treat these as cases of implicature, it can be argued (and several developmentalists have done so) that they are really cases involving established routines of some sort (e.g. ‘when I say I’m hungry mummy gives me something to eat’). There are, then, two areas of research needing attention here: the development of a typology of conversational implicatures detailing the different cognitive demands of the different kinds, and the testing of young children’s ability to comprehend the different types (in tandem with tracking the development of their capacity for explicit reflective reasoning). Only when these investigations are sufficiently advanced will it be possible to test Recanati’s ‘constitutiveness’ claim. For the moment, it remains an interesting but unsubstantiated hypothesis.

Let's move now to the second of the consequences of Recanati's Availability view under consideration. As he points out, the availability of 'what is said' follows from Grice's characterisation of it as a variety of non-natural meaning, an aspect of (overtly intentional) speaker meaning. On this basis, Recanati formulates his *Availability Principle* (as distinct from the *Availability Condition*), 'according to which "what is said" must be analysed in conformity to the intuitions shared by those who fully understand the utterance – typically the speaker and the hearer, in a normal conversational setting' (Recanati 2004a: 14). He takes this principle to work against the minimalist (or literalist or semantic) view of what is said which does not, or so he claims, conform to speaker-hearers' intuitions.¹⁴

How can we theorists tap these intuitions? Recanati assumes that 'whoever fully understands a declarative utterance knows which state of affairs would possibly constitute a truth-maker for that utterance, that is, knows in what sort of circumstance it would be true' (Recanati 2004a: 14) and suggests that the way to elicit intuitions concerning what is said (truth-conditional content) is to present 'subjects with scenarios describing situations, or, even better, with – possibly animated – pictures of situations, and to ask them to evaluate the target utterance as true or false with respect to the situations in question' (Recanati 2004a: 15). This method has, in fact, been employed by Ira Noveck and colleagues in a series of experiments on people's understanding of scalar terms such as 'some', 'or' and 'might' (for a survey of the experiments, see Noveck 2004). The focus is on the pragmatic process of 'scalar inference', as mentioned above, which goes from 'some of the F' to 'not all of the F', from 'P or Q' to 'not both P and Q', and from 'x might be F' to 'x might not be F' (leaving aside number terms which are now widely thought to work differently from other scalar cases). The issue that concerns us here is whether this process does or does not contribute to the intuitive truth-conditional content ('what is said') of the utterance, (although this was not generally the issue concerning the experimenters). In one of the many experiments on this, one of the test utterances was 'Some of the turtles are in the boxes', presented to subjects with a number of accompanying scenarios, including one in which some of the turtles are in the boxes and some are lying outside the boxes, and another one, the crucial case, in which all of the turtles are in the boxes. Presented with an utterance-scenario pair, adult subjects¹⁵ were asked to judge the

¹⁴ When it was first presented (Recanati 1989: 309-10; 1993: 248), the *Availability Principle* was put to a slightly different use: as a criterion for deciding, for any pragmatically determined aspect of utterance meaning, whether it is part of what is said or an implicature.

¹⁵ The experiments conducted by Noveck and colleagues were primarily focused on the development in children of the ability to make scalar inferences, the data from adults being used mainly for comparative purposes. The

utterance as ‘true’ or ‘false’, where the response ‘false’ in the test case (where all the turtles are in the boxes) should, according to Recanati’s principle, indicate that the scalar inference (‘not all of the turtles’) is contributing to truth-conditional content (‘what is said’). The problem for the Availability Principle is that adult responses were very far from univocal. In this particular experiment, 53% responded positively, 47% negatively (Noveck 2004: 308) and this result is consistent with the findings across a wide number of other experiments carried out on such scalar terms. In short, the pretheoretic intuitions of ordinary speaker-hearers concerning the truth-conditional content (hence ‘what is said’) of utterances involving scalar terms (presented with scenarios which strongly encourage the pragmatic inference) are highly divergent.

