*Paul Grice, reasoning and pragmatics**

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Abstract

Grice (1957, 1975, 1989) argued that communication involves inference and that speaker meaning is grounded in reasons. For Grice (2001), reasoning can be explicit and conscious or intuitive and unconscious. This paper suggests that pragmatic interpretation, even when unconscious, counts as reasoning, where reasoning is a goal-directed activity involving reason-preserving transitions, and that this was Grice's view. An alternative view is that if pragmatic processes are not conscious (or cannot be brought to conscious awareness) they are not inferential or do not count as reasoning. Some arguments are given in favour of the view I attribute to Grice.

0 Introduction

One of Grice's contributions to pragmatics was to focus attention on its connections with rationality, inference and reasoning. He suggested that talking might be seen "as a special case or variety of purposive, indeed rational, behaviour" (1975, p. 47) and that those aspects of a speaker's meaning which go beyond sentence meaning are not decoded but inferred. He did not think that the type of inference involved was always conscious and explicit. "We have... a 'hard way' of making inferential moves; [a] laborious, step-by-step procedure [which] consumes time and energy... . A substitute for the hard way, the quick way, ... made possible by habituation and intention, is [also] available to us". (2001, p. 17)

In this paper, I suggest that 'reasoning' means inference undertaken in pursuit of a goal and argue that this is how pragmatic interpretation proceeds. Typically, pragmatically derived material is arrived at 'the quick way', where the quick way may include heuristic[1] processes. I argue that this involves reasoning, in contrast to

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[1] The term *heuristic* has a long history. The relevant sense in cognitive science is related to the use of this term in logic: "a problem-solving procedure that may fall short of providing a proof." (Priest, 1995, p. 354) Recently, Gigerenzer and his colleagues have done a great deal of work on heuristics in cognition. (See, e.g. Gigerenzer and Goldstein, 1996; Gigerenzer and Todd, 1999).

Warner's view that only the 'hard way' counts: "people hardly ever reason this [hard] way when communicating. ...You read the sentence and understood, without any intervening reasoning" (2001, p. x.).

Reasons and reasoning were also central to Grice's theory of meaning. I suggest that the kind of reasons Grice needed for his theory of meaning are those he elsewhere described as personal or justificatory-explanatory reasons. For Grice, an utterance was both a cause of and a reason for the hearer's interpretation.

Other theorists, including Warner, think that whether a pragmatic process is conscious or can be brought to conscious awareness tells us something about the process: whether it is inferential or not; whether it counts as reasoning or not. I contrast this view with Grice's picture and provide some considerations in favour of the latter.

1 Justifying the study of reasons and language use

According to Chomsky, language use "is typically innovative, guided but not determined by internal state and external conditions, appropriate to circumstances but uncaused, eliciting thoughts that the hearer might have expressed the same way" (Chomsky, 1996, p. 2). I agree.

Chomsky has also said that the creative, unbounded nature of language use makes it an unsuitable subject for scientific study. Here I disagree. The argument – which goes back to Chomsky's dismissal of behaviourism in his review of Skinner (Chomsky, 1959) – starts with the observation that what a language user might say is not predictable from the circumstances she is in. To take an example from James McGilvray's exposition of Chomsky's views, Gertrude, during a conversation about computer chips, might say:

(1) I'm going to join the Canadian bobsled team (McGilvray, 2005, p. 221)

As McGilvray says, "Her environment does not cause the sentence. She need not say anything at all, and could have said any number of things." Granting this, it is not clear how we are supposed to reach the conclusion that language use cannot be fruitfully studied. There are at least two problems with the argument. The key problem, is that although, as Chomsky (and McGilvray) say, language use is unbounded and not caused by input from the environment, it is typically "appropriate and coherent to circumstances", (McGilvray, 2005, p. 221) as they also allow.[2]

[2] Although this formulation is too vague. A major task for a pragmatic theory is to move on from this intuition, by defining appropriateness and coherence or by proposing an alternative characterisation of principles conducive to pragmatic felicity, as Grice did with the Cooperative

Speakers generally have reasons for what they say (although they may very well not have reflected consciously on those reasons, as I discuss below.) McGilvray acknowledges this:

> Perhaps [Gertrude] is letting her companions know she is bored and wants to talk about something else, or reminding them that their meals are getting cold. Perhaps she really wants to join a bobsled team. So while circumstances do not cause her sentence, it is appropriate to them: she has a reason – perhaps several – to say what she does. (McGilvray, 2005, p. 221)

There is no obvious bar to the systematic study of the speaker's reasons and her purposes in saying what she does in the way that she does. But when McGilvray summarises Chomsky's view: "while no science can 'explain intelligent behavior,' it might explain how intelligent behavior is *possible*," (McGilvray, 2005, p. 221, citing Chomsky, 1972, p. 13) McGilvray is referring to the study of language as a set of properties of the mind/brain, not to the study of the way that language is put to use. Apparently McGilvray thinks that although speakers have reasons for their use of language we can only usefully study the language system that they use, *not* the reasons why they use it in a particular way. It is problematic for this view that pragmatics appears to be a successful scientific research programme[3] judging by the usual standards. Among other merits, it offers unified explanations of phenomena previously thought unconnected; it inspires experimental work; and its conceptual foundations cohere with those of other branches of cognitive science.

A second problem for the view that language use is inscrutable is that it is clear that as tasks for the mind/brain, a speaker's choice of language in production is not symmetrical with a hearer's comprehension of a speaker's use of language. While a speaker is, in a sense, free to say anything at all (or nothing), a hearer has a much less open-ended task. The hearer's task is to assign an interpretation – which must be near enough to what the speaker intended – to an utterance once it is made. We shall see that this means that he must infer what the speaker meant by her utterance.

One might suppose that Chomsky's sceptical remarks about the study of language use are meant to apply only to the speaker's creative task rather than the more constrained task of the hearer, but this would be incorrect. Chomsky believes that study of the way a hearer[4] arrives at an interpretation is hopeless.

Principle and maxims.

[3] In the sense of Imre Lakatos. (Lakatos, 1970)

[4] Granted, the 'interpreter' in this quotation is a name for a mental faculty or group of faculties, rather than a person, so Chomsky's 'interpreter' is not the same as my 'hearer'. Still, interpretating an utterance is what the interpreter (in the mind of the hearer) does, and Chomsky thinks that this is "not a topic for empirical enquiry".

