THE MEANING OF QUESTIONS

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Polar interrogative sentences ('yes/no questions') are different from the correspond-ing declarative sentences not only pragmatically—in terms of the illocutionary forces that utterances of them can have—but also semantically, i.e. in terms of the LINGUIS-TIC analysis of their meaning. Keeping a clear distinction between syntactic, semantic, and pragmatic analyses, we can isolate a very small number of syntactic categories and an equally small (but not isomorphic) number of semantic categories, but a virtually unlimited number of illocutionary forces, which result from the interaction of these categories with the total situation. The analysis of ordinary polar interrogatives also applies, without change, to tag questions.

INTRODUCTION

1. This paper is about the meaning differences among sentences such as the following:[1]

(1) a. She's pretty.
   b. Is she pretty?
   c. She's pretty, isn't she?
   d. She's pretty, is she?

Without begging any questions about the status of this kind of meaning, I shall refer to it as ILLOCUTIONARY MEANING. What I hope to show below is that illocution-ary meaning can and must be handled in terms of a number of separate, interacting systems of description: syntactic, semantic, and pragmatic (in rather a loose sense of this last term). I think similar points could be made with reference to imperatives or WH-questions,[2] or even declaratives; but polar interrogatives (alias 'yes–no questions') provide especially clear arguments, so I shall refer to other kinds of sentence only when they are relevant to the meaning of polar interrogatives.

There is no shortage of informal discussions of illocutionary meaning in the literature, especially in grammars intended for foreigners; this is particularly true of the meanings of tags, as in 1c–d, since these are obviously in some respects peculiar to English (cf. H. E. Palmer 1924:263, F. R. Palmer 1965:41, Sinclair 1972:76, Quirk et al. 1972:390). There are also a few discussions of the meanings of tags in more theoretically oriented works (e.g. Lakoff 1972:917)—but, as far

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[1] I should like to acknowledge with gratitude the detailed comments on this paper that I have had from John Lyons and Robin Fawcett; their main influence can be seen in the footnotes. An earlier paper with the same title but totally different contents was destroyed by the combined attentions of two anonymous readers and Ruth Kempson, to whom I am grateful.

[2] WH-questions raise rather special problems for the kind of analysis suggested here, since with them it is not possible to distinguish between the 'proposition' and the 'force' as it is with polar interrogatives (§2.5). Thus, in *Who did it?* the proposition may be something like 'that somebody did it'; but the force must refer not to the whole proposition but rather to the element 'somebody', and might be something like 'I believe that you know the identity of the referent of "somebody".' This problem has emerged in correspondence with Robert Hull, who gives a convincing analysis, in terms of logic, of the meaning of WH-questions (Hull, MS; Keenan & Hull, MS).

as I know, there has been no attempt to formalize the relationship between their illocutionary meaning and that of other kinds of sentence.

Moreover, a number of linguists have offered ways of distinguishing the semantic representations of polar interrogatives from those of declaratives, say by introducing an element Q into an analysis otherwise based on predicate calculus notation (Seuren 1969:134), or by introducing an abstract performative verb as the verb in the highest deep sentence (Ross 1970). However, none of these systems of analysis for polar interrogatives says exactly how these symbols in the semantic representation are to be interpreted, since this is not relevant to the purpose of their proponents. On investigation, it turns out that the illocutionary meaning of polar interrogatives is probably a good deal more complicated than has been suspected till now.

Presumably one reason why there have been so few attempts to formalize illocutionary meaning is that many linguists seem to believe there just isn't anything to formalize: there are clear-cut syntactic categories of MOOD (which all have names ending in -*ive*: declarative, interrogative, imperative, exclamative), and there are ILLOCUTIONARY FORCES (Austin 1962:99), hereafter IF's, with names like 'promise', 'threat' etc., through a list whose membership is anything but clear-cut and may even be open-ended; but between these two sets of categories, one of which refers to sentences and the other to utterances of sentences, there is either no connection at all, or a very simple connection.

For instance, as everyone knows, if I say

(2) It's cold outside

this may be intended (and taken) as many different kinds of speech act (i.e. as having many different IF's) according to the situation in which I use it: e.g., as a threat (I could throw you out if you don't behave), a promise (I could take you out of this overheated room), a suggestion (we don't know whether to take coats), or a request (I want you to lend me a coat). Such examples can be taken as evidence for the lack of connection between mood and IF: the latter depends on the state of mind of the speaker and hearer rather than on the syntactic mood of the sentence. On the other hand, some sentences are restricted to just one IF because of their syntactic form. Thus the following must be taken as a promise:

(3) I hereby promise to pay you £5 next Monday.

In neither of these cases is there any point in setting up semantic categories to mediate between the syntactic mood and the IF, so there is nothing for the linguist to formalize once he has dealt with mood and performative verbs.

However, it is worth noting that Austin (109) did not seem to share this view. For him, the problem, not with illocutionary acts but with perlocutionary acts (i.e. utterances seen from the point of view of their consequences), is this:

For clearly ANY, or almost any, perlocutionary act is liable to be brought off, in sufficiently special circumstances, by the issuing, with or without calculation, of any utterance whatsoever, and in particular by a straightforward constative utterance (if there is such an animal). You may for example deter me from doing something by informing me, perhaps guilelessly yet opportunely, what the consequences of doing it would in fact be ...

Illocutionary force, on the other hand, is 'conventional, in the sense that at least it could be made explicit by the performative formula. Thus we can say *I argue that* or *I warn you that* but we cannot say *I convince you that* or *I alarm you that*' (103*a*; cf. also 120–21). Moreover, it is possible (73–6) to establish a kind of scale of illocutionary equivocation, ranging from explicitly performative sentences like *I permit you to shut it*—through sentences with some relatively unambiguous device for indicating IF, such as mood (cf. *Shut it, if you like*)—to highly ambiguous sentences where the IF is shown only by the non-linguistic circumstances of the utterance, notably simple declaratives. And finally, it is no harder to decide on the IF's of particular utterances than it is to decide on their sense and reference: 'A judge should be able to decide, by hearing what was said, what locutionary and illocutionary acts were performed, but not what perlocutionary acts were achieved' (Austin, 121; cf. also 114–15).

Distinguishing between illocutionary and perlocutionary factors may make things a little better for the linguist; but even so, IF's are still very unsatisfactory objects from a linguistic point of view. As Austin recognized (99), we don't know how many of them there are, nor can we accept his suggested way of finding out, based on the use of explicit performative sentences as paraphrases (149); and for the majority of sentences there will be so few restrictions on the IF's they can have that it won't be worth trying to state them. So it might not be completely misleading, even though it may be slightly inaccurate, to say that any sentence can have any IF, given the right circumstances; and since the list of possible IF's seems rather indeterminate, we linguists might do well to leave them to the philosophers.

