

Article

Conversational Implicature

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Confusion in terms inspires confusion in concepts. When a relevant distinction is not clearly marked, or not marked at all, it is apt to be blurred or even missed altogether in our thinking. This is true in any area of inquiry, pragmatics in particular. No one disputes that there are various ways in which what is communicated in an utterance can go beyond sentence meaning.¹ The problem is to catalog the ways. It is generally recognized that linguistic meaning underdetermines speaker meaning because of the need for disambiguation and reference assignment, and because people can speak figuratively or indirectly. But philosophers and linguists are coming to recognize that these are not the only ways. The situation may be described in Gricean terms: the distinction between what is said and what is implicated is not exhaustive. Charting the middle ground between the two will require attending to specific examples, noting their distinctive features, and articulating the relevant concepts. That is what I aim to do here. The basic idea will be to distinguish not only the implied from the explicit but the implicit from the implied.

1. Introduction: Being Inexplicit

If using language amounted to nothing more than putting one's thoughts into words, then understanding an utterance would be merely a matter of decoding the words uttered. No one seriously believes that, and yet

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¹ People use larger chunks of language than sentences, of course, but from the point of view of grammar, the sentence is the basic unit. Our discussion will not take up pragmatic phenomena that involve multi-sentence utterances.

even today philosophers often pretend that every sentence expresses a proposition and that every utterance is the assertion of that proposition. There are various phenomena that such a simplistic view fails to take into account. Fortunately, thanks to the work and influence of Austin and Grice, most of these phenomena are now quite familiar and fairly well understood. However, there are two such phenomena which, though pervasive, have received little notice, at least from philosophers.

Consider the following example, in which a woman says (1) to her husband.

(1) She has taken enough from you.

The meanings of the words *she* and *you* do not by themselves determine who they are being used to refer to, say a certain female employee and the speaker's husband, who is also the employee's boss. Moreover, because the word *taken* is ambiguous (ambiguity is semantic *overdetermination*), one of this word's linguistic meanings must be selected. Depending on which one is operative, *taken* could be used to mean 'appropriated', 'received', 'tolerated', or 'suffered'.² Suppose it is being used to mean 'suffered'. Then (1) would be used to say that the employee in question has suffered enough from the speaker's husband. Perhaps the wife is not only asserting that proposition but also urging her husband to stop doing what he has been doing to the employee or to warn him about her possibly retaliating. Or maybe his wife does not really mean what she is saying but is being odiously ironic, urging her husband to mistreat the employee still more. But leave aside possible indirect or figurative uses of (1). Just notice that nothing in the sentence indicates what it is that the employee is being said to have suffered enough of or with respect to what it is enough; nor does anything in the sentence indicate that the utterance is intended to apply only to the time since the husband developed a personal interest in the employee.

This example illustrates the two ways in which a speaker can, even without using any ambiguous or indexical expressions and without speaking figuratively or indirectly, mean something without making it fully explicit. The first way arises whenever an utterance, even after disambiguation and reference fixing, does not by virtue of linguistic meaning express a complete proposition. When a sentence is in this way *semantically underdeterminate*, understanding its utterance requires a process of *completion* to produce a full proposition. The second way occurs when the utterance does express a complete proposition (possibly as the result of completion) but some other proposition, yielded by what I call the process

² For the sake of discussion I am assuming these to be distinct senses of the word. But see Section 7, which takes up Ruhl's (1989) contention that in lexicography and in lexical semantics, senses of words are multiplied far beyond necessity.

of *expansion*, is being communicated by the speaker. In both cases the speaker is not being fully explicit. Rather, he intends the hearer to read something into the utterance, to regard it as if it contained certain conceptual material that is not in fact there. The result of completion and/or expansion is what I call *conversational implicature*.

Implicature is to be distinguished from Grice's (1967a) conversational *implicature*. In implicature one says and communicates one thing and thereby communicates something else in addition. Implicature, however, is a matter of saying something but communicating something else instead, something closely related to what is said. As our examples will make clear, unlike metaphorical and other sorts of non-literal utterance implicature is not a case of using particular words in some figurative way. Rather, part of what is communicated is only implicit in what is explicitly expressed, either because the utterance is semantically underdeterminate and completion is required or because what is being communicated is an expanded version of the proposition expressed. Examples of these two ways of being implicit are presented, respectively, in Sections 2 and 3. These examples show that Grice's distinction between what is said and what is implicated is not exhaustive. Section 4 explains the difference between implicature and implicature. Section 5 takes up the notion of what is said that enters into Grice's account of implicature and into my account of implicature. His notion has been regarded by some as too restrictive, both intuitively and theoretically, but with some needed modifications, I will suggest, it has both intuitive appeal and theoretical value. Grice's contrast between what is said and what is *conventionally* implicated is taken up in Section 6, where it is argued that the latter notion can be dispensed with. Section 7 takes up the case of completion and expansion at the lexical and phrasal as opposed to the sentential level. Finally, in Section 8, general issues are taken up about the relation between our account of conversational implicature and the psychology of inferences involved in recognizing them.

2. Underdetermination and Completion

In grammar school one was taught that a sentence expresses a complete thought. The phenomenon of semantic underdetermination shows otherwise. It gained modest recognition in the late seventies and eighties under such labels as semantic generality (Atlas, 1977) and nonspecificity (Bach, 1982) and is more widely known these days as semantic underdetermination.³ It is akin to the older notion of sense-generality of words (such as

³ I took it up again in Bach, 1987a (pp. 74–77), where I called it 'semantic indeterminacy', and Sperber and Wilson use the term 'underdetermine' to describe the relation between the 'logical form of an utterance' and 'the proposition expressed' (1986, p. 180) that generally obtains whether or not the logical form already determines a complete proposition. When it does not, they say that the sentence is 'semantically incomplete'.

deep, take and before), which lexical semanticists distinguish from homonymy, ambiguity, and vagueness (see Atlas, 1989, ch. 2), but semantic underdetermination is a feature of sentences. For example, sentences (1) and (2),

- (1) Steel isn't strong enough.
 (2) Willie almost robbed a bank.

though syntactically well-formed, are semantically or conceptually incomplete, in the sense that something must be added for the sentence to express a complete and determinate proposition (something capable of being true or false). With (1) we need to know strong enough for what. Notice that (1) does not express the weak proposition that *steel isn't strong enough* for something or other. The problem with (2), due to the word *almost*, is this: what is communicated could be that Willie tried and nearly succeeded at robbing a bank, that he barely refrained from robbing a bank, or that, intent on robbing something, he reluctantly decided against robbing a bank and robbed something else instead (or did something else to the bank). In these cases the conventional meaning of the sentence determines not a full proposition but merely a *propositional radical*; a complete proposition would be expressed, a truth condition determined, only if the sentence were elaborated somehow.

Because the utterance of a semantically underdeterminate sentence requires completion, the speaker cannot mean just what is determined (even with any needed disambiguation and reference assignment) by what his words mean. Even so, an utterance of such a sentence can still be literal—none of the constituents of (1) or (2), for example, is being used nonliterally—it's just that this is not the whole of what the speaker means. What he means must be a complete proposition.

(1) and (2) illustrate two different sources of propositional incompleteness: *constituent* and *structural* underdetermination. In (1) an additional propositional constituent⁴ is needed to complete the proposition, whereas in (2) something like scope must be assigned. An utterance of (1) must be taken to mean that steel isn't strong enough in some contextually identifiable respect, e.g. for building a 500-storey building or to resist bending by Superman. The speaker could have made the additional conceptual material explicit by including the corresponding lexical material in his utterance. With (2) some contextually identifiable contrast is intended by the use of *almost*. The possibilities correspond to something like scope (of *almost*), but I hesitate to say that it is scope

⁴ This is what Perry (1986) calls an 'unarticulated constituent'. As we will see, unarticulated constituents do not correspond to syntactic constituents like the empty categories of GB theory.

because it does not seem to be a matter of structural ambiguity at any syntactic level. If it is not, then the relevant difference between (1) and (2) is that whereas an understanding of an utterance of (1) requires the insertion of additional conceptual material, (2) requires the articulation of structural relations among existing material.

Examples of constituent underdetermination can be multiplied indefinitely. Here is a sample, with possible completions given in brackets:

- (3) That lamp is cheap. [relative to other lamps]
- (4) Gentlemen prefer blondes. [to brunettes]
- (5) Mutual knowledge is relevant. [to communication]
- (6) Strom is too old. [to be a good senator]
- (7) Even cowgirls sing the blues. [in addition to cowboys]
- (8) Gregor was merely a bookkeeper. [as opposed to an accountant]

In each case a constituent is needed to specify what completes the proposition⁵ that is only incompletely expressed: some relevant class, respect, or contrast with respect to which the utterance is intended to be understood. Other cases involve an implicit situation, location, or action, as in

- (9) The princess is late. [for the party]
- (10) Tipper is ready. [to dance]
- (11) The king has arrived. [at the palace]
- (12) Al has finished. [speaking]

Notice that in contrast to (11) and (12), (13) and (14) are ungrammatical.

- (13) *The king has reached.
- (14) *Al has completed.

The difference here seems entirely lexical. There is no semantic or conceptual explanation for why (11) and (12) are all right and (13) and (14) are not. And there is surely no pragmatic explanation. For example, to be pragmatically acceptable an utterance of (12) has to be made in circumstances where it is inferable what the speaker means Al has finished, but these are the very same circumstances in which it would be inferable what Al has completed.

Several cases of constituent underdetermination are of special philosophical interest. For example, counterfactual conditionals are not categorically true or false but only relative to a set of implicit background assumptions. Utterances of both of the following could be true if different background assumptions were held fixed.

⁵ Notice that the semantically underdeterminate (7) and (8) would express complete propositions without *even* or *merely*.

- (15) If Lincoln hadn't gone to the theater, he wouldn't have been assassinated.
 (16) If Lincoln hadn't gone to the theater, he would have been assassinated anyway.

This suggests that these conditionals do not express complete propositions as they stand. Similarly, contrastive explanations, such as those given by the following *because*-sentences, differ as to the relevant but implicit explanatory contrast.

