

## Gricean Semantics and Vague Speaker-Meaning

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*Presentations of Gricean semantics, including Stephen Neale's in "Silent Reference," totally ignore vagueness, even though virtually every utterance is vague. I ask how Gricean semantics might be adjusted to accommodate vague speaker-meaning. My answer is that it can't accommodate it: the Gricean program collapses in the face of vague speaker-meaning. The Gricean might, however, find some solace in knowing that every other extant meta-semantic and semantic program is in the same boat.*

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Gricean semantics is a program for reducing all questions about the intentionality of speech acts and linguistic expressions to questions about the intentionality of thought. It takes as its cornerstone a certain notion of speaker-meaning and seeks to define it, without recourse to any semantic notions, in terms of acting with certain audience-directed intentions. Then it seeks to define other agent-semantic notions—most notably speaker-reference and illocutionary act—in terms of its defined notion of speaker-meaning, and after that to define the semantic features of linguistic expressions—meaning, reference, truth conditions, etc.—wholly in terms of the already defined agent-semantic notions, together with certain ancillary notions, such as that of convention, which are themselves explicable wholly in terms of non-semantic propositional attitudes. Gricean semantics is the program that Stephen Neale sympathetically explains with marvelous clarity and comprehensiveness in "Silent Reference."

Neale is a self-proclaimed Gricean. At the same time, he is aware that the Gricean program is not without problems. One of those problems is the possibility of "aphonics," indexicals that appear in a sentence's LF representation but are "silent" in that they aren't phonetically realized. For if there are aphonics, then they will evidently have referents rela-

tive to utterances of sentences in whose LF representations they occur, but it's difficult to see how those referents can be determined by speakers' referential intentions, which is what a Gricean account of expression-reference would seem to require. Neale would like to remove the threat posed by aphonics by showing that they can be accommodated within a Gricean theory of reference, and he suggests one way that accommodation might be achieved. But, as I tried to show (Schiffer 2017) in my response to "Silent Reference," there is a question as to whether that attempt succeeds, and I suggested another route by which accommodation might be achieved. This essay, however, isn't about aphonics. It's about a problem for which I believe no Gricean solution is possible.

A striking feature of presentations of Gricean theories of meaning—as well as of virtually every other presentation of a foundational theory of meaning—is that they completely ignore vagueness, even though virtually every utterance is vague. Perhaps the authors of these presentations would say that their ignoring vagueness is a useful idealization akin to Galileo's ignoring friction in his idealized model of bodies in motion. They might say that. But they would be wrong: vagueness can't be accommodated within the Gricean program. There is more than one way to show this, but I will begin by showing that no Gricean account of speaker-meaning can accommodate vague speaker-meaning, and that will be enough to enable us to see how vagueness also frustrates the aspirations of Gricean accounts of expression-meaning. We will also have an indication of how the problem that vagueness makes for Gricean semantics is one it also makes for competing semantic programs.

### 1. *Gricean Speaker-Meaning and Speaker-Reference*

Assertoric speaker-meaning—henceforth simply speaker-meaning—is the notion of a speaker's meaning that such-and-such, as when, for example, in uttering 'He's ready' Jill meant that Jack was ready to go to dinner. It's the most general kind of assertoric illocutionary act, the genus of which all other kinds of assertoric illocutionary acts—saying that such-and-such, asserting that such-and-such, denying that such-and-such, objecting that such-and-such, telling so-and-so that such-and-such, etc.—are species. The Gricean, like most current philosophers of language, takes speaker-meaning to be a relation, *S meant p*, between a person *S* and a proposition *p* that she meant, where a proposition is an abstract entity that has truth conditions, has those truth conditions necessarily, and is mind- and language-independent in that it belongs to no language and wasn't created by what anyone said or thought.<sup>1</sup>

<sup>1</sup> For my purposes it doesn't matter to which kind of proposition—Fregean, Russellian, functions from possible worlds into truth-values, whatever—the Gricean thinks the propositions we mean belong, but for simplicity of exposition I will often write as though the Gricean takes the propositions we mean to be Russellian propositions, i.e. structured entities whose basic components are the objects and properties our speech acts are about.

What distinguishes the Gricean from other theorists who take speaker-meaning to be a relation to propositions is the Gricean's conception of the nature of that relation: for the Gricean the speaker-meaning relation is definable wholly in terms of a speaker's intentions. Neale gives the flavor of a Gricean account of speaker-meaning with the following slightly altered capsule restatement of the account of speaker-meaning I proposed in (1972) and then later used to devise the concomitant accounts of speaker- and expression-reference Neale discusses in "Silent Reference":

In uttering  $x$ ,  $S$  meant  $p \approx$  for some audience  $A$  and feature  $\phi$ ,  $S$  uttered  $x$  intending  $S$  and  $A$  to mutually know that  $x$  has  $\phi$  and, on the basis of this, that  $S$  uttered  $x$  intending  $A$  actively to believe  $p$ .

Here 'utter' is used, following Grice (1957), in an artificially extended way to include any action by which a person might mean something—spoken utterances, of course, orthographic inscriptions, hand signals, as well as nonconventional acts by which a person might mean something, as when, for example, a person mimes being asleep to communicate that she is bored. In (what is supposed to be) the normal case in which a person means a proposition, she does so by uttering a sentence with whose meaning the proposition she means comports (as, for example, the proposition that it's raining in Dubrovnik comports with the meaning of the sentence 'It's raining') but for the Gricean it's essential that his account of speaker-meaning not in any sense require  $x$  to have antecedent meaning, for a defining feature of his theory of meaning is that expression-meaning is to be reductively defined in terms of his definition of speaker-meaning. 'Mutual knowledge' holds a place for whatever is the correct way of spelling out the requirement that  $S$ 's meaning-constituting intentions be "out in the open" between her and her audience; David Lewis's notion of common knowledge (1969: 1975) and my similar notion of mutual knowledge\* (1972) were independent attempts to do that spelling out, but for present purposes no specific account of mutual knowledge needs to be presupposed. An activated belief is a belief that one has consciously in mind. The most common way for  $S$  to intend  $A$  actively to believe  $p$  is for her to intend her utterance to cause  $A$  to believe  $p$ , as when the purpose of  $S$ 's utterance is to provide  $A$  with knowledge of  $p$ ; but  $S$ 's intention in uttering  $x$  may be merely to remind  $A$  of  $p$ , and that, too, counts as  $S$ 's intending  $A$  actively to believe  $p$ .

Corresponding to the distinction between speaker-meaning and expression-meaning is a distinction, central to the main issue joined in "Silent Reference," between speaker-reference and expression-reference. But this second distinction folds into the first, since, as Neale makes clear, the primary notion of speaker-reference is simply a species of speaker-meaning. Actually, there are three notions of speaker-reference to be accommodated, which I will call *primary speaker-reference*, *higher-order speaker-reference*, and *referring-with*. Primary

speaker-reference—signified by the subscript 'π' in 'S referred<sub>π</sub> to o in uttering x'—is for the Gricean the most basic notion of speaker-reference in terms of which the other two notions are to be defined. It's defined thus:

S referred<sub>π</sub> to o in uttering x iff for some o-dependent proposition p<sub>o</sub>,  
S meant p<sub>o</sub> in uttering x.

An o-dependent proposition is a proposition that is individuated partly in terms of o, so that o occurs essentially in the proposition's truth conditions, and thus wouldn't exist if o didn't exist. For example:

In uttering 'I'm sleepy' Sid meant the Sid-dependent proposition *that he was sleepy*, and therefore referred<sub>π</sub> to himself in uttering that sentence.

