Semantics and Pragmatics

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Semantics deals with the literal meaning of sentences. Pragmatics deals with what speakers mean by their utterances of sentences over and above what those sentences literally mean. However, it is not always clear where to draw the line. Natural languages contain many expressions that may be thought of both as contributing to literal meaning and as devices by which speakers signal what they mean. After characterizing the aims of semantics and pragmatics, this chapter will set out the issues concerning such devices and will propose a way of dividing the labor between semantics and pragmatics.

Disagreements about the purview of semantics and pragmatics often concern expressions of which we may say that their interpretation somehow depends on the context in which they are used. Thus:

- The interpretation of a sentence containing a *demonstrative*, as in "This is nice", depends on a contextually-determined reference of the demonstrative.
- The interpretation of a *quantified* sentence, such as "Everyone is present",
 depends on a contextually-determined domain of discourse.
- The interpretation of a sentence containing a *gradable adjective*, as in "Dumbo is small", depends on a contextually-determined standard (Kennedy 2007).
- The interpretation of a sentence containing an *incomplete predicate*, as in "Tipper is ready", may depend on a contextually-determined completion.

- The interpretation of a sentence containing a discourse particle such as "too", as in "Dennis is having dinner in London tonight too", may depend on a contextually determined set of background propositions (Gauker 2008a).
- The interpretation of a sentence employing *metonymy*, such as "The ham sandwich wants his check", depends on a contextually-determined relation of reference-shifting.
- The interpretation of a *conditional* sentence, such as "If you turn left at the next corner, you will see a blue house at the end of the street", depends on a contextually-determined *range of prospects*.

I will call devices such as these the *in-between phenomena*. Insofar as the truth values of sentences involving in-between phenomena depend on the contextually-determined values of certain parameters, explication of the in-between phenomena seems to belong to semantics. Insofar as the evaluation of utterances of such sentences depends on the context of utterance, explication of the in-between phenomena seems to belong to pragmatics.

Toward dividing the labor between semantics and pragmatics, I will urge that we take care to distinguish between two questions. One question concerns the conditions under which a sentence is true relative to a context. That question belongs to semantics. The other question concerns which context *pertains* to a given act of speech. That question belongs to pragmatics. So characterized, the issue concerns not just how to define "semantics" and "pragmatics" but how the truth-conditions of sentences and the

settings in which sentences are uttered jointly contribute to a successful linguistic exchange.

1. SEMANTICS, BRIEFLY

A semantic theory for a language will specify the literal, conventional meaning of expressions of the language. Typically, it is assumed that the core of such a specification of meanings is a specification of *extensions*. The extension of a proper name might be the thing named. The extension of a verb phrase might be a set of things that the verb phrase describes. The extension of a whole sentence is a truth value. The extension of a quantifier might be a function from sets (sets of sets) to truth values. In simple cases, the extension of a compound expression will be determined by the extensions of its components and its grammatical structure, and, where this is so, a semantic theory is expected to specify the way in which this is determined. Thus, the truth value of "Socrates is snub-nosed" will be *truth* if and only if the extension of "Socrates", namely, Socrates, is a member of the set of objects that is the extension of "is snub-nosed", namely, the set of snub-nosed things.

Beyond identifying the extensions of expressions, a semantic theory might be expected to specify the *intensions* of expressions. Commonly, the intension of an expression is identified with a function from possible worlds to extensions. Moreover, some of the expressions of a language may express operations on intensions. Thus, "possibly" may be thought of as expressing an operation on intensions that takes an intension and generates the value *truth* if and only if that intension is a function from worlds to truth values that generates truth at some world. Propositions are often

identified with the intensions of sentences and are thought of as being, or as determining, functions from possible worlds to truth values.

Many of the controversies in semantics concern the treatment of specific linguistic devices within this basic framework. Other controversies have to do with the basic concepts that I have employed in characterizing this framework. For instance, one controversy concerns the use of the notion of possible worlds. Furthermore, one may question the nature of the relation between expressions and their extensions, which we may call the *reference* relation. What makes it the case that "Socrates" refers to Socrates? What makes it the case that "is snub-nosed" describes the objects in the set of snub-nosed things. Some philosophers have attempted naturalistic reductions of the reference relation. Others despair of obtaining a naturalistic reduction and consequently present ideas about how to formulate a semantic theory without our needing a naturalistically reducible reference relation.