I sympathize with this reaction, but believe it is wrong, on the grounds that it misses a very important (though obvious) point about IF's: that different sentences need different 'right circumstances' in order to have the same IF (or more generally, that the 'right circumstances' for a particular force depend on the sentence used). For instance, let us assume that there is an IF which we can call WARNING. Both the following sentences can have this force, but under different circumstances:

(4) a. That kind of lock isn't safe.
    b. Is that kind of lock safe?

The first utterance will serve as a warning only if the addressee is in danger from the lock—but not if said, e.g., by A to B while they are looking at a catalog of locks, without any intention of buying one. On the other hand, for the second sentence to be a warning, it is necessary not only for the addressee to be in danger, but also for the addressee to believe that the lock is dangerous; thus it would be inappropriate for A to use the second sentence if B knew nothing at all about locks, and A knew that B knew nothing about them, although the first sentence would be perfectly appropriate in these circumstances.

What this very simple example shows is that IF's such as 'warning' are related to syntactic properties of sentences, and to their mood in particular—via an intermediate set of properties, which determine the conditions under which the sentences can have given IF's. Otherwise there is no way of explaining the difference between the two sentences in our example. I shall now explain how I see the relation among the various properties I have introduced, and will try to justify calling the

intermediate properties SEMANTIC, on a par with the standard semantic properties such as referential indices and semantic features, which define the propositional content of the sentence.

ILLOCUTIONARY MEANING AND SEMANTICS

2.1. ILLOCUTIONARY FORCES are properties of utterances: it is the act of uttering a sentence that has the IF, and not the sentence itself. This is clear from the fact that the same sentence uttered on different occasions can have an almost unlimited range of IF's. The question is, where do the IF's come from? I have just argued that they aren't just a matter of the state of mind of the speaker and/or hearer, but involve at least some properties of the sentence being uttered. That is, there is a difference in kind between the 'warning' consisting of either of the sentences in 4, and that consisting of any old sentence, in any old language, used to warn someone else that one is approaching—in that any sentence in the latter case will have exactly the same force under exactly the same conditions; all that is needed is that it be loud enough for the 'warnee' to hear.

It seems, then, that IF's depend jointly on certain properties of whatever sentence is being uttered and on the state of mind, in the most general possible sense, of the speaker and hearer. To understand how these two sets of phenomena interact, we need a very general theory of communication—which we obviously don't have. However, it will be important in the following discussion to keep a number of factors clearly separate, so with some hesitation I shall now outline a framework for a general model of communication.

There seem to be three kinds of knowledge that hearers use (I shall refer to speakers later):

     (5) a. knowledge of the constraints on the use of sentences;
         b. knowledge of the constraints on conversation or, more generally, on social interaction (Grice, MS; Cicourel 1973);
         c. knowledge of the universe and, in particular, of the speaker and of the preceding discourse.[3]

For instance, imagine a dinner party at the Browns', where the Greens are the guests. Mrs. Green says to Mrs. Brown:

     (6) Do you always make your own pastry?

Now Mrs. Brown has to decide what Mrs. Green is getting at: what does she 'mean' by 6? E.g., is she being critical, in a catty way, implying that the pastry they are eating is amateurish? or is she paying a compliment, because it is obviously superior to the mass-produced frozen stuff you buy in shops?

Of one thing Mrs. Brown can probably be fairly sure: Mrs. Green is alluding to the pastry they are eating now (unless, of course, they aren't eating pastry, in which

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[3] Not surprisingly, this three-way classification raises problems. For example, where do we include knowledge of the social constraints on paralinguistic features such as whispering (shouting etc.), or on other aspects of speaking of the type discussed under the term 'ethnography of speaking' (Hymes 1962)? They are all specific to speaking, so maybe they should be treated as 'constraints on conversation' (5b); but they seem to be constraints of a very different kind from those discussed by Grice and Cicourel, such as 'Be relevant!'—if only because they are clearly culture-specific.

case she has to find another explanation). This is because of one of the general rules of conversation: 'Be relevant' (cf. Grice). Both ladies know this rule, and each assumes that the other is applying it in speaking, so if there is pastry on the table and they haven't been talking about pastry, Mrs. Brown will work on the assumption that this is what makes 6 relevant. Hence the importance of 5b. On the other hand, whether Mrs. Green is being complimentary or critical is something that Mrs. Brown can decide only on the basis of her general knowledge of the universe —and of Mrs. Green in particular (hence 5c): how does Mrs. Green (or any person, lacking knowledge of Mrs. Green in particular) feel about homemade pastry?

As for the first kind of knowledge that Mrs. Brown must bring to bear (5a), she obviously needs to know the linguistic rules that Mrs. Green is applying—and, in the absence of evidence to the contrary, she will assume that they are the same rules that she would be applying herself if she were to say 6. The rules in question will include the truth conditions on the underlying proposition, *You always make your own pastry*—i.e. the conditions under which this proposition would be true (that the maker be the person being addressed on the occasion of utterance, etc.) But they will also include the conditions for using 6 rather than, say,

(7) You always make your own pastry.

Here the underlying proposition is just the same, but what is different is something about the speaker's relation to it: let us say (anticipating our discussion in §§3–4) that the relevant condition for 7 is that the speaker should believe the proposition to be true, whereas that for 6 is that he should believe that the addressee knows whether it is true or not, without himself knowing whether it is. So if we duplicate the conversation up to the point where Mrs. Green says 6 to Mrs. Brown, but then make her say 7 instead, Mrs. Brown will obviously come to very different conclusions about Mrs. Green's intentions—if she manages to come to any conclusions at all.

The work done by the speaker in conducting a conversation is closely related to that done by the hearer, which I have just discussed: what the speaker must do is decide what conclusions he wants the addressee to come to, and then find a way of ensuring that this happens. This means that, before saying 6, Mrs. Green has to work out how Mrs. Brown is likely to take it: e.g., does she realize that Mrs. Green prefers homemade pastry to shop-bought pastry? Needless to say, speakers often make mistakes in this kind of calculation, although they usually put the blame on the addressee.

This digression on the components of communication has been necessary because I now want to narrow the scope of attention to the specifically linguistic aspects, to the exclusion of all the pragmatic factors covered by 5b (the rules of interaction) and 5c (the hearer's general knowledge). In other words, I shall be discussing those properties of sentences which do not depend on particular situations of utterance: in our example, the properties that 6 would have whenever it was said, even if considered in isolation as a linguistic example. What should be clear from the above discussion, however, is that IF's are among the things produced by the hearer's mental work: they are a function of the interaction of the three kinds of

knowledge that the hearer brings to bear, so it isn't surprising that the relation between IF's and sentence structure is at best tenuous. Nor is it surprising that IF's themselves are vague and seem to be drawn from a completely open-ended vocabulary: there are presumably as many IF's as there are conclusions that hearers can come to about speakers' intentions in saying things. Fortunately, what all this means is that IF's, as such, are the wrong kinds of object to try to associate with mood, so we can forget about them in the rest of this paper.

