

# 'Meaning<sub>NN</sub>' and 'showing': Gricean intentions and relevance-theoretic intentions<sup>1</sup>

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## *Abstract*

*A much discussed feature of Grice's (1957) account of intentional communication is the line he drew between showing and meaning<sub>NN</sub>, where meaning<sub>NN</sub> typically involves a linguistic convention or code. This distinction has had substantial effects on the development of pragmatics: pragmatists have focused on the notion of meaning<sub>NN</sub> and abstracted away from cases of showing. This paper explores the central differences between Gricean meaning<sub>NN</sub> intentions and relevance theory intentions. Firstly, relevance theory does not attempt to draw the line Grice drew, and recognises both showing and meaning<sub>NN</sub> as instances of overt intentional or ostensive-inferential communication. Rather than there being a sharp cut-off point between the two notions, there is a continuum of cases in between. Secondly, in contrast to the kind of intention proposed by Grice, the relevance-theoretic informative intention is not characterised as an intention to modify the hearer's thoughts directly—'to produce a particular response r'. This intention, it is argued, is not always reducible to an intention to communicate simply a single proposition and propositional attitude (or even a small set). This second move sheds new light on how better to analyse some of the weaker, vaguer aspects of communication, including the communication of impressions, emotions, attitudes, feelings and sensations.*

## **1. Introduction**

The spirit of Paul Grice continues to exert a powerful influence. Not only was his work among the most influential in laying the foundations on which much of modern pragmatics is built, but his insights continue to provoke debate. We may owe the term 'pragmatics' to Charles Morris

(1938), but Grice certainly ranks highly among a select few to whom credit is due for shaping – and continuing to shape – the discipline as we know it today.

Relevance theory (Sperber and Wilson 1986/1995, Wilson and Sperber 2004) is one of several modern approaches to pragmatics that builds on Gricean foundations. It combines aspects of a Gricean intention-based approach with modern research in psychology and cognitive science to provide a cognitive-inferential framework. Central to any intention-based approach, of course, are the kind of intentions involved. The aim of this paper, then, is to explore the two central differences between Gricean intentions and relevance-theoretic intentions.

Firstly, a much discussed feature of Grice's account of intentional communication is the line he drew between showing and non-natural meaning ( $\text{meaning}_{\text{NN}}$ ), where  $\text{meaning}_{\text{NN}}$  typically involves a linguistic convention or code. This distinction has had substantial effects on the development of pragmatics: pragmatists have focused on the notion of  $\text{meaning}_{\text{NN}}$  and abstracted away from cases of showing. Relevance theory does not attempt to draw a similar line to Grice's, and recognises both showing and  $\text{meaning}_{\text{NN}}$  as instances of overt intentional or *ostensive-inferential communication*. Rather than there being a sharp cut-off point between the two notions, there is a continuum of cases in between.

Secondly, in contrast to the kind of intention proposed by Grice, the relevance-theoretic informative intention is not characterised as an intention to modify the hearer's thoughts directly—'to produce a particular response  $r$ '. This intention, it is argued, is not always analysable as an intention to communicate simply a single proposition and propositional attitude (or even a small set). This second move sheds new light on how better to analyse some of the weaker, vaguer aspects of communication, including the communication of impressions, emotions, attitudes, feelings and sensations.

In Section 2 I introduce the notion of  $\text{meaning}_{\text{NN}}$  Grice first outlined in his 1957 paper, paying particular attention to the line he drew between cases of  $\text{meaning}_{\text{NN}}$  and cases of ‘deliberately and openly showing’. In Section 3 I look at some of the intuitions which make aspects of this account problematic. This leads on to the discussion in Section 4, in which I explore the two principal differences between Gricean  $\text{meaning}_{\text{NN}}$  intentions and relevance-theoretic intentions as summarized above. In the final section I look at some more theoretical, as well as some of the practical, implications of exploring the role of intentions in human mental life.

## **2. Gricean intentions**

To pragmatists, indeed linguists generally, Grice is remembered best for his Theory of Conversation, which he outlined in the William James Lectures delivered at Harvard University in 1967. Whilst this and his Theory of Meaning are often regarded as distinct, they are not unrelated. Indeed, it could be argued that the two theories are mutually illuminating to the extent that we fail to do justice to either if we consider them independently of one another (see Neale 1992 for discussion).

It might also be noted that Grice’s Theory of Conversation and his Theory of Meaning were but one part of a much larger programme; a programme Grice never finished (nor indeed could ever have hoped to). On the back cover of Grice’s 1989 anthology *Studies in the Way of Words*, Simon Blackburn describes Grice as ‘a miniaturist who changed the way other people paint big canvases’. I respectfully disagree; while it’s easy to form the impression that Grice was a miniaturist because of the capacity he had for taking infinite pains, I think that misses the point that, actually, the canvas he envisaged in forming his work was—to coin a phrase used by Daniel Dennett—‘Vanishingly Vast’ (1995: 109). His work on reasoning and rationality (much of which was published only in 2001) has not yet been fully explored and I will suggest towards the end of

this paper that in many ways it anticipates current discussion in cognitive science on ‘fast and frugal heuristics’ (Gigerenzer and Todd 1999).

By way of focussing the discussion on meaning<sub>NN</sub>, Grice began his 1957 paper by contrasting it with cases of natural meaning (meaning<sub>N</sub>) and. See (1) and (2) below:

- (1) Those spots mean<sub>N</sub> measles.
- (2) That remark means<sub>NN</sub> he has measles.

