The distinction between semantics and pragmatics has traditionally been troubled. At least three different broad criteria have been used in drawing it, with very poor overlap among them.

First, the study of semantics has been equated by some with the study of truth or satisfaction conditions as opposed to the study of the "force" of linguistic utterances. All matters concerning how language functions, what it does or what people do with it, would then fall under pragmatics. In Chapters Six and Seven, I discussed the distinction between semantic mapping functions (these are functions in the mathematician's sense of function) and linguistic functions (these are purposes in the sense of Chapter One), claiming that all complete intentional signs are associated with both kinds of functions. And it follows from the discussions in Chapters Two and Eight that both of these quite distinct kinds of functions characterize both conventional and nonconventional intentional signs alike. On this interpretation, the differences between tokens of morphologically and syntactically identical sentences used to perform different speech acts, as when the indicative mood is used to give orders rather than to make assertions, or when the interrogative mood is used to make requests rather than to ask questions, are automatically considered pragmatic distinctions. But the differences among the syntactically distinct indicative, imperative and interrogative moods should then also be considered pragmatic distinctions, for these moods have distinct ranges of linguistic function determined according to context in separate ways. These differences, however, have not generally been considered "pragmatic." (On the other hand, they have not generally been termed "semantic" either). The distinction between
semantic mapping functions and linguistic functions as I have defined it is a pretty clear one, I believe, and it seems best not merely to duplicate this distinction with the terms "semantic" and "pragmatic". To talk just of "satisfaction conditions" versus "force" might be better here, while acknowledging that the satisfaction conditions and the force of a particular linguistic token are always derived from each of two sources that may not coincide. There is always the memetic function or public use of the token's type and there is always the speaker's purpose in using of the token. Public linguistic force and satisfaction conditions of a sentence token may each either follow conventional usage or be diverted instead by speaker purposes into nonconventional channels.

A second tradition equates the study of semantics with the study of the meanings --both the semantic mappings and linguistic functions-- that language forms have considered apart from the contexts in which they occur. Pragmatics then studies what language context adds to contextless meaning. I argued in Chapter Ten that because conventional language forms have domains in the same way that locally recurrent natural signs do, there can be no such thing as interpreting a conventional linguistic sign apart from its context even when it is used strictly conventionally. As Sperber and Wilson (1986) put it, interpreting language is never strictly "decoding." For example, context must be used in order to determine whether one is hearing an instance of the word "bolt" as in "Please don't bolt the door" or as in "Please don't bolt out the door," and in determining whether "You will marry Regina" is an instance of the convention that uses indicatives for issuing decrees or of the convention that uses indicatives to make predictions (fortune tellers). If we take this proposed way of distinguishing semantics from pragmatics quite strictly, all such distinctions will count as pragmatic distinctions. But of course not all of them
have generally been considered to be pragmatic distinctions. Perhaps the matter could be clarified by drawing a distinction among different ways in which context contributes to a hearer's understanding. Perhaps the use of context to distinguish which conventional linguistic form is being used should simply be ruled out of pragmatics. Then taking the distinction, for example, between decrees and predictions to be pragmatic (as has been customary) is just an error. This would leave within pragmatics the use of context to determine the domain on which the speaker's attention is focused (Chapter Ten) and the use of context to determine what it is the speaker's purpose to convey when a language form is used nonconventionally. But it would also leave within pragmatics the interpretation of all indexicals and demonstratives, no matter in how strictly conventional a manner they were being used.

A third way of drawing the semantics/pragmatics distinction considers semantics to be a study of the conventional aspects of language use while pragmatics studies aspects of communication achieved in nonconventional ways. Again, much of the study of how a hearer tracks the domains on which a speaker's attention is focused will count as part of pragmatics, for surely this tracking is done in large part not by following conventions. And again, of course, the study of how hearers interpret forms that are not being used conventionally will fall inside pragmatics. But there is a sharp difference between this way of interpreting the semantics/pragmatics distinction and the second way mentioned above, or so I will argue. For although it is clear that if a hearer picks up a speaker's message without relying merely on conventional aspects of the speaker's usage the hearer must be using context in order to do this, so that any study of nonconventional language uses would have to make heavy reference to context, the converse does not follow. It does not follow that whenever context must be
considered in order to interpret a message, the usage is non-conventional. I have already mentioned, of course, that context is nearly always needed for telling which conventional signs are being used. More interesting, there are many conventional ways of using context as a proper part of a linguistic sign. Chapter Twelve will be partly about that.