In general, a semantic theory will relativize the truth conditions of sentences to evaluations of various parameters, such as interpretation of the nonlogical lexical items, model domain, possible world or world-and-time, or, as we will see, context. Various notions of validity may be defined by picking out a set of these parameters and, while holding the values of the other parameters fixed, saying that an argument (a set of premises and a conclusion) is *valid* if and only if for each parameter in that set, if the premises are all true relative to that parameter, then so is the conclusion. For instance, we may define one very narrow kind of validity by taking the pertinent set to be the set of all evaluations of all of the parameters (holding fixed only the interpretation of the logical vocabulary). We may obtain a much broader kind of validity by holding the

interpretation, model domain and world-time fixed and taking the pertinent set to be only the set of all contexts.

Even theorists who disagree about the basic framework for semantics might nonetheless agree that a semantic theory has as one of its aims the characterization of various kinds of validity. That this is so will be important in what follows, because I will appeal to such logical properties in trying to decide between different approaches to the in-between phenomena.

2. PRAGMATICS, EVEN MORE BRIEFLY

Suppose, for the moment, that declarative sentences always literally express complete propositions relative to a context of utterance. Still, what a speaker means *by* uttering a sentence may be more than that the proposition it expresses is true. A speaker may utter the sentence, "There's a gas station around the corner," and if that sentence expresses in context the proposition that there is a gas station around the corner from place *d*, where *d* is the location at which the speaker is speaking, then one thing the speaker may mean by uttering that sentence is that there is a gas station around the corner from *d*. But in addition the speaker may mean that the gas station is open and has gas to sell. Pragmatics may be conceived as, in part, the study of the way in which speakers manage to mean more by uttering sentences than what the sentences they utter literally mean relative to the context in which they are uttered. That, at least, is the conception of pragmatics that we have inherited from Grice (1989).

Inasmuch as meaning something by an utterance of a sentence is a state of a speaker's mind, this way of defining the subject matter of pragmatics assumes that it

concerns the speaker's state of mind. A different way of approaching pragmatics would be to think of it as the study of the way in which hearers are able to draw conclusions on the basis of their understanding of the literal meaning of a speaker's words and their own knowledge of the state of the environment in which the speaker's utterance takes place (Gauker 2001). A hearer who hears a speaker say, "There's a gas station around the corner", may infer from the fact that there is a gas station around the corner and the fact that he or she is standing at a busy intersection in the middle of the day that probably the gas station is open and has gas to sell. The speaker may usually intend the hearer to draw such inferences, but is not obvious that the hearer has to think about what the speaker had in mind in order to do so.

3. THE LOGIC OF THE IN-BETWEEN PHENOMENA

Part of the challenge posed by the in-between phenomena is that they introduce logical data that need to be accounted for. We find arguments that are valid *in the sense* that for every context in which the premises are true, the conclusion is true, and other arguments that are invalid *in the sense* that there is a single context in which the premise is true and the conclusion is not. So our account of the truth conditions of sentences must explain how the truth value of a sentence relative to a context depends on the content of the context in such a way that in terms of that explanation we can explain why some arguments are valid in this sense and others are not.

Imagine a store that sells nothing but unpainted wooden furniture. In conversing with a customer, the salesman gestures toward the showroom and declares, "Everything is made of wood". In the context in which he speaks, we should regard what he says as

true. We would not want to deem it not true, as it would be, for instance, if a plastic chair were for sale. And yet, the telephone on his desk is not made of wood. The sentence "The telephone is made of wood" is not true in that context (which is not to say that it is false). So the argument from "Everything is made of wood" to "The telephone is made of wood" does not preserve truth-in-a-context. But if there were any context in which "The telephone is made of wood" were true, then in that context "Something is made of wood" would be true in that context as well.

For another example, in any context in which "Tipper is ready" is true, "Tipper is ready for something" will surely be true. And yet, there might be a context in which "Tipper is ready for something" is true, though "Tipper is ready" is not true. Tipper might be ready to take her next breath but not be ready for the thing that matters in the context, such as going to the convention center.

4. APPROACHES TO THE MIDDLE GROUND

4.1. Minimalists

One approach to the in-between phenomena is just to say that, while their contribution to the proposition that a sentence expresses is independent of the context of utterance, the propositions expressed are only *minimal* propositions of a certain sort.

