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MODALITY AND WHAT IS SAID*

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If, relative to a context, what a sentence says is necessarily true, then what it says must be so. If, relative to a context, what a sentence says is possible, then what it says could be true. Following natural philosophical usage, it would thus seem clear that in assessing an occurrence of a sentence for possibility or necessity, one is assessing what is said by that occurrence. In this paper, I argue that natural philosophical usage misleads here. In assessing an occurrence of a sentence for possibility or necessity, one is not assessing the modal status of the proposition expressed by that occurrence of the sentence.

I begin with a discussion of different approaches to analyzing the notion of what is expressed by a sentence. I then defend two claims. The first concerns the notion of understanding a lexical item. The second concerns the interrelation between what is expressed by a sentence, and what that sentence can be used to communicate. I then argue that, when combined, the claims provide intuitively compelling explanations for many of our intuitions concerning sameness of what is said. Finally, I will show how adoption of the two claims leads to the conclusion that modal attributions are more complex than they appear.

I. Some Terminology

Before I begin, I need to say something about my terminology. First, much of what follows concerns the interrelations between *what is said by a sentence relative to a context of use*, or "the proposition expressed by that sentence relative to that context", and *what is communicated by an utterance of a sentence on an occasion*.[1] I also speak in what follows of "what an utterance of a sentence would communicate in a context". This refers to what an utterance of that sentence would communicate if uttered by the speaker of that context. I also occasionally use the abbreviation "sentence-in-context" instead of the lengthier, "sentence relative to a context".[2]

I also need to explain the notions of *presupposition* and *common ground* which are exploited in what follows. The notion of presupposition in this paper

is a version of the approach stemming from the works of Stalnaker (e.g. Stalnaker (1999b)). According to this approach, the presuppositions a speaker makes are those propositions the speaker, before she begins speaking, assumes constitute the mutually accepted background information with respect to which the conversation takes place.[3] Correlative to the notion of a speaker's presuppositions, I also avail myself, in this paper, of an informal notion of the *common ground* of a context. Relative to each member of a communicative situation, there is a set of speaker presuppositions. These are, as above, the propositions that speaker assumes constitute the mutually accepted background information in that situation. The common ground of a communicative situation is the set of propositions which is the intersection of all of these sets.[4]

II. Introduction: The notion(s) of what is said.

In this paper, I will write as if I am making claims about a unified pre-theoretical notion of what is said. In particular, I will make a claim about the interrelations between what is said and what is communicated, presupposing little about either notion except that they are so interrelated.

However, there are distinct approaches to what is said in the literature, which capture distinct pre-theoretical notions. Thus, any discussion of what is said to situate its target notion with respect to other possible approaches.

The notion of what is said, or the content of a sentence relative to a context, introduced in Kaplan (1989a), is not introduced as a concept in a general theory of communication. That is, Kaplan does not discuss how his notion of what is said by a sentence relates to how speakers *use* that sentence. For instance, Kaplan nowhere discusses how his notion of what is said by a sentence relative to a context relates to what an utterance of that sentence would communicate in that context. Kaplan's notion of what is said by a sentence relative to a context emerges from his semantic theory for a language containing modal and indexical expressions (e.g. Kaplan (1989a), p. 546). According to Kaplan's picture, what is said is fundamentally the object of natural language sentential operators, which for him include expressions such as "It is necessarily the case that" and "It was the case that".[5] On Kaplan's view, what is said by a sentence relative to a context is fundamentally identified with the semantic value it contributes to larger linguistic contexts in which it occurs. As Kaplan's writes (Ibid., p. 504), his approach to what is said yields "...a functional notion of the content of a sentence in a context..."

Kaplan's "functional" approach to analyzing what is said by a sentence contrasts starkly with the approach to what is said to be found in the works of a theorist like Grice. Grice's notion of what is said does not emerge from a formal semantic theory. Rather, Grice introduces his notion of what is said in tandem with the other notions of a theory of communication. Grice's notion of what is said is meant to be one part of an interrelated theory of communication which, taken together, provides a satisfactory explanation of communicative

action. For Grice, his notion of what is said is meant to be compared and contrasted, and ultimately analyzed in terms of, notions such as what is communicated. He nowhere identifies what is said by a sentence, in his favored sense, with the input to a favored set of sentential operators, or gives any indication that he thinks such an approach is desirable.

A third approach to the notion of what is said emerges from semantic theories for propositional attitude constructions, sentences containing verbs which take sentences as their complements, and appear to express relations between persons and the propositions those sentences express. According to this approach, what is said by a sentence is to be identified with the object a semantic theory assigns to the complement clause of a construction such as "John said that Bill is pleasant". An analysis of what is said is then simply one instance of a more general account of the semantics of sentences containing propositional attitude verbs. Such an analysis would most probably involve no interesting questions specific to the verb "to say".

There are thus at least three different approaches to developing notions of what is said. First, there is the kind that emerges from philosophers such as Kaplan, where what is said is identified with some privileged level of representation in a compositional semantic theory. Secondly, there is the kind that emerges from philosophers such as Grice, where a notion of what is said forms a local holism with notions such as what is communicated and what is conveyed, which is employed in a general explanation of phenomena such as conversational implicature. Finally, there is the kind that emerges from the semantics of propositional attitude constructions, where an analysis of what is said would follow from a general theory of such constructions, and involves no interesting issues particular to the verb "to say".

It seems to me to be an open question how these three notions of what is said interrelate. Consider, for instance, the approach to what is said via the semantics of propositional attitude ascriptions. I doubt that even a correct analysis of the semantics of propositional attitude ascriptions would lead to an adequate account of what is said in either of the two other senses. The point can be brought out by reflection upon the contrast between a semantic theory for natural language belief ascriptions, and an account of the nature of beliefs.

Suppose John would assent to the sentence "Cicero is difficult to read", and does not know that Cicero is Tully. Relative to some contexts, the sentence "John believes that Tully is difficult to read" may still be true. Many philosophers have been led, by these sorts of facts, to a distinction between giving a semantics for natural language belief ascriptions, and giving an account of beliefs. According to them, our belief ascribing practice allows for a large degree of pragmatic latitude, latitude which is irrelevant to questions concerning what sorts of properties beliefs have. A theory engineered to accommodate this latitude would look quite different than a theory which purposely ignores it.