Whether one adopts the second or the third way of interpreting the semantics/pragmatics distinction, the distinction between semantics and pragmatics will often turn on whether the linguistic form being interpreted is being used in a conventional way or in a nonconventional way involving one-off communicative cooperation between an individual speaker and an individual hearer. In this chapter I will argue that the line between conventional and nonconventional uses of language is vague in the extreme, so that the semantics/pragmatics distinction is necessarily vague as well. The conventional/non-conventional distinction rests on statistics that would have to be gathered over individual ways of psychological processing of linguistic forms, but these ways may vary widely, not merely among speakers of the same language, but for individual speakers on different occasions. What is a matter of convention for one speaker may not be for another, or for the same speaker at a different time. Further, there may be a number of alternative ways in which the same language form serving the same function may be understood or processed psychologically while preserving the same conventional outcome in understanding.

I have remarked on the vagueness of the line between natural signs and genetically determined intentional signs such as animal signals and certain human facial and bodily expressions (Chapter Eight). Human facial and bodily expressions, such as smiling and frowning, are especially interesting because during the development of a particular human individual, what is in the first instance genetically based, may later come under some control first by unconscious
learning systems, and later by conscious systems. Thus smiles emerge naturally in infants and are naturally understood by infants, but they can be unconsciously reinforced just as eye blinks can, and they can also be produced with conscious intent to communicate. In this sort of case, it is quite easy to grasp how the gradual progression goes from purely natural signs, through genetically determined intentional signs, through unconsciously learned memetic signs, to consciously reproduced memetic signs.

A second sort of gradual transition occurs from signs such as the deaf child's early signing, or such as new innovative uses of public language forms, into conventional signs, that is, into signs with stable memetic functions (Chapter Two, Chapter Eight). A conventional sign is one that is being used by speakers and hearers to serve a certain cooperative function because it has successfully served that function before. Its use and comprehension are reproduced, not newly invented. The speaker relies on the hearer's familiarity with the particular use rather than relying only on his or her general interpretative capacities. But, clearly, one can be more or less familiar with a use, and one can more or less invent a use, prompted more or less strongly by prior experience. Also, some speakers may reinvent the same use that others copy, and some hearers may already be familiar with uses that others need to grasp afresh from context. Consider, for example, half dead metaphors, which are often much more dead for some people than for others. Or consider certain common uses of phrases or sentences to perform speech acts arising originally from Gricean implicatures. Is "Can you reach the salt?" a literal question or a literal request? Once you grasp that for a usage to be conventional is just for it typically to recur on account of precedent (Millikan 1998), the debates about what is "said" (that is, conventionally signified) versus what is only pragmatically "implicated" takes on a clearer meaning. But it also
becomes clear why the line between these two is wide and fuzzy in very principle. The transition from nonconventional uses of language to fully conventional uses is a gradual, largely statistical matter.

A third sort of vagueness between what is conventional and what is not in language use derives from vagueness about what should count as having reproduced a language element with the same meaning. The development of human languages clearly depends heavily on constraints laid down by the phonological structures and the grammars of each language, for these delimit quite sharply what is to count as a correct copy or reproduction of a language form (Chapter Two). But there are no such formal constraints on what is to count as having copied the same use or the same meaning again. This is a very serious issue which I discuss at more length elsewhere (Millikan 2001a). Here I will mention just two kinds of vagueness that concern meaning.