One kind of minimalism is that of Emma Borg (2004, 2007). Borg's motivation is the idea that a semantic theory should characterize those aspects of a speaker's knowledge of meaning that can be attributed to a cognitive module that deals with language, while our understanding of contexts cannot be located in any particular

cognitive module. Borg will explain the truth condition of a sentence such as "This is red" as follows (2004: 192):

(R) If a speaker utters a token of "This is red" and refers with the utterance of "this" therein to an object x, then that utterance is true if and only if x is red.

Borg's theory does not assign to the *sentence* "This is red" a proposition that it expresses, but on her theory one can still say that an *utterance* of "This is red" expresses a proposition, regarding the object referred to by the utterance of "this" therein, that it is red. Borg is prepared to allow that in a sentence such as "Tipper is ready", there is a hidden argument place and a hidden quantification. So she says that "Tipper is ready" has the same "underlying form" as "Tipper is ready for something" (2007: 350–351).

The minimalism of Cappelen and Lepore (2005) is motivated by the desire to draw a line. Cappelen and Lepore allow that the proposition that a sentence expresses may be relative to a context in some ways. A context may be called upon to provide an interpretation for a limited number of items, such as explicit demonstratives, indexicals, words and inflections indicating tense, and a few others (2005: 1). But they expect that the arguments that might persuade us to countenance varieties of context-relativity beyond those on their list would prove too much, leaving us with no account of what we understand in understanding the meanings of words. They hold that a speaker who utters the sentence "There are no French girls" (their example, 2005: 41) might thereby state that there are no French girls in room 401, but what the speaker's utterance expresses is precisely the proposition that there are no French girls. A speaker who utters "The students are ready" might be interpretable as saying that the students are ready for the

exam, but what the speaker's utterance expresses is precisely the proposition *that the* students are ready (2005: 168).

A problem for Borg's theory is that it is not evident that her truth-conditions for sentences containing demonstratives can be derived from a recursive definition of truth for a language. For example, the truth condition of "This is *not* red" ought to be a consequence of (R) and a general fact about the truth conditions of negations. But what is this general fact about the truth conditions of negations? We could try:

(N) If u is an utterance of a sentence s and v is an utterance of the negation of s, thenv is true if and only if u is not true.

But this would be wrong for two reasons. First, (N) tells us the truth conditions of a negation only on the condition that the sentence negated has been *uttered*, though it is not in general true that if a negation is uttered then the sentence negated has been uttered. And second, we cannot assume, as (N) does, that the demonstratives in the utterance of the sentence negated refer to the same objects as the demonstratives in the utterance of the negation. In place of (N), we might put:

(N') If r is the negation of sentence s, then r is true in a context c if and only if s is not true in c.

But this belongs to a definition of truth-in-a-context, not a definition of truth simpliciter, whereas it was Borg's ambition to avoid the relativization of truth to context.

Further, neither variety of minimalism accounts for all of the logical facts that the in-between phenomena point to. Neither theory identifies any sense in which the argument from "Everything is made of wood" to "The telephone is made of wood" might

fail to be valid. Borg's theory will not explain in what sense "Tipper is ready for something" fails to imply "Tipper is ready" because she holds that these two sentences have precisely the same truth conditions. On Cappelen and Lepore's theory, what we say will depend on what we say about the proposition that *Tipper is ready*, but it seems that for anything that we might say about that, we will end up either affirming that "Tipper is ready for something" implies "Tipper is ready" or denying that "Tipper is ready" implies "Tipper is ready for something", which seem to be wrong results.

4.2. Partialists

A second point of view on the in-between phenomena is that what they show is that sentences frequently do not express complete propositions at all and that semantic theory cannot aspire to anything more than ascribing to sentences a kind of gappy meaning that a speaker can utilize to convey complete propositions to a hearer, the *speaker's meaning*. This is the sort of view advanced by Recanati (2001, 2004), Carston (1998, 2008) and Bach (1994, 2005).

The partialists disagree among themselves on several questions. Recanati disagrees with Carston on certain questions concerning the psychology of interpretation (2004: 39). Carston (2008) does not understand why Bach thinks that the interpretation of indexicals, such "I" and "now", belongs to semantics. And Recanati, in defining a kind of minimal propositional meaning, sometimes takes into account the hearer's point of view (2004: 19); whereas Bach finds no place for such a conception of meaning. Nonetheless, the partialists all agree in thinking that linguistic convention alone will usually not get as far as determining for a sentence, or even for a sentence in a context, a

full proposition expressed. What semantics assigns to many sentences is only a *proposition radical* (Bach) or *linguistically encoded meaning* (Carston).