It would be surprising if there were not a similar conceptual distinction between our reports of the speech-acts of others, and the actual content of those

speech acts. That is, suppose John assertively utters the sentence "Cicero is difficult to read", but would not assent to the sentence "Tully is difficult to read". Relative to some contexts, "John said that Tully is difficult to read" might still be true. Relative to other contexts, this report may be false. One of the central difficulties in devising a semantic theory for such sentences involves accommodating this contextual dependence. But since such contextual dependence does not affect the actual content of John's speech act, it is doubtful that a semantic theory for such sentences will shed much light upon the actual content of John's speech act.[6]

Similarly, it is an open question how a notion of what is said by a sentence that emerges from a consideration of how it is linked to the use of that sentence in communication relates to Kaplan's "functional notion" of the content of a sentence. Kaplan himself is admirably lucid about the fact that the resultant notion of what is said marks a departure from standard notions of propositions. As he writes (1989a, p. 504), "This functional notion of the content of a sentence in a context may not, because of the neutrality of content with respect to time and place, say, exactly correspond to the classical conception of a proposition." Both Mark Richard (1982) and Nathan Salmon (1986) have placed commendable effort into adjusting Kaplan's framework to account for the classical notion of a proposition, according to which modal operators operate on propositions, but other apparent sentential operators, such as the tenses, operate on non-propositional semantic values. Though I do not have the space to address the point here, I do not think these efforts have succeeded in reconciling the classical notion of a proposition with Kaplan's functional account of content.[7]

In short, it is still an open question whether a view that associates the propositional content of a sentence, relative to a context, with what it would contribute, relative to that context, to larger sentential environments containing it, is a plausible explication of the traditional notion of a proposition. Indeed, David Lewis has gone further, and asserted (1981, p. 95) that "[we cannot take] the propositional content of a sentence as its semantic value". The reason Lewis gives is that the propositional content of a sentence relative to a context is not compositional, whereas Kaplan's functional notion of content, by definition, is compositional (Ibid.). So it is, at the very least, an open question how a notion of what is said that is motivated by straightforward compositionality concerns relates to a notion of what is said that is motivated by accounting for its relations to other notions in the theory of communication.

The approach I take in this paper to what is said is unambiguously of the second variety. That is, I will be making claims about the interrelation between what is said and what is communicated which are motivated from the perspective of a theorist concerned with a notion of what is said conceptually intertwined with the other notions of a theory of communication. That I will be taking an approach to what is said which is distinct from Kaplan's approach invites, then, an alternative reading of my conclusions. According to this alternative reading, I am not meeting Kaplan on his own grounds, but rather show-

ing that a notion of what is said which emerges from the perspective of a theorist in the Gricean tradition has very different properties from a notion of what is said that emerges from Kaplanian concerns. I have no objection to this reading of my argument.

III. Understanding a lexical item.

The claim about what is said in the next section presupposes the notion of understanding a lexical item.[8] In this section, I first explain and defend a claim about what understanding a lexical item involves. The claim falls far short of a definition. For example, it presupposes a distinction between facts about the meaning of a term, and facts that are not about the meaning of a term. That is, it presupposes an analytic/synthetic distinction. This is the most controversial presupposition of the discussion in this paper. But I will not defend it all. My point is rather to argue from the assumption of such a distinction, to certain conclusions about propositional content.

Suppose that John, who understands the term "bachelor", is among a group of people who he believes also understand the term. In such a context, if John employs the term "bachelor", he will presuppose that it refers to unmarried men, and will presuppose that everyone else presupposes that it refers to unmarried men. Someone who does not understand the term "bachelor", however, will not make these presuppositions in a similar context.

What these simple facts bring out is the following: understanding a term involves making the right sort of presuppositions. For instance, understanding the term "bachelor" involves presupposing, in the right sort of contexts, that it refers to unmarried men. More precisely, it involves believing that in every context in which it is common knowledge that all participants understand "bachelor", it will be part of the common ground that it refers to unmarried men. This suggests that *understanding a term simply amounts to making the right presuppositions*.[9] The meaning of a term is given by the semantic properties one must presuppose the term to have in order to understand it.

This conception of meaning is not new with me. For example, it is the conception of lexical meaning operative in Strawson (1950, 1959). According to Strawson, the meaning of an expression is not, as both Frege and Russell would have it, what it contributes to what is expressed, but rather what speakers who understand the expression presuppose when they use that expression.[10,11] And more recently, a related conception of lexical meaning has been defended in detail in important work by Manuel Garcia-Carpintero (2000).[12]

The idea behind this account of meaning is that terms are conventionally linked to certain properties. For instance, the term "chair" is conventionally linked to the property of being generally used for sitting. A speaker understands the term "chair" if she presupposes that "chair" refers to something that is generally used for sitting. This is not to say that someone who fails, in the above sense, to understand the term "chair" cannot successfully refer to chairs

with the use of the term "chairs". That is, understanding is distinct from *referential competence*. In the above sense of "understand", understanding a term is what is required in order to understand fully utterances of sentences containing it.[13] The proposal is just that the relation a speaker bears to the knowledge she must have in order to understand a term is the relation of presupposition.

The notion of presupposition employed in the characterization of understanding is essentially that of speaker presupposition, with one difference. Understanding a term does not require believing that everyone understands the term. Therefore, understanding the term "bachelor" cannot require always assuming that the proposition that it refers to unmarried men is part of the common ground. Rather, understanding the term "bachelor" requires believing that, if one is in a context in which it is common knowledge that all participants understand the term, the proposition that it refers to unmarried men is part of the common ground. Thus, understanding a term involves making the right sort of speaker presuppositions when one believes one is in a context of the appropriate sort.

Furthermore, nothing is here claimed about the informational richness of the presuppositions a speaker must make in order to understand a term. For instance, I have not claimed that the presuppositions a speaker must make in order to understand a term must contain enough information to fix the reference of a use of that term in an informative way. I do think that the information in question must be true of that term in order to count as part of its meaning. But I do not believe that, for most referring expressions, the information is nearly enough to fix its reference. My proposal simply concerns the relation knowledgeable users of a term must stand in to the information which constitutes the meaning of the term, and does not take a stand on the nature of the information itself.

I have also not taken a stand on the question of how to identify such presuppositions. Of course, speakers share many presuppositions when they speak, including presuppositions that concern the regular state of the world which are not plausibly identified with the meanings of any terms in the language. A theory of meaning in accord with the above proposal would need some criterion to distinguish between common presuppositions which are not part of the meanings of words, and common presuppositions which are. I do not have in my possession such a criterion, and I do not know whether one can be given. The arguments in what follow rest on the viability of a criterion of this sort.