First, language is by no means always understood compositionally, hence its meanings are not always copied compositionally. Chunking, the reproduction of whole phrases and sentences, may be the norm rather than the exception, particularly with children and the poorly educated. Children learn at least five to nine new words each day from age eighteen months to six years (Waxman 1991, Clark 1991, Byrnes and Gelman 1991)—Chomsky says, "about a word an hour from ages two to eight with lexical items typically acquired on a single exposure..." (Chomsky 1995, p. 15). Surely they are capable of learning a similar number of phrases. Large scale reproduction of phrases accounts for the subtle distinction between idiomatic and unidiomatic usages of a language: "That makes good sense but it's not how a Frenchman would say it." Thus for a native English speaker, rivers and caves have mouths but buildings do not; bottles and violins can have necks but dumbbells and meadows do not, and in the expression "in my neck of
the woods" the word "neck" is not even read as the same word. When speaking on the telephone I say "This is Ruth Millikan" but when introducing myself in person I say "I am Ruth Millikan" --why the difference?-- and so forth and so on.

Recall now that different signs may articulate exactly the same world affairs quite differently (Chapter Seven). When language is chunked in the mind of the user, the articulation is understood differently than when language is grasped compositionally. The result is that differing interpretations of what this chunk means, hence would mean in other contexts, are readily made. Nice examples of this are historical changes in understanding of the grammar of certain phrases, for example the change in the grammar of "going to" from verb-plus-preposition to verb-with-auxiliary and the change in the verb "will" from a simple verb taking a direct object to an auxiliary verb (Roberts 1985, Roberts and Roussou 2003). Another kind of change of this general type is exemplified by the classic oxymoron "The dog went to the bathroom on the living room rug." Anyone who has had to read papers of first year university students, in the U.S. at least, has seen hundreds of chunked expressions, unparsed, hence half understood, hence misused. Asserting that people ought always to understand language compositionally does not help, of course. Indeterminacies concerning the actual meanings of public language forms, the ways these are actually sifted and shifted through public usage, are not touched by such moralistic or aesthetic sentiments.

Second, whether a phrase or sentence type is copied alone to have a certain meaning, or whether it-plus-its-context, either linguistic or nonlinguistic, is what is copied, may often be an indeterminate matter, a merely statistical matter resting on quirks of individual psychological processing. Consider the difference between "Have you been swimming?" and "Have you been in
Antarctica?" Is "Have you been...?" (a) a polysemantic phrase that sometimes means have you just been? and other times means have you ever been? Or (b) does it always mean just "Have you ....," whether anytime, or some particular time, being a matter not of semantics but of one-off pragmatic understanding between speaker and hearer dependent on their personal mutual knowledge? Or (c) is there a convention that when used with verbs that denote frequently recurring events it means "Have you just..." whereas with verbs denoting events that don't typically recur it means "Have you ever..."? Further, which ever of these ways the hearer manages to interpret the phrase, is it clear that the speaker has to have reproduced it with the same understanding?

Taking a second example, when the adjective "red" is used in the combination "red hair" does it (a) conventionally mean something different than when used in most other combinations? (What counts as red hair would never count as red if one were speaking of a dress or a flag.) Or (b) does "red X" always just mean "red for an X" (Wheeler 1972)? That is, is "red hair" more like "red" in "red herring" or more like "long" in "long hair" versus "long road" (quite a different length)? And however the hearer interprets this phrase, is it clear that the speaker has to have reproduced it with the same understanding?

The very fact that context must be used in tracking the domain of a conventional sign produces a sort of insistent vagueness in the conventional/non-conventional distinction. For if a certain kind of context is sometimes an obvious indicator of the memetic family from which a language form token comes, speakers will learn sometimes purposefully to place their tokens in just such a context in order to be understood more reliably. Soon placement in such a context will tend toward a conventional manner of communication. One speaker copies it from another and
hearers learn to interpret it quite automatically. At what point will we say this sort of careful placement in context is no longer a matter of pragmatics, but part of the conventional semantics of a language? I see no reason to suppose that answers to questions of this sort are somewhere written. Very likely the statistics on actual psychological processing among native speakers, whether different speakers or the same speakers at different times, are quite scattered.