Not only do the partialists not accommodate the special logic of the in-between phenomena, they are altogether silent on questions of logical relations. Inasmuch as sentences do not express propositions, not even relative to contexts, we cannot define logical relations between sentences in terms of relations between the propositions expressed. Carston, for one, holds that only mental representations, not spoken sentences, are the proper object of truth-conditional semantics and that they are free of the in-between phenomena; but to say that is not yet to address the question of the logic of natural language. One can think of various accounts that one might offer on the partialists' behalf. If sentences express some kind of gappy meaning, short of a full proposition, then sentence truth could be relativized to ways of filling the gaps, and logical relations could be defined in terms of truth relative to ways of filling the gaps.

But as far as I know, none of the partialists has actually addressed the issue in print.

4.3. Indexicalists

An influential model for the treatment of the in-between phenomena has been Kaplan's treatment of indexicals such as "I" and "now" (1989). According to Kaplan, the truth of a sentence must be relativized to both a possible world and a context. A context, for Kaplan, is an object that assigns to each indexical an appropriate referent. For example, to "now" it assigns a time. Thus, to each expression we can assign a function from contexts to intensions, which in turn may be thought as functions from worlds to extensions. Kaplan called these functions from contexts to intensions *characters*.

The indexicalist strategy for explicating the in-between phenomena, exhibited in a series of papers by Stanley (e.g., 2002, 2005), is to treat all of them along the same lines as indexicals. The in-between phenomena are to be thought of as involving additional, unspoken lexical items that appear in the deep grammatical structure of a sentence and receive an interpretation from the context. For example, in Stanley and Szabó 2000, domains of discourse for quantifiers are supposed to be sets that contexts assign to variables associated in deep structure with nominal phrases. (I use the term "deep structure" to refer to mental representations of the grammatical structure of a sentence. Contemporary conceptions of this deep structure vary.) Similarly, gradable adjectives, such as "small", could be handled by letting context assign to them a standard, such as an average height (Kennedy 2007). King and Stanley even suggest that the way to handle the context-relativity of conditionals is to let context assign a similarity relation (between possible worlds) to the words "if" and "then" (2005: 152).

The indexicalist strategy suggests a clear division of labor between semantics and pragmatics and also accommodates at least some of the logical facts at issue. A semantic theory for a language will take the form of a recursively specified assignment of a character, in Kaplan's sense, to each expression (with contexts now extended as necessary). It will fall to pragmatics to explain what it takes for a given context to be the one that *pertains* to a given utterance of a sentence, that is, to be *the* context such that we should evaluate the utterance as true (simpliciter) if and only if the sentence uttered is true relative to that context in the world in which the utterance occurs. The indexicalist can even account for some of the special logical facts due to context-relativity, such as the fact that the argument having "Everything is made of wood" as premise and "The

telephone is made of wood" as conclusion is in a sense not valid, by defining the pertinent kind of validity thus: An argument is valid if and only if for each context if the premise are true in that context then the conclusion is true in that same context.

However, it is doubtful whether the indexicalist strategy can explain all of the logical facts pertaining to the in-between phenomena. To see this, consider first a sentence containing two demonstratives, such as:

(1) This is delicious and this is not delicious.

There is nothing contradictory about this sentence, and if it seems odd on the printed page, that is only because we cannot observe the gestures that would tell us what different foodstuffs the two occurrences of "this" denote. To acknowledge that (1) expresses a truth, we do not have to envision that the context somehow shifts between the evaluation of the first conjunct and the evaluation of the second. Sentence (1) may be true in a single context because the two occurrences of "this" may denote different objects in a single context.

By contrast, each of the following sentences is odd in an additional way:

- (2) Every student is happy and some student is not happy.
- (3) Tipper is ready and Tipper is not ready.
- (4) Dumbo is small, and Mickey is large, and Dumbo is larger than Mickey.

There is an oddity in each of these sentences that our semantic theory should enable us to characterize (Gauker 2010a). The oddity cannot readily be characterized as merely pragmatic. We can perhaps imagine situations in which one of these sentences would be uttered, but even then the situation is either one in which the speaker has spoken poorly

though we can see what he or she has in mind or one in which the oddity is deliberately exploited for special effect (for example, to pose a riddle). The contradictory character of (2)–(4) is a problem for the indexicalist because, for the indexicalist, (2)–(4) will be noncontradictory, just as (1) is, since the context-relative elements in these sentences should be interpretable independently, just as they are in (1).