- (17) Bill demoted Mickey [rather than Ron] because he made the blunder.
 (18) Bill demoted Mickey [rather than fire him] because he was still needed.

Finally, of occasional philosophical interest are the words *also* and *even*. In sentences like (19) and (20),

- (19) Psychologists can also attend the meeting.
 (20) I will also study linguistics.

there is an implicit allusion to some reference class (in these examples, to other groups or other academic subjects). With *even*,

- (21) Even accountants make mistakes.
 (22) I'll even take water.

the members of the reference class are ordered on a certain scale, on one extreme of which lie the items mentioned.

Structural underdetermination is often induced by adverbs, like *almost*, as in (2) and *too*. My favorite example is (23),

- (23) I love you too.

which can be used in at least four different ways, the relevant contrast depending on whether *too* applies to *I*, *love*, *you*, or *I love you*. And there are certain constructions of philosophical and linguistic interest which seem to induce structural underdetermination. These are sentences involving the interaction of such elements as quantified noun phrases, modal and temporal operators, and belief contexts. Because of the complex issues they raise, such as scope and *logical form* and the distinction between *de dicto* and *de re* 'readings', I will not argue for semantic underdetermination here (I defend it in the case of belief sentences in Bach, 1987a, pp. 210–14) but will merely suggest a few examples. In the case of sentences like the following (alternative ways of taking them are given in the brackets),

- (24) A few arsonists destroyed many buildings. [each/together]

- (25) The number of planets [nine/whatever it is] may be even.
 (26) In 1996 the [now/then] president of the US will be a Republican.
 (27) Gyro believes that the inventor of the Yo-Yo [whoever that may be/Donald Duncan] is rich.

the usual view is that they exemplify scope ambiguity. Yet unless there is shown to be a structural phenomenon at some syntactic level, this view rests on an idle appeal to an analogy with logical formulae. On the other hand if, say, the level of LF in GB theory is genuine and applies to scope phenomena generally, then the above sentences are not semantically underdeterminate after all but ambiguous. Neale (1994) has defended LF for the case of quantified noun phrases, as in (24), but not for the various operators that occur in (25)–(27).

Now there are several natural objections to the notion of semantic underdetermination. One objection is that the sentences I regard as semantically underdeterminate are semantically complete. A related objection is that utterances of allegedly semantically underdeterminate sentences are elliptical, in that the syntactic structure of the sentence contains a slot for each element needed to complete the proposition. A third objection is that although these sentences are indeed incomplete, they are so only in the way that sentences containing indexicals are incomplete.

The idea behind the first objection is that the utterance of a so-called semantically underdeterminate sentence, even if the utterance is taken strictly, really does express a complete proposition, albeit a 'minimal' proposition much too weak (or much too strong) to be what the speaker means. Supposedly, the minimal propositions expressed by (11) and (12), for example, are (11_{MP}) and (12_{MP}).

- (11) Tipper is ready.
 (11_{MP}) Tipper is ready for something or other.
 (12) Al has finished.
 (12_{MP}) Al has finished doing something or other.

There are two difficulties with this suggestion. First, on the assumption that any sentence can be used literally, it would follow from this suggestion that (11) and (12) could be used to mean what (11_{MP}) and (12_{MP}) indicate. But it seems that they could not be so used. An explicit completion in the form of (11_{MP}) or (12_{MP}) itself, is necessary to convey such a proposition. Similarly, it does not seem that the negation of (11) or of (12) could be used to convey, respectively, that Tipper is not ready for anything or that Al has not finished doing anything. Secondly, this suggestion just assumes without argument that because an utterance of a sentence like (11) or (12) must express a complete proposition, there must be, corresponding to what appears on the surface to be a missing semantic or conceptual gap, an underlying syntactic slot in the structure of the sentence. A syntactic argument is needed to sustain this suggestion, an argument capable of

reckoning with the difference noted above between, for example, *finish* and *complete* (or between *eat* and *devour* or *confess* and *admit*). It must explain why (12) is grammatical but (13)

(13) Al has completed.

is not,⁶ even though both finishing and completing require something to finish or complete, contrary to what is suggested by the lexical difference between *finish* and *complete*.

Note here that a specification of what is said in the utterance of a semantically underdeterminate sentence can preserve the underdetermination. In the case of (11) and (12), for example, the following speech reports or indirect quotations

(11_{IQ}) S says that Tipper is ready.

(12_{IQ}) S says that Al has finished.

are strictly accurate. If a stand-alone sentence can express merely a propositional radical, it can do likewise when embedded in a that-clause in indirect quotation. Either way, there seems to be no syntactic reason why everything needed to deliver a complete proposition should correspond to something in the syntactic structure of the sentence.

For this reason it would be misleading to assimilate, as the second objection does, uses of semantically underdeterminate sentences to the category of elliptical utterances. Utterances are elliptical, strictly speaking, only if the suppressed material is recoverable, at least up to ambiguity, by grammatical means alone, as in tag questions and such reduced forms as conjunction reduction, VP-ellipsis, and gapping:

(28) Bill is happiest when working.

(29) Bill likes working and so does Al.

(30) Bill wants pie for dessert and Al pudding.

Notice that (28) unequivocally entails that Al is happiest when Al is working, (29) that Al likes Al working, not Bill working, and (30) that Al wants pudding for dessert. No contextually salient substitutes are allowed. A sentence like (31) can be taken in more than one way.

(31) I know a richer man than Ross Perot. (is or knows?)

⁶ It might be suggested that *finish* and *complete* either lose (at S-structure) and then regain (at LF) their complements during the course of syntactic derivation or that their complements exist all along but only as empty categories. Unfortunately, the first option violates the Projection Principle, and the second ignores the requirement that empty categories be syntactically licensed (Chomsky, 1986, pp. 93–101).

but that is because (31) is syntactically ambiguous—it is not semantically underdeterminate. In all these examples indirect quotation can legitimately include a paraphrase that spells out the suppressed material,

- (28_{1Q}) S says that Bill is happiest when Bill is working.
 (29_{1Q}) S says that Bill likes working and Al likes working.
 (30_{1Q}) S says that Bill wants pie for dessert and Al wants pudding for dessert.

and, if necessary, disambiguate, in the case of (31).

- (31_{1Q}) S says that he knows a richer man than Ross Perot knows.

Since the recovered material corresponds to something in the sentence, though not necessarily to something that is phonologically realized, there is no reason to deny that the paraphrase specifies what is said.⁷ This is not the case with reports that include the completion of an utterance of a semantically underdeterminate sentence, for in that case the inserted material is not only unheard, it is not even there syntactically. Linguistically speaking, it is not there to be recovered. For this reason, there is no linguistic basis for including such material in what is said.

The third objection is that semantic underdetermination is just a kind of indexicality.⁸ Presumably, this is not based on the fatuous but occasionally voiced view that any sort of context-sensitivity counts as indexicality, but on the specific fact that indexicals are referentially underdeterminate. As a result, a complete proposition is not supplied provided by the linguistic content of the sentence containing an indexical. Indexical references must be assigned before there is a complete proposition, and, like completion,

⁷ So, for example, a direct answer to a WH-question is a phrase that would fit syntactically into the original site of the WH-word in the question. The practice of using just a phrase is so deeply entrenched that the only good reason for using a whole sentence is to make sure that one has understood the question correctly.

⁸ It might even be objected that semantic underdetermination is just a kind of ambiguity, but as a claim about sentence grammar this is absurd. There is no positive reason to suppose that and a very strong reason not to, namely that it would follow that any sentence with a conceptual gap is ambiguous in as many ways as there are constituents that could fill it. The situation is not as bad with scope underdetermination (see Bach, 1982) and, indeed, it is an open theoretical question, as noted above in connection with sentences like (24)–(27), which sorts of scope relation are marked at some syntactic level. The ones that are so marked induce ambiguities. Settling such a question may require not only syntactic argumentation but also psycholinguistic research that might uncover subtle differences in the processing of sentences of the two sorts.

this is a pragmatic, not a semantic matter.⁹ The rationale for this objection is that indexicals do not in themselves specify their referents but are merely used to indicate them. So, for example, in uttering 'She returned last week', one doesn't really say who returned when. That is true but irrelevant. The objection assumes that there is no relevant difference between indexical reference and filling in conceptual gaps or fixing conceptual structure. But there is: indexical reference fixes the interpretation of an element that occurs in the utterance, be it a pronoun, a demonstrative phrase, a temporal or locational adverb. An indexical is like a free variable needing to be assigned a value. On the other hand, the conceptual gaps in utterances of semantically underdeterminate sentences do not correspond to anything in the sentences themselves, not even to empty syntactic categories. Not being sentence constituents, they enter in not at the linguistic level but at the conceptual level. An indexical is there in the sentence.