A clear case of the unclarity of the conventional/nonconventional distinction concerns demonstratives. Consider how demonstratives must have evolved. Suppose that the hearer understands what you are talking about, in part, by where you are looking (Chapter Ten). Then the hearer is taking the direction of your look as if it were a pointing gesture. Indeed, perhaps your looking actually is a pointing gesture, that is, you purposefully and obviously look at something in order to draw your hearer's attention to it, to single it out for the hearer. What was originally merely a natural sign of the domain from which a speaker's language signs were emerging readily becomes a purposeful sign or indicator, used by the speaker. Either some disposition to this has been selected for genetically, or learned in an environment where cooperating hearers are sensitive to direction of look. Generalizing this, speakers learn to leave a trail that allows hearers to track the focus of their attention. As they become more sophisticated, they become more aware of ambiguities and possible misinterpretations, purposefully filling in more context where needed, painting in, as it were, what bird sits on the telephone wire beside the John they are talking about --where he comes from, his profession, or his last name.

(Certainly it is true that having some understanding of the mechanics of other people's minds can help here but, perhaps more commonly, this resembles checking to see if one can easily read one's own handwriting as one proceeds down the page).
To the degree that direction of look comes to be purposefully used by a speaker, direction of look becomes an aspect of public linguistic signing. Similarly, drawing the hearer's attention to what you are talking about by picking it up and showing it to the hearer constitutes another aspect of a sign system that emerges gradually from a nonintentional or natural background. The human hearer has a natural tendency to notice and examine what another human is handling and to notice what newly appears in front of himself. Recalling how anticipatory movements of animals, originally read as natural signs, can gradually turn into intentional signals (Chapter Eight), it becomes clear how various forms of pointing naturally emerge from anticipatory movements that preceded showing as these become stereotyped and exaggerated. In accord with this, there are cultural differences among the ways pointing is done. Sometimes the index finger is used, sometimes the middle finger, sometimes, in conventionally defined contexts, protruding the lips is used (Sherzer 1973). Pointing gestures are a good illustration of the vagueness that can occur between natural signing, intentional but nonconventional signing, and fully conventional signing.

A conventional sign is one that would be unlikely, or much less likely, to be employed and to be understood, or to be understood so easily, were it not being reproduced from examples of prior usage. Conventional usages are memes that are proliferating themselves. Because some people have reacted to a sign in a certain way, others have been encouraged purposefully to use the sign to produce this reaction. And in so far as speaking and understanding is, in the first instance, a cooperative enterprise, furthering the interests of both speakers and hearers, that speakers are purposefully using the sign to produce certain reactions encourages hearers to reproduce these reactions, which are then produced more reliably. The sign has attained
conventionality when its use for a certain purpose is proliferated, not just through genetic transmission, and not only because speakers are finding it a useful tool, but because, causally because, others are using it or have used it before. The conventional sign is being reproduced or "copied," not discovered or invented anew by each producer-consumer pair. Thus conventionality is clearly a matter of degree. Ways of pointing to or, more generally, ways of demonstrating or, still more generally, ways of drawing attention to the sign domain from which one's linguistic signs are emerging come in all degrees of conventionality. This kind of vagueness may apply as well, of course, to figures of speech, implicatures and other extensions of usage that are slowly moving from being entirely innovative, through being somewhat familiar, to being handled automatically without parsing or derivation of meaning from compositional structure.
1. Note that "force" in this context is not illocutionary force. The public linguistic function of the type and the speaker purpose of a linguistic token both include perlocutionary aspects of function that, when the normal mechanisms accounting for proliferation are engaged, accord with the speaker's and hearer's purposes. (These purposes are not in the main explicit intentions).

2. That this last sort of distinction is indeed a distinction between two different conventional forms, the surface indicative form being polysemantic, is argued in (Millikan 1984) Chapter 4 and in (Millikan 1998).

3. The wide fuzzy band that separates the conventional in language from the non-conventional is discussed at more length in (Millikan 2001a). The discussion here is much abbreviated.

4. This thesis about linguistic convention is fully argued in (Millikan 1998)