> There is also a further problem, which we can formulate in vague terms but which cannot be studied in practice: namely to construct an "interpreter" which includes the parser as a component, along with all other capacities of the mind – whatever they may be – and accepts non-linguistic as well as linguistic input. This interpreter, presented with an utterance and a situation, assigns some interpretation to what is being said by a person in this situation. The study of communication in the actual world of experience is the study of the interpreter, but this is not a topic of empirical enquiry for the usual reasons: there is no such topic as the study of everything. … The proper conclusion is not that we must abandon concepts of language that can be productively studied, but that the topic of successful communication in the actual world of experience is far too complex and obscure to merit attention in empirical enquiry. (Chomsky, 1992, pp. 69–70)

In fact, we can study not only the hearer's inferences about the speaker's intended meaning, but also the reasons that the speaker has, given a meaning that she wants to convey to the hearer, for making one utterance rather than another. This point was, of course, made by Grice in his work on meaning. The main business of this paper is to look at the way that reasons and language use are connected in Grice's work, with the ultimate aim of bolstering the view that there are systematic generalisations to be made in this area. Along the way I will argue (against one reading of Warner) for a particular interpretation of Grice, and, connectedly, (against Recanati and others) for a particular view of the way that reasoning and language use are connected.

Before getting into this discussion, though, I want to pause to observe that the 'problem of language use' should really be broken into two parts. There is the question of what a speaker might want to communicate in a particular situation. Here I agree with Chomsky that this question is not amenable to scientific study (at present, at least), perhaps because it is bound up with questions about free will.

There is also the group of questions about a speaker's reasons for producing a particular utterance to convey a given intended meaning in a certain situation, and the inferences a hearer will make about intended meaning, given an utterance. This second group of questions, on the face of it, is much more approachable. Chomsky's scepticism about the study of language use seems to rely on not seeing the two groups of questions as separable, or perhaps on thinking that the second group is no more approachable than the first. Grice's work on meaning can be seen as identifying this second group of questions and showing how they might be made tractable.[5]

[5] I am assuming that what Grice said about saying, as well as about implicatures and meaning in

2 Grice

For Grice communication involves reasoning in at least two ways. In the first place, the derivation of implicatures depends on rational cooperation between speaker and hearer, and implicatures must be derivable by a reasoning process. More generally, Grice argued that the analysis of speaker meaning involves an appeal to reasons, in that, for something to count as the meaning of an utterance, there must be reason to think that the speaker intended to convey that meaning in making the utterance. Reasons, then, are important foundations of Grice's work on communication and meaning[6].

There is little discussion of reasons and reasoning, however, in Grice's papers on these subjects, or in any of Grice's published work except *Aspects of Reason*.[7] (Grice, 2001). Looking at *Aspects of Reason* we can see how Grice saw reasons and reasoning. I will argue that it follows from what Grice says there about reasoning in general that arriving at conversational implicatures intuitively is an inferential and rational activity for him, just as much as if a conscious, explicit derivation were followed. I also note that reasons are central to Grice's broader theory of meaning, in that an utterance and its meaning are linked by a particular kind of reason. The utterance is both a reason for the hearer to think that the speaker believes some proposition p and a cause of the hearer's coming to think that.

Reasons are central to a great deal of Grice's philosophy. He was committed to understanding humans as rational agents, that is, as beings which have reasons for their actions and attitudes. This meant that he could try to understand actions and attitudes partly in terms of the reasons people might (or should) give for them and the reasoning they might (or should) follow to work out which attitude to adopt or action to take.[8]

This way of proceeding is exemplified in Grice's work on communication. The Cooperative Principle and conversational maxims can be seen as Grice's answer to a question he posed for himself: supposing that people are rational agents, how should one expect them to behave in conversation and other situations in which

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general, is not to be taken as concerning the speaker only, to the exclusion of the hearer, nor as a notion independent of both. This may clash with the intepretations of Grice held by some philosophers, for example Jennifer Saul, who argues that *what is said* is a normative notion, not a matter of the speaker's intentions, nor of the hearer's interpretation.

[6] Along with Wharton (2002), I follow Stephen Neale on the relation between the two theories: "It is at least arguable that the Theory of Conversation is a component of the Theory of Meaning. And even if this interpretation is resisted, it is undeniable that the theories are mutually informative and supportive, and that they are of more philosophical, linguistic, and historical interest if the temptation is resisted to discuss them in isolation from one another" (Neale, 1992, p. 512)

[7] As Warner notes in his introduction to *Aspects of Reason* (2001, p. viii).

[8] See Warner (2001, p. x), quoted explicitly on this point in a later section.

they have the goal of communicating? His conjecture is that they would cooperate, to some extent, and their communicative behaviour would be governed by rules or principles:

> I would like to be able to show that observance of the Cooperative Principle and maxims is reasonable (rational) along the following lines: that anyone who cares about the goals that are central to conversation/communication ... must be expected to have an interest, given suitable circumstances, in participation in talk exchanges that will be profitable only on the assumption that they are conducted in general accordance with the Cooperative Principle and maxims. Whether any such conclusion can be reached, I am uncertain. (Grice, 1989, pp. 29–30)

My view is that Grice's Cooperative Principle and maxims do not follow from reasonable assumptions about rationality and the conversational situation. However, I think that there are fruitful connections to make between Grice's work on reasoning and his work on communication and meaning. In this section of the paper I want to make two links:

(1) I argue that as far as Grice was concerned, making sense of utterances counts as reasoning, whether it is conscious or not, and whether it involves heuristics or not. I suggest that this follows from Grice's discussion (and definitions) of reasoning in *Aspects of Reason* when compared with what he said about communication.

(2) I also suggest that Grice may well have thought that a particular kind of reason, *personal*, or *justificatory-explanatory*, is the kind of reason hearers have for their interpretive responses to what speakers utter.

Further, I argue that Grice was correct, or at least that the point of view I outline is a promising and interesting way to see the link between rationality and communication. I do so mainly by contrasting it with an alternative view – that only conscious processes are inferential and only these processes can count as reasoning. In the next section I briefly outline this view.

3 The alternative

Some theorists have claimed that pragmatic inference is typically conscious and effortful. For example, Robin Campbell (1981) suggested that we should distinguish between conscious (phenic) and unconscious or subconscious (cryptic)

processes. Then pragmatic processes would typically be phenic and inferential, in contrast to linguistic knowledge, which is non-inferential and typically cryptic.

Campbell cites the construction of bridging inferences as the kind of pragmatic process that requires conscious inference:

> Suppose, reporting a late-night gathering, someone says "And then the police arrived and we all swallowed our cigarettes". To make sense of what was said we need a bridging inference. For example, that the cigarettes contained an illegal substance. I think it is fairly clear that in general such inferences involve real cognitive effort and hence phenic structures and processes... Ordinary communication ... is littered with all sorts of repair sequences showing, or so it seems to me, effortful cognition at work. (Campbell, 1981, p. 96)

Perhaps so. The interpretation of novel metaphors and the comprehension of figurative speech in literature are also areas in which effortful conscious reasoning seems to occur, at least sometimes.