In uttering 'She divorced him', Jane meant the Angelina- and Brad-dependent proposition *that Angelina divorced Brad*, and therefore referred<sub>π</sub> both to Angelina and to Brad in uttering that sentence.

Higher-order speaker reference is exemplified by Sally's reference to Henry when she uttered 'That woman talking to Henry is French', where Odile is the woman to whom Sally referred and the proposition she meant was *that she, Odile, was French*. Here Odile was the only thing to which Sally referred<sub>π</sub> in producing her utterance. Yet even though Sally didn't refer<sub>π</sub> to Henry in uttering 'That woman talking to Henry is French', she nevertheless referred to him in uttering that sentence: she referred to Henry by virtue of her referring<sub>π</sub> to Odile *qua woman standing next to Henry*. In other words, Sally didn't refer to Henry in order to mean something about him, but rather in order to identify the woman about whom she meant something. The reference to Henry is an instance of second-order speaker-reference: Sally referred to Henry in order to refer<sub>π</sub> to Odile. Now consider Jack's utterance of 'The boy with the dog who's growling at Hilda is lost', where Billy is the boy to whom Jack referred<sub>π</sub> and the proposition he meant was *that he, Billy, was lost*. Then Jack made a primary reference (i.e. a reference<sub>π</sub>) to *the boy with the dog who's growling at Hilda*, a secondary reference to *the dog who's growling at Hilda*, and, by virtue of referring to the dog *qua dog growling at Hilda*, a tertiary reference to Hilda. In (1981) I offered a recursive definition of speaker-reference devised by Brian Loar and myself which accommodated all cases of speaker-reference, but I will now henceforth ignore higher-order speaker-reference, drop the subscript 'π', and proceed as though speaker-reference were speaker-reference<sub>π</sub>.

This brings us to the important distinction between referring-*in* and referring-*with*.<sup>2</sup> Consider these two acts of speaker-meaning.

In singing "Let the Good Times Roll," Gretel meant *that Hansel, her husband, was out of town*.

<sup>2</sup> In (1981) and elsewhere I spoke e.g. of *Jane's referring to John by (her utterance of) 'he'*. I thank Neale for suggesting the improvement of replacing 'by' with 'with'.

In uttering 'He's out of town', Gretel meant *that Hansel, her husband, was out town*.

In both examples Gretel refers to Hansel *in* producing her utterance. In the first example she refers to him in singing 'Let the good times roll', and in the second she refers to him in uttering 'He's out of town'. There is, however, the following important difference between the two utterances. In the first there is no part of Gretel's utterance *with which* she refers to Hansel, but there is in her second utterance: in that utterance she refers to him with her uttered token of 'he'. The following is a slightly revised version of the first approximation to defining this notion to which Neale appeals in "Silent Reference":

In uttering  $x$   $S$  referred to  $o$  with  $S$ 's  $i^{\text{th}}$  token of  $e$  in  $x$ ,  $e_{\text{rix}}$ , iff for some audience  $A$  and feature  $\phi$ , in uttering  $x$   $S$  intended  $S$  and  $A$  to mutually know that  $e_{\text{rix}}$  has  $\phi$  and, at least partly on the basis of this, that  $S$  referred to  $o$  in uttering  $x$ .

In other words,  $S$  referred to  $o$  with the token  $\delta_r$  of the singular term  $\delta$  contained in her uttered token of the sentence  $\sigma$  when, roughly speaking,  $S$  intended  $\delta_r$  to have a certain feature  $\phi$  and for the fact that  $\delta_r$  had  $\phi$  to do most of the work in making it mutual knowledge between  $S$  and her audience that she referred to  $o$  in uttering  $\sigma$ . Of course, in (what is supposed to be) the normal case the inference-base feature  $\phi$  will have as its most essential ingredient the fact that  $\delta$  has the meaning it has in the shared language of  $S$  and her audience. For the Gricean the *raison d'être* of spoken languages is as instruments of interpersonal communication. If I want to tell my child that whales are mammals I can hardly do better than to utter 'Whales are mammals', and that, according to the Gricean, is because of the way the meaning of that sentence makes the fact that I uttered the sentence such extremely good evidence of my communicative intentions. That it is such good evidence is due to the meaning-determining conventional practices that prevail among speakers of the language to which the uttered expressions belong. I'll have a little more to say about this later.

Turning to expression-reference, the Gricean will find it useful to distinguish between a thing's being the *referent* and its being the *semantic referent* of a token of a singular term, where being the semantic referent entails being the referent, but not vice versa. The Gricean can define the first notion thus:

$x$  is the referent of a token  $\delta_r$  of a singular term  $\delta$  iff the person who produced  $\delta_r$  referred to  $x$  with it.

For example, if a wedding guest points to a man in a tuxedo and says 'I asked that waiter for more champagne', then the indicated man is the referent of the uttered token of 'that waiter' whether or not he's a waiter or merely the groom's best man whom the wedding guest mistakes for a waiter. And he can define the second notion thus:

$x$  is the semantic referent of a token  $\delta_\tau$  of a singular term  $\delta$  iff (i) the person who uttered  $\delta_\tau$  referred to  $x$  with it and (ii) referring to  $x$  with  $\delta_\tau$  comports with the meaning of  $\delta$ .

Thus, if the man to whom the wedding guest referred with his utterance of ‘that waiter’ wasn’t a waiter, then, while the indicated man was the referent of the speaker’s uttered token of ‘that waiter’, he wasn’t the semantic referent of it, since, not being a waiter, the utterance of ‘that waiter’ didn’t comport with the meaning of ‘that waiter’, since that meaning constrains one who utters the expression in conformity with the meaning-determining conventional practices of the language to be referring to a waiter. I’ll have a little more to say below on how the Gricean conceives expression-meanings, and of how those meanings are supposed to constrain what speakers can mean in uttering sentences containing expressions with those meanings, but enough has been said for now for us to see how vague speaker-meaning makes trouble for the Gricean account of speaker-meaning and the semantic notions the Gricean aims to define in terms of it.

## 2. *Vague Speaker-Meaning*

Here is an unexceptional example of vague speaker-meaning. Tom is reading in the park when a woman appears, calling ‘Billy, where are you? We have to leave now’. Intending to tell her something she might find helpful, Tom says to the woman ‘A boy was here a little while ago’. We would certainly regard Tom as having told the woman something, and therefore as having meant and said something in producing his utterance. If the woman to whom he spoke didn’t catch his words and asked him what he said, Tom wouldn’t hesitate to say ‘I said that a boy was here a little while ago’, and we, knowing what we do, would accept Tom’s report of what he said as true. We would unhesitatingly take Tom’s utterance to be an act of speaker-meaning. Tom’s utterance was also vague. His utterance was vague because even if it was definitely true or definitely false, it might have been indefinite whether or not it was true/false; that is to say, it might have been borderline true/false. It’s three-ways overdetermined that Tom’s utterance was vague, for its contained utterances of ‘boy’, ‘here’, and ‘a little while ago’ were vague, and the vagueness of any one of those utterances sufficed to make Tom’s utterance of ‘A boy was here a little while ago’ vague. And each of those utterances was vague because, even if the application to which Tom put it was definitely correct or definitely incorrect, it might have been neither. I intend Tom’s utterance to be an exemplar of vague speaker-meaning.