He then proposed a variety of ways in which the two types of meaning might be distinguished before turning to the question that was central to the paper: how the kind of meaning exemplified in (2) might be characterised in terms of intentions and the recognition of intentions.<sup>2</sup> He moved through a series of carefully-constructed examples in order to identify precisely the type of intentions that are required (1989: 217):

“A first shot would be to suggest that “ $x$  meant<sub>NN</sub> something” would be true if  $x$  was intended by its utterer to induce a belief in some “audience” and that to say what the belief was would be to say what  $x$  meant<sub>NN</sub>. This will not do. I might drop  $B$ ’s handkerchief near the scene of a murder in order to induce the detective to believe that  $B$  is the murderer; but we should not want to say that the handkerchief (or my leaving it there) meant<sub>NN</sub> anything or that I had meant<sub>NN</sub> by leaving it that  $B$  was the murderer.”

The problem in this case is that the handkerchief-dropper’s intentions are entirely incidental to the detective’s response. The two are not linked. Nor can they be, since the ‘audience’ is entirely unaware of the handkerchief-dropper’s intentions. Grice then turns to a series of further

examples, where—in contrast to the above example—an individual openly (henceforth **overtly**) provides evidence of their intention to induce a belief (1989: 218):

“Clearly we must at least add that, for  $x$  to have meant<sub>NN</sub> anything, not merely must it have been “uttered” with the intention of inducing a certain belief but also the utterer must have intended the “audience” to recognize the intention behind the utterance. [...]

[(A)]<sup>3</sup> Herod presents Salome with the head of St. John the Baptist on a charger.

[(B)] Feeling faint, a child lets its mother see how pale it is (hoping that she may draw her own conclusions and help).

[(C)] I leave the china my daughter has broken lying around for my wife to see.”

For Grice, however, a problem remained. There is still a sense in the above examples in which the respective individual’s intentions are at least partly incidental to the intended response being induced in the audience. In (A), for example, Salome can infer that St. John the Baptist is dead solely on the strength of the evidence presented, and independent of any intentions Herod has in presenting her with his head (similar remarks carry over to (B) and (C)). Grice wanted to distinguish between merely (albeit overtly) drawing someone’s attention to a particular object or a certain type of behaviour—‘showing’, which in his view did not amount to the object or behaviour meaning<sub>NN</sub> anything (or anything being meant<sub>NN</sub> by the ‘*shower*’), and something being meant<sub>NN</sub> by the object or behaviour in question (or by the person using the object or behaviour in a meaningful<sub>NN</sub> manner) (1989: 218):

“What we want to find is the difference between “deliberately and openly letting someone know” and “telling”, and between “getting someone to think” and “telling”.

The way out is perhaps as follows. Compare the following two cases:

- (1) I show Mr. X a photograph of Mr. Y displaying undue familiarity to Mrs. X.
- (2) I draw a picture of Mr. Y behaving in this manner and show it to Mr. X.

I find that I want to deny that in (1) the photograph (or my showing it to Mr. X) meant<sub>NN</sub> anything at all, while I want to assert that in (2) the picture (or my drawing and showing it) meant<sub>NN</sub> something (that Mr. Y had been unduly familiar), or at least that I had meant<sub>NN</sub> by it that Mr. Y had been unduly familiar. What is the difference between the two cases? Surely that in case (1) Mr. X's recognition of my intention to make him believe that there is something between Mr. Y and Mrs. X is (more or less) irrelevant to the production of this effect by the photograph. Mr. X would be led by the photograph at least to suspect Mrs. X even if, instead of showing it to him, I had left it in his room by accident; and I (the photograph shower) would not be unaware of this. But it will make a difference to the effect of my picture on Mr. X whether or not he takes me to be intending to inform him (make him believe something) about Mrs. X, and not to be just doodling or trying to produce a work of art.”

In an act carried out in which evidence is provided of an intention to ‘induce a response’ or to ‘inform’, note that there are two layers to be retrieved by the audience. The first, basic layer is the information being pointed out—in Grice’s example, the fact that Mr. Y is indeed being unduly familiar with Mrs. X, and the second, the information that this first layer is being pointed out intentionally. In examples (A), (B) and (C) from the quote above, the communicator (Herod, the child, Grice) provides overt evidence of their intention to inform (the second layer), but in these cases the basic layer of information is derivable without reference to this intention. For a case to

count as one of  $\text{meaning}_{\text{NN}}$ , this basic layer should not be entirely derivable without reference to the second layer and, furthermore, this should be intended. Grice concludes his formulation of  $\text{meaning}_{\text{NN}}$  as follows:

“‘A meant something by  $x$ ’ is roughly equivalent to ‘A uttered  $x$  with the intention of inducing a belief by means of the recognition of this intention’.”

This he later modified to the following (see Grice 1989: 92):

“‘ $U$  meant something by uttering  $x$ ’ is true iff, for some audience  $A$ ,  $U$  uttered  $x$  intending:

(1)  $A$  to produce a particular response  $r$

(2)  $A$  to think (recognize) that  $U$  intends (1)

$A$  to fulfil (1) on the basis of his fulfilment of (2).”

Notice first, that the change appears to mark a move from a self-referential, ‘reflexive’ intention to a finite series of ‘iterated’ intentions. Grice himself was somewhat inconsistent on this issue, perhaps due to a sensitivity to the possibility of a reflexive paradox (see the subtle debate between Recanati 1986 and Bach 1987) and his precise intentions are unclear. Sperber and Wilson (1985/1996) argue that reflexive intentions are psychologically implausible and favour the finite iterated approach.<sup>4,5</sup>

### **3. Showing and meaning**

Grice’s formulation of  $\text{meaning}_{\text{NN}}$  inspired a great deal of discussion. On the one hand, philosophers (including Strawson 1964, Searle 1965, 1969, 1979, Schiffer 1972) constructed a

range of complex counter-examples. Many of these counter-examples lead commentators to posit the presence of ever higher-levels of intentionality (which rapidly induce—in me at least—an unsettling form of psychic vertigo). These, and some of the possible solutions to them, are neatly summarised by Avramides (1989).<sup>6</sup>

However, there is another way in which the above formulation might be challenged, and it is this way I would like to explore. Instead of focussing on intentions over and above the basic intentions proposed by Grice, it looks *within* the formulation itself, and in particular at clause (3) of the above reformulation: the central role Grice saw for the second layer—the intention to inform—in deriving the first.