IV. What is said and What is communicated

In this section, I develop a claim about the relation between what is said and what is communicated. Three of the central notions in a theory of communication are what is communicated, what is conveyed, and what is said. I begin the section first by contrasting the first two of these notions. My discussion here will reveal some hopefully uncontroversial assumptions about the notion

of what is communicated. I then introduce the notion of what is said by eliciting some standard intuitions about cases in which what is said can diverge from what is communicated. Then, I turn to an explication of the relation between the notions of what is said and what is communicated.

There are two ways in which the assertive utterance of a sentence transmits information from speaker to audience. Only the first of these involves the notions of what is said and what is communicated with which I am concerned. If John says, "Bill Clinton is a Democrat", he has expressed the proposition that Bill Clinton is a Democrat, and, if successful, communicated a proposition informationally similar to it.[14] But there is also other information that John transmits by his utterance, which I shall call what is *conveyed* by John's act.[15]

For example, the proposition that John has just spoken is conveyed to his audience by his assertive act. Furthermore, the proposition that John has just uttered the sentence "Bill Clinton is a Democrat" is also conveyed to his audience. In general, an assertive utterance of a sentence conveys a large amount of information which is not part of what is said or what is communicated in the senses relevant here.[16] Unlike the relation between what is expressed and what is communicated, there is no informational relation between what is expressed and what is conveyed. For instance, there are no interesting informational similarities between the proposition that Bill Clinton is a Democrat and the proposition that John has just spoken.

Of course, in certain cases, there are no informational similarities between what is expressed by a sentence-in-context, and what the utterance of that sentence communicates. In such cases, the speaker is flouting a conversational maxim, in Grice's sense, in order to communicate something different than the utterance usually communicates. When speakers flout conversational maxims, there is no longer any guarantee that what is communicated is informationally similar to what is expressed.

I am committed to the claim that a successful theory of communication should postulate a proposition-like object that is, when conversational maxims are not being flouted, informationally related to what is said by a sentence-in-context, though I am relatively noncommittal about the nature of this relation. Though the assumption is not necessary for the truth of the criterion I give, I do make a (hopefully uncontroversial) assumption, in what follows, about how context affects what is communicated. The assumption is that the information commonly presupposed in a context often makes what is communicated by an utterance of a sentence in that context some kind of informational enrichment of what is said.[17] However, what I say will be compatible with virtually every way of explicating the notion of informational enrichment.

Let us look more closely at the relation between what is communicated and what is said. Consider a communicative situation in which it is commonly presupposed that Bill is the tallest man in the room. There is an intuitive sense in which participants in that situation would, by uttering (1), do the same thing as they would do by uttering (2):

(1) The tallest man in the room is nice.
(2) Bill is nice.

Similarly, suppose it is commonly presupposed that Kim is a man. There is an intuitive sense in which participants in that situation would, by asserting (3), do the same thing as they would do by asserting (4):

(3) Kim is unmarried.
(4) Kim is a bachelor.

After all, in the context under consideration, everyone knows that Kim is a man, and everyone knows that everyone else knows this. So it does not really matter which of (3) and (4) is asserted. Given the common ground, the information communicated to the other participants in the context is the same.

However, there is a philosophically compelling notion of 'what is said' according to which these sentences say different things in these contexts. That is, there is a philosophically compelling sense of 'what is said' according to which (1)–(4) say *different* things, no matter what the common presuppositions of the speakers in the context are. Take, for example, (3) and (4), in the context described. Though the information communicated is the same, there is a sense of what is said by these sentences relative to this context in which they say different things.

I have now introduced the three central notions of a theory of communication: what is said, what is communicated, and what is conveyed. These notions are the theoretical categories that we use to explain the phenomenon of communication. Now, in theorizing about communication, what we initially observe is people communicating with one another. An utterance is made, and information is communicated to the audience. The information divides naturally into two parts: the part which is assumed by its members to be the information that the person making the utterance intended to communicate to them, and the part which is conveyed by the act of uttering the sentence. As yet, there is no need, in explaining successful communication, to posit a notion of what is said.

But there are undeniable regularities in which propositions a given sentence is used to communicate. For instance, in contexts in which all speakers understand the terms, utterances of the sentence "Penguins waddle" tend to communicate the same thing. The notion of what is said enters into a theory of communication as the level at which these regularities in what is communicated are explained. That is, in such an enterprise, we posit a notion of what is said by a sentence relative to a context to account for observed regularities in what that sentence is used to communicate.

So, it follows from its theoretical role that what is said by a sentence relative to a context in connected to what that sentence is standardly used to communicate. But there is also another factor in determining what is said. For what is said by a sentence relative to a context is dependent on features of that con-

text. For instance, what sentences such as "I am tired" and "That is a diamond" express, relative to a context, depends upon facts about the context of utterance.

We have seen that what is communicated by an utterance is highly dependent upon the common ground of the context.[18] We now see that what is said by a sentence-in-context is also dependent upon features of that context.[19] Distinguishing between features of context which do affect what is said, and the ones which only affect what is communicated, is a highly contentious matter, and different philosophers would draw the line in different places. The claim to follow is independent of where this line is drawn.

The notion of what is said is conceptually connected to the notion of what is communicated. If two sentences are always used to communicate the same thing, then they should express the same proposition relative to contexts that share the relevant contextual features. They should do so because the role of the notion of what is said in a theory of communication is just to explain such regularities in communication. Similarly, if two sentences are often used in normal contexts to communicate different propositions, even if those contexts share the relevant contextual features, then, given the explanatory role of the notion of what is said, it should fall out that they always express different propositions. These theses fall out from the respective roles the notions play in a theory of communication.[20]

Consider sentences to be lexically and structurally disambiguated syntactic Logical Forms, with phonologically identical but semantically distinct lexical items corresponding to distinct word-types. The theses I have been motivating entail the following claim about the relation between what is expressed and what is communicated:

> *The Expression-Communication Principle*
> For all S, S′, c, c′, such that c and c′ agree on all contextual features relevant for determining what is said by S and S′, S, relative to c, and S′, relative to c′, express the same proposition if and only if an utterance of S would communicate the same thing as an utterance of S′ in every context c″ meeting the following three conditions:
> (a) c″ agrees with c and c′ on assignments to all contextually sensitive items in S and S′.
> (b) It is common knowledge that all participants understand the terms in S and S′ and know the values of the context-dependent elements in S and S′ relative to c″.
> (c) It is common knowledge that each lexical item in S and S′ would be intended to be used in accord with its actual literal meaning.
> (d) It is common knowledge that the speaker would be perspicuous (i.e. not flout the maxim of Manner).[21]

The Expression-Communication Principle reflects some of the conceptual relations between what a sentence expresses on a given occasion of use, and what it can be used to communicate. It is, of course, far too weak to be a *def-*

inition of what is said by a sentence relative to a context in terms of what that sentence can be used to communicate. The Expression-Communication Principle is a rather a *constraint* on any particular account of what is said. It simply makes explicit some minimal conceptual connections between what a sentence expresses on a given occasion of use, and what it can be used to communicate, relations that should be preserved by any particular theoretical account of what is said by a sentence-in-context, if that account is to preserve core features of the analysandum. It is, in short, a very minimal criterion of material adequacy for a definition of what is said.