As already noted, the Gricean conception of speaker-meaning, as well as the dominant conception of it, is that of a relation between speakers and the propositions they mean. Let’s assume *pro tem* that this conception of speaker-meaning is correct and ask: *What proposition did Tom*

mean in uttering ‘A boy was here a little while ago’? Since propositions are mind- and language-independent entities, we can’t answer this question without taking a stand on the issue of ontic vagueness, or vagueness in the world. That issue is a contest between a view I’ll call *no-vagueness-in-the-world* and one I’ll call *vagueness-in-the-world*. What exactly is at issue in this contest is itself in need of precisification, but to a good-enough approximation we may say that no-vagueness-in-the-world holds that nothing outside of language and thought can be vague in its own right (i.e. independently of the vagueness of language and thought), while vagueness-in-the-world holds that properties and things outside of language and thought may be vague in their own right. As a terminological convenience I’ll say that things that aren’t vague in their own right are *metaphysically precise*, and that things that are vague in their own right are *metaphysically vague*. A *proposition* is metaphysically precise provided it’s necessarily the case that there is a fact of the matter as to what truth-value, if any, it has. If bivalence holds for propositions, then a proposition is metaphysically precise provided it’s necessarily the case that it’s a fact that it’s true or else a fact that it’s false. If, as Frege held, presupposition failure can render a proposition neither true nor false, then a proposition is metaphysically precise provided it’s necessarily the case that it’s a fact that it’s true, a fact that it’s false, or a fact that it’s neither true nor false. And if there are three or more truth-values, then a proposition is metaphysically precise provided it’s necessarily the case that there is a fact of the matter as to which truth-value it has. For simplicity of exposition I will assume that metaphysically-precise propositions are bivalent, either true or else false. As a matter of terminology I’ll say that if a proposition is metaphysically-precise, then it can’t be *metaphysically indefinite* what its truth-value is, but that will be compatible with its being indefinite what its truth-value is in an epistemic sense of ‘indefinite’, which is to say, the sense that it would have if the epistemic theory of vagueness were correct. A proposition is metaphysically-vague provided it can be metaphysically indefinite what its truth-value is; in other words, if the proposition can be borderline true/false in its own right, independently of the vagueness of words and concepts. A property is metaphysically precise provided it’s necessarily the case that everything is such that it either has the property or else doesn’t have it, and a thing that is neither a property nor a proposition—e.g. an apple, a dog, a geographical area, or a period of time—is precise provided it’s necessarily the case that it has metaphysically-precise conditions of individuation (so if it’s a geographical area it can’t be metaphysically indefinite what its boundaries are, and if it’s a period of time it can’t be metaphysically indefinite when it began or when it ended, or how many seconds or yoctoseconds<sup>3</sup> have passed between the instant of time it began and the instant of time it ended). Anything that isn’t metaphysically precise is metaphysically vague.

<sup>3</sup> One yoctosecond = one trillionth of a trillionth of a second.

There is one possible answer to the question of what proposition Tom meant in uttering ‘A boy was here a little while ago’ with which we needn’t be concerned—namely, that for some metaphysically-precise proposition *p*, Tom definitely meant *p* in uttering ‘A boy was here a little while ago’. We needn’t be concerned with this possible answer because if it were true Tom’s utterance of ‘A boy was here a little while ago’ wouldn’t have been vague. There remain four possible answers that are compatible with the vagueness of Tom’s utterance. The first two are on the side of no-vagueness-in-the-world, the second two on the side of vagueness-in-the-world. That needs to be qualified. There are actually infinitely many possible answers—but we need to be concerned with only four of them. It’s so-called *higher-order vagueness* that is responsible for the profligate proliferation. Consider Harold, whom we take to be a borderline case of a bald man, which is to say, nearly enough, that we take it to be indefinite whether or not he’s bald. Now, the notion of a borderline case is itself vague; so there’s the apparent possibility that he is a borderline case of a borderline case of a bald man, or a borderline case of a borderline case of a borderline case of a bald man, or .... The relevance of this to my argument may be illustrated in the following way. One of the possible answers I consider to the question “What proposition did Tom mean in uttering ‘A boy was here a little while ago?’” is the following:

There is no metaphysically-vague proposition that Tom definitely meant in uttering ‘A boy was here a little while ago’, but there are myriad metaphysically-vague propositions each such that it’s indefinite whether or not Tom meant it in uttering that sentence.

If we now take higher-order vagueness into account, then other possible answers are:

There is no metaphysically-vague proposition that Tom definitely meant in uttering ‘A boy was here a little while ago’, but there are myriad metaphysically-vague propositions each such that it’s indefinite whether or not it’s indefinite whether or not Tom meant it in uttering ‘A boy was here a little while ago’.

There is no metaphysically-vague proposition that Tom definitely meant in uttering ‘A boy was here a little while ago’, but there are myriad metaphysically-vague propositions each such that it’s indefinite whether or not it’s indefinite whether or not it’s indefinite whether or not Tom meant it in uttering ‘A boy was here a little while ago’.

And so on without end.

That infinite sequence isn’t the only way indefiniteness can proliferate. Another apparent type of possibility would be the series:

There is a proposition *p* that Tom definitely meant in uttering ‘A boy was here a little while ago’ but it’s indefinite whether or not *p* is metaphysically precise.



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And so on without end.

And one can easily see that other kinds of infinite proliferations are possible. I propose, however, to ignore higher-order vagueness altogether and pretend that it’s only first-order vagueness with which we have to contend, and I will assume it’s always metaphysically definite whether a proposition (or anything else) is metaphysically precise or metaphysically vague; for I trust it will be clear how the objections I will raise to the four possible answers I do consider also apply to the infinitely many possible answers I don’t consider.

The four possible answers to be considered are as follows.

- (A) For some metaphysically-precise proposition *p*, Tom meant *p* in uttering ‘A boy was here a little while ago’, but it’s indefinite whether or not he meant *p* in uttering that sentence.
- (B) There is no metaphysically-precise proposition that Tom definitely meant in uttering ‘A boy was here a little while ago’, but there are myriad metaphysically-precise propositions each such that it’s indefinite whether or not he meant it in uttering that sentence.
- (C) For some metaphysically-vague proposition *p*, Tom meant *p* in uttering ‘A boy was here a little while ago’.
- (D) There is no metaphysically-vague proposition that Tom definitely meant in uttering ‘A boy was here a little while ago’, but there are myriad metaphysically-vague propositions each such that it’s indefinite whether or not he meant it in uttering that sentence.

The big question now is whether any of (A)-(D) can survive scrutiny.

*Re (A)* [For some metaphysically-precise proposition *p*, Tom meant *p* in uttering ‘A boy was here a little while ago’, but it’s indefinite whether or not he meant *p* in uttering that sentence]. If it’s indefinite whether or not such-and-such is the case, then it’s impossible for anyone to know whether or not such-and-such is the case. But how can there be any proposition that Tom meant in uttering ‘A boy was here a little while ago’ if it’s impossible for him or anyone else to know that he meant it? Yet (A) would be true if the epistemic theory of vagueness were true, for that theory expounds the thesis that “the proposition a vague sentence expresses in a borderline case is true or false, and we cannot know which” (Williamson 1997: 921). There are issues about how we should understand the ignorance about borderline cases epistemicism

requires, and I'll have a little to say about that presently, but even without resolving those issues we can know that (A) is false if we can know that there couldn't have been a metaphysically-precise proposition that Tom meant in uttering 'A boy was here a little while ago', and I believe we can know that in the following way.