Schiffer addresses this point in his 1972 book ‘Meaning’ (1972: 56):

“[O]ne thing that might be said is that in presenting Salome with the head of St. John the Baptist, Herod might mean that St. John the Baptist was dead. This does not strike me as a wildly implausible thing to say. Consider an analogous case.

(3a) A: “Let’s play squash.”

S: Holds up bandaged leg.

Here, I think, one would say, intuitively, that by holding up his leg *S* meant that he could not play, or that he could not play because his leg was injured; yet it would seem that the only difference between (3) [(A)—the Herod, Salome and St. John the Baptist example—TW] and (3a) which is possibly relevant is that the “inference” *A* has to make in the “bandaged leg” example is slightly less direct than in the case of St. John the Baptist’s head, although in both cases one could make the relevant inference without any assistance on the part of *S*.

Grice has objected to me that while we may say that (in (3a)) *S* meant he could not play squash by holding up his bandaged leg, he could not mean thereby that his leg is bandaged. But, in the first place, even this is not an objection to the point I am trying to make, which is that there is no relevant difference between (3) and (3a), so that if we may say that *S* meant that he could not play squash, then—by parity of reason—we may say that Herod meant that St. John the Baptist was dead (it was not suggested that Herod meant that there was a severed head on his charger). In the second place, I think that it is false that *S* could not mean that his leg was bandaged by holding up his bandaged leg. Consider (3b):

- (3b)     *A*: “I’ve heard that your leg is bandaged. Is it true?”  
          *S*: Holds up bandaged leg.

Here, I think, one would say that *S* meant that his leg was bandaged.”

Schiffer’s argument, then, is that cases such as (1) from the above quote (the photograph example)—and, indeed, cases such as (A), (B) and (C) from the quote before that—should be regarded as instances of  $\text{meaning}_{\text{NN}}$ .<sup>7</sup>

My argument will run along similar lines, although as I mentioned in my introduction, the aim of relevance-theorists is to try and characterise overt intentional communication, not  $\text{meaning}_{\text{NN}}$ . While Schiffer focuses on the St. John the Baptist example (A), I will focus on an example parallel to example (B). For a communicative act to be intentional, I will argue, the important thing is that evidence is provided of an intention to inform, and not whether in the absence of such an intention, an audience might have been able to draw their own conclusions. As I will show, the very fact that a communicator has provided evidence of an intention to inform

will encourage the audience to make ‘less direct’ inferences: an act of intentional communication comes with certain expectations.

Consider (3a-e) below. In all these cases something has happened that has produced a response in an audience:

- (3a) Mary is asleep. Her mother can see for herself that Mary’s arm is covered in a rash and concludes that she is unwell.
- (3b) Feeling unwell, Mary lies in bed with her eyes closed. She intends her mother to see her rash but really doesn’t mind whether or not this intention is noticed.
- (3c) The same as (3b), except that here Mary’s mother instinctively guesses at Mary’s intention that her mother sees her rash.
- (3d) Feeling unwell, Mary let’s out a spontaneous groan, and deliberately and openly lets her mother see her rash so she will notice and help.
- (3e) Mary says to her mother ‘I don’t feel well’.

As I have pointed out, Grice noticed that before we can be said to be dealing with a case of meaning<sub>NN</sub> certain intentions must be present. Firstly, the response must be intended—this rules out (3a) as a case of meaning<sub>NN</sub>; secondly, the audience must recognise the intention to produce that response—this rules out (3b); thirdly, the communicator must intend that the audience should recognise the intention to produce that response—this rules out (3c). The final all-important condition, the one that rules out (3d), and makes (3e) a case of meaning<sub>NN</sub>, is that only in this example does Mary intend that the recognition of her intention to produce the desired response will play a crucial role in producing the response itself. In (3d) Mary’s mother can see for herself that Mary is unwell: the rash provides direct evidence of that fact.

No one would propose that the scenario described in (3a) is a case of intentional communication. As far as her mother is concerned, Mary is asleep: she does not intend to communicate anything. This might be better described as a case of accidental information transmission: it is Mary's rash that shows her mother that she is unwell, not Mary. In fact, even to propose that this is communication is to use the word extremely broadly. Intuitively, we would be loath to say that an individual walking down the street 'communicates' every piece of information a passer-by might infer from his physical appearance, his demeanour, his clothes, his gait etc.

It is less obvious in (3b) and (3c) that we are not dealing with full-blown intentional communication. After all, Mary does intend to inform her mother of something. However, she is not being open about this informative intention, and while she might indeed be said to be communicating intentionally, she is certainly doing so covertly.

But what of the cases in (3d) and (3e)? While there is certainly a sense in which Mary's mother can see Mary's rash and draw her own conclusions irrespective of Mary's intentions, I think that there are good reasons to suggest that (3d) might be regarded as an instance of overt intentional communication (though this concept needs to be distinguished from  $\text{meaning}_{\text{NN}}$ ). This, as I will illustrate in the next section, is the view that relevance theory takes.