V. More on the Expression-Communication Principle

It is undeniable that the context of use affects not only what is communicated by an utterance of a sentence, but also what that sentence expresses relative to that context of use. However, in Grice's discussions of the conceptual connections between what is said and what is communicated, he rarely addresses the complications raised by the context-sensitivity of what is said. I begin by briefly discussing how these additional complications are accounted for by the Expression-Communication Principle.

Consider the following proposed constraint on what is said that, similar to the Expression-Communication Principle:

> S, relative to a context c, and S′, relative to a context c′, express the same proposition if and only if an utterance of S would communicate the same thing as an utterance of S′ in every context c″ meeting the following three conditions: (a) it is common knowledge that all participants understand the terms in S and S′, (b) it is common knowledge that each lexical item in S and S′ would be intended to be used in accord with how it is standardly used, and (c) It is common knowledge that the speaker would be perspicuous.

This constraint would entail that a sentence such as "I am insightful" expresses the same proposition, whether George Bush is the speaker in the context or Ice Cube. From the other direction, consider a sentence such as:

(5) Every bottle is on the table.

This sentence, relative to a context, can express the proposition:

(6) Every bottle that John purchased on April 15, 2001 is on the table.

But according to this envisaged constraint, (5) and (6) could never express the same proposition. These consequences are unacceptable. Relative to different contexts, the sentence "I am insightful" can express different propositions.

Pace Kent Bach, relative to some contexts, (5) and (6) can express the same proposition.

The Expression-Communication Principle does not have these undesirable consequences. It does not entail that, relative to different contexts, "I am insightful" always expresses the same proposition. It simply makes no predictions about whether two sentences express the same proposition relative to contexts in which the content-determining features differ. In this sense, it is a very weak constraint on an analysis of what is said. Furthermore, assuming (the controversial thesis) that quantifier domains are features of context that affects the proposition expressed by a sentence relative to a context, the Expression-Communication Principle entails that (5) and (6) express the same proposition relative to contexts in which the properties that are the quantifier domains are the same.[22]

Another interpretive issue that arises with the principle lies in interpreting the quantification over contexts invoked by the phrase "in every context c″". The quantification here is to be understood as ranging over all actual and possible contexts. There are several reasons for this construal of it. One is that there are sentences that are never in fact uttered. Another is that to use the claim to determine whether sentences in different languages express the same proposition, one must consider contexts in which there are bilingual speakers. Yet there are language pairs with no bilingual speakers. Therefore, either the analysis must be restricted to sentences within a language, or we must consider possible contexts in which there are fully bilingual speakers of the differing languages. I do not think that restricting the analysis to sentences within a language diminishes either its interest or its conceptual necessity. But since the quantifier over contexts is already possibilist, the restriction is not required.

A possibilist construal of the universal quantification over contexts raises the question of what counts as a possible context. I take a possible context to be one in which the pragmatic conventions are what they actually are, and the relevant languages exist, together with their actual conventions and meanings. This is a substantial restriction on possible contexts, even more restrictive than is necessary for the purposes of the definition. But its greater restrictiveness leaves the truth of the characterization unaffected, and aids in the simplicity of its formulation.[23]

The Expression-Communication Principle is a rather weak criterion of adequacy on an account of what is said. It makes no predictions about what is said by sentences relative to contexts that differ in content-determining ways, and it falls far short of an explicit definition of what is said by a sentence relative to a context. It simply reflects some very minimal conceptual relations between what is expressed by a sentence-in-context and what that sentence can be used to communicate. Nevertheless, as I show in the next section, recognizing the conceptual connections made explicit in the principle provides a systematic explanation of many of the intuitions philosophers of language have had about what is said over the years.

VI. Consequences

In this section, I draw some consequences from the claims that have been made up to this point. I begin with the cases that were used to motivate the Expression-Communication Principle. I then turn to some other examples that have been of central philosophical interest.

Consider again (1) and (2), as uttered in a context in which the fact that Bill is the tallest man in the room is commonly presupposed:

(1) Bill is a pianist.
(2) The tallest man in the room is a pianist.

In such a context, the two utterances communicate the same proposition. But, they do not, in that context, express the same proposition. The utterances do not express the same proposition, according to it, because the sentence types are typically used to communicate different propositions.[24]

The case is similar with (3) and (4):

(3) Kim is a man.
(4) Kim is a bachelor.

According to the account, these sentences, relative to every context, express different propositions. They do so because there are possible contexts of the relevant sort in which utterances of (3) and (4) communicate different propositions.

Here is another consequence of the account. Since Frege, many have been inclined to accept that some words carry what Grice labeled "conventional implicatures". The conventional implicature associated with a word-type is a semantic property of it that does not contribute to what is said by sentences containing it. A standard example is the contrast between:

(7) John is tired and he is happy.
(8) John is tired but he is happy.

According to the advocate of conventional implicature, relative to the same contexts, (7) and (8) express the same proposition. However, a use of (8) communicates something different than a use of (7), because of the conventional implicature associated with "but". This regular difference in communicative effect is not supposed to affect our intuition that (7) and (8) express the same proposition (relative to the same context).