Before forgetting about IF's, though, it is worth pointing out why we don't need them in discussing the meaning of tags. Among the semantic characteristics of tags, to judge by previous treatments, are vagueness and polysemy. Thus, in discussing tags with constant polarity like

(8) This is your seat, is it?

Sinclair (79) distinguishes two different meanings: 'very aggressive, challenging' or 'little more than a response (to a previous utterance)'. Such an apparent conflict of meaning could be predicted precisely from the general model of communication, plus our common-sense knowledge of the world, plus the rules for constant-polarity tags that will be given in §4.2. If the speaker and addressee are obviously in conflict over the seat in question, then 8 will be aggressive, because it says that the speaker only has the addressee's word that the seat is his. On the other hand, if there is no extra-linguistic reason to assume conflict between the speaker and hearer, then 8 will not be aggressive: all it shows is that the speaker didn't know that the seat was the addressee's until the addressee said or showed that it was. In the former case, 8 is a challenge to the addressee, in the latter almost an apology; but neither of these two facts is a fact about the sentence as such, but is rather a fact about the utterance of the sentence on a particular occasion (or, more generally, type of occasion). There is therefore no need to despair of finding something clear-cut to say about the meaning of tags, provided we make this distinction between IF's generated by all the components of particular situations, and the permanent, inherent properties of sentences, which are just one of these components.

2.2. SINCERITY CONDITIONS. What I have tried to do above is to show that illocutionary meaning should be broken down into at least two parts: (1) IF's, which vary from utterance to utterance for the same sentence; and (2) whatever permanent properties the sentence has that are relevant to the syntactic distinctions of mood, and that contribute to the definition of IF's in the way described above. I now turn to these permanent properties of sentences: what kinds of 'property' are they?

A number of answers seem possible. For instance, Lakoff has suggested (917), following a suggestion of Grice, that certain normal rules of conversation are temporarily waived in sentences containing tags; e.g., the difference between

(9) a. That's a Rembrandt
    b. That's a Rembrandt, isn't it?

is that 9a is subject to the rule of conversation 'Don't say what you have no evidence for', whereas 9b isn't. In other words, 9a is a statement, for which the speaker vouches, while 9b is rather a suggestion, for which he seeks confirmation.

Moreover, the rule 'Don't give more information than is needed' is also waived for 9b, since it would be normal to say 9b to someone who knows as well as you do whether or not it is a Rembrandt—but 9a would then be out of place, since it would suggest that the other didn't know and needed to be told. This is an interesting suggestion, but it has the disadvantage that we could easily extend it to all other moods, and end up saying that all the normal rules of conversation apply only to untagged declaratives. It would presumably be much better if we could keep the rules of conversation independent of the properties of sentences—which would mean, among other things, removing or re-wording those conditions that are specific to declaratives.

The answer I favor is based on the speaker's relation to the proposition: a declarative sentence and the corresponding polar interrogative define the same proposition, but a different set of relations between it and the speaker, as with the difference between 6 and 7 above. In other words, for an utterance of a declarative sentence to count as 'normal' (perhaps one might use this word as a technical term), it would be necessary for the speaker to believe the proposition to be true; but an utterance of a polar interrogative will be normal on condition that the speaker doesn't believe that the proposition is true, but does believe that it may be true (Katz 1972:210), and believes that the addressee is at least as likely as he is to know whether it is true.

These conditions (or something like them) hold whenever a declarative or interrogative is used, and are therefore within the scope of a linguistic, rather than a pragmatic, analysis. I shall call them SINCERITY CONDITIONS, following a suggestion by Austin (50), who compares the insincerity of making a statement such as *The cat is on the mat*, not believing the underlying proposition to be true, with that of making a promise without intending to carry it out (cf. also Searle 1969:60, 66).

Two points need clarification here. First, what is 'normal' is not just a matter of statistical probability, but must be defined in relation to the rules of conversation stated above. There must be a general rule by which speakers ensure that sincerity conditions are satisfied: thus, whenever one person says something to another, the addressee will always assume, unless there is evidence to the contrary, that the sincerity conditions are satisfied. The question is, then, what assumptions do we as hearers make when we hear, say, a declarative sentence? This is presumably an empirical question of the 'competence' kind, which can be answered by getting native speakers to introspect. I strongly suspect everyone would agree that, in the absence of positive evidence to the contrary, they would assume that somebody using a declarative sentence believes the proposition expressed in it to be true.

Second, I believe there is no need for sincerity conditions to refer to what the speaker wants the addressee to DO with his utterance. For instance, one might be tempted to say that the speaker of a declarative utterance always wants the addressee also to believe that the proposition is true. However, it seems unnecessary to add anything of this kind to the sincerity conditions, since it will follow in any case from the pragmatics of conversation: if A tells B that p, using a declarative, then B can assume that A believes p to be true, and that his reason for taking the trouble to speak was in order to get B to believe p.

Each sentence, then, will have associated with it a set of sincerity conditions (or

several sets if it is ambiguous—but never an indefinitely large, or even very large, set). Just as the truth conditions associated with a sentence define the circumstances under which an utterance of the sentence will embody a true proposition, so the sincerity conditions will define the circumstances under which an utterance of it will be 'normal', in the sense defined above.

2.3. SEMANTIC OR SYNTACTIC STRUCTURE. The next question to be dealt with is: at what linguistic level should the sincerity conditions be associated with a sentence? Specifically, should they be associated with its syntactic structure or with its semantic structure? (Here I assume that syntax and semantics are separate, but I shall offer a piece of evidence in favor of this assumption below.) From what has been said so far, there is no reason not to suppose that sincerity conditions can be associated directly with syntactic structure; and if that is the case, there is presumably no point in setting up elements in the semantic structure which will simply duplicate information already available in the syntax. I do not believe it to be the case, however, and I shall now try to show that at least one set of sincerity conditions CANNOT be associated directly with syntactic structure.

The argument concerns pairs of sentences like the following:

(10) a. What a pretty dress that is!
     b. Isn't that a pretty dress?

On the one hand, I shall show that the sincerity conditions for these two sentences are very nearly the same, and that any differences between them can be predicted from other factors. Hence, on whatever level of structure sincerity conditions are applicable, the sentences ought to have a structural similarity with which a single sincerity rule can be associated. On the other hand, I shall show that there is no other reason for giving them such a structural similarity on the level of syntax; thus the similarity must be in their semantic structures. I start with the second of these two points.