Firstly, Mary is being 'deliberate and open' about the intentions she has. Even if she only intended to inform her mother that she was feeling unwell, by being 'deliberate and open' she is certainly being overt about her informative intention, rather than covert as in (3b) and (3c). There is a clear sense in which it is Mary showing her mother she is unwell, rather than just her rash. Secondly, and more importantly, notice that Mary does not just intend to inform her mother that she is unwell, but also that she wants her mother to help. If Mary's mother does in fact infer this, I think we would be loath to say that her inference is entirely down to her having drawn her own

conclusions, and not—to some extent at least—the result of inferring intentions Mary had in behaving in the way she did. For in general, someone who is ‘deliberately and openly’ letting someone know something creates the expectation in their audience that they have done so for a reason: in order to have their informative intention fulfilled, a communicator must first let her audience know that she has such an intention in the first place. This reflects the point made by Schiffer in the quote above: the inference from ‘Mary has a rash’ to ‘Mary wants help’ is less direct than the inference from ‘Mary has a rash’ to ‘Mary is unwell’. The motivation for making this less direct inference is the very fact that Mary—by acting deliberately and openly—has created an expectation in her mother that there is something extra to infer.

#### **4. Relevance theoretic intentions**

##### **4.1 *Meaning<sub>NN</sub> and intentional communication***

Relevance theory (Sperber and Wilson 1986/1995, Blakemore 2002, Wilson and Sperber 2004) builds on Gricean foundations. It combines aspects of a Gricean intention-based pragmatics with aspects of modern psychological research and cognitive science to provide a cognitive-inferential pragmatic framework, which is an abstract model of a communicator’s performance. It takes as its domain a carefully defined sub-set of those cases that might—in folk terminology at least—be referred to as instances of *communication*. ‘Communication’ itself is a broad notion. Sebeok (1972: 39) remarks that:

“...all organic alliances presuppose a measure of communication: Protozoa interchange signals; an aggregate of cells becomes an organism by virtue of the fact that the component cells can influence one another.”

Construed in this way, our pragmatic theory would indeed have to be what Chomsky (2000) termed a ‘theory of everything’; it would be required to encompass every possible facet of human interaction that might conceivably be said to be (in Sebeok’s terms) ‘communicative’; from socio-cultural right down to sub-personal phenomena: from fashion to pheromones.

Relevance theory has a carefully delimited domain; it is not a ‘theory of everything’; it is not even a theory of communication *per se*, and focuses on a sub-type of human communicative behaviour: *behaviour by which a communicator provides evidence that they intend to communicate something*. Natural language is seen as governed by a code, itself governed by an autonomous mental grammar. Utterance interpretation, on the other hand, is a two-stage process. The linguistically encoded logical form, which is the output of the mental grammar, is simply a starting point for rich inferential processes guided by the expectation that speakers conform to certain standards or expectations; that in (highly) intuitive terms, an audience knows that a communicator has a good reason for providing the stimulus which attracts attention to their intention to communicate, and that that reason is a good enough one for an audience to attend to it. In contrast with conscious, reflective reasoning, it is proposed that these inferential processes are unconscious and fast, under-pinned by ‘fast and frugal heuristics’ of the kind currently gaining much currency in cognitive science (see Gigerenzer, Todd and the ABC Research Group 1999).

Relevance theory is based on a definition of relevance and two general principles: a Cognitive and a Communicative Principle of Relevance (for a recent accounts see Wilson and Sperber 2004). Relevance is characterised in cost-benefit terms, as a property of inputs to cognitive processes, the benefits being positive cognitive effects, and the cost the processing effort needed to achieve these effects. Other things being equal, the greater the positive cognitive effects achieved by processing an input in a context of available assumptions, and the smaller the

processing effort required, the greater the relevance of the input to the individual who processes it.

The human disposition to search for relevance is seen as an evolved consequence of the tendency toward greater efficiency in cognition (Sperber and Wilson 2002). In Dan Sperber's words (1996: 114):

“Cognitive efficiency involves making the right choices in selecting which available new attention to attend to and which available past information to process it with. The right choices in this respect consist in bringing together input and memory information, the joint processing of which will provide as much cognitive effect as possible for as little effort as possible.”

Or, as Gigerenzer and Todd (1999: 21) put it: ‘There is a point where too much information and too much information processing can hurt. Cognition is the art of focusing on the relevant and deliberately ignoring the rest’.

The disposition to search for relevance is one that is routinely exploited in human communication. Since speakers know that listeners will pay attention only to stimuli that are relevant enough, in order to attract and hold an audience's attention they should make their communicative stimuli appear at least relevant enough to be worth processing. More precisely, the Communicative Principle of Relevance claims that by overtly displaying an intention to inform—producing an utterance or other ostensive stimulus—a communicator creates a presumption that the stimulus is at least relevant enough to be worth processing, and moreover, the most relevant one compatible with her own abilities and preferences. Recall from the last section that the motivation for making the kind of ‘less direct’ inferences I discussed there is the

very fact that a communicator has created in her audience an expectation that there is something worth their while to infer. Relevance theory is an attempt to flesh out the notion of what makes communicated information worthwhile.

As has already been pointed out, in contrast to Grice's (1957) aim of characterising meaning<sub>NN</sub>, relevance theory aims at providing a characterisation of human overt intentional communication generally. Utterances, after all, are not the only kind of ostensive stimuli, and a communicator might provide evidence of her intention to inform by means of a look, a gesture, or even a natural sign (such as the above scenario, in which Mary openly shows her mother her rash). Ostensive stimuli are, more often than not, a mixture of what Grice would have called natural *and* non-natural meaning, and this is one of the reasons that relevance theory does not attempt to draw the line that Grice wanted to between “deliberately and openly letting someone know” and “telling” (1989: 218).