3. Expansion and Sentence Nonliterality

Because the utterance of a semantically underdeterminate sentence leaves out a conceptual element (or a relation between conceptual elements), the process of completion is required before a proposition is yielded. The process of expansion is not required in this sense—it is not mandated conceptually but merely pragmatically. For in this case there is already a complete proposition, something capable of being true or false (assuming linguistically unspecified references have been assigned and any ambiguities have been resolved), albeit not the one that is being communicated by the speaker. The proposition being communicated is a conceptually enriched or elaborated version of the one explicitly expressed by the utterance itself (I leave aside the case where what is expanded is the

⁹ That is, it is not a matter of sentence grammar. I should note an unfortunate double use of the term 'semantic'. It is commonly used not only for meaning-related features of sentence grammar but also for features pertaining to truth and reference, even when these go beyond sentence grammar. The latter go beyond grammar because the meaning of an indexical (except for *I* and some temporal adverbs) does not determine its reference, indeed not even as a function of context—context is not a well-defined set of parameters, so that indexical (or demonstrative) reference is generally a matter of the speaker's intention (see Bach, 1987a, pp. 176–86; Bach, 1992). It is context-relative but not, as sometimes thought, 'fixed by the context'. However, the semantics of indexicals make essential reference to their utterance (hence Reichenbach's (1947, p. 284) description of them as 'token reflexives'). Think of an indexical as introducing a variable into the semantic representation of the sentence. Each one has its own semantically specified referential constraint on how, in a given context of utterance, it can be used to refer, i.e. on how the variable it introduces acquires a value in a given context of utterance (Bach, 1987a, pp. 186–92). So, for example, *I* is used to refer to the speaker, *yesterday* to the day before the utterance, *she* to a contextually identifiable female, and *there* to a contextually identifiable place (other than that of the utterance).

completion of a semantically underdeterminate utterance). So, for example, if a mother utters (1) to her crying son upset about a cut finger,

(1) You're not going to die.

she is likely to mean that he is not going to die from that cut, not that he is immortal. Examples like (1) and (2), where the implicit conceptual material to be inserted appears in curly brackets,

(2) I have eaten breakfast. {today}

suggest that expansion is a matter of logical strengthening, but in general this is not so. The proposition being communicated can be logically weaker than the one expressed,

(3) I haven't eaten breakfast. {today}

an approximation of it,

(4) France is hexagonal. {roughly}

a precisification of it,

(5) André weighed 500 pounds. {exactly}

or even logically equivalent to it, as in (6),

(6) I have eaten caviar. {before}

So expansion involves not logical strengthening but what might be called 'lexical' strengthening, in that what is being communicated could have been made fully explicit by the insertion of additional lexical material.¹⁰ However, I prefer to think of this process as *conceptual strengthening*,¹¹ because it is not necessary for the hearer to identify the exact words the speaker has in mind but only what those words would contribute if they were used. So when Recanati describes the unstrengthened proposition as the 'minimal proposition expressible by [an] utterance' (1989, p. 304), we

¹⁰ That is why Harnish and I used the phrase 'lexical omission' (Bach and Harnish, 1979, p. 231) and why, in discussing utterances needing expansion (Bach, 1987a, pp. 77–85), I spoke of 'suppressed' material. But there was no suggestion that such elements are really there, in the sense of being phonologically unrealized constituents. Rather, they could have been used to make fully explicit what the speaker meant.

¹¹ Sperber and Wilson call it 'enrichment' (1986, p. 181) and view the process as going from the logical form of an utterance to the propositional form expressed. However, they do not spell out what sorts of procedures enrichment can involve.

should understand, contrary to what he suggests, that it is not necessarily minimal in a logical or informational sense. It is minimal only in the sense that its constituents all correspond to constituents of the sentence. What is minimal here is not the information content of the proposition but its departure from the meaning of the sentence. Maybe it should be called a 'skeletal' proposition.

Cases like (6) and (7)

(7) John has three cars. {at least}

are noteworthy, because they illustrate that expansion can be logically redundant. The inclusion of an additional element (like *at least*) can preclude a logical strengthening (like the force of *exactly*). A logically redundant expansion nullifies the normal, but not strictly literal, force of the utterance. Although the sentence in (7) would ordinarily be used to state (*exactly*) how many cars John has, it could also be used, with an implicit *at least*, to indicate, for example, why John is ineligible to enter a car lottery open to people with fewer than three cars.

How should we characterize the expansionary use of the above sentences, insofar as they are each used to communicate a proposition that is conceptually more elaborate than the one that is strictly expressed? First of all, it seems that the difference between the two propositions is not attributable to any particular constituent of the sentence. In the case of (1), for example,

(1) You're not going to die. {from this cut}

the mother is using each of her words literally but is omitting an additional phrase that could have made what she meant fully explicit. If her son had replied, 'You mean I'm going to live forever, Mom?', it would not be because she was being obscure but because he was being obtuse—he would be taking her utterance strictly and literally, not as she meant it. But if she were using each of her words literally, how could she not be speaking literally? This example illustrates a common but not widely recognized kind of nonliterality, whereby a sentence is used nonliterally without any of its constituents being so used. If the mother had said, 'This cut will not make you croak', she would have been using the word *croak* nonliterally. But her utterance of (1) is a case of *sentence nonliterality* (Bach, 1987a, pp. 71–2). It is unlike metaphor, metonymy, and other sorts of *constituent nonliterality*, for it does not involve the figurative use of any particular word or phrase. Even so, leaving words out is a kind of non-literality in its own right. You can use (2), for example,

(2) I haven't eaten breakfast.

to mean you haven't eaten breakfast today or even (8)

(8) I haven't eaten.

to mean that you haven't eaten dinner today. Similarly, you might use (9)

(9) I have nothing to wear.

to mean that you have nothing appropriate to wear to a certain wedding, without having to include an extra phrase in your utterance. Using sentences nonliterally in this way is so common that we tend neither to be aware of doing it nor to think of it as not literal when others do it. But we do it all the time (as I did just then). Rather than insert extra words into our utterances in order to make fully explicit what we mean, we allow our listeners to read things into what we say. Even though we may not intuitively think of this phenomenon as nonliterality because no specific words are being used figuratively, it is a way of not being literal, because what the speaker says is one thing and the expanded version of it to be identified by the hearer is another. As with any other sort of nonliterality, for the hearer to understand what the speaker is conveying in the utterance, he must recognize that the speaker cannot be plausibly taken, and therefore does not intend to be taken, to mean what he is saying (Bach and Harnish, 1979, pp. 65–70). Where expansion is involved, what is meant is closely related to what is said, since the former proposition is derived from the latter by the insertion of conceptual material, but is not identical to it.

Notice that if what is conveyed implicitly had been made explicit, it does not follow that the speaker's meaning would have been the same. That is because the very act of making something explicit can preclude something that would otherwise be left open. For example, if someone utters (7) and intends it to be expanded as indicated,

(7) John has three cars. {at least}

he would not be implicating or even suggesting that this was not the exact number. But if the person had uttered the full expansion (7_{EX}),

(7_{EX}) John has at least three cars.

thereby making fully explicit what was partly implicit in (7), he could implicate that three is probably not the exact number. Similarly, it is no objection to my account, on which (3) is logically equivalent to (3_{EX}),

(3) I haven't eaten breakfast.

(3_{EX}) I haven't eaten breakfast before.

that someone who utters (3) can mean that he hadn't eaten breakfast that day but could not mean that if he had uttered (3_{EX}) instead. For how the minimal proposition is expressed makes a difference. Just as a Gricean

implicature that exploits the maxim of manner is detachable (Grice, 1967;1989, p. 39), so is an implicature.

Now Recanati has argued that what I call the expansion of what is said *is* what is said. According to his 'availability principle', in characterizing what is said 'we should always try to preserve our pre-theoretic intuitions' (1989, p. 310), so that what is said in the cases of (8) and (9) would be specified not as

- (8_{IQ}) S says that he hasn't eaten.
- (9_{IQ}) S says that he has nothing to wear.

but as

- (8_{EQ}) S says that he hasn't eaten dinner today.
- (9_{EQ}) S says that he has nothing to wear to the wedding.

Loosely speaking this is correct, and if one's intuitions are insensitive to the distinction between what is said loosely speaking and what is said strictly speaking or, worse, if they are insensitive to the distinction between the (locutionary) level of what is said and the illocutionary level of what is stated (see Section 5), of course one will find (8_{EQ}) and (9_{EQ}) acceptable. No doubt the intuitions of the man on the street are not sensitive to such niceties. However, it doesn't follow that his inferences to speakers' communicative intentions are as insensitive. For such inferences must be sensitive to the semantic content of sentences if sentences are to provide the linguistic basis for identifying speakers' communicative intentions. Besides, these untutored intuitions are educable. Many people, if asked to compare an utterance of (8_{EX})

- (8_{EX}) I haven't eaten dinner today.

with an utterance of (8), will say that they do not say the same thing, contrary to what Recanati's intuitions suggest.

Also, Recanati's explication of his availability principle, despite its lip service to intuition, ignores the intuition that the constituents of what is said must correspond to the constituents of the utterance. If something does not, it is not part of what is SAID.¹² Recanati's rejection (1993, ch. 13) of what Carston calls the 'linguistic (or grammatical) direction principle' (1988, p. 163) does not take this intuition into account. His main reason for not accepting Grice's 'intuitive understanding of the meaning of say', according to which what is said must correspond to 'the elements of [the

¹² I do not mean to exclude the case of phonologically null constituents, such as the empty categories of GB Theory. They can contribute to what is said—even though they are not heard (or seen), they are there.

sentence], their order, and their syntactic character' (1969; 1989, p. 87), is that this leads to the consequence that utterances like (1)–(9) are nonliteral. But his only reason for finding that objectionable is that 'genuine cases of nonliterality' must be like metaphor (1989, p. 313), i.e. be figurative. However, as explained above, sentence nonliterality is not like figurative uses of language, except in the generic respect that what is meant is distinct from what is said.

One reason Recanati suggests that intuition resists reporting the minimal proposition as what is said in (2) is that it would be reported as (2_{MQ})

(2_{MQ}) S is saying that he has eaten breakfast before.

Here Recanati is right about the intuition but wrong to suppose that (2_{MQ}) gives a minimalist report of what is said in (2). Rather, it gives a conceptual strengthening, including the word *before*, of what is said, albeit one that is logically equivalent. Notice that on Recanati's liberal position on what is said syntactically parallel sentences do not seem to get parallel semantic treatment. Compare (2) with (6)

- (2) I have eaten breakfast.
 (6) I have eaten caviar.

or (9) with (10),

- (9) I have nothing to wear.
 (10) I have nothing to repair.

for example. (6) and (10) illustrate that what is communicated can be the minimal proposition. If we take syntactic parallelism seriously, we need not be concerned that on the view that what is said in cases like (2) and (9) is a minimal proposition, this is not what is normally or typically communicated. On Recanati's view, what is implicit in the utterances of (2) or (9) is part of what is said, in which case what is said includes pragmatically determined elements that are not associated with constituents of the utterance. Recanati would not object to this result, but it seems to me, for reasons that will become clearer in the next two sections, that once we recognize implicature as a middle ground between explicit content and implicature, there is no reason to retain this liberal position. By not allowing intuitive differences in meaning to override syntactic parallelisms, if we do not recognize a slot in (6) that represents a time period, we should not recognize one in (2). Similarly, despite the common suggestion that quantified noun phrases range over unspecified restricted domains, if there is no reason to recognize a domain slot in (11),

- (11) John is reading a book.

there is no reason to recognize one in (12),

- (12) John is reading the book.

even though someone who utters (12) would undoubtedly have in mind a limited range of reading material.