If the shared sincerity condition is to be related directly to the syntactic structures of 10a–b, we must isolate some aspect of their syntactic structures that not only brings them together, but also distinguishes them from other kinds of sentence that DON'T have this sincerity condition. No such aspect exists, as shown by the following arguments:

(i) Sentence 10a (*what*) but not 10b (*isn't*) allows a tag:

(11) a. What a pretty dress that is, isn't it?
     b. *Isn't that a pretty dress, isn't it?

The simplest explanation for this is that *isn't* is an interrogative, and is subject to the same prohibition of tags as all other interrogatives. *What*, however, is not an interrogative at all, but an EXCLAMATIVE (a category on a par with declarative, imperative, and interrogative). This is confirmed by the next two arguments, and also by the difference in meaning between *what* and *isn't*, discussed in §2.4 in relation to ex. 10.

(ii) *Isn't* shows inversion of subject and auxiliary as in all other polar interrogatives, but in no exclamatives.

(iii) *What* allows a different range of WH-words and phrases from the nearest kind of interrogative, the WH-interrogative: the former, but not the latter, allows

phrases introduced by *what* as a determiner; the latter, but not the former, allows phrases with *who*, *where*, *when*, *why*, *which* etc. The only overlap is with phrases introduced by *how* modifying an adjective or adverb.

(iv) *What* allows embedding, but *isn't* doesn't, even with the addition of *whether*:

(12) He says what a pretty dress that is.

(13) *He says whether that isn't a pretty dress.

This difference doesn't follow automatically from the analysis of *isn't* as an interrogative, but it does show a syntactic difference between the two types of clause.

(v) *What* cannot be negative, but *isn't* MUST be (or at least must contain *n't*, whether or not this is a marker of negation; see §3.1 below):

(14) a. *What a pretty dress that isn't!

b. *Is that a pretty dress?

Of course, 14b can serve as an exclamation in some dialects,[4] and it is possible with other IF's in all dialects; the star belongs to it qua positive equivalent of 10b.

(vi) *What* allows the adjective to be modified by degree adverbs such as *very* and *extremely*, but *isn't* does not:

(15) a. What a very/extremely pretty dress that is!

b. *Isn't that a very/extremely pretty dress?

The precise significance of this restriction is not clear; but I include it as a syntactic difference between *what* and *isn't*, to lend weight to my claim that there is no reason for bringing the two together on the level of syntax.

I now turn to the sincerity conditions of *what* and *isn't*, to show that they ARE similar in this respect, in a way that distinguishes them clearly from other kinds of sentence. If we compare 10a–b, we find that they are virtually paraphrases of each other, not only in that they express the same underlying proposition (something like *That is a pretty dress*), but in that the speaker must be impressed in both cases by the DEGREE of prettiness (cf. Quirk et al. 400). Moreover, if we generalize to all sentences like 10a–b, we find they fit this pattern: the underlying proposition must identify a point on some scale of comparison, and the speaker must feel impressed by the position of this point. This can be seen most easily if we compare 10a–b with a pair of sentences that do not refer to a point on a scale:

(16) a. *What an immediate constituent that is!

b. *Isn't that an immediate constituent?

(Again, 16b is acceptable, but not in the sense in which it is like 16a.) The trouble with these sentences is that it is impossible to satisfy the sincerity conditions, requiring that the speaker feel strongly about the point on the scale defined by the proposition, because the proposition doesn't define a scale.

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[4] McCawley 1973 says that apparent negatives, such as *Isn't that a pretty dress*, can NEVER be taken as exclamations; i.e., for the dialect she is describing, the situation is exactly the opposite of that in my own dialect. This lends strong support to my analysis, however, since I treat *n't* simply as the realization of EXCLAMATION, rather than as the realization of negation: this analysis shows the dialect difference to be a rather surface matter. But if *n't* marked negation, we should have the worrying situation of a whole class of negative sentences in one dialect corresponding semantically to positive sentences in another dialect.

Sentences 10a–b, then, are both subject to the same sincerity condition, which we can state as follows:

(17) The speaker is impressed by the degree to which a property defined in the proposition is present.

From this condition it follows that the speaker must also believe the proposition to be TRUE: one isn't impressed, in this sense, by something one believes may be false.

Moreover, as we have just seen, there is a restriction on the content of the proposition itself: it must define a scale of some kind, to which the degree in question can be referred. This restriction must be semantic, not syntactic, since there is no syntactically definable class that must be present: the degree may be expressed by some kinds of adjective (*pretty* but not *hexagonal*), some kinds of adverb (*recently* but not *once*), some kinds of noun (*fool* but not *hexagon*), and even some kinds of verb (*look* but not *see*). In many cases it even seems to be expressed overtly by nothing at all:

(18) What an article this is!

Here what is in question is not the degree to which this is an article, but the degree to which it is a good (or long, or interesting?) article.

To recapitulate, I argue that sincerity condition 17 applies to sentences like both 10a and 10b, but that this is not because they share some syntactic property, since there is no relevant property. Moreover, I have just shown that both kinds of sentence are subject to a restriction that must be expressed at the semantic level, to the effect that they must define a 'scale' of some kind. The natural conclusion, then, is that sincerity condition 17 should be imposed on sentences at the level of semantics, and not at the level of syntax. I shall use the term EXCLAMATION to refer to whatever property their semantic structures share, uniquely, without prejudice to the question of how semantic structure ought to be represented.[5] We can call it a FORCE MARKER.

As mentioned earlier, I am assuming in this paper that syntax and semantics are separate, and the arguments given above not only rest on this assumption, but could even be taken as evidence for it: if you don't distinguish between syntax and semantics, you won't be able to distinguish between mood categories (including exclamative and interrogative) and categories like 'exclamation'; but we have just seen that BOTH sets of categories are needed. However, if the reader is a generative semanticist and prefers not to distinguish between syntax and semantics, this doesn't harm my main argument—except by making it all unnecessary, since my main argument has been that sincerity conditions apply at the level of semantics.

2.4. INTERRELATIONS AMONG SINCERITY CONDITIONS. Austin (149) seems to have assumed that IF's are all mutually exclusive, in the same way that performative

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[5] John Lyons has pointed out to me that the term 'exclamation' is used in ordinary language in a much wider sense than I am giving it here. Thus a command can be an exclamation: '*Oh*, DO *be quick!*', she exclaimed. This wider usage seems to refer to paralinguistic features such as force of articulation, rather than to sincerity conditions, and is independent of my use of the term; e.g., one can say *What a pretty dress that is* quietly, so that it wouldn't count as an exclamation in the wider sense, though it would be an 'exclamation' in my sense.

verbs are—and presumably BECAUSE performative verbs are: just as you only have one performative verb per sentence, so you only have one IF per illocutionary act. This assumption is questioned by Searle (70): 'we must not suppose, what the metaphor of "force" suggests, that the different illocutionary verbs mark off points on a single continuum. Rather there are several different continua of "illocutionary force" ...' (cf. also Travis 1971). Searle does not develop this point—a pity, because it is an important one. I shall try to do so, although of course I shall be speaking below of sincerity conditions, not IF's.