Indeed, to deny, as Grice does, that the overt showing of spontaneously-produced natural behaviours is a case of meaning<sub>NN</sub> would be to exclude it from the domain of pragmatics. Yet there seem to be clear cases where the open showing of spontaneously-produced natural signs and signals makes a difference to the speaker's meaning (see Wilson and Wharton 2006 for discussion). Take, for example, an utterance of (4).

(4) Peter is late.

If the utterer of (4) makes no attempt to conceal the spontaneous anger in her facial expression and tone of voice, and hence ‘deliberately and openly shows’ it, she would naturally be understood as meaning not only that Peter was late but that she was angry that he was late.

Grice's framework appears to exclude such spontaneous expressions of emotion from contributing to a speaker's meaning in the sense he was trying to define.

Recall the characterization in Section 2: in any act carried out with the intention of revealing an informative intention, there are two layers of information to be retrieved. The first, basic layer is the information being pointed out, and the second is the information that the first layer is being pointed out intentionally. What makes an individual ostensive act a case of either 'showing' or 'meaning<sub>NN</sub>' is the precise nature of the evidence provided for the first layer. In cases of showing, the evidence provided is relatively direct—Schiffer's bandaged leg, for example. In cases of meaning<sub>NN</sub>, the evidence provided is relatively indirect—a linguistic utterance, for example. Sperber and Wilson (1986/1995: 53) discuss the relationship between the two notions:

“Is there a dividing line between instances of ostension which one would be more inclined to describe as “showing something”, and clear cases of communication where the communicator unquestionably “means something”?... What we have tried to show... is that there are not two distinct and well-defined classes, but a continuum of cases of ostension ranging from “showing”, where strong direct evidence for the basic layer of information is provided, to “saying that”, where all the evidence is indirect...”

This is the first major difference between Gricean and relevance-theoretic intentions, and has clear implications for what should be seen as the domain of pragmatic principles or maxims, for it suggests that they are best seen as applying to the domain of overt intentional communication as a whole, rather to the domain of meaning<sub>NN</sub>. Relevance theory, then, recognises both showing and meaning<sub>NN</sub> as instances of overt intentional or—as they term it—*ostensive-inferential* communication. Most cases of showing—cases in which the evidence provided is fairly direct—

still require an extra layer of inference before the communicator's full informative intention is recognised<sup>8</sup> (recall that in example (3d) above) Mary's mother still has to make the less direct inference that Mary wants help), and the extent to which an audience is required to make this extra inference is a question of degree.

Consider the following scenario in the light of Grice's photograph example. Imagine I am a private detective, hired by Mr. X to follow Mrs. X in order to confirm or disconfirm his suspicion that she is having an affair with Mr. Y. I have managed to take a photograph of Mrs. X and Mr. Y together. The quality is poor—there was too little light, I used a telephoto lens, there is a hint of camera-shake etc.—and a blurred image of the couple can only just be seen.

There is a subtle, but clear, difference between my photograph example and Grice's original one. For if I leave my photograph in Mr. X's room by accident, it is no longer absolutely clear that Mr. X's coming across the photo will have the same effect on him as would my showing it to him. It is only by close inspection that he could even see this was a photo of Mrs. X and Mr. Y, so it may only be in virtue of my showing it to him that Mr. X would take the time and effort to look at the photograph closely enough to make out exactly who the photo shows. In other words, whether or not the photograph has the effect I desire may well depend on Mr. X's successful recognition of my intention to produce some effect on him by means of the recognition of that intention.

It could of course be responded that the degree to which Mr. X is required to attribute intentions to me in this scenario is minimal. Nonetheless, the requirement is there, and it seems clear that the recognition of my intention to inform Mr. X does indeed play some role, however minimally, in accounting for the effect of my photograph on him.

Consider another scenario. This time, as well as being a private detective, I am also a keen amateur photographer. I have taken another (this time, much better) photo of Mrs. X and Mr. Y,

and I have developed it myself. I am proud of the framing of the couple within the shot, as well as the colour, the contrast and the general quality of the print. I show a friend of mine the photograph of Mr. Y displaying undue familiarity to Mrs. X. How does my friend respond? In the context of the scenarios provided so far, the tendency is to suggest that my friend would probably remark something like ‘My goodness, Mr. Y is certainly having an affair with Mrs. X’, or even ‘I hope you’re going to show this to Mr. X’. Suppose, however, that I tell you the friend referred to above is a professional photographer. Suddenly, a variety of other responses may be appropriate: ‘The framing of that couple is great’ or ‘I love the colour, contrast, quality of the light etc.’ or ‘Aren’t those new polarisers terrific?’ or ‘So you’ve finally built your own dark-room’. And what does my colleague’s response depend on? What he takes my intention to be in showing him the photograph.

Actually, I think the point can be made even more clearly. You are walking down the street and a complete stranger comes up to you and thrusts a photograph in front of your face. Having recovered from the initial shock, most people would probably react in the same way: with utter confusion. Of course, like me, you might say ‘Very nice!’ or ‘How fascinating!’ but that would only be because you thought that by responding in such a way you might get rid of this mad photograph-shower. Actually, I bet most people wouldn’t know what to think, the problem being that although it would be perfectly clear that you were being shown a photograph, it would be far from clear exactly what it was you were being shown a photograph of (or what you were being shown the photograph *for*).<sup>9</sup>

And although it requires a slight stretching of the imagination, even in Grice’s original photograph example (the comparison between (1) and (2) above) is there not a sense in which Mr. X must attribute to the photograph-shower the intentions behind his showing it? It will, after all, make a difference to the effect of the picture on Mr. X whether or not he takes the shower to

be intending to inform him about Mrs. X and Mr. Y, and not to be just showing him the quality of the colour, or the light, or the new polariser he has invested in. As Deirdre Wilson pointed out to me in conversation, even if two individuals A and B are in the same room as two other people—for the sake of convenience Mrs. X and Mr. Y—engaged in (as she put it) ‘unfaithful activities’, there will still be at least some degree of intention-attribution involved if A attempts to point out something about them to B: other things being equal, you might just as easily be pointing out something Mr. Y is (or isn’t) wearing, as drawing attention to the inappropriateness of their behaviour. Not only, then, can what is meant<sub>NN</sub> only be regarded as a sub-set of what is intentionally communicated, but rather than the dichotomy Grice envisaged in his 1957 paper, there is a continuum of cases between showing and meaning<sub>NN</sub>.