Finally, intuitions do not seem to favor Recanati's inflationary conception of what is said in cases where the literally expressed proposition is not all that minimal (in the logical sense). In the following cases (adapted from Harnish, 1976),

- (13) Jackson squirted the paint on the canvas. {intentionally}
 (14) George squirted the grapefruit juice on the table. {unintentionally}
 (15) Jack and Jill are married. {to each other}
 (16) Mr. Jones and Mrs. Smith are married. {but not to each other}
 (17) Mr. Jones and Mrs. Smith are in love. {with each other}

even though the unuttered (bracketed) material is understood, people are disinclined to include it in the specification of what is said. They appreciate the fact that although what is not uttered is inferable, it is not there. All in all, I doubt that there is as much intuitive support for Recanati's liberal conception of what is said as he imagines. As noted above, what inclines him toward this conception is his assumption that true nonliterality must be like metaphor, i.e. be figurative, thereby ruling out what I classify as sentence nonliterality. Be that as it may, I am not disputing the idea that underlies his contention that there are pragmatic aspects to what is said as well as to what is implicated, but in my view these aspects are properly regarded as pertaining to what is implicit in what is said.¹³

So far we have distinguished two types of implicature, depending on whether the hearer must do some conceptual filling in of a propositional radical or fleshing out of a minimal proposition in order to ascertain what the speaker means. Filling in is needed if the sentence is semantically underdeterminate, and fleshing out will be needed if the speaker cannot plausibly be supposed to mean just what the sentence means. In fact, both processes can occur within a single utterance, as with (18),

- (18) Everybody is coming.

which might be completed to yield

¹³ It is worth noting that pragmatic processes are involved even in cases where one means exactly what one says. From the hearer's point of view, not to read anything into an utterance and to take the literal meaning as determining all the speaker means is as much a matter of contextual interpretation as expanding the utterance.

(18_{CM}) Everybody is coming [to my party].

and then expanded to yield

(18_{EX}) Everybody {in my class} is coming [to my party].

4. *The Explicit, the Implied, and the Implicit*

The examples of the last two sections are quite different from Grice's (1967a) well-known examples of conversational implicature. Implicatures are, as Grice observed, cancellable and can be vague or indeterminate, but the same is true of implicatures. What, then, is the difference between the two? Although both implicature and implicature go beyond what is explicit in the utterance, they do so in different ways. An implicature is completely separate from what is said and is inferred from it (more precisely, from the saying of it). What is said is one proposition and what is communicated in addition to that is a conceptually independent proposition, a proposition with perhaps no constituents in common with what is said. For example, one might use (1)

(1) It's after 10.

not just to give the time but to implicate that a certain restaurant is closed. One might use (2)

(2) It's raining.

not just to describe the weather but to implicate that one will not be mowing the lawn that day. In contrast, implicatures are built up from the explicit content of the utterance by conceptual strengthening or what Sperber and Wilson (1986) call 'enrichment' (this yields what would have been made fully explicit if the appropriate lexical material had been included in the utterance). Implicatures are, as the name suggests, implicit in what is said, whereas implicatures are implied by (the saying of) what is said. The following example (due to my student Cindy Hall) illustrates how both an implicature and an implicature can be produced by the utterance of the same sentence.

(3) Mary has a boyfriend.

A likely implicature is that Mary has exactly one boyfriend, and possible implicatures, depending on the circumstances, are that the hearer shouldn't ask Mary out, that Mary is not a lesbian, that Mary is getting a divorce, or that Mary will be sued for divorce.

I should point out that my use of the term 'explicit' is more restrictive

than Sperber and Wilson's. They count as explicit anything communicated that is a 'development of the logical form encoded by [the uttered sentence]' (1986, p. 182). Thus they regard what I call expansions and completions as 'explicatures', as explicit contents of utterances. I find this use of the term misleading, inasmuch as the conceptual strengthening involved in expansion or completion is not explicit at all. Including the requisite lexical material would, of course, *explicate* what the speaker is communicating, but only then would what is being communicated be made fully explicit.

Implicatures go beyond what is said, but unlike implicatures, which are additional propositions external to what is said, implicatures are built out of what is said. Even when there is no figurative use of words or phrases, as in metaphor, in implicature, because of sentence nonliterality or semantic underdetermination, what the sentences means does not fully determine, even after ambiguities are resolved and indexical references are fixed, what the speaker means. So far as I can tell, the only explanation for the fact that Grice's critics count implicatures as explicit contents of utterances, or identify them with what is said, is that they uncritically assume, along with Grice, that there is no middle ground between what is said and what is implicated. It is curious to note that Grice himself occasionally alluded to what I am calling implicature, as when he remarked that it is often 'unnecessary to put in . . . qualificatory words' (1967b; 1989, p. 44). Although he did describe such cases as implicatures, he appeared to have something distinctive in mind: 'strengthening one's meaning by achieving a *superimposed* implicature' (1967b; 1989, p. 48; my italics). By 'strengthening' he appears to have meant increasing the information content of what is said, not adding a whole separate proposition to what was said. Nevertheless, Grice did give the impression that he intended the distinction between what is said and what is implicated to be exhaustive. Accordingly, since expansions and completions are not related closely enough to conventional meaning to fall under what is said (in Grice's favoured sense), it does seem that for him they would have to count as implicatures. Sperber and Wilson, Carston, and Recanati all find this result unintuitive. I agree with them, but rather than suppose that 'what is said (the explicit) and what is implicated (the *implicit*) exhaust the (propositional) significance of the utterance' (Carston, 1988, p. 155; my italics), I suggest that we simply recognize a distinct category, the implicit, between the explicit and the implicated.

5. Grice On What is Said

The notion of what is said plays a pivotal role in Grice's account of conversational implicature and, by extension, in my account of implicature. He acknowledges that his 'favoured' sense of *say* is stipulative and admittedly 'artificial' (1968; 1989, p. 118). Even so, how one uses the term, even in the context of a theory, should not be entirely arbitrary, and Grice

intends his use to comport with the 'intuitive understanding of the meaning of *say*' (1967a; 1989, pp. 24–5), on which what is said must correspond to 'the elements of [the sentence], their order, and their syntactic character' (1969; 1989, p. 87). Here he mentions that how something is put may enter into what is said. His example concerns reference. He allows that someone who utters (1) and someone who (in 1967) utters (2) might not say the same thing,

- (1) Harold Wilson is a great man.
- (2) The British Prime Minister is a great man.

but he does not commit himself on this point. However, if word order and syntax really do affect what is said, then utterances of (3), (4) and (5) do not say the same thing,

- (3) John loves Martha.
- (4) Martha is loved by John.
- (5) It is John who loves Martha.

even though they are truth-conditionally equivalent. Here is another way in which linguistic content constrains what is said. Suppose Tom utters (6),

- (6) I regret going home.

thereby saying that he regrets going home. This entails that he believes that he went home (to regret having done something is to wish you hadn't done it, and that requires believing that you did it), but we are disinclined to regard that as part of what he said. It is not in general true that anything entailed by what is said, though in a sense part of what is said, is said in its own right.

It seems, then, that on Grice's notion the contents of what is said are not to be individuated merely by truth conditions. They need to be individuated more finely than in terms of propositions. Let me suggest, even though I have been—and will remain—neutral about the ontological character of propositions, that for Grice the contents of what is said are *structured* propositions, propositions associated with syntactic forms. I will not try to explicate this notion but just follow what I take to be Grice's intuitive understanding of the meaning of *say* and simply assume that a criterion of close syntactic correlation distinguishes what is said in each of (3), (4) and (5), despite their truth-conditional equivalence. By this criterion, it is clear that there is always a difference between what is said in an utterance and what would be said in an expanded or completed version of that utterance.

So it would seem that for Grice anything communicated in an utterance that closely corresponds to its form counts as what is said, and that

anything else counts as being implicated. However, he is led to complicate his distinction somewhat, on account of two considerations (not expansion and completion, of course). First, he distinguished saying from merely 'making as if to say' (1967a; 1989, p. 30), as in irony and metaphor (1989, p. 34), and allowed that making as if to say, like saying, can generate implicatures. Second, he insisted that part of what a speaker means can be closely related to conventional meaning and yet not be part of what is said—it is implicated not conversationally but 'conventionally'. We will take up this notion in the next section.

For Grice saying something entails meaning it. This is why he uses the locution 'making as if to say' to describe irony, metaphor, etc., since in these cases one does not mean what one appears to be saying. Most of us would describe these more straightforwardly as cases of saying one thing but not meaning that and meaning something else instead. That's what it is to speak nonliterally—at least if one does so intentionally. One can also unintentionally say something other than what one means, owing to a slip of the tongue, a misuse of a word, or otherwise misspeaking (Harnish, 1976; 1991, p. 328). Finally, one can say something without meaning anything at all, as in cases of translating, reciting, or rehearsing in which one utters a sentence with full understanding (one isn't just practising one's pronunciation)—recall Austin's (1962, pp. 92–3) distinction between the 'phatic' and the 'rhetic' act—and yet is not using it to communicate. To reckon with these various ways of saying something without meaning it, Grice could have invoked Austin's distinction between locutionary and illocutionary acts, but he did not. Austin, it may be recalled, defined the locutionary act (specifically the rhetic act) as using certain 'vocables with a certain more-or-less definite sense and reference' (1962, p. 95). That sounds a lot like Grice's notion of saying, except that for Grice saying something entails meaning it: the verb *say*, as Grice uses it, does not mark a level distinct from that marked by such illocutionary verbs as *state*, *tell*, *ask*, etc., but rather functions as a generic illocutionary verb. It describes any illocutionary act whose content is made explicit. Since virtually all of Grice's examples involve indicative utterances, in practice he uses *say* to mean 'explicitly state'. Indeed, the original version of his distinction (in Grice, 1961) was between stating and implying. Clearly Grice opted for the word *say* in order to broaden the scope of his distinction beyond statements.¹⁴

Considering that he describes nonliteral utterances like irony and metaphor not as saying but as making as if to say, it is puzzling that Grice should have assimilated these to implicature. Intuitively, one thinks of

¹⁴ Bach and Harnish (1979, pp. 165–72) argue that Grice's distinction, when generalized, is tantamount to the distinction between direct and indirect illocutionary acts. The present discussion of implicature, like Grice's of implicature, will be limited to indicative cases. Taking up nonindicative cases would introduce some minor complications concerning how to specify what is said and what is meant.

implicating as stating or meaning one thing (i.e. saying something in Grice's favored sense) and meaning something else in addition, not as meaning something else instead. Having denied that irony and metaphor are cases of saying in his sense, he did not need to describe their nonliteral contents as implicatures. Since implicature is a kind of indirect speech act whereas irony and metaphor are species of nonliteral but direct speech act (Bach and Harnish, 1979, ch. 4), the latter should not be classified as implicature. Unfortunately, this is done by both Grice and many of his critics.