The vagueness of Tom's utterance, we have noticed, was three-ways overdetermined: by the vagueness of his utterance of 'boy', the vagueness of his utterance of 'here', and the vagueness of his utterance of 'a little while ago'. Consequently, if Tom meant a metaphysically-precise proposition in uttering 'A boy was here a little while ago', then it must also have been the case that:

- (1) for some metaphysically-precise property  $\phi$ , Tom expressed  $\phi$  with the token of 'boy' he uttered (if we pretend that 'male' and 'human being' express metaphysically-precise properties and that there is a metaphysically-precise moment at which a person comes into existence, then  $\phi$  might be the property of being a male human being whose age in milliseconds  $\leq 531,066,240,000$ );<sup>4</sup>
- (2) for some metaphysically-precise area  $\alpha$ —i.e. area that has metaphysically-precise boundaries, and thus comprises a metaphysically-precise number of square millimeters, and a metaphysically-precise location relative to Tom's location—Tom referred to  $\alpha$  with 'here';
- (3) for some metaphysically-precise period of time  $\pi$ , Tom referred to  $\pi$  with 'a little while ago', where in order for that to be so there must be instants of time of 0 duration  $t, t', t''$ , and real numbers  $n, n', n''$ , such that (i)  $t$  is the instant  $\pi$  began, (ii)  $t'$  is the instant  $\pi$  ended, (iii)  $t''$  is the instant of time a "little while" before which Tom is saying the boy was in  $\alpha$ , the metaphysically-precise area to which Tom referred with 'here', (iv)  $n$  is the precise number of milliseconds between  $t$  and  $t'$ , (v)  $n'$  is the precise number of milliseconds between  $t''$ , the instant of time from which all measurements of time relevant to the reference of 'a little while ago' emanate, and  $t$ , the instant of time such that if the boy's appearance in  $\alpha$  was so much as one yoctosecond before  $t$ , then it was too long before  $t''$  to count as "a little while ago," and (vi)  $n''$  is the precise number of milliseconds between  $t''$  and  $t'$ , the end of  $\pi$  and thus the instant of time such that if the boy's appearance in  $\alpha$  was so much as one yoctosecond after  $t'$ , then it was too soon before  $t''$  to count as a "little while ago."

We can show that Tom didn't mean any metaphysically-precise proposi-

<sup>4</sup> As an expository convenience, instead of saying e.g. *Tom expressed  $\phi$  with the token of 'boy' he uttered* I'll say *Tom expressed  $\phi$  with 'boy'*, where that will be shorthand for the longer way of speaking. Likewise *Tom referred to  $\alpha$  with 'here'*, for example, will be shorthand for *Tom referred to  $\alpha$  with the token of 'here' he uttered*.

tion in uttering ‘A boy was here a little while ago’ if we can show that any one of (1)–(3) is false. I think we can show that each of (1)–(3) is false, but I’ll begin with (2) since it seems to be the simplest of the three requirements. There are at least the following reasons why Tom couldn’t have referred to a metaphysically-precise area, whether or not a Gricean account of speaker-reference is correct.

- (i) On *any* plausible account of speaker-reference, acts of speaker-reference are *intentional* acts in that, if for some S, o and x, S referred to o with x, then S uttered x with those o-directed intentions that are constitutive, or at least partly constitutive, of her referring to o with x, and if S has the concept of speaker-reference, then, in the normal case, she intended to refer to o with x. For the Gricean this is so in spades. Tom’s utterance was a normal case, but it ought to be obvious that there was no metaphysically-precise area to which Tom intended to refer when he produced it, nor would he have thought there was any need to refer to such an area. We should expect a fuller description of the imagined scenario to include the fact that when he uttered ‘A boy was here a little while ago’, Tom was confident that he was saying something true because he was confident that a human male child no older than six was within four meters of him no more than ten minutes before he spoke. Tom gave no thought to which of the uncountably many metaphysically-precise areas containing the boy was the one he wanted to make a statement about, because there was no metaphysically-precise area about which he wanted to make a statement. Careful and considerate speakers try not to use a vague term unless they are confident that their use of it would be recognized as correct, but they have no reason to consider what would have to have been the case for their use of the term to have been borderline correct, or just barely correct or incorrect. Tom, if he understands the question and has his wits about him, ought to be rendered speechless by the question “Exactly which area did you intend to refer when you uttered ‘here’?” Nor did Tom think there was any need to refer to any particular area that contained the boy, for he would think he succeeded in giving the woman the information he intended to give her if, as a result of his utterance, she believed that a boy was at a location within the vicinity of Tom which made his utterance true, and that didn’t require her to think that any particular area in which the boy was contained was the area to which Tom referred in producing his utterance.
- (ii) It’s both a cornerstone of the Gricean account of speaker-reference and obviously true that we refer to things in order to make known to our hearers what we are talking about. In a normal case, such as Tom’s, a speaker can’t refer to a thing if she knows that her hearer wouldn’t be able to know to what she was refer-

ring. Tom would know that even if there were a metaphysically-precise location to which he wanted to refer, his hearer would have no way of knowing which of the uncountably many eligible metaphysically-precise areas was the one to which he was referring. Given that, he couldn't have intended to refer to any metaphysically-precise area.

- (iii) There is a deeper explanation of why Tom couldn't have referred to any metaphysically-precise area. The statement

There is a metaphysically-precise area  $\alpha$  such that Tom intended to refer to  $\alpha$  with 'here', if true, ascribes to Tom an intention that is *de re* with respect to an unspecified area  $\alpha$ , and just as one can have a belief that is *de re* with respect to a thing under one way of thinking of it but not under another, so one can have an intention that is *de re* with respect to a thing under one way of thinking of it but not under another. Let  $\alpha^*$  be any metaphysically-precise area in the vicinity of Tom. What way of thinking of  $\alpha^*$  might Tom have under which it would be possible for him to intend to refer to  $\alpha^*$  with 'here'? He has no perceptual way of thinking of  $\alpha^*$  that would do the job, and it's very difficult to see what knowledge by description of  $\alpha^*$  he might have that would enable him to intend to refer to  $\alpha^*$  under it.<sup>5</sup> It seems impossible to think of any kind of way of thinking of a metaphysically-precise area that would yield a way of thinking of  $\alpha^*$  under which Tom might have *any* intention or belief that was *de re* with respect to it. In short, it seems that there couldn't have been anything about any particular metaphysically-precise area that would explain what made it, rather than any of the uncountably other metaphysically-precise areas that differed only imperceptibly from it, the area to which Tom referred with 'here'.

I conclude that there was no metaphysically-precise area to which Tom referred in uttering 'A boy was here a little while ago', and that entails that there was no metaphysically-precise proposition that Tom meant in uttering 'A boy was here a little while ago'. So (A) is false. The same sort of considerations used to show that Tom couldn't have referred to a metaphysically-precise area with 'here' can also be used to show that he couldn't have referred to a metaphysically-precise period of time with 'a little while ago'. In fact, given the complexity of what would have to be the case in order for Tom to have referred to a metaphysically-precise period of time (see above p. 302), it should be more intuitively obvious that he couldn't have referred to a metaphys-

<sup>5</sup> If factors that didn't require Tom to have any intention that was *de re* with respect to  $\alpha^*$  secured it as the referent of the token of 'here' Tom uttered, then perhaps Tom could have intended to refer to  $\alpha^*$  under the description *the area to which the token of 'here' I uttered refers*. Yes, but (1) it's impossible to see what factors could determine that reference if they didn't include a *de re* intention of Tom's about  $\alpha^*$  and (2) it's just as difficult to see what feature one of uncountably many indiscriminable metaphysically-precise areas could make it alone the referent of the token of 'here' as it is to see what feature could make it alone the one to which Tom referred with that token of 'here'.

ically-precise period of time than it is that he couldn't have referred to a metaphysically-precise area. So that's another way to show that there couldn't have been a metaphysically-precise proposition which Tom meant in uttering 'A boy was here a little while ago', and therefore another way to show that (A) is false.