But working out the explicit meaning of an utterance and making sense of it is not always a conscious process. One view, represented by Campbell, is that pragmatic processes are basically conscious, but that particular types of pragmatic inference can become routinized and unconscious. Other authors have thought that the normal state of affairs is that pragmatic processes are unconscious:

> The appropriate distinction within modes of processing and levels of explanation would seem to be between, on the one hand, a modular (sub-personal[9]) pragmatic processor which, *when all goes well* quickly and automatically delivers speaker meaning (explicatures and implicatures), and, on the other hand, processes of a conscious reflective (personal-level) sort which occur *only when the results of the former system are found wanting* (Carston, 2002, p. 146, my emphases).

I do not want to spend space on this difficult issue for its own sake; rather, what interests me is to see how it fits in with questions about reasoning and inference in pragmatics.

Certainly, some authors think that whether a process is conscious or unconscious tells us what kind of process it is: in particular, whether it can be inferential and whether it counts as reasoning. Campbell refers to conscious pragmatic processes as 'macropragmatic' and unconscious ones as 'micropragmatic' and suggests that only the former involve inference:

[9] The distinction between personal and sub-personal is from Dennett (1969).

> Macropragmatic processes would be analysed in terms of explicit inferences guided by principles of rational cooperation while micropragmatic processes would be analysed *as if* they involved such inferences. … it may be possible to go a little further and indeed, it is desirable to do so if one dislikes the notion of unconscious inference – as I do. … it is typically the case that these cryptic [i.e. unconscious] processes are merely heuristic; they deal adequately with the majority of circumstances but when they break down the control of the performance is returned by default, to deliberate phenic [i.e. conscious] guidance. (Campbell, 1981, p. 100)

So Campbell (i) prefers not to allow unconscious inference and (ii) suggests that when pragmatic processes are unconscious they are (often) heuristics. I think that these views are fairly widespread among pragmatic theorists. An even more widespread – and related – view is shared by Campbell and Carston, despite the disagreement over whether pragmatic processes are typically conscious or unconscious. This is the view that we should make a distinction in pragmatics between personal and sub-personal processes. I am sceptical about applying this distinction to pragmatic processes, mainly because I think that doing so can sometimes be seen as leading to the conclusion that unconscious pragmatic processes cannot be inferential, or count as reasoning[10]. The way I think that this goes is that the theorist supposes (like Carston) that personal-level processes are conscious, so if a process is unconscious it is subpersonal. Then (like Campbell) the theorist supposes that unconscious, subpersonal processes are not inferential. François Recanati, for example, divides pragmatic processes into primary and secondary. Primary processes are non-inferential and sub-personal; secondary processes are inferential and personal. I return to Recanati's views after a discussion of Grice in which I argue that Grice took an opposing view. Grice thought that reasoning could be unconscious, in general, and, I argue, in pragmatics.

4 Grice, reasoning, communication and meaning

In his Retrospective Epilogue, Grice picks out eight 'strands' from his philosophical writings. This section readdresses part of his Strand Six: "the idea that the use of language is one among a range of forms of rational activity " (1989, p. 341), which flows from his work on meaning (Strands Four and Five). As

[10] Although some theorists, notably Carston, both make the personal/sub-personal distinction and believe that inference is involved in unconscious pragmatics.

discussed above, I am drawing here on what Grice says about reasoning and reasons in *Aspects of Reason*.[11]

4.1 What is reasoning?

Grice devotes considerable space in *Aspects of Reason* to pursuing a viable conception of reasoning, with, I think, considerable success[12].

> I would regard reasoning as a faculty for enlarging our acceptances by the application of forms of transition, from a set of acceptances to a further acceptance which are such as to ensure the transmission of value from premisses to conclusion, should such value attach to the premisses. By 'value' I mean some property which is of value (of a certain kind of value, no doubt). Truth is one such property, but it may not be the only one; and we have now reached a point at which we can identify another, namely, practical value (goodness). So each of these should be thought of as special cases of a more general notion of satisfactoriness. (Grice, 2001, pp. 87–88)

Warner offers an elaboration of Grice's view:

> "Grice emphasizes that reasoning is a goal-directed activity: we engage in reasoning with (typically at least) the intention of producing reasons relevant to some end in view. This intentional activity involves the exercise of the ability to make reason-preserving transitions, where the transitions are between sets of thoughts or beliefs (or intentions or whatever). A transition is reason-preserving if and only if, necessarily, if one has reasons for the initial set, then one does for the subsequent set as well." (Warner, 2001, p. xxx)

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[11] There is illustrious support for this approach:

> "[concerning] the connection between *Aspects of Reason* and the rest of Grice's work. The two may seem oddly disconnected. [But] Views about reasons and reasoning underlie his theory of meaning as well as his general methodology for approaching philosophical problems." (Warner, 2001, p. viii)
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> "it is quite certain that as Grice's work on ethics and philosophical psychology becomes more widely available, there will be a resurgence of interest in the matter of the precise location of the Theory of Conversation within a larger scheme." (Neale, 1992, p. 532)

[12] One of the main concerns of *Aspects of Reason* (2001) is to define reasoning correctly. Part of the importance of this for Grice, I suggest, is that it would show that pragmatics counts as reasoning, as I discuss.

I accept both definitions, noting first that I defer discussion of the goal-directed nature of reasoning[13] to the end of this section, and secondly, that definitions of reasoning like this make certain philosophers – notably Gilbert Harman – unhappy because they seem to them to confuse rules of reasoning with rules of derivation. I do not discuss this line of objection here.

What Grice suggests, to summarize, is an account of reasoning as an activity which follows certain steps: steps which preserve the truth of the input (or more generally, he could have said, its *warrant*[14]) – putting aside the interesting parallels with practical or ethical reasoning – so that the input and output are related as premises and conclusions in an argument.

4.2 The hard way and the quick way

Grice was committed to understanding use of language as a rational activity, in which a hearer's interpretation of an utterance was rationally grounded in that utterance: what was uttered and how, and the fact that an utterance has been made. That is, the production of an utterance with a certain linguistic form in a certain way provides the hearer with reasons to believe that the speaker had a particular intention towards him: an intention that he come to think that the speaker believes p (in exhibitive cases) and that he comes to think this (at least partly) as a consequence of the speaker's making the utterance.

This is a general point about speaker's meaning. The aim of seeing language use as grounded in reasoning is particularly clear in Grice's insistence on the calculability of conversational implicatures.