I am suggesting, then, two ways to improve on Grice's taxonomic scheme while retaining the criterion of close syntactic correlation. We replace Grice's distinction between saying (in his favored sense) and merely making as if to say with the distinction (in indicative cases) between explicitly stating and saying in Austin's locutionary sense, and we distinguish nonliterality (including sentence nonliterality) from implicature. In this way we have a notion of what is said that applies uniformly to three situations: (1) where the speaker means what he says and something else as well (implicature and indirect speech acts generally); (2) where the speaker (intentionally) says one thing and means something else instead (nonliteral utterances); and (3) where the speaker says something and doesn't mean anything. What is said, being closely tied to the (or a) meaning of the uttered sentence provides (allowing for indexicality and ambiguity) the hearer with the linguistic basis for inferring what, if anything, the speaker means in addition or instead. Also, it allows for the case in which the speaker does not say what he intends to say, as in the misuse of a word or a slip of the tongue. For this reason, the speaker is not the final authority on what he said.

Given the criterion of close syntactic correlation, on which what is said need not be a complete proposition, implicature can be a matter of either filling in or fleshing out what is said. Completion is the filling in of a propositional radical, and expansion is the fleshing out of the minimal proposition expressible by an utterance. I agree with Grice's critics that neither is a case of *implicature*, although both involve basically the same sort of pragmatic process as in implicature proper, but I see no reason, as they do, to extend the notion of explicit content, of what is said. For me there is inexplicit meaning but no inexplicit saying.

6. *Conventional Implicature?*

Grice also disallowed inexplicit saying, but he did recognize a category of explicit nonsaying. He thought there can be elements of what is communicated corresponding to the meaning of elements in the sentence that do not enter into what is said. Because of this correspondence they lead to *conventional* rather than conversational implicatures, propositions which are merely 'indicated'. Grice's examples of 'problematic elements' are con-

nectives, such as *therefore* (1967a; 1989, p. 25; 1968; 1989, p. 120) and *but* (1969; 1989, p. 88). Such a connective makes a certain contribution, given by its conventional meaning, to what is being communicated.¹⁵ It indicates a certain relation between the two items it connects, e.g. that one is a consequence of the other or that there is a contrast between the two. Grice denies that this linguistically specified relation enters into what is said.

Grice's brief discussions of conventional implicature are intended to narrow down the sense of *say* that he favors because of its 'theoretical utility' (1968; 1989, p. 121), in this case to provide for an element of literal content that is not truth-conditional. So, for example, he denies that an utterance of the sentence

- (1) He is an Englishman; he is, therefore, brave.

'would be, strictly speaking, false should the consequence in question fail to hold' (1967a; 1989, pp. 25–6). This is counterintuitive—the speaker does seem to be *saying* that the second claim is a consequence of the first. Just because connectives like *therefore* and *but* are, unlike *and*, not truth-functional does not mean that they do not enter into truth conditions. Here is why I think Grice regarded their import as merely implicated. When an utterance of the form p CONJ q implies p and q but conveys more than mere conjunction, there is no way to explicate its import over and above p and q without using a third clause, an additional conjunct, e.g. to the effect that there is a relation of consequence or contrast between p and q . A specification of what is said in the above example would, for Grice, have to take the form

- (1_{CIQ}) S said that a certain male is an Englishman, that he is brave, and that being brave is a consequence of being English.

Now if the third conjunct is part of what is said, what is said would contain one more clause that is contained in the sentence used to say it. This further conjunct would not correspond to a clause in that sentence and could not count as part of what is said. For the elements of what is said (in Grice's favoured sense) must correspond to elements in the sentence. The further conjunct, not being such an element, can count only as a (conventional) implicature.

The trouble with all this is that what is said in utterances of the form p CONJ q , even though it implies p and q , does not have to be specified

¹⁵ The use of *and* to convey 'and then' or 'and as a result' is a different matter because, as Carston (1988) argues, these forces do not correspond to special meanings of the word *and*. She points out that they would be classified by Grice as 'generalized' conversational implicatures but argues against that, classifying them as entering into 'explicit content' in the broad sense of relevance theory noted earlier. I would classify them as implicatures, as entering into expansions.

in three clauses by something of the form, 'p and q and . . .'. In the above case, for example, there is no reason why the word *therefore* cannot go directly into a two-clause specification of what is said:

- (1_{IQ}) S said that a certain male is an Englishman [and] therefore he is brave.

What is said is true just in case the relevant male is an Englishman and is brave, and being brave is a consequence of being English, but of course what is said is not identical, though it is equivalent, to the explication of its truth condition. To appreciate this, consider an entirely different sort of case, example (6) of the previous section, where Tom utters 'I regret going home', thereby saying that he regrets going home. This entails that he believes that he went home, but that is not part of what he said. It is not in general true that anything entailed by what is said is itself said. But that doesn't mean it is merely implicated (conventionally). Since we are taking structured propositions to be what is said, a complex, multi-clause analysis of what is said is not identical, though logically equivalent, to what is said. Grice's own examples suggest that what he calls conventional implicature is really entailment. Entailments are implied by what is said, but they are not implicated by the saying of it.

I believe, then, that in Grice's alleged examples of conventional implicature, which all involve non-truth-functional connectives, the specification of what is said, as illustrated by (1_{IQ}), can and should include the relevant connective—but not in a separate clause. Grice is led to conventional implicature in each case only because he arbitrarily insists on forcing these specifications into sets of independent conjuncts, whereupon the specification must either include one clause too many or omit the conventional force of the connective. With this in mind, we can deal with various sorts of expressions not taken up by Grice whose use, as Larry Horn has reminded me, has been thought to yield conventional implicatures. These include particles like *even* and *too*, implicative verbs like *manage* and *fail*, factive verbs like *forget* and *realize*, and cleft (*It was . . . who . . .*) and pseudocleft (*What X did was . . .*) constructions. I think that *even* and *too* enter into truth conditions in ways analogous to *but*—some sort of contrast is part of the truth-conditional content, although the precise contrast is unspecified, as in a case like (2),

- (2) Even Bill likes Mary.

Karttunen and Peters (1979) have argued that the embedding of (2) in (3),

- (3) He just noticed that even Bill likes Mary.

'does not mean that he has just noticed that other people like Mary or just noticed that Bill is the least likely person to do so' (p. 13). But all this

shows is that the relation of noticing is not distributive, as illustrated by (4),

- (4) I noticed that Bill has three cars.

I may have already known that he has two. Horn points out that an implicative verb like *manage (to)* seems to add some sort of adverbial content while functioning syntactically like a main verb, but it is not clear to me why this should suggest that conventional implicature is involved. The adverbial content of such verbs can just enter straightforwardly into the whole truth-conditional content of the sentences in which they occur. For example, in (5),

- (5) Bill managed to finish his homework.

the truth-conditional content includes both the finishing and the entailed difficulty. With factive verbs, as in (6),

- (6) Bill forgot that he had an appointment.

that he had an appointment is part of the truth-conditional content of what is said—it is not something said in its own right (and certainly not the content of an illocutionary act of assertion). An analogous point applies to cleft and pseudocleft constructions, although their form, like contrastive stress, marks a special, 'illocutional' topic-comment relation (Atlas, 1989, pp. 81–91).

Grice's favoured examples, the conjunctions *therefore* and *but*, contrast strikingly with his general diagnosis of what gives rise to conventional implicatures: 'The elements in the conventional meaning of an utterance which are not part of what has been said . . . are linked with certain [noncentral] speech acts' (1968; 1989, p. 122). Here he gives the example of *moreover*, which is linked to the speech act of adding, an act that requires the performance of a central speech act, like reporting or predicting. Grice does not indicate which noncentral speech acts the words *but* and *therefore* are linked to; presumably these are acts of making a contrast and drawing a conclusion (or giving an explanation). However, *moreover* is relevantly different from the two other connectives: unlike *moreover*, *but* and *therefore* signify relationships between the (putative) facts expressed by the clauses they connect. The same is true of various other conjunctions and adverbials not mentioned by Grice, such as *after all*, *although*, *anyway*, *because*, *despite*, *even so*, *for*, *however*, *nevertheless*, *since*, *so*, *still*, *thus* and *yet*. Take the case of *because*, which is linked to the rather central speech act of explaining. In an utterance of (7),

- (7) Because the verdict was unjust, a riot broke out.

what is said is specified by (7_{IQ}).

(7_{IQ}) He said that because the verdict was unjust, a riot broke out.

Because is used to express an explanatory relation of some sort between the facts described by the two clauses. But there is another use of *because* that does fit Grice's paradigm. Compare (7) with

(8) Because you'll find out anyway, your wife is having an affair.

In (8) *because* is not being used to express an explanatory relation between the facts described by the two clauses. Rather, the speaker is using the *because*-clause to explain his speech act of informing the hearer of the fact expressed by the second clause. Accordingly, the hearer cannot plausibly specify what is being said as a conjunction, as in

(8_{IQ}) S is saying that because I'll find out anyway, my wife is having an affair.