Can the same sort of considerations used to show that Tom couldn't have referred either to a metaphysically-precise area with 'here' or to a metaphysically-precise period of time with 'a little while ago' also be used to show that Tom couldn't have expressed a metaphysically-precise property with 'boy'? I believe so, but it's a little trickier to show this. We can see why it's trickier in the following way.

Some theorists would say that the vagueness of 'boy' is no barrier to the truth or knowability of claims such as

- (i) The meaning of 'boy' = the property of being a boy

or

- (ii) 'Boy' is true of a person iff he is a boy

For, they would say, the vagueness of the right-hand side occurrence of 'boy' in (i) and (ii) is simply the vagueness of the word—viz. 'boy'—referred to on the left-hand side, so that the vagueness of the one balances out the vagueness of the other. Suppose that is right, that the epistemic theory of vagueness is true, and that the property of being a boy is metaphysically-precise, so that, in addition to (i) and (ii) being true, a statement like the following is also true:

- (iii) The property of being a boy = the property of being a male human being whose age in milliseconds  $\leq$  531,066,240,000.

Let's pretend that the statement like (iii) that is true is (iii) itself. Then (i) and (ii) would be equivalent, respectively, to

- (iv) The meaning of 'boy' = the property of being a male human being whose age in milliseconds  $\leq$  531,066,240,000

and

- (v) 'Boy' is true of a person iff he is a male human being whose age in milliseconds  $\leq$  531,066,240,000.

Now, according to the epistemic theorist, in order for (iii), (iv), and (v) to be compatible with the vagueness of 'boy' it would have to be impossible for anyone to know any one of them, for if they could know any one of them then it couldn't ever be indefinite whether a human male was a boy, since it would always be in principle possible to determine whether or not a male human was a boy by computing the number of milliseconds that have passed since he was born. But the unknowability of the truths (iii)–(v) wouldn't render the truths (i) and (ii) unknowable, for just as one can know that George Eliot wrote *Middlemarch* but not know that Mary Ann Evans wrote *Middlemarch*, even though George Eliot was Mary Ann Evans, so, it might be said, one can know

(i) and (ii) even if it was impossible for one to know (iii), and therefore impossible for one to know (iv) and (v). The upshot of this would be that, if the epistemic theory is true, then the difficulty in a speaker's meaning a metaphysically-precise proposition in producing a vague utterance arises only for vague utterances that include vague utterances of expressions such as 'here' and 'a little while ago', but not for vague utterances of terms like 'boy' whose meanings (we might suppose) are metaphysically-precise things or properties. That line of thought, then, is why showing that Tom couldn't have expressed a metaphysically-precise property with 'boy' is trickier than showing that he couldn't have referred to a metaphysically-precise area with 'here' or to a metaphysically-precise period of time with 'a little while ago'.

In fact, however, the line of thought is specious; Tom's utterance of 'boy' really is in the same boat as his utterances of 'here' and 'a little while ago'. If 'boy' did mean the property of being a boy, then it would be easy for Tom to intend to express the property of being a boy with the token of 'boy' he uttered. But 'boy' can't mean the property of being a boy, and what prevents there being a metaphysically-precise property that Tom expressed with 'boy' is on all fours with what prevents him from referring to a metaphysically-precise area with 'here' or to a metaphysically-precise area with 'a little while ago'. This is due to a feature of every vague expression which precludes any kind of thing or property from being the meaning of any vague expression, a feature which shows that *none* of (i)–(v) is compatible with the vagueness of 'boy', even if the epistemic theory is true. That feature is one I call *penumbral shift*.<sup>6</sup> Penumbral shift doesn't per se show that speakers don't mean metaphysically-precise propositions in acts of vague speaker-meaning, but it does show that Tom's utterance of 'boy' makes it no less difficult for him to have meant a metaphysically-precise proposition in uttering 'A boy was here a little while ago' than does his utterance of 'here' or of 'a little while ago'.

Penumbral shift is a feature of every vague expression, but to economize on words I will explain it only with respect to vague predicates like 'boy', 'violinist', 'mathematician', 'communist', and 'triangular' which, unlike such vague predicates as 'local', 'ready', 'tall' or 'intelligent', are apt to be regarded as having constant characters if vagueness is being ignored. I'll refer to such vague predicates as predicates\*. Now, every token of a predicate\* has a *penumbral profile*, and two tokens of a predicate\* have the same penumbral profile just in case if either token is true/false of a thing, then likewise for the other; if either token is such that it's indefinite whether or not it's true/false of a thing, then likewise for the other; if either token is such that it's indefinite whether or not it's indefinite whether or not it's true/false of a thing, then likewise for the other; and so on. Then we may say that penumbral shift (when restricted to predicates\*) is the fact that *the penumbral profiles*

<sup>6</sup> Schiffer (2010) and (2016).

*of tokens of a predicate\** may shift somewhat from one token of the *predicate\** to another; that is to say, two tokens of a *predicate\** may have somewhat different penumbral profiles. The “somewhat” qualification is important. For example, if Clyde is a man whose scalp is as hairless as a billiard ball and on whose scalp no hair can grow, then every token of ‘bald man’ must be true of Clyde, but if Clyde is blessed with a head of hair like the one Tom Cruise appears to have, then every token of ‘bald man’ must be false of him. At the same time, penumbral shift makes it possible for there to be three tokens of any *predicate\**, one of which is true of the thing to which it’s applied, another of which is false of the thing to which it’s applied, and still another of which is such that it’s indefinite whether or not it’s true of the thing to which it’s applied. Here are three examples:

— At a party George is asked whether Henrietta came to the party with anyone, and he replies, gesturing at a certain man, ‘She came with that bald guy’. That utterance would most likely be accepted in the context in which it occurred as true, even if it somehow transpires that the man in question shaves his scalp but wouldn’t be said to be bald if he let his hair grow out. In another conversation, however, in which the discussion is about hereditary baldness, someone might correct a remark about the same man by saying, ‘No; he’s not bald; he just shaves his scalp’, and that utterance, in that context, would very likely count as true. In still another context the question is raised whether a man who shaved his scalp would be bald if no one would take him to be bald if he stopped shaving his scalp and let his hair grow out, and in that context it might be true to say, ‘That’s undetermined by the use of “bald” in everyday speech; such a man would be neither definitely bald nor definitely not bald’.

— In a community in which people typically marry before the age of twenty, an utterance of ‘He’s a bachelor’ may count as true when said of an unmarried eighteen-year-old male, whereas in a conversation among New Yorkers, where for both men and women the average age for a first marriage is between thirty and thirty-five, an utterance of ‘He’s a bachelor’ would most likely not count as definitely true when said of an unmarried eighteen-year-old male, and may even count as false.