Let us look again at 10a (*What a pretty dress that is!*) and 10b (*Isn't that a pretty dress?*) We have already established that these are both subject to the same sincerity condition (17), and they both express the proposition 'That is a [degree] pretty dress'; thus we might expect them to be mutually substitutable under all circumstances. This turns out not to be the case, though. Imagine that Bob and Jane are shopping together and are both looking at a dress in a window: then Bob might say EITHER of the two sentences to Jane, and one would be as good as the other. But imagine that Jane turns up for a date, and the dress in question is the one she is wearing: it would be odd for Bob to say *Isn't that a pretty dress!* to her. Why? The reason seems to be that this sentence implies that Jane must agree. Cf. also the following pair:

(19) a. What a nuisance you are!
     b. Aren't you a nuisance?

Again, 19b is odd, because the addressee is expected to agree, whereas 19a does not have this implication. Both 19b and 10b are situationally odd, in that it is bad etiquette (or tactics?) to assume that the person you are complimenting or insulting already agrees with you. This does not itself infringe on any sincerity conditions—which don't demand politeness or other social skills—but it is a sincerity condition which leads to the oddity. That is, the two (b)-sentences must be subject to a sincerity condition to which the (a)-sentences are not subject. However we should formulate this condition, it somehow requires the speaker to expect the hearer to agree with him. (For another example, cf. 71 below.)

In order to decide what the condition in question is, consider another property of the two odd sentences 10b, 19b: they are both syntactically polar interrogatives, while the other two sentences are exclamatives. Is there any way of seeing the extra sincerity condition on these interrogatives as an instance of a more general phenomenon? There is. ALL polar interrogatives seem to be subject to a sincerity condition, to the effect that the speaker believes the hearer knows, at least as reliably as the speaker does, whether the proposition is true or false. This of course explains why speakers ask 'ordinary' polar interrogatives: they don't know themselves whether the proposition is true, but they think the hearer will or may. But in some less ordinary types of polar interrogative, the speaker already knows (or thinks he does) whether the proposition is true or false; and then the point of using a polar interrogative, rather than a declarative, is to show that the speaker expects the hearer to know it too—and therefore to agree with him. This is exactly the case with the interrogatives in 10b and 19b: as we have seen, they are semantically 'exclamations', so the speaker must believe the proposition to be true (because of

condition 17); and he must also expect the addressee to believe it too, because of the arguments just given.

What I am suggesting is that 10b and 19b are subject, simultaneously, to two different sincerity conditions: the one in 17, which applies to 'exclamations', and the one sketched above, which applies to all polar interrogatives. According to the argument in §2.3, sincerity conditions should apply at the level of semantics rather than syntax; so the second of these conditions must do so too, and we must introduce a semantic element—call it QUESTION—which is common to all polar interrogatives. The condition itself will be something like the following:

(20) The speaker believes that the hearer knows at least as well as he himself does whether the proposition is true or false.

The relations among the syntactic categories, the semantic categories, and the sincerity conditions are roughly as shown in Figure 1 (except that there should be more syntactic restrictions on the line connecting 'exclamation' to 'polar interrogative').

sincerity conditions: (17)   (20)

semantics: EXCLAMATION   QUESTION

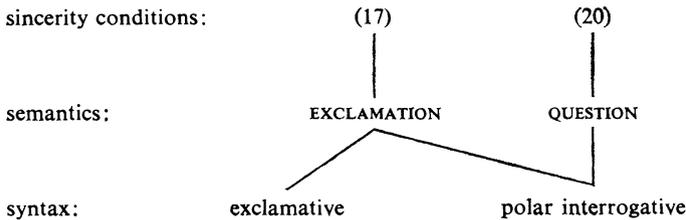syntax: exclamative   polar interrogative

FIGURE 1

In §§3–4 below, I shall give other examples of the same kind of phenomenon, where more than one sincerity condition is allowed to apply to the same sentence, by virtue of different aspects of its semantic structure. This is a kind of 'componential' approach to sincerity conditions, and I believe it puts the study of illocutionary meaning in general on a more structural footing than has been the case hitherto: the task now is not just to distinguish categories (in our case, semantic categories) and their associated conditions (i.e. sincerity conditions), but also to define exactly the relations among the categories. We move away from Austin's list of between 1,000 and 9,999 types of speech act (149) toward a much more tightly structured set of categories.

2.5. SUMMARY. I have tried above to isolate the various components that together make up illocutionary meaning—a concept which, incidentally, I have not tried to define, since this is unnecessary to my main theme. First of all, in §2.1 I isolated IF's (which had already been distinguished from perlocutionary forces, in §1). These, I suggested, are properties attributed by the hearer to an utterance, taking account not only of the inherent properties of the sentence being uttered, but also of the rules of normal conversation and of the hearer's general knowledge of the world. This being so, it is beyond the scope of any grammar to predict the IF's that sentences can have, and we as linguists ought not to try to build IF's into our grammars.

I then argued, in §2.2, that the 'inherent' properties of sentences which hearers take account of in identifying IF's are conditions that the speaker is expected to satisfy—conditions on his relation to the proposition contained in the sentence. I call these sincerity conditions, since they have to be satisfied for the sentence to be uttered sincerely. According to §2.3, these conditions should be associated directly with elements in the semantic structure called force markers, rather than with the syntactic structure. Finally, in §2.4, I argued that semantic structures should be allowed to contain more than one force marker, all relating to the same proposition. This means that I envisage semantic structures like those of Searle (31), in which there are two separate parts: 'F (p)', where F stands for 'force' and 'p' for 'proposition'; and each of these two parts will be internally complex, since F will stand for a combination of force markers. (Similar arguments have, of course, been made by linguists—cf. Halliday 1970a,b; Fillmore 1968).

In the remainder of this paper I shall apply this analytic framework to the illocutionary meaning of questions of various kinds, all of which are syntactically polar interrogatives. I start with full polar interrogatives, used as main clauses (§3); then I turn to responses (§4.1), tags on declaratives (§4.2), and tags on other sentence types (§4.3). On the most general level, the claim I shall make is that the meaning of tags follows automatically from that of polar interrogatives in general, if we treat tags as ordinary polar interrogatives.

FULL POLAR INTERROGATIVES

3. Polar interrogatives are 'full' if they have not undergone VP-deletion, or whatever rule it is that leaves behind just a pronominal subject and an auxiliary verb. Syntactically speaking, all polar interrogatives have inversion of subject and auxiliary—or, if they are embedded, an introductory *whether*; but they are to be distinguished from 'alternative' interrogatives, with an obligatory *or* and (normally) falling intonation, e.g.:[6]

(21) Was it a boy or a girl?