Grice's diagnosis is correct: specifications of noncentral speech acts do not fit comfortably into specifications of what is said. This holds for the following assortment of locutions, at least when used (as they generally are) to perform noncentral speech acts:

accordingly, after all, all in all, all things considered, although, anyway, as it were, at any rate, besides, be that as it may, by the way, considering that . . ., disregarding . . ., even so, finally, first of all, frankly, if I may say so, if you want my opinion, in contrast, in conclusion, in short, in view of the fact that . . ., leaving aside . . ., loosely speaking, never mind that . . ., nevertheless, not to interrupt but, not to mention that, now that you mention it, on the other hand, so to speak, speaking for myself, strictly speaking, taking into account that . . ., to be blunt about it, to begin with, to change the subject, to digress, to get back to the subject, to get to the point, to oversimplify, to put it mildly

There is a straightforward explanation why these discourse connectives do not fit comfortably into specifications of what is said: they are in construction syntactically but not semantically with the clauses they introduce. Syntactically they are sentence adverbials but they function as illocutionary adverbials (Bach and Harnish, 1979, pp. 219–28), modifying not the main clause but its utterance. The result is as it were a split-level utterance. That is why we cannot report utterances like (9) and (10) in the form of (9_{IQ}) and (10_{IQ}).

(9) Frankly, Jerry is making a big mistake.

- (9_{IQ}) #He said that frankly Jerry is making a big mistake.
 (10) In contrast, Dan would never do a thing like that.
 (10_{IQ}) #He said that in contrast Dan would never do a thing like that.

All in all, I do not believe that we need to resort to the notion of conventional implicature to describe the conventional import of the above locutions, these illocutionary adverbials. Rather, as Grice himself puts it, they are used to perform noncentral speech acts, such as simplifying, qualifying, and concluding. One is not conventionally implying anything in using such a locution; rather, one is providing some sort of gloss or running commentary on one's utterance, e.g. concerning its conversational role. So it seems that we can do without the notion of conventional implicature altogether: in Grice's examples of connectives with truth-conditional import, the conventional meaning of the 'problematic element' does enter into what is said; and in the wide assortment of locutions used to perform noncentral speech acts, the problematic element does not enter into what is said, but it does not generate a conventional implicature either.¹⁶

7. Lexical Completion and Expansion

The illustrations of implicature in Sections 2 and 3 required completion of utterances of semantically underdeterminate sentences or expansion of sentence-nonliteral utterances. It appears that similar phenomena can occur at the lexical and at the phrasal level.¹⁷ We will focus on the lexical case, which has been investigated in depth by Ruhl (1989).

Ruhl contends that 'a considerable part of alleged lexical meaning is actually supplied by other means' (p. 86) and that dictionaries are 'in a habit of overspecifying, of attributing to words meaning that in part is supplied by the context' (p. 1). To counteract this tendency Ruhl adopts a 'monosemic bias': start with the hypothesis that a word has a single meaning, then suppose that its meanings are related by general rules, and only as a last resort accept ambiguity or homonymy (p. 4).¹⁸ He suggests that with many commonly used, multi-purpose words, like the verbs *get*,

¹⁶ For an examination of the non-truth-conditional role of discourse connectives from the perspective of relevance theory see Blakemore, 1987.

¹⁷ By distinguishing these levels I am not implying that the operations of completion and expansion are on sentences. They are operations on what utterances of sentences express.

¹⁸ The difference between ambiguity and homonymy—one word with two (or more) meanings as opposed to two (or more) distinct words—is not as straightforward as it seems, for there are no clear criteria for sameness or distinctness of like-sounding words. *Can* the verb and *can* the noun seem to be distinct words, but what about *cook* the verb and *cook* the noun? Is the adjective *light* (never mind the verb or the noun), as in the phrase *light suit*, one ambiguous word or two distinct words?

hit, *put* and *take* and the prepositions *at*, *in*, *on*, *to*, and *with*, linguistic meaning is 'highly abstract [i.e. schematic] and remote from practical usefulness' (p. 7), so that when we hear any of the above words in a particular linguistic environment and conversational context, we import extralinguistic information into our understanding of the utterance. Compare the occurrences of *put* and *on* in (1) and (2), for example.

- (1) Al put the beer on the table.
 (2) Al put the burden on the lawyer.

We invoke extralinguistic knowledge, about beer and tables and about burdens and lawyers, to interpret (1) and (2) in the way we do. It is not a semantic fact that one is not likely to mean with (2), for example, that Al physically placed something on someone.

Ruhl rejects the view that 'concrete senses are more basic than abstract [i.e. not spatiotemporal] senses' or that concrete/abstract is the contrast of 'literal versus metaphoric' (p. 168). Rather, he maintains, 'words are highly abstract [i.e. schematic] in inherent meaning, often too much so for conscious understanding' (p. 86). Our intuitions about word meanings are unreliable because selective: in its 'tendency for polar extremes, . . . consciousness cannot hold all the possibilities at once' (p. 125), hence our 'tendency for oversemanticizing' (p. 96). To support his contentions, Ruhl presents hundreds of uses of each of the words he investigates. Cruse (1992) has argued that Ruhl overstates his case in certain ways, but Cruse does acknowledge the methodological benefits of the monosemic bias. For us it will suffice to assume that there are at least some words whose meanings are schematic or abstract in the way Ruhl describes.

How meaning can be schematic is nicely illustrated by a familiar example of semantic underdetermination at the phrasal level, namely the genitive construction.¹⁹ Using the example *Peter's bat* (never mind the ambiguity of *bat*), Sperber and Wilson (1986) list various possible relations that this phrase might be used to pick out (being owned by, being chosen by, being killed by, being mentioned by, etc.), and remark, 'It is hard to believe that the genitive is ambiguous, with as many senses as there are types of relationships it may be used to denote, or that all these relationships fall under a single definition which is the only meaning expressed

¹⁹ What follows applies equally to certain other sorts of phrases, such as these adjective-noun pairs: *healthy child* versus *healthy food*, *fast car* versus *fast track*, *generous donor* versus *generous gift*, and *conscious being* versus *conscious state*. In the first of each of pair, the adjective describes what the noun denotes, but in the second case it does not—at least not as these phrases are likely to be used or taken. And how they are taken depends on one's extralinguistic knowledge. There is nothing in the semantics of these phrases to prevent them from being taken (absurdly) with the adjective used to describe what the noun denotes. Noun-noun pairs, like adjective-noun pairs, can be understood as expressing various sorts of relation: compare *chicken plucker* with *chicken liver* or *steak knife* with *army knife*, for example.

by use of the genitive on any given occasion' (p. 188). On the other hand, if, as Recanati (1989) suggests in regard to the example *John's book*, 'the only constraint linguistically imposed on the relation between John and the book is that it be a relation between John and the book' (p. 298), then there would be no explanation for the apparent fact that one cannot use *John's book* to mean the book that John dropped or use *Peter's bat* to mean the bat that Peter disregarded. If there is a constraint on the relation (perhaps the constraint varies with the types of relata) but if, as Sperber and Wilson suggest, it cannot be given by a definition, then Ruhl is right about how abstract linguistic meaning can be. At any rate, one thing is clear: in uttering (3)

(3) Peter's bat is grey.

one cannot be saying that the bat to which Peter bears some relation or other is grey (or worse, be expressing a disjunction of propositions, each involving a different relation). Rather, (3) is semantically underdeterminate. Unless the phrase *Peter's bat* is enriched, an utterance of (3) is, as Sperber and Wilson (1986) observe, 'less than fully propositional' (p. 188).

The same sort of thing would seem to hold true for lexical items fitting Ruhl's account. If, for example, the seemingly distinct senses of *get* or *in* are really 'pragmatic specializations' of a single sense, then understanding utterances of sentences like (1) and (2) or (4) and (5)

(4) You'll get a sandwich in a bag.

(5) You'll get a good idea in an hour.

requires not disambiguation of those words but identifying their intended pragmatic specializations.

Ruhl (1989) applies his account to a matter of special philosophical interest, the type-token distinction. He argues that this distinction does not give rise to an ambiguity in words like *car*, *dog*, and *book*; rather, their 'specific and generic senses are modulations; words are unspecified for this distinction' (p. 106). In (6), for example,

(6) Enzo drives the same car I used to drive.

the use of *car* is likely to be specific, whereas in (7)

(7) Enzo drives the car I used to drive.

it is likely to be generic, but, claims Ruhl, this difference is not traceable to any ambiguity in the word. Its two uses (actually, Ruhl often misleadingly uses *sense* rather than *use*) are pragmatic specializations of its single meaning. One major consideration in support of Ruhl's position is that a huge number of words, namely all words for kinds of things, exhibit the

alleged ambiguity. To regard the double use as a lexical fact about each word would be to miss that generalization. The same point would seem to apply to another item of philosophical interest, the so-called act-object or process-product ambiguity, apparently exemplified by words like *attachment*, *building*, *creation*, *description*, *statement*, *belief* and *meaning*. To call this an ambiguity and to treat it as lexical would be to miss the generality of the phenomenon.

There are many other candidate examples of semantically underdeterminate words and phrases. Particular cases may be disputed, and Ruhl's claims of monosemy may be exaggerated, but insofar as there are genuine cases of it, their presence in an utterance means that pragmatic specialization is needed for a determinate proposition to be expressed. What is required here may be called *local completion*. Also, even if words like *get* and *with* are not, as Ruhl suggests, really monosemous, they could still be semantically underdeterminate with respect to each of their senses. In that case once a sense is selected, a more specific construal of the word is needed before a determinate proposition is reached. In any event, it seems that we should include local completion, along with disambiguation and reference assignment, among the pragmatic processes that enter into the determination of the explicit content of an utterance.

The other main way, according to Ruhl, that linguistic meaning underdetermines use is 'pragmatic generalization', as exemplified by metonymy. He offers examples like the following (1989, pp. 98–99), where the italicized noun (together with its determiner) is not meant literally but as the completion given in curly brackets:

- (8) I took her *poem* out of her pocket. {a paper on which her poem was written}
- (9) This *can* is contaminated. {the contents of this can}
- (10) Turn up the *hi-fi*. {the volume of the hi-fi}
- (11) Turn off the *cereal*. {the heat under the cereal}

What Ruhl calls pragmatic generalization in these cases of metonymy²⁰ may be regarded as a process of *local expansion*. It is local, unlike the examples of Section 3, because the nonliterality is attributable to a specific expression.