The continuum between showing and meaning<sub>NN</sub> has a variety of applications. At various points along it, we can see the varying extents to which hearers are required to consider intentions of speakers in order to get from the evidence they provide to the first, basic layer of information they are communicating. It therefore provides a ‘snapshot’ of the types of evidence used in intentional communicative acts and the role inference plays in them. At one extreme of the continuum lie clear cases of spontaneous, natural display; at the other extreme lie clear cases of linguistic coding, where all the evidence provided for the first, basic layer is indirect. In between lie a range of cases in which more or less direct ‘natural’ evidence and more or less *indirect* coded evidence mix to various degrees: for example, in pointing and stylised expressions of emotion. Equally importantly, the continuum provides a theoretical tool which allows us to conceptualise more clearly the observation made above that ostensive stimuli are often highly complex *composites* of different, inter-related behaviours which fall at various points between ‘showing’ and ‘meaning<sub>NN</sub>’. In Wilson and Wharton (2006) these observations are brought to

bear on the analysis of prosody. Wharton (forthcoming) applies them to non-verbal behaviours in general.

#### **4.2 *Weak communication***

It could of course be objected that we run the risk of allowing into the domain of pragmatic principles or mechanisms all manner of cases in which what is communicated is either so weak or so vague that it cannot be adequately characterised. The response, I suggest, is that overt communication often is weak and vague, and that a theory of human intentional communication should at least try to accommodate these vaguer aspects. As we saw in Section 2, there are examples which are clearly cases of intentional communication that do not qualify as cases of  $\text{meaning}_{\text{NN}}$  according to Grice's definitions; we now see that—even if we wanted make a distinction—there is no convenient cut-off point between the two where such a distinction might be drawn. If we attempt to limit our attention to cases that are uncontroversially cases of  $\text{meaning}_{\text{NN}}$ , then we are forced to ignore a whole range of communicative exchanges that deserve explanation.

To help account for the vaguer aspects of communication, including the communication of impressions, emotions, attitudes, feelings and sensations, Sperber and Wilson propose that the informative intention might be better characterised as an intention to modify not the hearer's thoughts directly, but his cognitive environment: this includes not only all the facts or assumptions that he is aware of, but also all the facts or assumptions he is capable of becoming aware of, in his physical environment—in relevance-theoretic terms, the set of facts that are manifest to him (i.e. that he is capable of perceiving or inferring). This notion of manifestness plays a central role in the relevance-theoretic characterisation of an informative intention, which is defined not in Gricean terms, as an intention 'to produce a particular response  $r$ ', but rather as

an intention ‘to make manifest or more manifest to the audience a set of assumptions **I**’ (Sperber and Wilson 1986/1995: 58). This is the second major difference between Gricean and relevance-theoretic intentions. The notion of ‘manifestness’ is central to the relevance-theoretic notion of a communicative intention, defined as an intention ‘to to make it mutually manifest to audience and communicator that the communicator has [an] informative intention’ (*ibid*: 61). The psychologically-plausible notion of mutual manifestness is part of the relevance-theoretic solution to the problems with Grice’s original three-clause definition of meaning<sub>NN</sub> raised by (among others) Strawson 1964 and Schiffer 1972.

An assumption may be manifest to different degrees. The more salient a manifest assumption, and hence the more likely to be mentally represented, the more strongly it is manifest. Vague communication typically involves a marginal increase in the manifestness of a very wide range of weakly manifest assumptions, resulting in an increased similarity between the cognitive environments of communicator and audience.

Consider the following example. A man and a woman arrive by ferry at a Greek island. It is the first time she has been here. They disembark. Having scanned the quayside, he smiles at her; then he looks back ostensibly to the quayside again, urging her to look too. She gazes along the quayside. What is he drawing her attention to? Is it the *taverna* at the water’s edge, the octopus drying in the breeze, the ragged cats sniffing the nets, the bougainvillea in the *kastro*, the brilliant light? Is it one, many or *all* of these things?

But she does not turn to him and say ‘What do you mean?’ She acknowledges him and smiles back, because she understands. The sights, sounds and smells perceivable in her physical environment interact with her inferential abilities and her memories to alter her cognitive environment, making it possible for her to have further thoughts, memories and feelings similar to his own. This is all that he intended: to convey an impression. He did not *mean* any one thing;

his intention cannot be pinned down to one specific proposition or small set of propositions; it was simply to make more manifest to her whatever assumptions became manifest to him as he scanned the quayside.

On other occasions, when the intention might be to communicate something equally intangible, and equally hard to spell out in words—emotions or feelings—it might also be preferable to use a behaviour that falls somewhere between showing and meaning or saying. Given the vagueness of some of the ostensive stimuli that constitute cases of ‘showing’, it seems clear that this intention is not always reducible to an intention to communicate simply a single proposition and propositional attitude (or even a small set). I have argued (Wharton 2003ab) that interjections such as *aha*, *wow* and *ouch*, and non-verbal behaviours generally, are often used to communicate in similarly vague ways, marginally increasing the manifestness of a very wide range of assumptions.