It could reasonably be objected that the pragmatics (and semantics) of scalar terms is a particularly contentious area and so not one which should lead us to abandon a principle or a methodology which is otherwise sound. However, doubt about the utility of the principle enjoining respect for intuitions coupled with the suggested method for eliciting intuitions is not confined to scalar cases. For cases of metaphor and metonymy, there are a number of complications: first, how to set up appropriate scenarios for the intended content is unclear (Juliet with light radiating from her?) and second, it seems quite likely that ‘The ham sandwich is getting restless’ coupled with a picture of an animated ham sandwich, or ‘Juliet is the sun’ with a picture of Juliet’s face peering out of the sun, will elicit ‘true’ responses (hence not reflect what the speaker has said, on the contextualist position). There are also quite banal cases where it seems that truth-conditional intuitions vary, some people being naturally more literal-minded (or rigorous) than others when asked to focus on truth. Consider the example in (17), adapted from Travis (1989: 18-19), where the contextualist view is that what B explicitly communicates (‘says’) by her utterance incorporates the conceptual narrowing represented by MILK*.

- (17) A: Let’s have some coffee.
 B: Okay, there’s milk in the fridge.
What is said: THERE’S MILK* IN THE FRIDGE
 [where MILK* = milk suitable for coffee]

general finding is that children are less likely than adults to derive scalar inferences and so more likely to find scalar utterances acceptable in any scenario compatible with the literal (logical) meaning of the scalar term.

Now suppose, employing Recanati's favoured method for eliciting intuitions concerning 'what is said', subjects are presented with the utterance (fully contextualized) and a picture of the open fridge which has a half-full bottle of milk on one of its shelves, and are asked to evaluate the truth of the utterance with respect to the situation depicted. Subjects will, no doubt, judge it to be true. But how will they respond when the utterance is presented together with a picture (a close-up photograph, perhaps) of the open fridge containing no bottle, carton or jug of milk but with a few drops of spilt milk clearly visible on the bottom shelf? Some may say the utterance is false (after all, this does not constitute milk in the intended sense), but others will surely say it is (strictly speaking) true in the pictured situation. If allowed to elaborate, they might explain themselves along the following lines: 'well, of course, it doesn't mesh with what the speaker intended or what the hearer would take her to have meant, but strictly speaking the utterance is true – there *is* milk in the fridge in this scenario, but not milk that is of any use for making coffee which is what really matters to the conversational participants. It's true but irrelevant and misleading.' Berg (2002: 353) discusses this example, regarding which he has the latter sort of intuition, and talks of the 'slugfest of intuitions' into which theoretical debate about such cases among minimalists and contextualists is apt to descend. In the case of ordinary folk with no theoretical axes to grind, there isn't any fight but, I believe, their untutored intuitions are likely to be equally divergent. Judgements of truth/falsity will depend on what a given individual takes as the object to be evaluated, whether some element of conventional linguistic meaning or some aspect of what the speaker meant.¹⁶

Given the availability (of many instances, at least) of literal lexical meaning, as argued earlier in this section, it is hardly surprising that intuitions about the truth of an utterance might pull away from (intuitions about) what a speaker meant (explicitly) by the utterance. Acceptance of the *relevance-driven* mechanism of mutual adjustment, which affects (speaker-meant) explicit utterance content as well as implicature, should also deter us from expecting truth judgements to always coincide neatly with judgements about what constitutes a level of pragmatically enriched content ('true but not relevant' being a very reasonable sort of

¹⁶ As Deirdre Wilson has pointed out to me, there is a further range of factors that are likely to confound intuitions about the truth of utterances, including folk ideas about literal vs. figurative meaning (some people simply have a robust intuition that metaphors and metonymies are false, others don't), the effects of linguistic form on the way utterance information is presented (foregrounding vs backgrounding, parentheticals, subordination vs coordination, stress placement, etc.) and cases where the main point of the utterance doesn't coincide with the contextualist 'what is said' (e.g. an utterance of 'I lied' whose main point may be to communicate 'I admit that I lied', or an utterance of 'I think I'll leave now' whose main point is 'I'll leave now').

judgment to make). In fact, we might wonder whether any particular purpose is served by the concept of ‘the truth-conditional content of *an utterance*’. From a communication-theoretic (or speaker meaning) perspective, what matters is what is communicated and how it is communicated. For good reasons, this splits into two kinds of communicated assumptions – explicature (what is said), which is developed out of the decoded logical form of the utterance, and implicature, which is wholly inferred – and, of course, each of these has its own truth conditions. On the Fodorian ‘psychosemantic’ view (Fodor 1987), adopted by relevance theorists, the primary bearer of truth conditions is not utterances (much less sentences) but propositions or thoughts, so any talk of the truth conditions of utterances is purely derivative and not of any obvious use.