Ruhl does not make clear that metonymy is a rather special case, for other cases of local expansion do not involve pragmatic generalization. Contrast (12) with (13) or (14) with (15), for example.

- (12) The thief took a watch.

²⁰ Ruhl calls this 'pragmatic' metonymy and distinguishes it from 'semantic' metonymy, as with words like *orange* and *tongue*, which he deems polysemic because their two uses, though related, are entrenched and independent (1989, p. 97).

- (13) The thief took his own watch.
 (14) The thief fell to the floor when ordered to.
 (15) The thief fell to the floor when shot.

One is likely to use *took* to mean 'steal' in (12) but not in (13), or *fell* to mean 'fell intentionally' in (14) but not in (15). However, as Ruhl would say, these specialized uses are not distinct senses. Only the more general sense is semantic. The specialized use would seem to be a case of pragmatic specialization, but unlike examples (1)–(7), sentences (12) and (14) are not semantically underdeterminate. Rather, they are used to communicate propositions more specific than the ones strictly expressed. So these are cases of local expansion rather than completion. However, in contrast to metonymy they are not cases of pragmatic generalization. It appears, then, that the distinction between local completion and expansion cuts across Ruhl's distinction between pragmatic specialization and generalization.

Let us conclude this section with two special, because metalinguistic, cases of local expansion. First there is the so-called use-mention distinction.²¹ Utterances of (16) and (17), for example,

- (16) California is a long state.
 (17) California is a long name.

are likely to be about the place and the word, respectively (quotation marks were omitted in (17) because they do not occur in speech). However, the use-mention distinction involves neither ambiguity nor semantic underdetermination. For the difference between utterances of (16) and (17) does not correspond to anything specific to the name *California*—one can use any expression to refer to that very expression. I suggest that we view mentioning as involving a special sort of local expansion: an expression 'E' is used as short for 'the expression "E"'. The hearer can recognize such a use when, for example, 'E' occurs in subject position and the predicate is not plausibly applicable to E (this will be completely obvious if 'E' is not even a noun phrase, as in *approximately is a long word*).

Finally, there is the case of metalinguistic negation, investigated at length by Horn (1989, pp. 362–444). Utterances of sentences like (18) and (19)

- (18) It doesn't {only} look expensive—it is expensive.
 (19) The chef doesn't create {mere} meals but works of art.

²¹ The label for this distinction is a bit misleading, in that to mention an expression is, after all, to use it, namely, to refer to that very expression. This is not its normal use, of course, and is not predictable from its meaning. Generally the meaning of the mentioned expression is irrelevant, but not always, as when the expression is said to be onomatopoeic.

are amenable, as indicated in the brackets, to a straightforward expansionary treatment. But insertions of *only* or *mere* do not work for utterances of sentences like the following:

- (20) I didn't trap two mongeese—I trapped two mongooses.
- (21) He's not an animal doctor—he's a veterinarian.
- (22) I was referring not to DonnELLan but to DONNellan.
- (23) I'm not his brother—he's my brother.

(22), for example, would obviously not be used to mean 'I was referring not only to DonnELLan but to DONNellan'. What is going on in these utterances is that the speaker is objecting to one way of putting something and puts it another way. Because the force of this metalinguistic negation is quite different from that of ordinary negation, Horn maintains that 'negation is effectively ambiguous', albeit a case of 'pragmatic ambiguity, a built-in duality of use', because metalinguistic negation is not 'reducible to a suitably placed "It is not the case that"' (ibid., p. 370). However, he does not consider the possibility that metalinguistic negation is a case of nonliterality or that understanding it involves local expansion.²² I suggest that in each case expansion yields the desired result if a phrase like 'what I would describe/pronounce as "..."' is inserted. Such a phrase seems to specify what a speaker means in these examples. Notice that it is only upon hearing the corrected formulation ('... but to DONNellan) of the negated proposition ('I was referring not to DonnELLan), that the hearer can figure out that the speaker is not asserting the negative proposition.

8. Information and Processing in Implicature

Completion and expansion are both processes whereby the hearer supplies missing portions of what is otherwise being expressed explicitly. With completion a propositional radical is filled in, and with expansion a complete but skeletal proposition is fleshed out. The character of the inference in these cases is distinct from that of the inference to the content of an indirect speech act (such as an implicature) or the figurative content of a nonliteral utterance. In these cases, instead of building on what the speaker

²² It would take considerable space to do justice to Horn's position. For example, he argues that there are three syntactic diagnostics for metalinguistic negation (1989, pp. 392–413). I would argue that in each case the occurrence of an item that in his view is syntactically incompatible with metalinguistic negation in fact pragmatically blocks the expansion required for the metalinguistic understanding.

has made explicit, the hearer infers a distinct proposition. Now Grice is often charged with focusing on implicatures (and figurative utterances) to the exclusion of less oblique utterances, but clearly he took the application of his apparatus to the latter cases to be straightforward—these just don't involve ostensible flouting of the maxims. He intended this apparatus, supported by his analysis of communication or speaker meaning in general, to apply across the board. Bach and Harnish (1979) adapted Grice's apparatus, albeit with various modifications and embellishments, to speech acts generally, but we retained the basic idea that communication essentially involves an audience-directed reflexive intention, so that, whether or not the utterance can plausibly be taken at face value, the hearer must rely on the supposition that the speaker intends what he is communicating to be recognized (partly on the basis of that intention).²³ Communication is a kind of coordination game (Schelling, 1960, pp. 54ff, 89ff; Bach, 1994).

Now to describe the general character of communication is not to explain how it works. Sperber and Wilson (1986, pp. 20, 69–70) rightly point out that we 'pragmatists' have not supplied much in the way of psychological detail and about how the process of understanding utterances works. They could have made the same point about the process of producing utterances. Providing such detail would require a general theory of real-world reasoning and a theory of salience in particular. Research in the psychology of reasoning has identified many sorts of limitations in and constraints on human reasoning and AI models of well-demarcated tasks have been developed, but a general predictive and explanatory theory is not even on the horizon. And, according to game theorists I have consulted, although the notion of salience since its introduction by Schelling continues to be relied upon in theorizing, there is still no theory of salience, no general account of what it is in virtue of which certain items in the perceptual, cognitive, or conversational environment are salient, much less mutually salient. And yet our ability to communicate, to express propositional attitudes, exploits such information.

Sperber and Wilson offer relevance theory as a viable alternative. They eschew such allegedly problematic notions as reflexive intention, mutual

²³ Sperber and Wilson object to the criterion of understanding in terms of identifying what is 'intended by the speaker'. They complain that this cannot be what the hearer uses because 'if he already knew the speaker's intention, he would have no task of identification left' (p. 183). But this criterion is not vacuous. Gricean accounts do not say that the hearer is a mind-reader. Rather, the hearer considers what, *given* the utterance and the circumstances in which it was made, the speaker could reasonably have intended to be communicating. The hearer has a specific basis—the utterance and mutually available information—to infer the speaker's intention, taking into account that he is intended so to infer it. This does not mean that he has to know what that intention is before he can identify it.

belief,²⁴ and maxims of conversation.²⁵ They suggest that the principle of relevance and the presumption of optimal relevance can pick up the slack, where relevance, in their technical sense, is a matter of maximizing contextual effects and minimizing processing effort.²⁶ Interestingly, however, when they take up specific examples in detail, they rely on the notion of what the speaker might reasonably be expected to intend, the very notion that enters into Gricean accounts of the hearer's inference. That this notion is unavoidable is clear from Grice's insight that communicative intentions are reflexive in a certain special way, such that understanding utterances relies on the supposition that the intentions behind them are intended to be recognized. On the other hand, Sperber and Wilson are right to complain that reconstructions of hearers' inferences, however much they ring true, will inevitably appear *ad hoc* in the absence of an explanation of how it is that certain information emerges as mutually salient (or, in Schelling's phrase, 'obviously obvious') so that it might be exploited by the hearer. For that very reason, to suggest that processing takes place only if it is worth the effort and is a matter of settling on the first hypothesis that satisfies the principle of relevance (Sperber and Wilson, 1986, p. 201) does not say much about how this hypothesis is arrived at. Equally, to say that inference is to an unopposed plausible explanation of the speaker's communicative intention (Bach and Harnish, 1979, p. 92) is not to say how *that* is arrived at. They speak of optimizing and we speak of default reasoning, but to speak of either is not to say with any determinateness how these processes work. Nor is it to explain how or why certain thoughts, such as hypotheses about speakers' intentions, come to mind when they do. No one is prepared to do that.

All in all, I believe that the dispute between Griceans and relevance theorists is orthogonal to the question of how to demarcate the region between strictly explicit content and implicature. Obviously the mere fact that Grice himself did not recognize this intermediate region, even though

²⁴ Sperber and Wilson object to the notions of reflexive intention and mutual belief on the grounds that these notions each involve a vicious infinite regress that renders them if not incoherent, at least psychologically unrealistic. However, as I have argued previously (see Bach, 1987b), reflexive intentions are not infinitely iterative. A similar point applies to mutual belief. The set of mutual beliefs that are relevant to a speaker's communicative intention and the hearer's recognition of it consists of everything that each believes the other believes. Membership in this set is defined recursively—among that which each believes the other believes is that which the other believes he believes—but there is no infinite regress.

²⁵ See Harnish, 1991, pp. 330–40, for discussion of Grice's maxims, their weaknesses, their conflicts, and general gaps in Grice's theory of conversation. Harnish proposes a 'Maxim of Quantity-Quality: Make the strongest relevant claim justifiable by your evidence' (p. 340; see also pp. 360–61, n. 46).