Incidentally, it has sometimes been supposed that *pure indexicals*, such as "I" and "now" differ from demonstratives such as "this" in that the former but not the latter are governed by strict rules such as that "now" always denotes the time of utterance, and Kaplan himself may have presumed as much. In light of answering-machine cases and post-it note cases (Predelli 2003), that doctrine has been thrown in doubt. Consequently, it is now widely doubted that there is a special logic of indexicals that would ensure that the sentence "I am here now" has a special kind of validity.

5. A proposal: Contexts versus situations

So far I have followed the common practice of using the term "context" equivocally. I have treated contexts as parameters relative to which we define the truth of sentences of a language, and I have spoken of contexts as *contexts of utterance*, which we may think of as situations in which an utterance takes place. The first step toward dividing the labor between semantics and pragmatics in accounting for the in-between phenomena will be to strictly distinguish between contexts proper and situations. A *context* will be a certain formal structure relative to which the truth of sentences will be defined. A *situation* will be an arrangement of objects and events such as may include an *utterance* of a sentence. Semantics will deal with the definition of truth for sentences relative to contexts.

Pragmatics will deal with the conditions under which a given context is the one that *pertains* to a given utterance situation.

5.1. Semantics in light of this distinction

Although situations are endlessly complex arrangements of objects and events, contexts are precisely definable structures. So we have the possibility of precisely defining the whole set of contexts for a given language. And we have the possibility of defining in a precise way the conditions under which an arbitrary sentence is true relative to an arbitrary context. The logical phenomena pertaining to the in-between phenomena can then be handled by defining an argument to be in a sense valid if and only if it preserves truth-in-a-context and defining a sentence to be in a sense contradictory if and only if it is true in no context.

To accommodate context-relative domains of discourse, we can let a context include a set of objects, the domain (Gauker 1997a). To accommodate the context-relativity of gradable adjectives, we can let contexts include, for each gradable adjective, a standard that an object must surpass in order for the adjective to apply. To accommodate incomplete predicates, we may include a set of propositions and say that, for example, "Tipper is ready" is true in a context if and only if there is some activity such that a proposition to the effect that Tipper is ready for that activity belongs to the contextually-determined set of propositions *and* there is no activity such that the proposition that Tipper is not ready for that activity belongs (Gauker 2010b). To accommodate metonymy we can let contexts include a deferment function that might, for example, take a ham sandwich as input and yield as output the patron who ordered a ham

sandwich. To accommodate the context-relativity of conditionals we might let a context include (or even *be*) a set of prospects (themselves conceived as contexts), so that we can say that an indicative conditional is true in a context if and only if for each prospect in (or identical to) the context, if the antecedent is true in that prospect, then so is the consequent (Gauker 2005).

In light of these characterizations of context and the definitions of logical properties in terms of truth-in-a-context, we can hope to capture the logical data introduced by the in-between phenomena. We can say that the argument from "Everything is made of wood" to "The telephone is made of wood" is invalid, because there is a context c such that every object in the domain of discourse for c is made of wood but such that the telephone is not in that domain. The sense in which "Tipper is ready for something" fails to imply "Tipper is ready" is that there is a context in which the contextually-determined set of propositions contains the proposition that Tipper is ready for a certain activity, so that "Tipper is ready for something" is true in that context, but also contains the proposition that Tipper is not ready for a certain other activity, so that "Tipper is ready" is not true in that context.

To account for the contradictory aspect of (2) we may suppose that the context specifies a global domain not assigned to any particular indexical. In (2), the truth of "Every student is happy" in a context demands that the domain for the context include only happy students, while the truth of "Some student is not happy" in context demands that the domain include at least one student who is not happy. (More work has to be done to accommodate the kind of sentences that motivate Stanley, such as "Every student answered every question" and "Every sailor waved to every sailor". See Gauker 2010a.)

Insofar as a context contains a single contextually-determined set of propositions, we may find that the conditions under which "Tipper is not ready" is true relative to a context are dual to the conditions under which "Tipper is ready" is true relative to a context, so that (3) is true in no context. As for (4), a context may specify a single standard relative to which both "small" and "big" are evaluated, so that if Dumbo is larger than Mickey, then no matter our contextually-determined standard for smallness, if Dumbo satisfies it, then Mickey will not satisfy our contextually-determined standard for bigness.