— An utterance of ‘Mary is getting married to a boy from Boston’ would count as false if the male whom she is about to marry is fifty-two years old, but is apt not to count as false if he is twenty-seven years old. At the same time, if every one of the seven male professors in one’s department is over forty except Henry, who is twenty-seven, an utterance of ‘Six men and one boy are professors in my department’ would count as a misuse of ‘boy’. The boys’ clothing section in a department store isn’t where a normal-size eighteen-year-old American male would go to buy clothes, but if Jack is an

eighteen-year-old high school student who is the star of his school's boys basketball team, an utterance of 'Jack is the tallest boy on the team' would count as true if he is the tallest person on the team.

Now we can see why, owing to the vagueness of 'boy', penumbral shift makes it impossible for any of (i)–(v) to be true. It precludes

- (i) The meaning of (the predicate-type) 'boy' = the property of being a boy

from being true because:

- 1) Necessarily, the just-displayed *token* of (i) is true only if, for some property  $\varphi$ ,  $\varphi$  is the referent of the token of 'the property of being a boy' in that token of (i), and the predicate-type 'boy' means  $\varphi$ .
- 2) Necessarily, if a property  $\varphi$  is the meaning of a predicate-type F, then F has a constant character and  $\varphi$  is the content of every token of F.
- 3) Necessarily, if a property  $\varphi$  is the content of every token of a predicate F, then there aren't simultaneously two tokens of F one of which is true of a thing, the other of which isn't true of that thing.
- 4) If a predicate F is subject to penumbral shift, then there can be two simultaneous tokens of F one of which is true of a thing, the other of which isn't true of that thing.
- 5) 'Boy', being vague, is subject to penumbral shift.
- 6) So, no token of (i) can be true.

A similar argument shows that penumbral shift also precludes any token of

- (ii) 'Boy' is true of a person iff he is a boy

from being true. From here it should be easy to see that each of

- (iii) The property of being a boy = the property of being a male human being whose age in milliseconds  $\leq 531,066,240,000$ .
- (iv) The meaning of 'boy' = the property of being a male human being whose age in milliseconds  $\leq 531,066,240,000$ .
- (v) 'Boy' is true of a person iff he is a male human being whose age in milliseconds  $\leq 531,066,240,000$ .

is also incompatible with the fact that 'boy', being vague, is subject to penumbral shift. None of this shows that penumbral shift is per se incompatible with the epistemic theory of vagueness. It only shows that penumbral shift is incompatible with a version of the epistemic theory which holds that some property is the meaning of 'boy'. The upshot of all this as regards the hypothesis that Tom meant a metaphysically-precise proposition is that, whether or not the epistemic theory is true, the problem that his utterance of 'here' or 'a little while ago' makes for the proposal that Tom meant a metaphysically-precise proposition in



uttering 'A boy was here a little while ago' is equally made by his utterance of 'boy'. For if Tom meant a metaphysically-proposition, then there was a metaphysically-precise property that Tom expressed with 'boy', and now that we see that that property can't be the meaning of 'boy', it will be just as difficult to see how just one of the nearly identical metaphysically-precise properties in contention—e.g. *the property of being a human male whose age in milliseconds  $\leq 531,066,240,000$* , as opposed, say, to *the property of being a human male whose age in milliseconds  $\leq 531,066,239,000.07$*  or *the property of being a human male whose age in milliseconds  $\leq 531,066,240,000.8$* —could be determined to be the metaphysically-precise property expressed by Tom's uttered token of 'boy' as it was to see how just one of the metaphysically-precise areas in contention could be determined to be the metaphysically-precise area to which he referred with the token of 'here' he uttered.

I conclude that we know that there was no metaphysically-precise proposition that Tom meant in uttering 'A boy was here a little while ago', and therefore know that (A) is false.

*Re (B)* [There is no metaphysically-precise proposition that Tom definitely meant in uttering 'A boy was here a little while ago', but there are myriad metaphysically-precise propositions each such that it's indefinite whether or not he meant it in uttering that sentence]. We know from the discussion of (A) that there was no metaphysically-precise proposition that Tom meant in uttering 'A boy was here a little while ago', and if we know that, then it's definitely the case. Therefore, it's not the case that there are myriad metaphysically-precise propositions each such that it's indefinite whether or not Tom meant it in uttering 'A boy was here a little while ago', for the considerations adduced to show that (A) is false also show that every metaphysically-precise proposition is such that Tom definitely did not mean it. Therefore, (B), as well as (A), is false.

*Re (C)* [For some metaphysically-vague proposition *p*, Tom meant *p* in uttering 'A boy was here a little while ago']. This answer presupposes vagueness-in-the-world; according to it Tom's utterance was vague because he meant a metaphysically-vague proposition in producing it. Many philosophers will doubt (C) because they doubt whether the notion of metaphysical vagueness can be made coherent. Here is how David Lewis expressed his own frustration with the idea that there are metaphysically vague things:

I doubt that I have any correct conception of a vague object. How, for instance, shall I think of an object that is vague in its spatial extent? The closest I can come is to superimpose three pictures. There is the multiplicity picture, in which the vague object gives way to its many precisifications, and the vagueness of the object gives way to differences between precisifications. There is the ignorance picture, in which the object has some definite but secret extent. And there is the fadeaway picture, in which the presence of the object admits of degree, in much the way that the presence of a spot of illumination admits of degree, and the degree diminishes as a function

of the distance from the region where the object is most intensely present. None of the three pictures is right. Each one in its own way replaces the alleged vagueness of the object by precision. But if I cannot think of a vague object except by juggling these mistaken pictures, I have no correct conception. (Lewis 1999a: 170)

That objection to vagueness-in-the-world is certainly discussable, but in order to give the propositional account of speaker-meaning its best run for the money, I will for present purposes assume that vagueness-in-the-world is at least coherent. My question, then, concerns the plausibility of (C) on the assumption that there are metaphysically-vague properties, areas, periods of time, and propositions. The answer to my question, I submit, is that (C) isn't plausible even on that assumption: it's shown to be false by exactly the same sort of considerations that showed (A) to be false.

The hypothesis that Tom meant a metaphysically-*precise* proposition in uttering 'A boy was here a little while ago' entails that he expressed a metaphysically-precise property with 'boy', referred to a metaphysically-precise area with 'here', and referred to a metaphysically-precise period of time with 'a little while ago'. The hypothesis that Tom meant a metaphysically-*vague* proposition in producing his utterance entails only that he expressed a metaphysically-vague property with 'boy', referred to a metaphysically-vague area with 'here', or referred to a metaphysically-vague period of time with 'a little while ago'. For example, it's compatible with Tom's having meant a metaphysically-vague proposition that he expressed a metaphysically-vague property with 'boy' but referred to a metaphysically-precise area with 'here' and to a metaphysically-precise period of time with 'a little while ago'. At the same time, as we have seen, we can't account for the vagueness of Tom's utterances of 'here' and 'a little while ago' if he referred to metaphysically-precise things with those expressions, so in fact the only way he could have meant a metaphysically-vague proposition that was compatible with the vagueness of his utterances of 'boy', 'here', and 'a little while ago' is if he expressed a metaphysically-vague property with 'boy', referred to a metaphysically-vague area with 'here' and to a metaphysically-vague period of time with 'a little while ago'. The upshot as regards (C) is that we can see that it's false by seeing that Tom couldn't have referred to any metaphysically-vague area for the same reason, *mutatis mutandis*, that he couldn't have referred to any metaphysically-precise area. The fundamental reason Tom couldn't refer to any metaphysically-precise area is that he had no way of thinking about any such area under which he might intend to refer to it, and this because each such area was for him indistinguishable from the uncountably many precise areas that differed from it only in some imperceptible way. The same is also true of the uncountably many metaphysically-vague areas in Tom's vicinity (if there are such things). For example, there will be two such areas  $\alpha_1$  and  $\alpha_2$  such that if any location is definitely in  $\alpha_1$ , then it's also definitely in  $\alpha_2$ , and vice versa,

the only difference between the areas being that there are locations such that while it's indefinite whether or not they are in  $\alpha_1$ , it's merely indefinite whether or not it's indefinite whether or not they are in  $\alpha_2$ , and that's not a difference that would enable Tom to intend to refer to either area, for he would still have neither a perceptual nor descriptive way of thinking of either area under which he could have any *de re* propositional attitudes about it. If there are metaphysically-vague things or properties, they are every bit as finely individuated as any metaphysically-precise thing or property.