They are also to be distinguished from declaratives used to ask questions (normally, but not always, with rising intonation):

(22) You're ready?

3.1. SEMANTIC DISTINCTIONS. It is possible to distinguish quite a long list of 'uses' of the polar-interrogative construction, some of which are exemplified in the following: (a) as straight questions, that are in no way 'conducive,' i.e. 'favoring one possible answer (*yes* or *no*) over the other' (Bolinger 1957:97):

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[6] Many syntactic analyses of polar interrogatives such as *Does he live here?* treat them as a particular type of alternative interrogative (alongside *Does he live here or doesn't he?*) I have no objection to this as a syntactic analysis, but on the semantic level there are good reasons for distinguishing the two types. In particular, I think alternative interrogatives can never be conducive, whether positively or negatively (cf. §3.2), whereas polar interrogatives can. For instance, the following exchange would be very odd:

A: That's Mr. Wilson's house over there.
B: Oh, does he live there or doesn't he?

This probably explains why the order in alternative interrogatives has to be positive–negative, since to start with a negative would be conducive (cf. **Doesn't he live here or does he?*)

(23) Is 223 a prime number?

(b) as 'guesses' arising from a recent experience—such as being told something:

(24) a. Oh, are you leaving already?
b. Oh, can't you stay any longer?

(c) as 'denials' of something the hearer may believe to be true:

(25) a. Have I ever let you down?
b. Haven't I always stood by you?

However, I believe these all reduce to a single semantic type, with a single sincerity condition and a single set of syntactic correlates. I shall try to justify this claim below.

In contrast with the semantic type which recurs in the uses listed above, there is one that must be treated as a completely separate semantic type: the 'exclamation'. I discussed this at some length in §§2.3–2.4 above; but the picture presented there was not complete, and I shall try here to complete it by giving all the syntactic and semantic differences that I know of between 'exclamations' and straight questions (the type exemplified by 23–25). I suggested above that 'exclamations' are of two syntactic types, exclamative and polar interrogative:

(26) a. What a long way he's gone!
b. Hasn't he gone a long way?

It is only the second type that we shall be concerned with in this section, but it will be possible to bring out a number of similarities between the two in the course of the following discussion.

· The main syntactic distinction between 'exclamations' and straight questions is that the former contain *n't* (e.g. *hasn't* in 26b). This is not just the ordinary *n't* that results from contracting *not*, which in turn is a reflex of the deep formative NEG (as are the *n't* in 24b and 25b): it is, synchronically speaking, a completely arbitrary marker of 'exclamation', without any connection to the ordinary *n't*, except presumably at the level where morphological rules supply the correct forms for auxiliaries before *n't*, like *can't*, *won't* etc. Let me try to justify this claim.

First, *n't* must be *n't* and cannot be *not*; thus 27 does not and cannot mean the same as 26b in its 'exclamation' interpretation:

(27) Has he not gone a long way?

There are three ways of building this fact into the grammar: (a) by making the rule which contracts *not* sensitive to 'exclamation' (whether this is taken as a syntactic or a semantic feature), so that it is obligatory in that environment; (b) by making the semantic projection rules sensitive to whether or not *not* has been contracted; or (c) by introducing *n't* directly without going through the stage of *not*, as a reflex of 'exclamation'. Whichever of these analyses we adopt, we are bound to distinguish 'exclamations' at least at the semantic level from other polar interrogatives.

Second, 'exclamations' never allow forms like *any* and *yet*, in spite of the fact that they seem to have both of the syntactic properties (interrogative and negative) that normally permit such forms (this point is also made by McCawley 1973):

(28) Won't she make someone (*anyone) a good wife?

A very simple way to explain this fact would be, first, to adopt analysis (c) suggested above, whereby *n't* isn't treated as a reflex of NEG, so that the environment wouldn't count as negative; and second, to restrict the use of *any* etc. to the environments 'negative' or 'straight question'. For this analysis there would be no reason to expect *any* and the like in interrogative 'exclamations', and they will become identical in this respect to exclamative 'exclamations':

(29) What a good wife she'll make someone (*anyone)!

Any other analysis would be more complex; but again it would be bound to refer at some point to the syntactic or semantic category of 'exclamation', which is ultimately what I am setting out to justify.

Third, and finally, there is a restriction on exclamative 'exclamations' to the effect that they must not be negative (Huddleston 1971):

(30) a. *What a nice girl she isn't!
     b. *What nice presents he hardly ever gives her!

Now if we treat the *n't* in interrogative 'exclamations' as something other than a negative marker, we can extend this generalization to cover them too: no 'exclamation' can be negative. This of course is exactly the restriction we need to prevent forms like *any* and *yet* from recurring in interrogative 'exclamations', as I argued in the previous paragraph.

I should emphasize that the arbitrariness of *n't* is only on the synchronic plane: presumably, at one stage in the history of English, *n't* was a reflex of NEG, just like the *n't* in 25b; but it gradually became independent of the negative element until it reached the stage which I claim it holds today, where the only connection between this *n't* and the ordinary one is at the level of morphology. Examples of this type of syntactic 'split' are common enough—e.g., the split between *use* and the modal auxiliary *used*, *owe* and *ought* (which used to be past tense of *owe*), the lexical *do* and the dummy auxiliary *do*.

Another formal characteristic of 'exclamations' is that they must have falling intonation. This again applies equally to exclamative and interrogative 'exclamations', so we should look for a single generalization to cover both kinds. One possibility would be a simple rule to the effect that 'exclamations' must have falling intonation; but I believe it is possible to improve on this, in a way that makes such a rule unnecessary. The improvement would consist in showing a conflict between the sincerity conditions on 'exclamation' and those on rising intonation (or whatever semantic feature, if any, is realized by rising intonation). Briefly, rising intonation would show that the speaker DEFERS to the hearer with respect to the truth of the proposition. But 'exclamations' show that the speaker is sure that the proposition is true, which rules out deference with respect to truth. However, the question of intonation and its sincerity conditions is too big to tackle in this paper, so I shall leave the restriction on the intonation of 'exclamations' as an arbitrary and isolated fact.

The syntactic and phonological characteristics of 'exclamations' are enough, then, to justify distinguishing them in the grammar from 'straight questions', which share none of these characteristics. As regards the sincerity conditions for these two categories, I have already given the condition for 'exclamation' in

17; and there seems to be no need for any condition at all for 'straight question', over and above the condition 'question' which is common to all 'straight questions' and interrogative 'exclamations', and which was given in 20. These two conditions are repeated here for convenience:

(31) a. The speaker is impressed by the degree to which a property defined in the proposition is present (= 17).
   b. The speaker believes that the hearer knows at least as well as he himself does whether the proposition is true or false (= 20).