As is well-known, in his work on conversation, Grice showed that the meaning that a speaker conveys by making an utterance on some occasion may go well beyond what is said or asserted. Utterances can have implicatures – implications which are part of the intended meaning of the utterance – as well as explicit content. Grice proposed that conversational implicatures[15] can be worked out from what is said (and the way it is said) by assuming that the speaker is conforming to the cooperative principle and (at least some of the) conversational maxims.

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[13] This aspect is extremely important to Grice's work on reasoning and to much of the rest of Grice's philosophy, as Neale has said, for example: "the connection between value and rationality, [is] a connection that is central to Grice's ethics and philosophical psychology." (Neale, 1992, p. 550)

[14] See Sperber and Wilson's discussion of reasoning with incomplete logical forms. (Sperber and Wilson, 1986, pp. 72–73) Warrant is preserved by valid inferences on incomplete logical forms, as truth is preserved by valid inferences on complete ones.

[15] As opposed to 'conventional' implicatures and to non-conventional, non-conversational implicatures.

> The presence of a conversational implicature must be capable of being worked out; for even if it can in fact be intuitively grasped, unless the intuition is replaceable by an argument, the implicature (if present at all) will not count as a conversational implicature; it will be a conventional implicature. (Grice, 1989, p. 31)
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> ... the final test for the presence of a conversational implicature [has] to be, as far as I [can] see, a derivation of it. One has to produce an account of how it has arisen and why it is there. (Grice, 1981, p. 187)

That is, there are 'conventional' aspects of meaning whose recovery is simply a matter of knowing and retrieving the relevant meaning, but crucially, non-conventional components of the meaning of an utterance can be worked out rationally.

There are different ways of taking this: one, which is fairly clearly mistaken (but attributed to Grice every year in student essays), is that Grice thought that participants in conversation have to consciously, laboriously work their way through the derivation of what is meant from (facts about) the utterance and some principles of rational cooperation. It is clear from what Grice says that this was not his view: implicatures can be "intuitively grasped". (Grice, 1989, p. 31)

A more plausible – and, I think, widespread – interpretation of Grice is that he thought that sometimes reasoning is involved in arriving at implicatures and sometimes it is not. When it is not, the implicature is grasped in a flash, intuitively. In these cases, one can always construct a chain of inferences which show how reasoning *might* have proceeded if there had been any reasoning involved, as is required by calculability, but in fact, on these occasions, there was none.

I am suggesting that this view is probably mistaken and that a third view should probably be taken: that when a conversational participant arrives at an implicature, the process that got him or her to the implicature would count as reasoning for Grice.

That is, I do *not* want to argue that Grice thought that on all occasions when language was in use speakers and hearers had to be engaged in *explicit, conscious* reasoning (that is view 1), but I do want to argue that he probably did think that they were engaged in reasoning.

This seems to emerge quite naturally from comparing what Grice said about language use with his views about reasoning in general. We have seen that Grice did not think that arriving at implicatures always involved conscious explicit inferences. Sometimes one might work out an implicature laboriously; sometimes one might grasp it 'intuitively, in a flash.'

Similarly, Grice did not think that reasoning in general was always conscious and explicit. As noted, discussing reasoning in general, he wrote, "We have… a 'hard

way' of making inferential moves; [a] laborious, step-by-step procedure [which] consumes time and energy… .A substitute for the hard way, the quick way, … made possible by habituation and intention, is [also] available to us". (Grice, 2001, p. 17)

What is important is that the 'quick way' of making inferential moves also counts as reasoning. Grice is quite clear about this. He says that in the absence of explicit reasoning,

> the possibility of making a good inferential step (there being one to be made), together with such items as a particular inferer's reputation for inferential ability, may determine whether on a particular occasion we suppose a particular transition to be inferential (and so to be a case of reasoning). (Grice, 2001, p. 17)

The parallel with what Grice says about calculability is exact. A mental or verbal transition intuitively made will count as a case of reasoning if it is inferential, that is, if it is capable of being worked out, just as "the presence of a conversational implicature must be capable of being worked out... even if it can in fact be intuitively grasped" (Grice, 1989, p. 31). The obvious conclusion is that this is more than a parallel: for Grice, arriving intuitively at a conversational implicature is an instance of reasoning.

That the parallel I have made is not obvious, or at least that the conclusion I have drawn from it is not, is shown by comparing two passages in Richard Warner's introduction to *Aspects of Reason*. First, a passage in which he is explaining the role of reasoning in Grice's theory of meaning:

> We can imagine you—the reader—reasoning as follows with regard to [a sentence, s]. "The sentence's standard meaning in English is [p]; Warner would not be producing that sentence in this context unless he intended to me to think that he believes [that p]. He has no reason to deceive me, so he must believe that." The problem, of course, is that people hardly ever reason this way when communicating. You did not reason in any such way when you read the sentence [s]. You read the sentence and understood—straightaway, without any intervening reasoning, without, indeed, thinking about it at all. (Warner, 2001, pp. x–xi (my emphases))

To make it still more clear that he does not think that reasoning was involved, he goes on to say that the key for Grice's theory of meaning is the "reasoning you *might* have engaged in".

> So, what is the relation between the reasoning you might have engaged in and your understanding the sentence? How is there any explanatory power in the fact that, although you reached your understanding of the sentence in some other way, you might have reasoned your way to such an understanding? The question is a critical one for Grice's theory of meaning. (Warner, 2001, pp. x–xi)

This quotation seems to commit Warner to the view that in pragmatics, if there is no conscious, explicit reasoning, then there is no reasoning at all. On this view, in the majority of cases, speakers and hearers are not engaged in reasoning.

Elsewhere in the introduction Warner discusses Grice's distinction between the hard way and the quick way of reasoning (in general), endorsing Grice's point that such a distinction makes sense and that the quick way is in fact reasoning[16]:

> The logician Georg Kreisel [who was given the pseudonym Botvinnik in Grice's text] illustrates the "quick way". Kreisel once published a six-page proof of a theorem; a "complete" proof—provided later by others—takes eighty-four pages. This long proof illustrates the step-by-step "hard way". Kreisel's "quick way" leaps over the vast majority of these steps, but it is still reasoning, still an exercise of the ability to make reason-preserving transitions. (Warner, 2001, pp. xxxii–xxxiii)

So the parallel that I have pointed out is apparent in what Warner says, but he does not remark on it and he does not draw the conclusion that I am suggesting.