I’m not sure that these considerations invalidate the Availability Principle itself, but they make it effectively unusable because of the problem of eliciting intuitions of the right sort. I agree with Recanati (2004a: 14-15) that directly asking people what a speaker has said, as opposed to implied, is hopeless, but asking them for truth value judgements doesn’t seem very much better. So analysing ‘what is said’ in conformity with the intuitions of ordinary speaker-hearers does not, alone at least, provide clear support for the contextualist over the minimalist. Perhaps the theorist has to adopt a more roundabout approach. It may be that people’s pre-theoretic intuitions about what a speaker has implied (and clearly not said) could provide a better starting point. Then, given theoretically motivated constraints such as that (a) what is said is a pragmatic development of the encoded linguistic meaning, and (b) it must provide inferential warrant for the implicature (what the speaker has clearly implied), we may be able to reason our way to a decision about what she can be taken to have explicitly communicated (‘said’). In practice, this is pretty much how contextualists like Recanati and relevance theorists have proceeded in getting at explicit utterance content.

5. Conclusion: pragmatic processes and reflective reasoning

There are (at least) three striking aspects to Recanati’s pragmatics: (1) his radical contextualism, which incorporates into ‘what is said’ many elements of speaker meaning that Grice treated as conversational implicatures; (2) his account of the pragmatic processes that contribute to ‘what is said’ in terms of conceptual associations and levels of activation; (3) his claim that it is constitutive of the (secondary) processes responsible for conversational implicatures that they are (dispositionally) consciously available and reconstructible by the

speaker-hearer. I have raised some questions about the second and third aspects. It remains to be shown, and there is some reason to doubt, that the approach in terms of differential levels of concept activation can explain the proposed primary meaning of metaphorical and ironical utterances or account for the recovery of unarticulated constituents. At present, it appears better able to support a minimalist than a contextualist position. As regards the availability claims, the components of many primary processes (metonymy, recovery of unarticulated constituents, some instances of saturation) seem to be as readily available as those of secondary processes, and at present there is no empirical evidence that could enable assessment of the ‘constitutiveness’ assertion as regards secondary processes.

The relevance-theoretic approach to utterance comprehension offers a unitary account of the pragmatic processes that deliver explicatures and implicatures. It makes no strong claims about the conscious availability or unavailability of particular subprocesses or the inputs to them. In particular, it does not assume that speaker-hearers’ intuitions about explicit content or the truth of utterances can play a criterial role in the delimitation of explicature (what is said). However, if and where there is some uniformity of judgment (perhaps for a subset of declarative utterances), that is valuable evidence to be used along with other considerations and constraints. One such constraint is that, as Recanati insists, an essential property of explicature (‘what is said’) is that it is speaker meant (part of what is communicated). Any retreat from that to some more semantically-oriented notion of ‘what is said’ (for instance, in Bach 1994) simply entails that the explicit/implicit distinction *within speaker meaning* arises under some other labelling (‘implicature’/implicature for Bach). A second constraint shared by Recanati and RT is the requirement that the outcome of the comprehension process should be such that any implicated conclusions are properly warranted. One of the premises on which an implicature depends is the explicature (what is said), which may have to be enriched or otherwise adjusted so as to provide the required inferential soundness. These considerations may well be sufficient to secure the contextualist position on explicature (what is said).