5.2. Pragmatics in light of this distinction

We may assume that quite generally an utterance of a declarative sentence is true (simpliciter) if and only if the sentence uttered is true relative to the context that pertains to the utterance. In this light, the question for pragmatics becomes: What is it about the situation in which an utterance takes place that determines that a particular context is *the* context that *pertains* to that utterance?

Many authors writing about the in-between phenomena, including all of those mentioned in section 4, assume that the shortfall between the semantic properties of the sentence uttered and what a given utterance of that sentence expresses is made up by the content of the speaker's communicative intentions. So long as interpretation is conceived simply as filling the gaps left open by literal meaning, it may be hard to conceive of any alternative. But once we conceive of the issue for pragmatics as that of identifying the context that pertains to a given utterance, alternatives become conceivable. One could still insist on the primacy of speakers' intentions, by holding that nothing but the

speaker's intention picks out the context pertinent to a speaker's utterance. But an alternative that comes into view is that the pertinent context might be fixed by other features of a situation, such as these: what is perceptually salient in the immediate environment, the facts that are relevant to the interlocutors in light of their goals, what it is true or reasonable to say, and anaphoric connections between context-relative elements in a sentence and prior discourse (Gauker 2008b).

One problem facing the assumption that speaker intention fixes context is that it is just not clear what the contents of the pertinent speaker intentions are supposed to be. In the case of demonstratives, the answer may be clear enough: The intention that determines that the pertinent context assigns object o to "that" is the intention to draw the hearer's attention to object o. But it is far less clear what the content of the intention would be that determines the membership of the domain of discourse for the pertinent context. It cannot be, for instance, the intention, for some set D, that the sentence uttered be evaluated relative to a context for which the domain of discourse is D. That account of it would be question-begging in that it presumes that we have a prior understanding of what it is for a certain set to be the domain of discourse for an utterance.

Another basic question for the assumption that speaker intention fixes context is how a hearer is supposed to recognize the speaker's intentions in speaking. Normally, hearers have little access to what a person has in mind apart from an understanding of what the person says. But, as the in-between phenomena indicate, hearers normally have to identify the context pertinent to a speaker's act of speech in order to figure out what the speaker has said. So normally, hearers will have to have some means of identifying the pertinent context without independent access to the speaker's intention. The question

then becomes whether speakers have sufficient independent access to the speaker's intention or whether the speaker's intention can determine the pertinent context although that hearers normally identify the pertinent context on some other basis.

Finally, one has to give some thought to the mental representations that are the speaker's underlying intentions. It is not plausible that every aspect of the meaning of an utterance that is not written out explicitly in the sentence uttered is somehow written out explicitly in the brain. The meanings of mental representations will depend on contextually-determined referents and contextually-determined domains of discourse, much as the meanings of spoken sentences do (Gauker 1997). So to assume that the speaker's intention is what determines the context pertinent to a speaker's utterance just puts off explaining how something other than speaker's intention can determine the context pertinent to a particular token representation.

6. BEYOND THE IN-BETWEEN

There are many linguistic phenomena that challenge the core conception of semantics described in section 1 although they do not appear to belong to the same family as the inbetween phenomena listed in the introduction. These include anaphoric pronouns, words that indicate a rhetorical relation between what is being said and prior discourse (such as "but" and "anyway"), and adjectives whose meanings seems to depend on the nouns they modify (such "good" in "good actor"). The proposal of section 5.1 does not immediately suggest a means of accommodating these phenomena in a compositional, or recursive, semantic theory. But perhaps it gives us reason to hesitate before giving up on the idea

that that a compositional or recursive theory of suitable semantic values of some kind relativized to parameters of some kind might encompass such phenomena as well.

RELATED TOPICS

- 1.3 Quantifiers and Determiners
- 1.4 Anaphora
- 1.7 Adjectives
- 1.11 Indexicals and Demonstratives
- 1.12 Indicative Conditionals
- 1.13 Subjunctive Conditionals
- 3.9 Philosophy of language for epistemology
- 4.1 Extensions, Intension, Characters and Beyond
- 4.3 Presupposition and Implicature
- 4.7 Pragmatic Enrichment
- 4.12 Context Sensitivity
- 5.11 Relevance Theory
- 5.11 Situation Semantics

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