Of course it is possible that Warner would actually say that getting at speaker's meaning involves reasoning *in a broad sense* which covers the quick way as well as the hard way. If so, when he says "You read the sentence and understood—straightaway, *without any intervening reasoning*, without, indeed, thinking about it at all," (Warner, 2001, pp. x–xi, my emphasis) he is using *reasoning* in a narrower sense to mean only those instances of reason-preserving transitions between acceptances which are accompanied by consciousness of the fact that one is making them. It does not much matter which interpretation of Warner is correct. I think that these quotations show that the view that arriving at speaker's meaning does not involve reasoning is tempting. It is tempting because there is very often no *conscious* reasoning involved: it just *feels* as though there is no reasoning. So there is some point in arguing, first, that this view is not a correct interpretation of Grice's views on the matter, and, secondly, that it is incorrect as a matter of fact.

[16] Although Warner may have a different conception of the 'quick way' from Grice, for whom the quick way could include heuristics (Deirdre Wilson, p.c.).

In summary, I have looked at two possible views on the relation of pragmatic processing to reasoning:

(1) Pragmatics[17] depends on reasoning but, on most occasions, does not involve any actual instances of reasoning. This is the view that Warner seems to put forward in his introduction to Grice, as discussed above.

(2) Pragmatics depends on reasoning and involves reasoning on each occasion, sometimes the *hard way*, but more often the *quick way*. I have argued that this is Grice's view. This view can be subdivided into at least two versions, not mutually exclusive:

a) What makes pragmatic interpretation count as reasoning is the way it parallels explicit inference (in some way that would need to be specified). I think this was Grice's view.

b) What makes pragmatic interpretation count as reasoning is that it involves (perhaps tacit) mental representation of steps that constitute an argument. This version seems more congruent with work in cognitive sciences.

4.3 Reasons and the theory of meaning

Next I discuss the way meaning is grounded in reasons in Grice's work. For a speaker, S, to mean proposition p by addressing an utterance U to a hearer H, S has to intend that H comes to think that S believes p, and that S comes to think this at least in part *because* of H's utterance of U. What this 'because' comes down to is that H's utterance of U must provide S with reason(s) to think that H believes p (for exhibitive utterances, as before).

As Stephen Schiffer says, there are therefore two conditions which must be met for an utterance U to mean something in Grice's sense:

(1) S must intend to produce [response] r[18] in [the hearer] A "by means of" A's recognition of S's intention to produce r in A. ... If we allow that

[17] I am using 'pragmatics' here as shorthand for pragmatic processing which arrives at non-conventional aspects of meaning. I take that 'conventional' aspects of meaning are the domain of semantics.

[18] This is a more general formulation than I have used, since response r is not limited to beliefs about the speakers beliefs. It might include beliefs that are not about the speaker's beliefs or responses that are not beliefs at all. This is intended to cover cases of telling: both telling someone that such and such and telling someone to do such such and such.

> reasons are causes[19], we may say that S intends r to be produced in A by virtue (at least in part) of A's belief that S uttered x intending to produce r in A just in case S uttered x intending that A's belief that S uttered x intending to produce r in A be (at least) a necessary part of a sufficient cause of A's response r. (2) The other restriction is that A's belief that S uttered x intending to produce r in A must not merely be intended to be a cause of A's response r, it must also be A's reason, or part of A's reason for A's response r … (Schiffer, 1972, p. 10)

This means that arriving at speaker's meaning is a matter of working out by reasoning – this comes from the second restriction – some of the speaker's intentions (the first restriction). The general pattern that the inference follows is set out by Schiffer again:

> What Grice had in mind was simply this: sometimes the fact that a certain person believes (or believes he knows) a certain proposition to be true is good evidence that that proposition is true, and sometimes the fact that a certain person intends (or wants) another to believe that a certain proposition is true is good evidence that the former person himself believes (he knows) that that proposition is true. (Schiffer, 1972, p. 11)

So if S says "The cat is on the mat", H may infer that S intended him to believe that S believes that the cat is on the mat and that may be good enough evidence for H to infer that S believes that the cat is on the mat. H may then go on to infer that the cat is on the mat.[20]

As Grice wrote in his first published paper on the subject:

> … in some sense of 'reason' the recognition of the intention behind [an utterance] x is for the audience a reason and not merely a cause. (Grice, 1957, p. 385)

This formulation rules out certain cases where an utterance produces an involuntary response in the hearer, as Grice explained at the time (see also Schiffer, 1972, p. 8).

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[19] Grice *did* think that (some) reasons are causes, as discussed below.

[20] Whether this last inference is strictly speaking part of arriving at the speaker's meaning is debatable. Grice made a distinction between exhibitive utterances "utterances by which U M-intends to impart a belief that he (U) has a certain propositional attitude" and *protreptic* utterances "utterances by which U M-intends, via imparting a belief that he (U) has a certain propositional attitude, to induce a corresponding belief in the hearer" (Grice, 1989b, p. 123; this is from Ch. 6, originally published as Grice, 1968). In the rest of the paper I discuss utterances on the assumption that they are primarily exhibitive.

> Suppose I discovered some person so constituted that, when I told him that whenever I grunted in a special way I wanted him to blush or to incur some physical malady, thereafter whenever he recognized the grunt (and with it my intention) he did blush or incur the malady. (Grice, 1957, p. 385)

"Should he then grunt, we should not, Grice thinks, want to say that he thereby meant something." (Schiffer, 1972, p. 8)

The notion of a cause which is also a reason is one of the clearest links between Grice's work on meaning and his work on reasoning. In Aspects of Reason of Reason he distinguishes three different types of reason: *pure explanatory, justificatory* and a third, hybrid, type, *justificatory-explanatory*[21] (Grice, 2001, ch.s 2& 3). It is the third type, the *justificatory-explanatory* or *personal*[22] use, I think, that is the kind of reason Grice works with in his theory of meaning.

Type 3 reasons can be expressed in sentences of the form "X's reason(s) for A-ing was that B (to B)". (Grice, 2001, p. 40) For example:

(2) John's reason for thinking Samantha to be a witch was that he had suddenly turned into a frog. (Grice, 2001, p. 40)

Type 3 reasons are simultaneously explanatory and justificatory: "they explain, but *what* they explain are actions and certain psychological attitudes" (Grice, 2001, p. 41). They are justificatory, in the sense that B *seems to X* to justify A (B may or may not *actually* justify A) (Grice, 2001, p. 41).

In my opinion, the sense of 'reason' involved in Grice's theory of meaning is this type 3 sense, since this is the sense in which something is a reason for a particular person to think or do such and such, and not merely a cause of that doing or thinking. Note that for this identification of a hearer's reasons in Grice's theory of meaning with type 3 reasons to work, type 3 reasons must also be causes. Grice discusses whether they are causes immediately after introducing them in *Aspects of Reason*. He does not say that they are, but hints at an argument that would remove an objection to calling them that[23] (Grice, 2001, p. 41).