Finally, then, what role does the capacity for explicit reflective reasoning play in communication/comprehension? It *can* be employed for the rational reconstruction of a spontaneous pragmatic process (whether primary or secondary), though this is not an exercise that people perform much off their own bat. Its most likely role is as a backup mechanism when something goes wrong with the automatic intuitive mechanisms of utterance understanding. This seems to be the view of Campbell (1981) in a passage, which, oddly enough, Recanati often cites as support for his position on the essential involvement of

reflection in implicature (see Recanati 2004a: 12; 2004b: 47): ‘A macropragmatic process is one constituted by a sequence of explicit inferences governed by principles of rational cooperation. A micropragmatic process develops as a cryptic [= unconscious] and heuristic procedure which partially replaces some macropragmatic process and *which defaults to it in the event of breakdown*’ (Campbell 1981: 101 [my emphasis]).¹⁷ As far as I can see, this is also very much in keeping with Millikan’s (1984: 69) discussion of the conditions under which Gricean reflective reasoning enters into communication: ‘The truth in Grice’s model is that we have the ability to interrupt and prevent the automatic running on of our talking and our doing-and-believing-what-we-are-told equipment, and assume others have this ability too. We interrupt, for example, when we have happened to look under the hood and discovered evidence that the conditions for normally effective talking ... are not met.’

References:

- Bach, K. 1994. Conversational implicature. *Mind and Language* 9, 124-62.
- Becker, A.H. 1997. Emergent and common features influence metaphor interpretation. *Metaphor and Symbolic Activity* 12/4: 243-259.
- Berg, J. 2002. Is semantics still possible? *Journal of Pragmatics* 34: 349-59.
- Campbell, R. 1981. Language acquisition, psychological dualism and the definition of pragmatics. In: Parret, H., Sbisà, M. & Verschueren, J. (eds.) *Possibilities and Limitations of Pragmatics*. Benjamins.
- Carston, R. 1988/91. Implicature, explicature and truth-theoretic semantics. In: Kempson, R. (ed.) 1988. *Mental Representations: The Interface between Language and Reality*. Cambridge: Cambridge University Press, 155-81. Reprinted in Davis, S. (ed.) 1991. *Semantics: A Reader*. Oxford: Oxford University Press, 33-51.
- Carston, R. 2002a. Linguistic meaning, communicated meaning and cognitive pragmatics. *Mind and Language* 17 (1/2), 127-148.

¹⁷ As noted by Wilson (2005: 1135) in a discussion of the communicative and pragmatic characteristics of people with Asperger’s syndrome, it looks as if ‘[they] use general-purpose reflective reasoning to make up for a lack of the spontaneous intuitive ability [to interpret utterances]’. She demonstrates this with the case of a woman who uses explicit reasoning to try to figure out what someone meant by his use of the word ‘sad’, so a case of lexical meaning adjustment (or sense modulation).