²⁶ This is a familiar idea in cognitive psychology. For example Rosch (1977), observing that words like *monkey* or *car* are learned earlier than words like *animal* and *chimp* or *vehicle* and *Chevy*, argued that 'there is one basic level of abstraction at which the organism can obtain the most information with the least cognitive effort' (p. 213).

he did recognize the pragmatic character of disambiguation and reference assignment, does not show that only relevance theory is capable of demarcating it. On the other hand, to show that it fits into a Gricean account is not to explain how particular implicatures are achieved or why some are achieved and not others.

Let us conclude by taking up some issues related specifically to the processes of expansion and completion. Recanati has criticized my account of expansion (at least as it was first sketched in Bach, 1987a, pp. 72ff) by appealing to the idea of 'local' pragmatic processes. He recognizes that the notion of logical strengthening has limited explanatory scope and acknowledges that the notion of expansion appears to have a much wider range of application (1993, pp. 261f). Nevertheless, he has his doubts about it, for three reasons. One objection is that since 'what is enriched is not a natural language sentence but a semantic representation [and] expansion is a syntactic operation, the expansion theorist must treat semantic representations as syntactic entities—as mental "sentences"' (1993, p. 267). Recanati suggests that we need to know much more about the 'language of thought' before we can make this proposal precise. In reply I would say first that I do not view expansion as a syntactic process. That is why I describe it as a matter not of lexical strengthening but of conceptual strengthening. Of course the *speaker* can lexically strengthen his utterance and thereby make fully explicit what he is communicating. But this is not what the *hearer* does when he conceptually strengthens the speaker's utterance. Moreover, it is far from certain that semantic representations of sentences belong to the language of thought (assuming there is one). They could be psychologically real but, as semantically interpreted outputs of the grammar, function only as inputs to the conceptual system. Indeed, this is what one would expect, considering that sentences are often semantically underdeterminate. Since the contents of thoughts cannot be conceptually incomplete, the conceptual representations that comprise them cannot be semantically underdeterminate in the way that sentences can be.²⁷

Recanati's second and more developed objection is that my view implies that expansion is invariably a psychologically real process of going from proposition to proposition rather than a 'local process' operating at the phrasal level. He suggests that at least in some cases, 'the "minimal" proposition expressible by an utterance . . . is a theoretical artefact, in the sense that it need not be computed and has no psychological reality' (1993, p. 263). This seems to be so in the case of (1),

- (1) The ham sandwich is getting restless.

²⁷ I put the point this way to allow for indexicality as opposed to underdetermination. For in my view singular or so-called *de re* thoughts (thoughts about particular objects) contain elements that function as 'mental indexicals', so that their truth conditions are context-relative (Bach, 1987a, pp. 11–26).

where 'the ham sandwich' is being used by a waiter to refer to a patron who ordered a ham sandwich. Recanati supposes that the process of metonymical transfer takes place without the intrusion of a thought of the absurd proposition associated with the literal meaning of (1). That is, the hearer does not have to compute that the speaker does not mean that a certain culinary item is getting restless in order to determine what the speaker does mean. But, I ask, how can the hearer go from the concept of ham sandwich to that of ham-sandwich-orderer without first entertaining the absurd minimal proposition? What triggers the 'local process' and, for that matter, keeps it from being triggered in a case like (2), uttered in similar circumstances?

(2) The ham sandwich is getting eaten.

Recanati's account predicts that the hearer would entertain the proposition that the ham-sandwich-orderer is getting eaten, since the local process it posits would get triggered before a full proposition were reached. And yet (2) could be understood perfectly well.

I am not denying—and it is consistent with the expansionary account to concede—that local processing can occur in some cases. For example, if an utterance of (1) were preceded by an utterance of 'the burrito walked out without paying', then no doubt the local process of metonymic transfer would take place automatically. Even so, if (2) rather than (1) were uttered in this context, the utterance could still be understood, albeit with some back-tracking. The point here is that the expansionary account does not pose as a theory about the temporal order of the process of understanding. Rather, it is a theory about the character of the information available to the hearer in the process, whatever the psychological details, of identifying what the speaker is communicating, that is, what is implicit in an utterance that explicitly expresses only a minimal proposition. The level of the minimal proposition, of what is strictly and literally said, is needed to account for the hearer's access to the linguistic content of an utterance.

The third objection, inviting a similar reply, is that minimal propositions are not propositions that people spontaneously acknowledge as the explicit contents of utterances when what is being communicated is an enriched proposition. Recanati claims that on my view the minimal 'proposition ("what is said") need not be consciously accessible' (1993, p. 245). But my view suggests nothing so strong as that. What it does suggest is that what is strictly and literally said need not be consciously accessed. This leaves open the possibility that it is accessed unconsciously or at least that it be available to the hearer, even if not actually accessed. The issue of what the hearer consciously accesses or, for that matter, of what the speaker consciously intends, concerns the psychology of processing, not the information available to that process. The claim that the enriched proposition is an expansion of the proposition strictly and literally expressed does not

entail that before the hearer arrives at the enriched proposition he first entertains the minimal proposition in its full glory.²⁸

Moreover, metonymy, as in the *ham sandwich* example, is a special case. As we saw in the previous section, metonymy involves the nonliteral use of a particular word or phrase and therefore requires local expansion. In general, however, there is no particular phrase whose nonliteral use triggers expansion, as illustrated by examples from Section 3 like (3) and (4).

- (3) You're not going to die. {from that cut}
 (4) I have nothing to wear. {to the wedding}

Metonymy and other special cases Recanati considers do not support his blanket contention that the minimal proposition 'is not actually computed and plays no role in the interpretation process as it actually occurs' (ibid., p. 318). Even if it is not computed, it still can play a role. Not only is it included in the information available to the hearer in understanding an utterance, but it provides the default value for the hearer's inference. Even if the hearer does not explicitly rule it out but, in seeking another interpretation, merely makes the implicit assumption that it is incorrect, it still plays a role. Implicit assumptions are an essential ingredient in default reasoning in general (Bach, 1984) and in the process of understanding utterances in particular. And such assumptions must be accessible, since implicatures based on expansions are obviously cancelable.

Recanati also has his doubts about the semantic minimalism built into my account of completion. Here he echoes Carston's (1987) contention that 'the formal philosophical requirement of minimal truth evaluability is an arbitrary principle with no force in a psychologically adequate account of

²⁸ Compare the situation here with lexical disambiguation. It is well known, as shown by so-called cross-modal priming experiments (see Forster, 1990; Garrett, 1990 for discussion of these and other experiments), that irrelevant senses of ambiguous terms are briefly and unconsciously accessed. Upon hearing an ambiguous word in a sentence where one sense is clearly relevant and the other is not, subjects visually respond more to items to which the irrelevant sense applies than to items unrelated to either sense. If they hear a sentence like (i),

- (i) The surgeon realized that the organ needed repair.

they will, immediately after hearing the word *organ* briefly access but not consciously register the musical-instrument reading, whereas with (ii),

- (ii) The soloist realized that the organ needed repair.

they will briefly access but not consciously register the biological-part reading. If, however, (i) is continued with the words 'because it sounded awful', the musical-instrument reading will come into play. So the alternative reading of the ambiguous word is accessed immediately but not consciously and subsequently only if necessary. Yet the alternative reading of the entire sentence (i) is available all along.

communication' (p. 714).²⁹ Like Carston, Recanati rejects the linguistic direction principle, which requires that the elements of what is said be in close syntactic correlation with the constituents of the utterance. Recanati claims that a consideration of what is consciously intuited in an utterance overrides any theory-based appeal to minimalist semantics. He appreciates but ultimately rejects the 'mixed minimalist principle', according to which 'A pragmatically determined aspect of meaning is part of what is said if (i) its contextual determination is triggered by the grammar, that is, the sentence itself sets up a slot to be contextually filled, and (ii) the slot in question needs to be filled for the utterance to be truth-evaluable and express a complete proposition' (1993, p. 241). Now I have tried not to get bogged down in a pointless terminological dispute about the proper use of the phrase 'what is said'. When necessary to avoid confusion, I have used 'what is explicitly expressed' or 'what is literally and strictly said', and have meant them to apply to what does satisfy this principle. But given that 'what is said' is used in this restrictive way, then, in an utterance of a semantically underdeterminate sentence, what is said (explicitly expressed, strictly and literally said) is not a complete proposition. This is because no slot for completing the proposition is set up by the grammar. Even so, the hearer must process the sentence before he can go on to identify the complete proposition being communicated. So we need to recognize this stage of the process.

Recanati goes on to consider the 'minimal truth-evaluability principle', which relaxes the syntactic requirement and says simply that 'A pragmatically determined aspect of meaning is part of what is said if its contextual determination is necessary for the utterance to be truth-evaluable and express a complete proposition'. It prohibits expansions from counting as part of what is said, thereby disallowing what Recanati counts as what is said and what Carston, following Sperber and Wilson, counts as the explicit content of the utterance. Presumably the dispute here is not over terminology but over psychologically relevant distinctions needed for an account of understanding utterances. These critics of Grice rightly insist

²⁹ Leaving aside their doubts about the role of minimal propositions 'in the mental life of the hearer' (Carston, 1988, p. 165), what about the mental life of the speaker? The speaker's side of the process of communication must be considered as well, lest we lapse into thinking merely, as Kempson suggests, that 'language is an *input* mechanism, a vehicle for *interpreting* utterances as propositional representations' (1988, 16; my italics). What about its role in output, in the expression of propositional attitudes? Speakers do not form attitudes to be expressed by the utterances they are disposed to produce; rather, they are disposed to produce utterances that express the attitudes they wish to express. Now there are many ways to express a given propositional attitude, but in ordinary speech people do not consciously consider the alternatives. However, if their choice of utterance were insensitive to the linguistic content of the utterance, then, one might wonder, how could it make any difference whether one utters a sentence strictly and literally interpretable as expressing a minimal proposition or utters one that expresses the intended expansion of the first?

that his way of drawing the distinction between what is said (or what is explicit) and what is implicated is not exhaustive. But the solution is not to draw the distinction differently—widening the scope of what is said and calling that explicit content—so as to keep it exhaustive. The way to go, rather, is to distinguish not only the implied from the explicit but the implicit from the implied.

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