There is another point of congruence between what Grice says about type 3 reasons and what he says about reasoning as it relates to meaning. As discussed

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[21] Or four types, with teleological reasons. (Grice, 2001, p. 43) Teleological reasons are also both cause and reason, so they are highly relevant here.

[22] Grice renames type 3 reasons *personal reasons* at the beginning of chapter 3 of *Aspects of Reason* (Grice, 2001, p. 67)

[23] Grice alludes here to the debate around Davidson, 1963. I intend to discuss type 3 reasons in much more detail in my PhD thesis (forthcoming), giving an explicit reconstruction of the argument that type 3 reasons are also causes.

above, comprehension of speaker meaning is often unaccompanied by conscious, explicit reasoning. So if type 3 reasons are the kind of reasons that hearers have for the meanings they derive from utterances, they must be capable of acting as personal reasons unreflectively. That is, it must be possible to come to a particular understanding of an utterance owing to a type 3 reason, that is, with one's interpretation justified somehow by the utterance and caused by it, but without necessarily being explicitly, consciously aware that the utterance justifies the interpretation. Grice's discussion of type 3 reasons mentions just this kind of possibility (although not as it relates to utterance interpretation):

> … if X's reason for A-ing is that B, it is not necessarily the case that the fact that B does justify X's A-ing; but it is necessarily the case that X regarded (even if only *momentarily or subliminally*) the fact that B in justifying him as A-ing. (Grice, 2001, p. 41 – my emphasis)

5 Advancing Grice's view

The aim of the discussion so far has been to suggest that Grice had a different way of looking at the role of reasoning in pragmatics from many theorists, including Recanati, Campbell and Warner. In giving my reconstruction of Grice's views I have also advanced some arguments in favour of them, or at least against considerations that might be thought to tell against them. In this section, I offer more arguments in favour of the view that pragmatics is a reasoning process, and I make some comments on the nature of that process.

Generally, no good arguments are given for the view that reasoning must be a conscious process, so the suspicion must be that it is simply a prejudice that the availability of a process to conscious introspection gives it some special status. This prejudice can be expressed as an injunction to reserve certain words, such as 'reasoning' and 'judgment', for things we are – or can be – introspectively aware of.

This view fits naturally with a Wittgensteinian scepticism about unseen mental processes and states. If there were nothing sensible to say about tacit mental activity, then it would certainly be wrong to talk of unconscious reasoning. I take it that this general attitude has been shown to be unproductive – at best – by the success of modern generative linguistics and other branches of cognitive science which crucially rely on levels of mental representation and tacit knowledge of rules or principles.

Taking it as established, at least as a foundation of productive research programmes, that there are mental representations and mental operations, some of which are not available to introspection, it is an open question whether any of these

operations count as reasoning. One way of proceeding is to characterise reasoning generally and neutrally (with respect to this question) and see whether this characterisation fits any postulated mental processes. That is what I have tried to do, taking Grice's definition of reasoning and showing how well it fits what he says about inferential recovery of utterance meaning.

Two troubling objections can be raised. First, one might ask if it matters whether or not pragmatic processes count as reasoning[24]. Surely, the objection goes, it does not matter whether we call pragmatic processes 'reasoning' or not. Rather, we should try to understand the nature of the processes: do they follow canonical rules of inference? if so, which ones? do they employ heuristic shortcuts? what information do they have access to? and so on. These, it might be argued, are substantive questions; beside them, the question 'Does pragmatics count as reasoning' is revealed to be merely verbal.

I am sympathetic to this objection. Certainly it would be good to know more about pragmatic processes: are they inferential? are they heuristic? are these compatible? I make some comments on these issues in a later section. Also, clearly it does not matter whether we *call* pragmatic processes instances of reasoning[25]. On the other hand, there are reasons to think that it may be worth discussing this issue. One reason is that at least some practitioners of pragmatics slide quickly from saying that processes are not instances of reasoning to saying that they are "merely heuristic" i.e. not genuinely inferential (see e.g. the quotation given earlier from Campbell, 1981, p. 100).

What is more important, there may be an interesting, substantive question here. I am sure that Grice thought so. As Warner says,

> … a key feature of Grice's philosophical methodology [was:] Given the task of providing a philosophical account of some kind of attitude or action, or some other psychological aspect of life ... Grice would ask "How would a person explicitly reason his way to that attitude, action, or realisation of that aspect in his or her life?" ... He was committed to seeing persons as rational agents, and to seeing rational agency as, at least in part, revealed by explicit derivations of rational justifications for attitudes and actions. (Warner, 2001, p. x)

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[24] Rob Stainton raised this question when I gave a talk based on a truncated version of this paper at the conference of the International Pragmatics Association (IPrA), 2005.

[25] Sperber and Wilson, who have consistently argued that pragmatic interpretation is inferential, have been carefully agnostic about whether to call pragmatic inference 'reasoning'. For example, Sperber writes: "when most of us talk of reasoning we think of an occasional, conscious, difficult and and rather slow activity. What modern psychology has shown us is that something like reasoning goes on all the time – unconsciously, painlessly and fast." (Sperber, 1995, p. 195)

I would add that Grice did not think of these derivations as simply rational reconstructions by a theorist, but as revealing something about the nature of the psychological faculty involved.

A related observation is that for Grice, reasoning was essentially[26] activity in pursuit of a goal:

> Grice emphasizes that reasoning is a goal-directed activity: we engage in reasoning with (typically at least) the intention of producing reasons relevant to some end in view. (Warner, 2001, p. xxx)

Thus to say that pragmatic processes are instances of reasoning is not just to say that they "enlarg[e] our acceptances by the application of forms of transition" (Grice, 2001, p. 87) but also that they are goal-directed. That is, reasoning is goal-directed inference. This is the line of response to the objection that I would like to follow.

A sketch of how such a reply might go is as follows: Saying that pragmatic processes are reasoning processes includes a commitment to the notion that these processes pursue a goal or goals. The goals in question are presumably not generally conscious goals of the whole organism. They can be thought of as goals that are built in to a pragmatics module by evolution, that is, they are tied up with the function of the pragmatics module. The function is to be thought of as whatever it is that the module does that has aided the organism enough to cause the module to be retained over many generations[27]. In the case of the pragmatics module, a central function must be to make sense of utterances, presumably with subsidiary goals of working out what the speaker meant explicitly and working out what the speaker implicated.

I am not sure whether this kind of response to the objection would have appealed at all to Grice, but I think it is a way of showing that it need not be empty or merely verbal to describe pragmatics, even when unconscious, as reasoning. There is more to reasoning than complying with rules of derivation or even with rules of inference.