- Carston, R. 2002b. *Thoughts and Utterances: The Pragmatics of Explicit Communication*. Oxford: Blackwell.
- Fodor, J. 1987. *Psychosemantics*. Cambridge, Mass.: MIT Press.
- Garcia-Carpintero, M. 2001. Gricean rational reconstruction and the semantics/pragmatics distinction. *Synthese* 128, 93-131.
- Gineste, M., Indurkha, B. & Scart, V. 2000. Emergence of features in metaphor comprehension. *Metaphor and Symbol* 15, 117-135.
- Grice, H.P. 1975/89b. Logic and conversation. In Cole, P. & Morgan, J. (eds.) *Syntax and Semantics 3: Speech Acts*, 41-58. New York: Academic Press. Reprinted in Grice, H.P. 1989b, 22-40.
- Grice, H.P. 1978/89b. Further notes on logic and conversation. In Cole, P. (ed.) *Syntax and Semantics 9: Pragmatics*, 113-127. New York: Academic Press. Reprinted in Grice, H.P. 1989b, 41-57.
- Grice, H.P. 1989a. Retrospective epilogue. In Grice, H.P. 1989b, 339-385.
- Grice, H.P. 1989b. *Studies in the Way of Words*. Cambridge, Mass.: Harvard University Press.
- Grice, H.P. 2001. *Aspects of Reason*. Oxford: Clarendon Press.
- Happé, F. 1995. Understanding minds and metaphors: Insights from the study of figurative language in autism. *Metaphor and Symbolic Activity* 10 (4), 275-295.
- Millikan, R. 1984. *Language, Thought, and Other Biological Categories*. Cambridge, MA: MIT Press.
- Millikan, R. 2004. *Varieties of Meaning*. Cambridge, MA: MIT Press.
- Newcombe, N. & Zaslow, M. 1981. Do 2.5-year-olds hint? A study of directive forms in the speech of 2.5-year-olds to adults. *Discourse Processes* 4, 239-252.
- Noveck, I. 2004. Pragmatic inference related to logical terms. In: Noveck, I. & Sperber, D. (eds.) *Experimental Pragmatics*. Basingstoke: Palgrave, 301-321.
- Papafragou, A. 2002. Mindreading and verbal communication. *Mind and Language* 17 (1/2), 55-67.
- Recanati, F. 1989. The pragmatics of what is said. *Mind and Language* 4, 295-329.
- Recanati, F. 1993. *Direct Reference: From Language to Thought*. Oxford: Blackwell.
- Recanati, F. 1995. The alleged priority of literal interpretation. *Cognitive Science* 19, 207-32.
- Recanati, F. 2001. Literal/non-literal. *Midwest Studies in Philosophy* 25, 264-274.
- Recanati, F. 2002a. Does linguistic communication rest on inference? *Mind and Language* 17 (1/2), 105-126.
- Recanati, R. 2002b. Unarticulated constituents. *Linguistics and Philosophy* 25, 299-345.

- Recanati, F. 2003a. Embedded implicatures. *Philosophical Perspectives* 17(1), 299-332.
- Recanati, F. 2003b. Analytical table of contents for *Literal Meaning*. Available at: <http://jeannicod.ccsd.cnrs.fr/documents/disk0/00/00/03/26/index.html>
- Recanati, F. 2004a. *Literal Meaning*. Cambridge: Cambridge University Press.
Available at <http://www.institutnicod.org>
- Recanati, F. 2004b. 'What is said' and the semantics/pragmatics distinction. In: Bianchi, C. (ed.) *The Semantics/Pragmatics Distinction*. CSLI Publications, 45-64.
- Rubio-Fernandez, P. 2005. *Pragmatic Processes and Cognitive Mechanisms in Lexical Interpretation: The On-Line Construction of Concepts*. PhD dissertation, University of Cambridge.
- Sperber, D. 1994. Understanding verbal understanding. In: Khalifa, J. (ed.) *What is Intelligence?* Cambridge: Cambridge University Press, 179-198.
- Sperber, D. and Wilson, D. 1986/95. *Relevance: Communication and Cognition*. Oxford: Blackwell. Second edition 1995.
- Sperber, D. and Wilson, D. 2002. Pragmatics, modularity and mind-reading. *Mind and Language* 17 (1/2), 3-23.
- Stanley, J. 2000. Context and logical form. *Linguistics and Philosophy* 23, 391-434.
- Stanley, J. 2005. Semantics in context. In: Preyer, G. and Peter, G. (eds.) *Contextualism in Philosophy: Knowledge, Meaning and Truth*. Oxford: Oxford University Press.
- Travis, C. 1989. *The Uses of Sense*. Oxford: Oxford University Press.
- Vega-Moreno, R. 2004. Metaphor interpretation and emergence. *UCL Working Papers in Linguistics* 16, 297-322.
- Vega-Moreno, R. 2005. *Creativity and Convention: The Pragmatics of Everyday Figurative Speech*. PhD dissertation, University of London.
- Wharton, T. 2002. Paul Grice, saying and meaning. *UCL Working Papers in Linguistics* 14, 207-248.
- Wilson, D. 2005. New directions for research on pragmatics and modularity. *Lingua* 115, 1129-1146.
- Wilson, D. & Sperber, D. 2002. Truthfulness and relevance. *Mind* 111, 583-632.
- Wilson, D. & Sperber, D. 2004. Relevance theory. In: Horn, L. & Ward, G. (eds.) *Handbook of Pragmatics*. Oxford: Blackwell, 607-632.