The Expression-Communication Principle entails that, relative to any context, (7) and (8) express different propositions. In fact, the Expression-Communication Principle is not consistent with the existence of conventional implicature, as it is standardly presented. One natural response is to try to

adjust the Expression-Communication Principle to avoid this consequence.[25] However, this is the wrong reaction. As Bach (1999) has recently made vivid, the category of conventional implicature is simply suspect. The arguments for the existence of conventional implicature rest entirely on rather unconvincing appeals to intuitions (Ibid., p. 334). Conventional implicature is also theoretically artificial, and sits uneasily with the other Gricean distinctions. The fact that there are connections between what is said and what is communicated of the sort made explicit by the Expression-Communication Principle provides a clear explanation of the oddity of the category.[26]

According to the Expression-Communication Principle, two sentences express the same proposition relative to two contexts that agree in relevant respects if and only if utterances of them would communicate the same proposition relative to a certain class of contexts. The principle is motivated by the respective theoretical roles played by the notions of what is said and what is communicated. The consequences that I have discussed so far involve cases in which two sentences are typically used to communicate different things in contexts of the relevant sort, and hence express different propositions. What is relevant for these consequences is the left-to-right direction of the principle, namely that if two sentences express the same proposition, then they communicate the same proposition in contexts of the relevant sort. The right-to-left direction of the Expression-Communication Principle is even more obvious than the left-to-right direction. If utterances of two sentences always communicate the same proposition in normal contexts, then they express the same proposition in contexts that share relevant contextual features. But perhaps the most interesting consequence of the Expression-Communication Principle follows from this direction. For we now have a satisfying explanation of the phenomenon, discussed by Michael Dummett and Gareth Evans, of descriptive names.

A descriptive name is a name such that "there is a public, semantical connection between the name and the description: the sense of the name is such that an object is determined to be the referent of the name if and only if it satisfies a certain description. Anyone who understands the name must be aware of the reference-fixing role of the description." (Evans, 1982, p. 48). A famous example, due to Evans, is as follows. Suppose I introduce the name "Julius" as follows:

(*) "Julius" is to denote the inventor of the zip.

Consider now the following two sentences:

(9) Julius liked figs.
(10) The inventor of the zip liked figs.

The two central intuitions behind the phenomenon of descriptive names are as follows. First, utterances of (9) and (10) express the same proposition. Sec-

ondly, "Julius" is a name, and hence a rigid designator, whereas "the inventor of the zip" is a non-rigid descriptive phrase. The challenge posed by the phenomenon of descriptive names is to explain why, in such cases replacement of a rigid designator by a non-rigid designator does not result in a change in what is expressed.

It is worth emphasizing how difficult it is to respond to the challenge posed by descriptive names. For example, Evans's own theory (see his 1985b) fails to meet the challenge he himself poses. Ignoring irrelevant complications, according to Evans, the phenomenon is explained by stipulating that the reference clause for "Julius" is:

(R) (x)(Refers to ('Julius', x) ↔ x is the inventor of the zip).

However, giving such a reference clause simply does not explain why utterances of (9) and (10) express the same proposition. For, as Evans himself emphasizes, the expression "the inventor of the zip" is being used, and not mentioned, in the reference clause. This allows Evans to maintain that it is the reference which is relevant for semantic evaluation in other possible situations. But then it is unclear why the reference is then not all that is relevant for individuating the thought expressed by, say, (9).

In other words, it is unclear how the metalinguistic use of the definite description in (R) allows us to conclude that the thought expressed by (9), is descriptive. After all, surely a direct reference theorist could accept something like the following reference clause for the first-person pronoun:

(I) (x)(Refers to ('I', x, c) ↔ x is the producer of the token of 'I' in c).

without accepting that sentences containing 'I' express descriptive thoughts. Evans's appeals to the metaphor of a theory of reference 'displaying' the senses of its terms are of no help in resolving this mystery.

The preceding discussion explains the phenomenon of descriptive names. Given the account of understanding in section III, it is simple to see that it can be a matter of linguistic competence that the referent of a name is thought of descriptively, *without* it being the case that the name is a concealed definite description. For instance, according to it, understanding "Julius" requires presupposing, in the relevant sense, that it refers to the inventor of the zip. But this simply does not entail that "Julius" is a concealed definite description, or that "Julius" and "the inventor of the zip" express the same modal intension, as would be predicted on a theory that took names to be shorthand for the definite descriptions that purportedly give their meaning.

Furthermore, the Expression-Communication Principle explains the intuition that (9) and (10), relative to any context, express the same proposition. Given what has been said about what understanding a descriptive name amounts to, in every context in which the participants understand the terms in (9) and

(10), they will presuppose that "Julius" refers to the inventor of the zip. But then, given the dependence of what is communicated upon the common ground, in every such context, what utterances of (9) and (10) will communicate is the same. It follows, therefore, that (9) and (10) express the same proposition relative to any context.[27]

It is useful to compare the account of descriptive names just given with another which might mistakenly be thought to be similar to it, namely Francois Recanati's *Indexical Theory of Names* (see Recanati (1993, Chapter 8)). According to this account, the descriptive material associated with a name is the specification of an indexical character (in Kaplan's sense) for that name. So, the specification of the character of "Julius" is that "Julius" refers, in a context c, to the inventor of the zip in c. So, "Julius" would be a rigid designator, with descriptive content (or at least, descriptive content in the same sense in which "I" has descriptive content). But the indexical theory of names simply does not provide a response to the challenge posed by descriptive names, which is that (9) and (10) always express the same proposition. The Expression-Communication Principle provides a principled explanation of this intuition, and the Indexical Theory of Names does not.

Here is another intuition explained by the Expression-Communication Principle. Let us assume, as is plausible, that understanding the term "Hesperus" involves making different presuppositions than does understanding the term "Phosphorus". Now consider the sentences:

(11) Hesperus is Hesperus.
(12) Hesperus is Phosphorus.

Intuitively, what is expressed by (11), relative to any context, is distinct from what is expressed by (12), relative to any context. If understanding "Hesperus" involves making different presuppositions than does understanding "Phosphorus", this intuition is explained by the Expression-Communication Principle. Assuming that competence with "Hesperus" and "Phosphorus" does not require knowing that they co-refer, there will be contexts in which (12) communicates something informative, while (11) does not. If so, then the Expression-Communication Principle entails that, relative to any context, (11) expresses a different proposition than (12). Furthermore, the Expression-Communication Principle explains how this could be so, despite the fact that "Hesperus" and "Phosphorus" are not concealed definite descriptions.

The Expression-Communication Principle is motivated by fairly straightforward reflection on the conceptual connections between what is said by a sentence relative to a context and what that sentence can be used to communicate. Together with the account of understanding introduced in section III, it also provides principled explanations for many intuitions about sameness of what is said. In the next section, I show that it also entails some surprising conclusions about modal attributions.