Note that neither of these conditions says that the speaker doesn't know whether the proposition is true or false, which we might have expected to be an essential condition for asking a yes/no question; nor is it stated that the speaker wants the hearer to tell him whether the proposition is true or false. I shall argue below that these are properties of utterance, deducible from other facts in the way I described in §2.1, and are not properties of the sentences uttered.

3.2. ILLOCUTIONARY FORCES. In the remainder of this section I shall try to explain how it is that 'straight questions' can have the variety of uses illustrated in 23–25. I shall have nothing more to say about 'exclamations'.

To start with a simple example, consider the difference between ordinary and rhetorical questions. Rhetorical questions are ones that don't expect an answer; but so far as I know, there is never anything in their FORM that tells the hearer whether or not he is supposed to offer an answer. More often than not, he recognizes a question as rhetorical because of some very obvious feature of the situation of utterance—if the speaker leaves no time for answers, but just goes straight on speaking, or if the hearer is listening to a radio talk. Consequently, there is certainly no justification for setting up 'rhetorical' as a semantic category, even if there is justification for having something like it as a kind of IF. Neither can we posit, as a sincerity condition for interrogatives, that the speaker should expect an answer from the hearer.

Now consider the difference between ordinary questions and 'conducive' ones. Once again, I believe it is possible to explain conduciveness in terms of 'pragmatic' constraints, making it unnecessary to include it in the semantic analysis per se.

The conducive aspect of questions is always read into them by the hearer, so to speak, according to the general principle of communication outlined in §2.1: I hear a sentence with a particular structure (polar interrogative), and I interpret it in the light of what I know about the speaker. One of the most important things I must understand about the utterance is why it was uttered: what reason did the speaker have for saying it rather than staying silent (the state of rest)? Now if the utterance is a polar interrogative, and is not an 'exclamation', I conclude that the speaker must believe that I know at least as much about the truth of the proposition as he does (this being the sincerity condition for polar interrogatives—20 above). But why should the speaker define a proposition under these conditions? General knowledge provides a number of explanations:

(32) because he doesn't know whether the proposition is true and it is important for him to know (e.g. *Do you stock Heinz baby-foods?*)

(33) because he thinks the hearer hasn't considered the possibility of the proposition being false and it is important for the hearer to do so (e.g. *Did your children really go to school today?*)

(34) because he knows that the proposition is true, and knows that the hearer knows it too, but wants to show the hearer that he knows it (e.g. *Oh, are you back already?*)

This list of possible motives for uttering a polar interrogative may not be exhaustive, but it provides the basis for explaining why polar interrogatives can be taken conducively. If I decide, on the basis of all the information available to me, that the speaker's reason for uttering the interrogative is the first one (32), then I won't take it conducively, and will feel equally free to answer *yes* or *no*. If I think it is the second reason (33), then I will take it that the speaker expects me to say *yes*, but must himself think the answer should be, or at least could be, *no*. This can be called NEGATIVE CONDUCIVENESS: the speaker anticipates disagreement. Finally, if I think the speaker's reason is the third one (34), then I take the interrogative simply as a means of acknowledging shared beliefs—POSITIVE CONDUCIVENESS in this case, since the speaker anticipates agreement. (Note that 'positive' and 'negative' are used here in the sense just defined, and NOT with reference to the positive or negative polarity of the proposition.)

A factor usually considered relevant to conduciveness is the difference between positive and negative interrogatives, on the grounds that a sentence like the following is bound to be conducive:

(35) Don't you stock Heinz baby-foods?

We can explain this fact too in terms of pragmatic factors. First of all, if a question is non-conducive (i.e., if the speaker's reason for producing it is 32), then it makes no difference whether the proposition is positive or negative, since the truth and falsehood of the positive proposition entail respectively the falsehood and truth of the negative proposition. This being so, there is never any advantage in using the negative proposition to outweigh the formal disadvantage of its greater structural complexity. Therefore the proposition in a non-conducively used polar interrogative must be positive.

If, however, the interrogative has POSITIVE conduciveness (34), positive and negative propositions aren't equivalent, any more than in declaratives. Hence both the following are used:

(36) a. Oh, have you finished already?
     b. Oh, haven't you finished yet?

The extra structural complexity of 36b is irrelevant, since there is no possibility of using the simpler 36a instead.

Finally, what if the interrogative has NEGATIVE conduciveness (33)? Once again, this in itself doesn't restrict the polarity; positive and negative propositions aren't equivalent, and must therefore both be allowed:

(37) a. Do you enjoy making me miserable?
     b. Don't you enjoy making me miserable?

In both these sentences the speaker is calling into question the truth of the prop-osition, which in 37a is positive and in 37b is negative. From 37a–b respectively, then, the hearer can deduce that the corresponding negative proposition is true (cf. *Surely you don't enjoy making me miserable?*), and that the corresponding positive proposition is true (cf. *Surely you enjoy making me miserable?*)

We have now considered two sets of pragmatic distinctions that apply to polar interrogatives: (1) between rhetorical and non-rhetorical uses, and between non-conducive, positively conducive, and negatively conducive uses. No doubt we could add others (e.g. ironic/non-ironic), but the principles involved would be the same: that the distinctions are a matter of what the hearer can deduce from an utterance of a question on the basis of all he knows about the speaker, the rules of interaction, and the rules of the language. In no case do we have to incorporate the distinction concerned into the semantics of the language, since it can be predicted independently on the basis of pragmatics.

3.3. OVERVIEW AND A GLANCE AT OTHER LANGUAGES. In §3.1 I argued that polar interrogatives are of two SEMANTICALLY distinct types, 'straight question' and 'exclamation', within the general semantic type 'question'. I also argued that exclamatives are semantically 'exclamations' without being 'questions'. These relations are shown in Table 1.

syntactic analysis	semantic analysis		example
polar interrogative	QUESTION	STRAIGHT QUESTION	Is she a pretty girl?
		EXCLAMATION	Isn't she a pretty girl?
exclamative			What a pretty girl she is!

TABLE 1

I argued that this SEMANTIC distinction is necessary on the grounds that the sentence concerned also showed SYNTACTIC differences, notably that the *n't* of interrogative 'exclamations' has nothing to do syntactically with the normal negative *n't*, derived by reduction from *not*. When we consider other languages, this conclusion is amply confirmed, in that it makes the structure of English look more like that of other languages, although there are still interesting differences.

Let us distinguish between SPECIAL EXCLAMATIONS (like those introduced by *what* or *how* in English) and GENERAL EXCLAMATIONS (like English 'polar inter-rogatives): how, then, do other languages realize 'general exclamations'? Some languages (e.g. Colloquial Egyptian Arabic, French) have a special marker mor-pheme for 'general exclamations' which is added to declarative structures (*inna* in Arabic; *que, ce que* or *qu'est-ce que* in colloquial French):

(38) a. *inn(a) il bint ḥilwa* 'Isn't the girl pretty!'
     b. *Que la fille est jolie!*
         Ce que la fille est jolie!
         Qu'est-ce que la fille est jolie!