A second objection is that a broad enough conception of reasoning to include pragmatic processing will be too broad, allowing too much to count as reasoning, including various processes involved in perception.[28] The point of this objection seems to be that we can say things like 'The reason why John perceived that he had stubbed his toe is that he felt a certain kind of sharp pain from nerves in his leg' or

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[26] There is a question whether Grice thought that all reasoning was goal-directed. I think that this was his considered view. I look at this issue in my forthcoming PhD thesis, where I argue in favour of this conception of reasoning.

[27] The *proper function* in Millikan's terms (Millikan, 1984).

[28] Mitchell Green made this objection at IPrA 2005.

'The reason why John thought that Samantha had uttered the words 'I am a witch' was that he heard her say something closely corresponding to [aiæməwɨtʃ].' Nonetheless we should not make the mistake of describing proprioceptive perception (in the first case) or phonological parsing (in the second) as reasoning.

This objection seems rather weak. It is clearly necessary to distinguish between genuine inference and pseudo-inference. Pseudo-inference covers cases where input modules are set up so as to construct mental representations which are richer than the perceptual input in that the perceptual input underdetermines the output mental representation. The visual system and the linguistic parsing systems (phonological and syntactic) seem to perform pseudo-inference. The key point, as noted by Sperber and Wilson (Sperber et al., 1987, p. 737; see also the discussion with references in Recanati, 2004, p. 41) is that the input to these processes – unlike the input to pragmatics – is in the wrong form to perform inferences on. The input to the visual system is patches of light on the retina and corresponding activation of rods and cones in the eye, not propositions or proposition schemas. One cannot run *modus ponens* on an activation pattern.

The objection depends on the assumption that allowing unconscious processes to count as reasoning throws away the only criterion for distinguishing them from non-inferential processes. But that is false. Regardless of one's view on whether there can be unconscious reasoning, one needs a distinction between real and pseudo-inference.

6 Recanati's views

In this final section of this paper I argue implicitly for the view I have been attributing to Grice, by raising questions about a competing view, held by Recanati (e.g. Recanati, 2002; Recanati, 2004). I have argued that for Grice, pragmatic processes are inferential reasoning processes, regardless of whether they are conscious. This way of seeing pragmatics is compatible with – although not part of – relevance theory and neo-Gricean pragmatics, as well as Grice's pragmatic framework. The one major post-Gricean whose theory is in direct contradiction to this view is Recanati. Hence my focus here on casting doubt on Recanati's view that some pragmatic processes are necessarily consciously Available, others are not, and whether they are or not tells us something about what kind of process they are (the capitalisation of 'Available' is to mark this as a technical term).

To be Available in this technical sense, a process must be such that the input *and* the output of the process *and* the fact that they are inferentially linked are available to conscious introspection. In the case of implicature derivation, which Recanati says is Available, the idea is that the hearer must be able to be consciously aware of the derivation of implicatures: more specifically, that he must be capable of being

aware of the input to the derivation, the fact that some proposition p (what is said[29]) has been expressed, and of the output, the implicature or implicatures, and of the fact that the implicature is the conclusion of a valid argument with what is said among the premises. To show why Recanati proposes that implicatures are Available, I briefly examine his views on pragmatics, which he divides into inferential and non-inferential processes.

6.1 Primary and secondary pragmatic processes

Recanati divides pragmatic processes into primary and secondary. Secondary processes are inferential derivations of implicatures from what is said (or the fact that it was said, or the manner in which it was said) and it is these processes which he thinks are Available. Primary processes, which derive what is said, in a propositional form, from the linguistic input, are non-inferential and not Available according to Recanati.

Recanati draws on relevance theory in stressing that the proposition expressed by an utterance is considerably underdetermined by the linguistic facts about the utterance, so that there is a need for considerable pragmatic processing to work from facts about the utterance to its explicit meaning[30]. However, he differs sharply from relevance theory in proposing that explicit meaning and implicit meaning are arrived at by two distinct types of mental activity, only one of which is properly speaking inferential.

The division into primary and secondary processes could be seen as an echo of Grice, since Grice only discussed the use of the Cooperative Principle and maxims in arriving at implicatures, leaving open the question of what principles govern processes such as reference assignment and disambiguation which contribute to what is said. However, there is a crucial difference: as discussed in a previous section, Grice thinks that an utterance provides *reasons* for the hearer to think that the speaker believes a particular proposition or wants him to entertain this proposition, or to have some other response. This applies to the explicit meaning of an utterance – what is said – as well as to implicatures of the utterance, so although Grice discusses calculability only for implicatures, potentially there is a Gricean story about arriving inferentially at explicit meaning too. In contrast, Recanati presents a picture of the derivation of what is said as a clearly non-inferential process, determined by brute facts about accessibility of senses of words and of referents. (See Recanati, 2004, pp. 30–32, for example derivations.)

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[29] Recanati uses Grice's term *what is said* although what he means by this is closer to relevance theory's *explicature* than to what is usually meant by Grice's term, since Recanati, like relevance theory, allows free enrichment and metaphor to contribute to the level of explicit meaning.

[30] In particular, Recanati says (agreeing with RT) that there is free enrichment and it affects explicit meaning.

> … the interpretation 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. (Recanati, 2004, p. 32)

A number of questions arise. First, does this picture of primary processes give up an aspect of Grice's theory of meaning which should be retained? As I have said, for Grice, hearers have reasons for the interpretations of utterances they arrive at – as a whole, not just for the implicatures they derive. Does Recanati mean to drop this restriction on the meaning of an utterance, and if so, does this allow for utterances to have meanings through really blind processes, as in Grice's example of the grunt causing a blush (see above)?

Secondly, it is worth noting that Recanati does not think that all unAvailable processes are non-inferential. He specifically allows the existence of:

> … cases in which the availability condition is not satisfied: cases, for example, where the subject is aware only of one judgment, the alleged inferential source of that judgment being unavailable to consciousness; or cases in which both judgments are available, but the subject is unaware of one being inferentially derived from the other. (Recanati, 2004, p. 43)

Thus if we accept that primary pragmatic processes are not consciously Available, that leaves untouched the issue of whether they are inferential, even for Recanati. It seems that Recanati is making two logically unconnected claims about the derivation of explicit meaning: (1) it is non-inferential; (2) it is unAvailable.

Thirdly, we might challenge the claim that the pragmatic processes involved in reaching explicit meaning are unAvailable. If we ask someone why they think that S meant p (where p is the proposition expressed by an utterance) they might well say something like, "Because I heard her say s", or (if a pragmatist) "Because I heard her say s and I had no reason to think that she was speaking ironically or otherwise didn't mean what she said, and the form of words used in s clearly conveys p, due to the meanings of the words and the syntactic structure, or so syntacticians and semanticists tell me."