VII. Non-Modal Propositionalism

On a Priorian theory of tense, tenses are sentence operators, the function of which is to evaluate the temporal content of sentences, relative to contexts, at past or future times. Temporalists believe, and eternalists deny, that the temporal content of a sentence-in-context is identical to the proposition it expresses. Let us call the semantic value associated with a sentence-in-context that is the object of modal evaluation, the *modal content* of that sentence-in-context. We may envisage a somewhat similar dispute about the relation between the modal content of a sentence-in-context and the proposition it expresses. One camp, call them *the modal propositionalists*, would maintain that the modal content of a sentence-in-context is identical to the proposition it expresses. A second camp, call them the *non-modal propositionalists*, would maintain that the modal content of a sentence-in-context is not the proposition it expresses.

I begin this section by showing that the preceding discussion provides a straightforward argument in support of non-modal propositionalism. I then draw some consequences of non-modal propositionalism for some classic debates in the philosophy of language. I conclude with a brief discussion of the purpose of modal evaluation.

As we have seen, the Expression-Communication Principle, together with the account of understanding given in Section III, entails that, given a name like "Julius" governed by the reference-fixing stipulation (*), the following two sentences express the same proposition relative to any context:

(9) Julius liked figs.
(10) The inventor of the zip liked figs.

However, these two sentences, even relative to the same context, are associated with distinct modal profiles. Consider a possible situation in which the zip was invented by Benjamin Franklin, who is not Julius, and Julius liked figs, but Franklin detested them. Relative to any actual context, the modal content of (9) is true relative to this possible situation. The modal content of (10), by contrast, is not true relative to this possible situation. That is, in the envisaged situation, the inventor of the zip does not like figs. So, relative to a context, the modal contents of (9) and (10) differ. But, relative to a context, the propositions expressed by (9) and (10) are the same. Therefore, the Expression-Communication Principle entails that the modal content of a sentence-in-context is distinct from the proposition expressed by that sentence-in-context.

Let us be more explicit about this argument. Call the envisaged possible situation w*. The modal content of (9), relative to a context, is true in w*. The modal content of (10), relative to a context, is not true in w*. It follows that the modal contents of (9) and (10), relative to a context, are distinct. But the Expression-Communication Principle, together with the account of understand-

ing given in Section III, entail that the propositions expressed by (9) and (10), relative to a context, are the same. It follows that the modal content of a sentence-in-context is distinct from the proposition it expresses, and hence that non-modal propositionalism is true, if it is possible to introduce a name such as "Julius" into the language.

Here is one noteworthy consequence of non-modal propositionalism. Suppose there are names with descriptive meanings. Then, relative to a context, a non-modal sentence containing such a name expresses the same proposition as a sentence with that name replaced by a definite description. That two such sentences express the same proposition, relative to the same context, is consistent with the sentences also expressing different modal contents. For according to non-modal propositionalism, the proposition expressed by a sentence-in-context is not its modal content. This allows for the following response to the modal objection to the description theory of names. There may be compelling reasons to hold that no name has a descriptive content, or even the considerably stronger thesis that no name could have a descriptive content. But the fact that the modal content of names and definite descriptions differ is consistent with the thesis that certain sentences containing names express purely descriptive propositions, that is, propositions that could have also been expressed with the use of non-rigid definite descriptions in place of those names.

The preceding discussion naturally invites questions about the nature and purpose of modal evaluation. Suppose that understanding the term "Hesperus" requires presupposing that it refers to a star visible in the morning hours. Since it could have been that Hesperus was not visible in the morning hours, the information that is part of the meaning of the term "Hesperus" is lost in modal evaluation. Indeed, the meaning of a term is generally irrelevant for evaluating its modal content. For example, only the reference of a proper name seems relevant for evaluating the modal content of sentences containing it. What is it about the modal evaluation of a term that makes meaning irrelevant?

The meanings of the expressions in a language together form a background of common knowledge that is a crucial crutch in successful communication between competent speakers. The fact that competent users of the term "water" know that it falls to the earth in the form of rain, and know that other competent speakers know this, and know that they know this, etc., allows for successful communication with the use of the term "water". However, the function of modal evaluation is to allow us to consider alternative possibilities, ones in which the background assumptions determined by the meanings of our terms do not hold.

In short, the reason terms have the meanings they do is to provide us with mutually shared background assumptions to facilitate successful communication. However, the function of modal evaluation is to allow us to consider possibilities in which almost any of our mutually shared background assumptions do not obtain. It is for this reason that the modal content of a term is not affected by its meaning. However, the information content of an utterance of a

sentence is a function of the meanings of the terms in the sentence, via its relation to what that sentence can be used to communicate. Hence, the propositional content of a sentence in a context is not its modal content.

The idea that the purpose of modal evaluation is to allow us to consider possibilities in which mutually shared background assumptions do not obtain is not new with me. It is, for example, a central feature of Robert Stalnaker's analysis of indicative conditionals. As Stalnaker (1999a, p. 70) writes, "I take it that the subjunctive mood in English and some other languages is a conventional device for indicating that presuppositions are being suspended..." Stalnaker's concern in this paper is with the presuppositions that are made within a particular context of use. Such contexts may, of course, contain presuppositions that are not plausibly associated with the meanings of any terms used. But Stalnaker's insight also explains why meaning-constituting presuppositions are irrelevant for modal evaluation. It is the purpose of modal evaluation to suspend presuppositions, whether the presuppositions are meaning-constituting or context-bound.[28]

I have not, in this paper, provided either an account of the proposition expressed by an occurrence of a sentence, nor of its modal content. I have rather given an argument that we should seek an account of what is said by an occurrence of a sentence according to which it is distinct from the modal content of that occurrence. There are different accounts of content that are consistent with this conclusion.[29] If I am right, accounts of content of this sort are promising avenues of exploration for developing a notion of what is said that is appropriately related to the uses to which we put our sentences in communication.

Notes

* My primary debts in this paper are to Jeff King, Marga Reimer and Ian Rumfitt. Discussions with Reimer and Rumfitt led me to write the second section of the paper. Jeff King both pointed out some problems with the original formulation of the Expression-Communication Principle, and helped me repair it. Discussions and e-mail with Robert Stalnaker and Timothy Williamson helped considerably at early stages of development of this paper, and they deserve special mention. I gave the first draft of this paper at the Bay Area Philosophy of Language group in May 2001, and was much helped by comments from all the participants. However, I should single out Kent Bach, Mark Crimmins, and John MacFarlane for their contributions. Thanks also to Manuel Garcia-Carpintero, Michael Glanzberg, Delia Graff, Richard Heck, Brett Sherman, and Zoltan Szabo for extremely useful discussion of these topics over the years. Finally, I gave this paper at the Second Annual Barcelona conference on the Theory of Reference, Texas A&M, and the University of Texas at Austin. Audiences at all three places contributed substantially to the final version.