*Re (D)* [There is no metaphysically-vague proposition that Tom definitely meant in uttering 'A boy was here a little while ago', but there are myriad metaphysically-vague propositions each such that it's indefinite whether or not he meant it in uttering that sentence]. (D) stands to (C) as (B) stands to (A). We know from the discussion of (C) that there was no metaphysically-vague proposition that Tom meant in uttering 'A boy was here a little while ago', and if we know that, then it's definitely the case. Therefore, it's not the case that there are myriad metaphysically-vague propositions each such that it's indefinite whether or not Tom meant it in uttering 'A boy was here a little while ago', for the considerations adduced to show that (C) is false also show that, if there are metaphysically-vague propositions, then every metaphysically-vague proposition is such that Tom definitely did *not* mean it. Therefore, (D), as well as (C), is false.

### 3. *The Cost of Vague Speaker-Meaning for Gricean Semantics*

So, I submit, none of (A)–(D) survives scrutiny, and from this we may conclude that there was no proposition that Tom meant in uttering 'A boy was here a little while ago'. Tom's utterance is an arbitrary example of vague speaker-meaning, and since virtually every utterance is vague, virtually every utterance is an instance of vague speaker-meaning. If there is no proposition that Tom meant in producing his utterance, then speakers virtually never mean propositions when they speak. Let's explore the consequences of this for Gricean semantics under three headings: *speaker-meaning*, *propositional attitudes*, and *meta-semantics & semantics*.

#### *Speaker-meaning (and propositional speech acts generally)*

The Gricean, as well as the dominant, conception of speaker-meaning is as a relation between speakers and the propositions they mean. This conception collapses in the face of vague speaker-meaning, if what I've argued in the preceding section is correct. This of course doesn't mean that an utterance such as

In uttering 'Phil and Barbara have three kids', Sid meant that Phil

and Barbara have three young goats

can't be true, but it does mean that if it's true then its 'that'-clause doesn't refer to any proposition. This raises two questions: First, might the Gricean program, or at least some version of it, make do with something other than propositions to be the things we mean, say, and tell people? Second, should any other erst-while propositionalist seek something other than propositions to be the things we mean? I believe the answer to both questions is *no*. If there are such things as the things we mean, then those things must be capable of having truth-values, and if those things aren't propositions, then they must either be mentalese sentences or, more likely, public language sentences or utterances (think of Donald Davidson's "paratactic" theory of saying-that). The mentalese version of sententialism has a host of problems that keep it from being a serious option for anyone,<sup>7</sup> and the public-language version is unacceptable to the Gricean because it requires a non-Gricean account of the semantic properties of expressions.<sup>8</sup> But there is another reason why there aren't things of any kind that can be the things we mean if, for the reasons I've given, propositions can't be the things we mean—viz. there would have been nothing to prevent there having been a proposition that Tom meant in uttering 'A boy was here a little while ago' if there had been a metaphysically-precise vague property, area and period of time to which he referred with, respectively, the tokens he uttered of 'boy', 'here', and 'a little while ago', but, as I pointed out in fn. 6, it's just as difficult to see, for example, what feature one of uncountably many indiscriminable metaphysically-precise or vague areas could make it alone the referent of the token of 'here' as it is to see what feature could make it alone the one to which Tom referred with that token of 'here'. I conclude that, while there are true reports like the one displayed just above, neither speaker-meaning nor any other other "propositional" speech act is a relation to anything. I'll presently say something about the challenge this conclusion poses.

### *Propositional attitudes*

The dominant view of propositional attitudes, as well as the view of them Gricean semantics requires, is that they are...well, *propositional* attitudes. The dominant view of believing, for example, is that it's a relation between a believer and a proposition she believes. But if the considerations adduced to show that there is no proposition that Tom meant in producing his utterance really do show that, then they also show that vague propositional attitudes aren't relations to propositions. This is an important point. Other philosophers have made their own trouble for the view that communication involves a speaker's uttering words that encode the proposition she wants to communicate,

<sup>7</sup> See Schiffer (1987: Chapter 4 "Intentionality and the Language of Thought").

<sup>8</sup> See *op. cit.*, Chapter 5 "Sententialist Theories of Belief."

and that her attempted communication is successful just in case her hearer successfully decodes the encoded proposition. But the philosophers who have argued against this view of communication have held that, while successful communication doesn't consist in a hearer's entertaining or believing the very same proposition that is the content of the belief the speaker expressed in producing her utterance—i.e. the belief that was the proximal cause of her utterance—it does consist in a certain similarity-relation's obtaining between the proposition the speaker believed and the one the hearer entertained or believed as a result of the speaker's utterance. That was the view to which Frege was giving voice when he wrote:

In the case of an actual proper name such as 'Aristotle' opinions as to the sense may differ. It might, for instance, be taken to be the following: the pupil of Plato and teacher of Alexander the Great. Anybody who does this will attach another sense to the sentence 'Aristotle was born in Stagira' than will a man who takes as the sense of the name: the teacher of Alexander the Great who was born in Stagira. So long as the reference remains the same, such variations of sense may be tolerated, although they are to be avoided in the theoretical structure of a demonstrative science and ought not to occur in a perfect language.<sup>9</sup>

But if what I have been arguing is on the right track, not only was there no proposition that Tom meant in uttering 'A boy was here a little while ago', there were also no propositions that were the contents of the beliefs and intentions that lead him to utter that sentence. This should be clear, for if what I said about Tom's utterance of e.g. 'here' was correct, the reason he couldn't refer either to a metaphysically-precise or to a metaphysically-vague area with 'here' is that there was nothing about any area of either kind that could explain how Tom could have an intention or belief that was *de re* with respect to it. At the same time, to redirect to propositional-attitude reports a point already made about speech-act reports, it remains true that what led to his utterance was his knowing that a boy had been in his vicinity a little while before he spoke, and that he said what he did to the woman to whom he spoke because he wanted to share that knowledge with her. It's just that although the propositional-attitude report I just made in writing the preceding sentence is true, neither its 'that'-clause nor the occurrence of 'that knowledge' in it refers to a proposition.

<sup>9</sup> Frege (1892). For contemporary expressions of the view see for example McDowell (1984a), Heck (2002), Buchanan and Ostertag (2005), and Buchanan (2010). NYU Ph.D. student Martin Abreu defends a novel version of this line in his nearly completed doctoral dissertation.

*Meta-semantics & semantics*

How do the conclusions so far reached affect what the Gricean needs to say about the nature and determinants of the semantic properties of linguistic expressions? To answer this I'll begin by sketching what the Gricean needs to say about those things. My sketch will impose a certain degree of regimentation, and there are ways my sketch may be varied while remaining faithful to the Gricean program, but I believe that the sketch I'm about to give captures what must be regarded as essential to the program.