The point of this objection is that the hearer seems to have perfectly good reasons for thinking that the speaker meant p, may well be aware of these reasons and of the fact that they are reasons for thinking that S meant p, and may even be able to state them (with more or less precision, no doubt, depending on how thoughtful they are, whether they read Grice every night before bed and other factors).

Robyn Carston has raised essentially the same objection to Recanati's claim that primary pragmatic processes are not Available:

> … surely most hearers are able to perform the reflective activity of 'making explicit' their tacit reference fixing process: if asked how he knows that the speaker was referring to Tony Blair (rather than Cherie Blair or John Prescott), the addressee could respond that he knows this because the speaker used the word "he" while pointing at (or demonstrating in some other ostensive way) Tony Blair. He thereby shows that his referential hypothesis has a rational basis and that he is consciously aware of both the hypothesis itself, the evidence on which it is based and the relation (inferential?) between them, and that, on reflection, he is able to make the connection explicit. (Carston, 2003, pp. 1–2)

How can this be made compatible with Recanati's claim that primary pragmatic processes are non-inferential and unAvailable? I think he has to say that it is not simply the Availability of an inference that marks out a process as inferential, but that conscious Availability is an essential property of that (type of) process. If I am right, Recanati is saying that secondary pragmatic processes are essentially Available and primary pragmatic processes are essentially unAvailable and non-inferential. That is, his response to Carston is that you can sometimes consciously construct a kind of inference that could have led from an utterance to what is said, but this is only a rationalization and is not enough to show that explicit meaning is arrived at inferentially.

A further complication is that Recanati makes use of the personal/sub-personal distinction, distinguishing between tacit sub-personal inferences and tacit personal inferences. Tacit sub-personal inferences are those which are "ascribed to a cognitive system merely on the grounds that 'the causal processes constituting the system mirror the processes of someone who [performed] the relevant [inferences] in an explicit form' " (Recanati, 2004, p. 49, quoting Garcia-Carpintero, 2001, p. 122). For an inference to count as a tacit personal inference, the rational agent who makes it must be "capable of making the inference explicitly and of rationally justifying whatever methods it spontaneously uses in arriving at the 'conclusion'." (p. 49)

Recanati says that for implicatures:

> A tacit inference is ok, provided it is of the 'personal' sort, i.e. provided the subject herself has the reflective capacities for making the inference explicit. To say that this capacity is constitutive, in the case of conversational implicatures, is to say that there would be no

> conversational implicature if the interpreters did not have that reflective capacity. (2004, p. 50)

This raises a theoretical question: Is being able to reflect on an inference really anything to do with what kind of inference it is? This in turn ties in with an empirical worry. Recanati can be taken as making the empirical prediction that people who cannot consciously reason about intentions cannot derive implicatures. Alternatively he may be making the conceptual point that the concept of implicature should not apply to any mental representation that such an agent might derive from an utterance.

There is developmental evidence against the empirical prediction: very young children apparently lack key elements of belief and desire reasoning, but they comprehend some implicatures and other pragmatic phenomena. A number of studies show that children fail false belief tasks until around four years old. (e.g. Wimmer and Perner, 1983; Clements and Perner, 1984; Perner and Lopez, 1997; Templeton and Wilcox, 2000) Anecdotally, children are capable of pragmatic interpretation much earlier than this. Recent work by Pouscoulous and Noveck (2004) shows that even the youngest children tested (around 4 y.o.) are capable of implicature retrieval if the cognitive demands made by the experimental task are low enough, as Noveck (2001) anticipated. Developmentally, it seems that ability to derive implicatures precedes general reasoning about the beliefs of other agents[31]. If Recanati's claim is to be taken as an empirical prediction, there is growing evidence against it.

If, on the other hand, Recanati's point is conceptual rather than empirical, it seems that he is committed to the claim that whatever young children – who cannot consciously reason about intentions – do when they understand utterances, we cannot call it implicature derivation. It would be strange to say this if it turns out that young children understand a speaker's implicated meaning by identical mechanisms to adults and arrive at the same mental representations in particular cases. These children would be making the same inferences according to the same causal processes as adults. The only difference is that the adults are able, after the fact, to bring the inference process to conscious awareness. If this is what Recanati meant, then I think that his suggestion must be rejected. As theorists we can decide how to define the term *implicature*; I see no point in defining it so that identical inferences carried out by essentially the same causal processes sometimes do and

[31] According to Nadel and Melot (2001) the literature may even underestimate the age at which children represent other's beliefs. They argue that successful pointing or naming of a location in false belief tasks does not require processing of a representational state of mind. If this is so, success on the false belief task may occur with children who do not fully metarepresent other's beliefs and could not consciously reason about them.

sometimes do not count as implicatures, depending on some other ability of the agent.

Recanati's views on inference, Availability and pragmatic interpretation deserve more thorough discussion than I have the space for here. The brief discussion in this section is simply intended to suggest that problems will arise for theories which try to take reasoning or inference out of pragmatic interpretation (or out of part of it) and for theories which claim that pragmatic inference must be personal, conscious and Available.

7 Conclusion

The central contention of this paper is that Grice was largely right about the connections between reasons and utterances. I have argued for a controversial reading of Grice, suggesting that he saw the retrieval of implicatures as a case of reasoning. This seems to follow naturally from comparison of what Grice says about the hard way and the quick way of reasoning with his insistence on calculability of conversational implicatures. More broadly (and less controversially) meaning and reasons are intimately related in Grice's work. What is uttered and how it is uttered not only cause the hearer to entertain an interpretation of the utterance, but also provide the hearer with reason(s) to believe that the speaker intended that interpretation.

The picture that emerges is that pragmatic interpretation is carried out by goal-directed inference, regardless of whether the inference is conscious or not, consciously Available or not, personal or sub-personal. This picture is incompatible with the views of some theorists. Some, like Campbell, think that only person-level, conscious processes are inferential or count as reasoning. For them, when pragmatic interpretation is unconscious it must be using different mental processes: perhaps heuristics. Recanati's more nuanced view is that the only inferential pragmatic processes are those which are personal and can be made conscious. In contrast to both of these views I have argued that whether a pragmatic process is conscious, or can be made conscious, tells us nothing in principle about the kind of process it is. I assume that the blend of heuristics and canonical inference involved in pragmatic interpretation is largely a matter for empirical investigation. As in study of syntax, introspective evidence plays an important role, but we should not expect that we have reliable intuitions about the processes or principles involved. Our intuitions are primarily about the felicity of the interpretation: not the process but the product.

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