1. Here, I make a terminological distinction between the more intuitive notion of what is said by an utterance and the more technical notion of what is said by a sentence in, or relative to, a context, reserving the utterance vocabulary for the more speech-act related notion of what is communicated.

2. We may think of a "sentence-in-context" as synonymous with Kaplan's use of "occurrence of a sentence" (see Kaplan (1989a, pp. 522–3)), namely as an ordered pair of a sentence and a context.
3. Though the presuppositions are capable of "accommodation" in the sense of Lewis (1983a).
4. My use of "common ground" has no correlate with any of the notions in Stalnaker's works. It particular, it is not to be confused with his notion of a context set. Each speaker in a conversation has her own context set, whereas there is only one common ground in each conversational context.
5. It is this assumption about what is said that fundamentally underlies Kaplan's rejection of what he calls "monsters" (Kaplan 1989a (pp. 510ff.)), natural language sentential operators that operate on characters, rather than propositions.
6. The point that a correct semantics for indirect speech reports will in all likelihood shed little light on what was said by the speech acts being reported is made persuasively in Cappelen and Lepore (1997). I have nothing to add to their excellent discussion.
7. For instance, when modal operators take narrow scope with respect to tense operators (e.g. "It's always the case that it's necessary that two and two is four"), they must be taken to operate on non-propositional sentence contents. That is why, for example, in Salmon (1986, p. 150, clause (17) and (18)), truth clauses for modal attributions are given disjunctively, both for propositional semantic values and non-propositional semantic values (Salmon's "information-content bases").
8. Neo-Fregean approaches to what is said also presuppose the notion of understanding a lexical item. For such approaches are committed to the following thesis:

   The Informational Thesis
   If what is said by S is potentially informative, and what is said by S′ is not potentially informative, then what is said by S differs from what is said by S′.

   However, without further qualification, the Informational Thesis leads to the absurd consequence that, where F and G are definitional equivalents, what is said by a sentence which contains F can differ from what is said by a sentence which results from that sentence by replacing F by G. For suppose F and G are definitional equivalents. Suppose further that John is a speaker who does not understand the predicate F. To John, the sentence "Every F is a G" is informative. But of course, the sentence "Every F is an F" is not informative to John. So, without further qualification, the Informational Thesis entails that what is said by "Every F is a G" differs from what is said by "Every F is an F".

   What is required to save the Informational Thesis from such unacceptable consequences is further qualification of the notion of potential informativity. In particular, the Informational Thesis must be qualified to exclude contexts in which the potential informativity of a sentence is due to someone's lack of understanding of a lexical item occurring in that sentence. Thus, any neo-Fregean approach must say something about what understanding a lexical item is.
9. I have not used the expression "know the meaning of a term" here, because there is a sense of "know the meaning" in which it does not mean "understand". For instance, Hans, a monolingual German speaker, might know the meaning of the English word "snow", without knowing that "snow" has that meaning. In contrast, understanding a term requires both knowing its meaning, and knowing that it has

that meaning. Thus, if Hans understands the term "snow", then he must both know what the meaning is, and that "snow" has that meaning.

10. See Strawson's discussion of the notion of a "presupposition set of propositions" (1959, p. 192). My proposal is different from Strawson's in that the meaning is not identified with the set of presuppositions one must make in order to understand the term, but rather with the semantic properties one who understands the term presupposes the term to have. The reason for this change is to allow synonymous yet distinct terms to have the same meaning.
11. The notion of understanding a term as here construed can also be put to other uses. For instance, according to John Searle's classic (1958), names are "loosely associated" with definite descriptions. One objection to Searle's account is that it is unclear what "loosely associated" means. But, with the above notion of understanding a term in place, one can give content to this expression. For a name to be "loosely associated" with a definite description is for understanding that name to require presupposing (in the Stalnakarian sense) that the name refers to something which satisfies that description. So, while Searle's theory may be problematic on the grounds that it seems incorrect that understanding most names requires such rich presuppositions, its central notion is perfectly in order.
12. The view is to be contrasted with that taken by Sosa (2001), who, following Dummett, takes names to be obligatory wide-scope definite descriptions. My chief objection to this position is that it is deeply mysterious how names could "really be" definite descriptions. It is hard to imagine syntactic evidence for the view that names lexically decompose at logical form into definite descriptions. Other reasons for rejecting the wide-scope analysis are given in Stanley (1997, Section 6).
13. Provided, of course, one understands fully the other terms in the sentence, and their modes of combination.
14. I want to remain neutral about what 'informationally similar' is.
15. I take Stalnaker's (1999c) discussion of the two different ways in which an assertion changes the context as providing a more extended motivation for the distinction drawn here between the information communicated and the information conveyed by a speech act.
16. The information conveyed by the event of an utterance of a sentence can also have an effect on the interpretation of context-sensitive expressions such as demonstratives and discourse anaphors. For instance, the fact that an utterance is made may cause an individual to be raised to salience (c.f. Lewis (1983a, p. 241)).
17. I believe most philosophers in the Gricean tradition would accept some version of this, though they would in general have different construals of informational enrichment. For instance, Recanati's view (1991, pp. 106 ff., 1993, pp. 247ff.) that what is communicated consists in what is said plus what is implicated implies that what is communicated is an informational enrichment of what is said.
18. As I have been emphasizing, the notion of what is communicated depends on propositions in the common ground of a context. However, it does not depend on every such proposition. For instance, the proposition that $2+2=4$ is, on the account of presupposition I am employing, a proposition which is in the common ground of virtually every context. But one might not wish such propositions to affect what is communicated in most contexts. Fortunately, there are resources to avoid the consequence that what is communicated is dependent on such members of the common ground. For it is plausible to posit a proper subset of the set of shared presuppositions which form the *topically relevant* shared presuppositions against which the

conversation takes place. It would then only be the topically relevant shared presuppositions upon which what is communicated by an utterance depends.