These differences are captured within relevance theory by distinguishing strong from weak communication, and strong from weak implicatures. A conclusion is strongly implicated (or is a strong implicature) to the extent that it (or some closely similar proposition) must be derived in the course of constructing a satisfactory interpretation (i.e. one that satisfies the hearer’s expectation of relevance). It is weakly implicated if its recovery helps with the construction of a satisfactory interpretation, but is not essential because the utterance provides evidence for a wide array of roughly similar conclusions, any of which would do (Sperber and Wilson 1986/95, Wilson and Sperber 2002). Typically, a spoken utterance involves a mixture of strong and weak communication.

## **5. Intentions made ‘real’**

“The words “know” and “feel” were like “it” and “of” and “by”—you couldn’t see them or touch them, so the meaning wasn’t significant. People cannot show you a “know” and you cannot see what a “feel” looks like.”

(Donna Williams—*Somebody Somewhere*)

According to the accounts of communication adopted by Grice and relevance theory, linguistic communication is an intelligent, intentional, inferential activity. Utterances do not encode the messages speakers want to convey; rather, they are used to provide evidence of intentions, which hearers must infer. I have nonetheless tried to tease out the differences between the kind of intentions involved in both theoretical accounts.

But intentions are not mere theoretical tools. Other people’s intentions are a very ‘real’ part of our everyday mental lives. The human disposition to attribute mental states is so much a part of our individual (or collective, species-specific) psychological make-up that it is not something we can choose to do or not to do: it’s something we just can’t help, any more than we can help pulling our hand back from a source of extreme heat.

Plainly, other people’s intentions (indeed, mental states generally) are not objects to be perceived in the world in the same way as are their faces or bodies; they are ‘out there’, but they are invisible.<sup>10</sup> It is hard, however, to even imagine what it would be like not to be able to sense the mental states of others in some way. The world would be such a different, potentially terrifying place. The human thumb accounts for over 50% of the function of the human hand; we can touch it, we can see it and we can feel it. Yet it is still very difficult to imagine how we might cope without one. In the case of our thumb, of course, we are given a salutary reminder each time we injure it—just try tying your shoelace, or riding a bike with a sprained thumb. In the case of what it would like to be unable to attribute mental states we are left with thought experiments of the kind suggested by Baron-Cohen (1992: 1-5) and the few first-hand accounts of what it is really like. Indeed, the central role the recognition of intentions plays in human interaction

generally is no more clearly illustrated than by the accounts of those individuals for whom the mental states of others, rather than being merely out of sight, are locked away—permanently out of reach (Williams 1992, 1994, 1999; Holliday Willey 1999; see also Happé 1992 on the autobiographical writings of three Asperger syndrome adults, and Sacks 1994).

The author of the above epigraph—Donna Williams—is autistic. Her autobiographical works *Nobody Nowhere, Somebody Somewhere* and *Like Colour to the Blind* are vivid accounts of what it is like to be *mindblind*—to use the term adopted by Simon Baron-Cohen (1995). Donna's world is a strange, unfamiliar, frightening one: a world of 'inner isolation', of 'persistent aloneness' (1994: 95); a world it took enormous strength and courage to escape.

Our understanding of autism is still limited but great strides have been made, and there is a growing literature on both the precise nature of the deficits and impairments that give rise to the condition, and the effects autism has on the capacity of autistic people to communicate and interact with other people (Leslie 1987, Happé 1994, Scholl and Leslie 1999). In this respect, work into the human capacity to attribute and express intentions forms the basis of a rich experimental literature. Baron-Cohen (1995) makes some concrete proposals about the specific deficits that might lie behind autism, and suggests that it is characterised by a (partial) breakdown in the mechanisms underlying the human mind-reading ability. His hypothesis is that autistic people exhibit a deficit in their Shared Attention Mechanism. This has two knock-on effects: firstly, it follows that they cannot construct complex three-place relations, such as 'He sees (that) [I see her]', and as a result cannot grasp that they and another person are attending to the same object; secondly, and more crucially, there is no output from the Shared Attention Mechanism to trigger the development of Theory of Mind Mechanism, which, it is claimed, is the mechanism underlying the human ability to attribute complex epistemic mental states (or propositional attitudes) such as 'believe' and 'think'.

It is a recursive, metapsychological ability such as this that is exploited in cases of intentional communication. At this point, therefore, the border between Grice's philosophy, modern cognitive science, psychology and (even) cognitive ethology becomes so blurred as to disappear. There is thus a point of contact (though, of course, agendas may vary) between the literature on intention-based pragmatic models that Grice's work has inspired and recent psychological research on the capacity among humans and non-human animals to attribute mental states to one another.<sup>11</sup>

It seems clear that the kind of meta-communicative abilities necessary for intentional communication in Grice's sense and ostensive-inferential communication as defined in relevance theory are related to the wider meta-psychological mind-reading ability discussed above. There are reasons to explore the possibility, however, that there is more to the interpretive processes that underlie verbal comprehension (or, more generally, ostensive-inferential communication) than general mind-reading abilities.

Firstly, the types of 'meaning' that a speaker can convey by producing an utterance are generally much more complex than the types of intention normally attributed to someone in order to explain their observed behaviour. Specialised mechanisms for the interpretation of speakers' meanings appear therefore to be necessary. Secondly, we often attribute intentions to others by observing the effects of their actions, deciding which of those effects they might have desired, and attributing to them the intention to achieve those desired effects: for example, observing someone climb a tree and pick a fig, we may infer that his intention in climbing the tree was to pick a fig. However, a speaker will achieve very few effects by producing an utterance unless she is first understood, so the normal procedures for recognising the intentions behind ordinary non-communicative actions won't work: the hearer can't first observe the effect of an utterance and then infer what it meant. Third, on broadly Gricean accounts of communication, in order to

understand intentional communication—as opposed to ordinary non-communicative behaviour—it is necessary to be able to attribute several layers of metarepresentations; yet young children below the age of 4—the same children who (as do autistic people) fail standard mind-reading tests—master verbal communication quickly and effortlessly well before this age.