A language, as David Lewis liked to emphasize (Lewis 1969, 1975), is a certain kind of abstract object that may or may not be used by anyone—to wit, a finitely storable function that maps each of infinitely many sequences of sounds, or marks, or hand gestures, or whatever (the expressions of the language) to things that do the job that “meanings” are supposed to do. If a function  $L$  is a language and  $L(e) = \mu$ , then we may stipulate that  $e$  is an “expression” of  $L$  and  $\mu$  its “meaning” in  $L$ . What sort of thing a meaning must be is determined by the work a language must do in order for it to be the language of a given population. To say what that way is is to define a relation  $R$  such that, necessarily, if a language  $L$  bears  $R$  to a population  $P$ , then  $L$  is the language of  $P$ , where that is equivalent to saying that every expression of  $L$  means in  $P$  what it means in  $L$ , and where the notion of meaning-in-a-population is the use-dependent notion of meaning that philosophers have long struggled to understand. Let's call that relation, whatever it turns out to be, the *public-language relation*. The Gricean, we know, aims to define the public-language relation in terms of his defined notion of speaker-meaning, together with certain ancillary notions, such as that of a conventional practice, which are themselves definable in terms of ordinary beliefs and intentions and without recourse to any public-language semantic notions. So, if we know the Gricean's account of the public-language relation, then we will know exactly how a language must be used by a population in order for it to be the population's public language, the language members of the population use to communicate with one another, and in knowing that we will know what role something must play if it's to be the meaning an expression has for the members of that population. The following gives the gist of a Gricean account of the public-language relation:

$L$  is a language of  $P$  iff there prevails in  $P$  a system of conventional practices conformity to which requires one who produces an unembedded utterance of a sentence of  $L$  to mean thereby a proposition that (in a sense presently to be explained) “fits” the meaning of the sentence in  $L$ .<sup>10</sup>

<sup>10</sup> An unembedded utterance of a sentence is an utterance of it that doesn't occur as part of the utterance of another sentence.

This explains how for the Gricean uttering a sentence with a certain meaning can be extremely good evidence that in uttering the sentence the speaker meant a proposition that fits the sentence's meaning.

When we understand the "fitting" relation we will know what the Gricean takes expression-meanings to be. To understand that relation we must understand the meaning/content distinction. *Meanings* are properties of expression-*types*, *contents* of expression-*tokens*. The meaning of an expression-type is, in effect, a rule or formula that specifies the conditions that something must satisfy if it's to be the content of a token of the expression. Then we can say that the proposition a speaker means in uttering a sentence is the content of the token of the sentence the speaker uttered just in case the proposition satisfies the rule or formula that the sentence means. (Specifications of these meanings are statable in "character"-style as functions from tokens onto their contents.) Propositions are the contents of sentence tokens, and a primary role such a content plays is to be the proposition the speaker means when he utters an unembedded sentence token whose content is that proposition. The content of every expression token will be what it contributes to the content of the unembedded sentence token in which the expression token occurs. If a Gricean is ignoring vagueness, then to a rough approximation he might say that:

- The content of every token of 'boy' (that has a content) is the property of being a boy.
- The content of a token of 'here' is an area  $\alpha$  such that the speaker who uttered the token is within  $\alpha$  and she referred to  $\alpha$  with the token of 'here' she uttered.<sup>11</sup>
- The content of a token of 'a little while ago' is a period of time  $\pi$  such that  $\pi$  occurred shortly before the token was uttered and the speaker who uttered the token referred to  $\pi$  with it.
- The content of a token of 'A boy was here a little while' is the proposition that something that had  $\phi$  was in  $\alpha$  at a time within  $\pi$ , where  $\phi$  is the content of the uttered token of 'boy',  $\alpha$  the content of the uttered token of 'here', and  $\pi$  the content of the uttered token of 'a little while ago'.

What remains of this Gricean semantic and meta-semantic picture when one tries to adjust it to accommodate vagueness? The answer, if what I've argued is correct, should be clear: *absolutely nothing*. A language won't be "a pairing of sound and meaning over an infinite domain" (Chomsky 1980: 82), for there won't be anything that can be the content of a token of a vague expression, and therefore nothing to be the meaning of a vague expression. At the same time, the Gricean doesn't stand alone, for, as I've already implied (see above p. 312), the

<sup>11</sup> This ignores the use of 'here' manifested when the FBI agent points to a certain spot on a map and says to the guy who's about to enter the witness protection program, 'Here is where you'll live for the foreseeable future'.

considerations that frustrate his attempt to assign denotations to the tokens of the vague expressions that occur in a token of the sentence ‘A boy was here a little while ago’ will frustrate the attempt of any other theorist to do the same.<sup>12</sup>

You might feel that I’ve painted myself into a corner I can’t get out of. I’ve committed myself to the following two claims about Tom’s utterance of ‘A boy was here a little while ago’. First, that the utterance was true, and second, that it’s truth-value wasn’t a function of the denotations of its constituent expressions. But how can the utterance be true unless it has truth conditions, and how can it have truth conditions if they’re not a function of the denotations the sentence’s constituent expressions have in the utterance. Well, there is *a sense* in which the utterance has truth conditions and *a sense* in which those conditions, such as they are, are determined by denotation-like properties of the utterances of the sentence’s constituent expressions. The utterance of the sentence has truth conditions in the sense that there are myriad states of affairs which, if realized, would make the utterance determinately true, and myriad states of affairs which, if realized, would make the utterance determinately false. An example of the first sort would be a state of affairs in which a five-year-old human male was within three meters of Tom eight minutes before he spoke, and an example of the second sort of state of affairs would be one in which a ninety-year-old woman was the only person to be within a kilometer of Tom in the two hours before he spoke. Moreover, that those states of affairs have that status is clearly due to there being conditions whose satisfaction by a use of ‘boy’, or ‘here’, or ‘a little while ago’ would make Tom’s use of it determinately correct, likewise for conditions that would make the use of any one of those vague expressions determinately incorrect. What there can’t be is a *set* of states of affairs such that the utterance was determinately true just in case some member of the set was realized, another set such that the utterance was determinately false just in case some member of that set was realized, or a set of states of affairs such that an utterance of the sentence would be such that it would be indeterminate whether or not it’s true just in case some member that set was realized. And so on. Likewise, *mutatis mutandis*, for there not being for any vague expression a set of conditions such that an utterance of the expression would be determinately correct just in case some member of the set was satisfied. And so on. Nevertheless, my conclusions do seem to preclude a natural language from having a correct compositional meaning theory or a correct compositional truth theory, where a compositional meaning theory is taken to be a finitely storable theory that issues for each of the infinitely many expressions of the language a theorem that assigns to it its meaning in the language, and where a compositional truth theory for a language is taken

<sup>12</sup> I take this claim to be more or less obvious, but if it isn’t (and even if it is) I can’t take the space here to give the claim the elaboration it may deserve.



to be a finitely statable theory of the language that issues for each of the infinitely many sentences of the language a theorem that specifies the conditions under which an utterance of the sentence would be true and the conditions under which it would be false. So it's far from clear what kind of systematic, but evidently non-compositional, account of whatever sort of semantic properties expressions have if what I've said about the effect of vagueness on semantics is correct. So, until what needs to be explained—whatever exactly that is reckoned to be—is satisfactorily explained, perhaps the most that can be said for what *this essay* accomplishes is that it has displayed a new paradox about vagueness and meaning. I'll take that.

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