19. I say "contextual features" rather than "common ground" because I do not wish to take a stand on the following thesis:

    The Common Ground Thesis
    All contextual features relevant to determining what is said can be resolved by appeal to the common ground.

    The Common Ground Thesis (CGT) seems to be subject to (or graced with, depending upon one's views) many of the problems of intentionalism, the thesis that the reference of an occurrence of a demonstrative expression is fixed solely by speaker's intentions. For example, Kaplan's (1979) famous Carnap/Agnew case poses the same problem for CGT as it does for intentionalism. Since it does not seem that there are any common presuppositions which fix the reference of the occurrence of 'this' in Kaplan's case, the defender of CGT must claim that no proposition has been expressed. See Bach (1992) for a defense of intentionalism which could also be used to defend CGT. See Gauker (1997a,b) for an attack on CGT.
20. It does *not* follow from the foregoing that the notion of what is said is, in any sense, 'reducible' to the notion of what is communicated, or that the notion of what is communicated is, in any sense, more fundamental than the notion of what is said. All I have been motivating is the thesis that the two notions are theoretically connected.
21. The reason I have singled out the maxim of Manner is that all conversational maxims except for the maxim of Manner run off the content of the speech act, rather than the way in which it is expressed. So, if the two sentences S and S′ do in fact express the same proposition in context, using one to flout a non-Manner conversational maxim will have the same effect as using the other. However, two sentences may express the same proposition in context, while one is less perspicuous than the other (perhaps the second is a longer sentence). In such a case, one could flout the maxim of Manner to communicate something with one sentence that one would not have communicated by uttering the other, despite the fact that the sentences, in context, express the same proposition. So, it is really only the maxim of Manner that needs to be fixed across contexts. If one can flout a non-Manner maxim with one sentence, but not the other, that does suggest that the sentences express different propositions.
22. One rather unFregean consequence of the Expression-Communication Principle is that it entails that "John Smith is tired", relative to a context in which John Smith is the speaker, expresses the same proposition as "I am tired", relative to that context. Adjusting the framework to deliver Fregean results for sentences containing indexicals and demonstratives is a complicated task that I reserve for another time.
23. For instance, adopting a suggestion of Kaplan (1989b, p. 613, footnote 111), one could consider all possible contexts in which the expressions in the sentences under consideration have their actual meanings (and ignore changes in the meanings in words not in these sentences). Kaplan himself, of course, is operating with a more expansive notion of a possible context (Ibid., pp. 612–613). But this is because Kaplan is concerned with giving a characterization of logical consequence for his logic of demonstratives. My purpose in appealing to the notion of a possible context is obviously completely different. Kaplan's considerations in favor of his notion of context are irrelevant for my concerns.

24. I do not claim that the account can be used to convince all of those who believe that the definite article is semantically ambiguous between a referential and an attributive usage that the definite article is unambiguous. For one might maintain that definite descriptions have a genuine demonstrative use. Adopting the modification discussed in the last section and fixing the contextual coordinates for demonstrative expressions such as, on such an account, referential descriptions would be, one could simply deny that there are contexts in which (1) and (2) could be used to communicate different things. My purpose is rather to provide a theoretical framework that makes sense of the theoretical options, and in particular explains the opposing intuition that (1) and (2), relative to any context, do *not* express the same proposition. Given the Expression-Communication Principle, it is clear that to defend the thesis that (1) and (2) express the same proposition, one must argue that definite descriptions have a demonstrative use. Thanks to Michael Nelson for discussion here.
25. This was essentially Grice's reaction; see his discussion (1989, pp. 121ff.) of the complexities raised by the distinction between what is said and what is conventionally meant, and his suggested distinction between "central" vs. "non-central" speech acts.
26. One might think that the phenomenon of generalized conversational implicatures poses a worry for the preceding discussion. For example, numerical quantifiers such as "three dollars" or "four children" are often used to communicate what would have been communicated by "exactly three dollars" or "exactly four children". One might fear on these grounds that the Expression Communication Principle entails that a sentence such as "John has three dollars" expresses the same proposition as "John has exactly three dollars". However, this is not true. There are perfectly normal contexts in which these quantifiers are not used in this way. For example, suppose Betsy only needs three more dollars to pay the bill. Bill can utter "John has three dollars", without thereby communicating that John has exactly three dollars. A similar point holds for the relation between inclusive and exclusive "or".
27. Kaplan (1978) argues that the introduction of a name via a definite description gives the person who introduced the name de re knowledge of the entity uniquely denoted by the description, if it exists; on this view, one knows of the shortest spy that she is a spy, simply by knowing that the shortest spy is a spy. On such an account, an utterance of "Julius invented the zip" might be taken to communicate something different than an utterance of "The inventor of the zip invented the zip", even in a context of the relevant sort. However, I reject this view, for essentially the reasons given in the classic critical discussion of Kaplan in Donnellan (1977, Sections 3 and 5). For an important recent response to Donnellan, see Jeshion (2001).
28. Here is where I can respond to an objection brought to my attention by Francois Recanati. Perhaps there are contexts in which one can utter "Julius invented the zip", intending to communicate something about its modal content. If so, then one could perhaps use such contexts, together with the Expression-Communication Principle, to argue that "Julius invented the zip" expresses a different proposition than "The inventor of the zip invented the zip."

    I am not sure whether there are contexts of the sort envisaged by Recanati. But, even if there are, the nature of modal evaluation entails that such contexts would not satisfy clause (c) of the Expression-Communication Principle. When one evaluates the modal properties of a sentence in a context, one is not evaluating the expressions in the sentence in accord with their literal meaning. For example, consider the first-person pronoun 'I'. The literal meaning of 'I' is that it refers to the pro-

ducer of the utterance. But the literal meaning of 'I' ceases to become relevant in modal evaluation. When I wonder whether I could have been asleep right now, I am not wondering whether, in some counterfactual situation, the producer of a sentence could have been asleep at the moment of its utterance. The very purpose of modal evaluation is to suspend such features of literal meaning.

29. For example, in a modal semantics, one might take the proposition expressed by an occurrence of a sentence to be a subset of its modal content, namely that subset in which the denotations of its terms possess the properties attributed to them by their meanings. Alternatively, one could take the proposition expressed by an occurrence of a sentence to be what David Chalmers has called its "primary intension" in a two-dimensional modal semantic theory. See also Forbes (1989), who also has an account according to which the object of modal evaluation is not the proposition (or thought) expressed by an occurrence of a sentence, as well as Higginbotham (1995) on the notion of a "modal discard".

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