These and other arguments (see Sperber and Wilson 2002, Wilson and Sperber 2004) have led to the proposal that the processes that underlie verbal comprehension might be performed by a specialised, domain-specific ‘comprehension’ mechanism or sub-module (Sperber 2000), which may form part of the wider mind-reading ability. The task of such a mechanism would be to interpret ostensive stimuli according to the following relevance-based comprehension procedure (Sperber and Wilson 2002: 13), which is motivated by the Communicative Principle of Relevance.

#### **Relevance theoretic comprehension procedure**

- (a) Follow a path of least effort in computing cognitive effects:  
Test interpretive hypotheses (disambiguations, reference resolutions, implicatures, etc.) in order of accessibility.
- (b) Stop when your expectations of relevance are satisfied.

Because a hearer can presume that a speaker will make her utterance as relevant as possible (and therefore as easy as possible to understand), he is justified in taking the path of least effort in interpreting that utterance. It is *rational* that hearers follow a path of least mental effort in looking for intended effects, which should make the utterance relevant enough. This may involve assigning reference and disambiguating, narrowing or loosening lexical meaning, supplying particular contextual assumptions in order to derive the expected level of effects, deriving strong

or weak implicatures. Once the hearer's expectations of relevance are satisfied, it is reasonable for him to conclude that the meaning he has inferred was the one the communicator intended.

Despite the fact that young children below the age of 4 regularly fail basic 'first order' theory of mind tests, there is some experimental evidence which suggests that they are able to track false beliefs in word-learning tasks before they can pass false belief tests (Happé and Loth 2002). This further supports the proposal that the mind-reading abilities which are a prerequisite for verbal communication dissociate to some degree from the wider human mind-reading ability; it also supports the hypothesis that there is a separate, comprehension module.

The inferential processes required by the account described above are unconscious and fast, and the comprehension procedure can be seen as a 'fast and frugal heuristic'. In this respect, then, the relevance-theoretic approach diverges once more from more traditional Gricean accounts of intentional communication (for example Grice 1989: 30-31)—indeed, from philosophical characterizations of utterance comprehension generally—which rationally reconstruct the comprehension process in the form of conscious and reflective inferences about the mental states of others.

As a footnote, however, it's worth noticing that in recently-published work (2001) Grice describes a view of inference in which inferential processes *did not* always have to be 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: 17). The spirit of Grice continues to exert a powerful influence.

## NOTES

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<sup>1</sup> My thanks go to three anonymous reviewers for useful comments on an earlier draft of this paper. Thanks are also due to Deirdre Wilson for her continued kindness and support.

<sup>2</sup> The nature of the tests Grice devised to distinguish meaning<sub>N</sub> from meaning<sub>NN</sub> are not directly relevant to the discussion here. Elsewhere (see Wharton 2003b, forthcoming) I argue that meaning<sub>N</sub> has been somewhat overlooked in the literature on intentional communication and discuss these tests in more detail: speaker's meaning, after all, is often a mixture of meaning<sub>N</sub> and meaning<sub>NN</sub>.

<sup>3</sup> I've changed Grice's original (1), (2) and (3) here to (A), (B) and (C) respectively, to avoid confusion—the numerals (1) and (2) feature in the next quote.

<sup>4</sup> Interested parties are directed to the Bach and Recanati papers, as well as the discussion in Sperber and Wilson (1985/1996).

<sup>5</sup> In Lectures V, VI and VII of the *William James Lectures* (published as Grice (1968) and (1969)) Grice considered criticisms of the first of the above three clauses, which led him to make further modifications. This involved changing clause (1) to “‘*U* meant something by uttering *x*’ is true iff, for some audience *A*, *U* uttered *x* intending: ‘(1) *A* to think that *U* thinks that *p*’”. The effect of this was to allow Grice to distinguish between utterances in which the intention is not to induce a belief, but rather to get the hearer to think that the speaker holds a particular belief, and utterances uttered with the further intention of getting the hearer to come to hold a belief (on the strength of the hearer thinking that the speaker holds a certain belief). Grice refers to these as **exhibitive** and **protreptic** utterances. (The latter are therefore protreptic as well as being exhibitive.)

<sup>6</sup> According to Bach (1987: 147) much of this debate rests on the mistaken assumption that Grice's M-intention is iterative and not—as Bach maintains—reflexive.

<sup>7</sup> François Recanati also addresses this point, in his 1987 book ‘Meaning and Force’.

<sup>8</sup> Notice that an audience is only required to **recognise** a speaker's informative intention; he might not believe the speaker, in which case the informative intention will be recognised but not fulfilled. By contrast, the communicative intention may be fulfilled without being recognised, in that it can be evidenced without the audience consciously attending to it.

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<sup>9</sup> As an anonymous reviewer has pointed out, cases of ostension in which the evidence provided for the first layer is **direct** might well be regarded as **indirect** cases of ostensive-inferential communication. So when I hold up a shirt to show you it, I could just as well mean<sub>NN</sub> 'I hate every Christmas present Auntie Hilda has ever bought me' as 'Look at this shirt'. Central to my use of the word 'direct' in this section is that I use it to describe the **nature** of the evidence provided for the first layer.

<sup>10</sup> Though see Gibbs (1999, 2001) for a fascinating challenge to the claim that intentions exist solely in the minds of individuals.

<sup>11</sup> I recall psychologist Alan Leslie revealing at a workshop in Oxford a few years ago that it was Grice's paper 'Meaning' that sparked his interest in belief-desire psychology.

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