Other languages, e.g. German, seem to have NO way of realizing 'general exclamations' as opposed to 'special exclamations'. No doubt there are other ways of realizing 'general exclamations', but the main point is that it is anything but usual to use negative interrogative structures for the job.[7]

I do not take this as an argument against analysing English 'general exclamations' as interrogatives—I gave arguments in favor of this analysis in §2.4—but I do take it as confirmation that the *n't* in them should not be analysed as a marker of negation, but rather as an arbitrary marker of 'exclamation', like Fr. *que* etc. If it had turned out that ALL languages allow negative interrogatives to be used as 'general exclamations', there would have been serious doubts about the analysis I suggested, since we might suspect some universal pragmatic principle from which we could deduce this possibility.

In §3.2, I argued that all other differences in the ways of using polar interrogatives are matters of pragmatics and not of semantics. I argued in particular that the distinction between conducive and non-conducive questions (and that between negatively and positively conducive questions) can be explained in terms of the interaction between the sincerity conditions for polar interrogatives (given in 20) and general pragmatic and common-sense principles about people's reasons for saying things. Again it is interesting to compare English in this respect with other languages—just French and German this time. German seems to show the same range of possibilities outlined for English, including both kinds of conducive use: in particular, it allows positive conduciveness. Thus, if a husband goes shopping and brings back a loaf of bread (which the wife didn't want), when she sees the bread she can say

(39) *Wie so—hast du Brot gekauft?* 'What—did you buy bread?'

This suggests that in German the sincerity conditions on polar interrogatives are the same as in English, namely condition 20. It also confirms that the same pragmatic principles apply—which is as we should hope, since pragmatic principles are presumably, at least in principle, universal rather than language-specific.

In French, on the other hand, it appears that a literal translation of 39 would sound very odd in the situation described above:

(40) *As-tu acheté du pain?*

This sentence implies that the speaker doesn't know whether the hearer has bought bread or not; but in the situation concerned, it's clear that she DOES know. Instead of 40, then, a French wife would use the corresponding declarative:

[7] Welsh appears to be rather similar to English in the way it forms general exclamations (Jones & Thomas 1973:305): it uses an interrogative structure, as for polar interrogatives, with a pre-sentence particle *onid* which elsewhere marks negation, along with a medial particle *dim* (rather like Fr. *ne … pas*); but in exclamations the second particle is not allowed, suggesting that, as in English, the apparently negative morpheme (*onid* in Welsh, *n't* in English) is not really a marker of negation at all.

(41) *Tu as acheté du pain?*

The explanation for this difference between French and English or German presumably arises out of differences in their sincerity conditions on polar interrogatives. In French they are subject not only to the condition in 20 above, but also to another condition:

(42) The speaker does not know whether or not the proposition is true.

This condition prevents the interrogative 40 from being used in the situation described, because the wife DOES know whether the proposition 'You have bought bread' is true. Given this difference in the language stuctures, French, German, and English seem to be subject to the same pragmatic restrictions.

REDUCED INTERROGATIVES AND TAGS

4.1. REDUCED INTERROGATIVES AS RESPONSES. It is very common to respond to a statement by reducing the statement to its bare syntactic bones (pronoun subject and auxiliary, with or without *n't*) and converting it into a polar interrogative:

(43) a. This belongs to me.
     b. Does it?

Interrogatives like *does it* I call REDUCED INTERROGATIVES, and uses like that illustrated here RESPONSES. The main point I want to make about them is that they have just the same sincerity conditions as full interrogatives, and that the same pragmatic principles apply here too, explaining a number of facts that might otherwise seem odd. This sub-section can be seen, then, as a demonstration that the analysis given above can be extended to slightly less straightforward cases. However, it also acts as a bridge between the cases discussed above and tags, which will be discussed below.

First, the distinction between 'straight question' and 'exclamation' applies here too. Thus, this exchange is normal:

(44) a. He's bought a big car.
     b. Yes, hasn't he?

whereas this one is odd:

(45) a. He's bought a car.
     b. Yes, hasn't he?

The difference between the two exchanges, as we can now see, is that 44a provides the makings for an 'exclamation' (*hasn't he*), but 45a does not. That is, the proposition in 44a (which, of course, is repeated in 44b, with a different force attached to it) contains a degree word (*big*), such as is required for 'exclamations'; but the proposition in 45a contains no such word.

Another fact that we can explain is that the relation between a statement and the response to it, of the kind illustrated in 44, isn't simply that the latter reverses the polarity of the former, changing positive to negative and negative to positive. Rather, the latter has to contain *n't*, and the former has to be positive. Thus 46 is a possible exchange; but 47, which is entailed by it, isn't:

(46) a.   John drives slowly.
     b.   Yes, doesn't he?

(47) a. John doesn't drive fast.
　　　b. *No/Yes, does(n't) he?

The explanation for these restrictions is, first, that the *n't* in 46b is not a marker of negation, but of 'exclamation', so there is no reversal of polarity in 44 and 46; and second, that 47b must be positive because it is an 'exclamation', and 'exclamations' have to be positive. All these restrictions were discussed in §§2.3–2.4, and no further restrictions are needed to explain the discrepancies between the exchanges in 44 and 46, which are good, and those in 45 and 47, which are bad.

　The rule for producing responses, then, is: 'Use an interrogative clause derived by reduction from the original statement, without change of polarity, and make it a "straight question" or an "exclamation" according to the kind of response you want it to be.' In all the examples discussed so far, except 43, the response has been an 'exclamation'; but any of the (a) statements could have had a 'straight question' response, whether they were positive or negative:

(48) a. John drives slowly.
　　　b. Does he?

(49) a. John doesn't drive fast.
　　　b. Doesn't he?

Here again our analysis of full 'straight questions' carries over without reservation to response 'straight questions'. These are subject to the same sincerity condition (20) and to the same pragmatic principles which allowed for the three kinds of interpretation of interrogatives listed in 32–34. This should give us three types of response: non-conducive, negatively conducive, and positively conducive. But it is immediately obvious that the non-conducive use can be ruled out, again for pragmatic reasons: if A makes a statement that p is true, and B responds with a question as to whether p is true, B's response can't be neutral as to the truth of p: he must either accept the truth of p, or deny it.

　This leaves just the positively and negatively conducive uses to be expected, and we do in fact find both, e.g. in 49. If B thinks A is a reliable authority on John's driving, he will intend his response to be taken positively; if not, he will intend it to be taken negatively. So A, as the hearer of the response, has to decide what B thinks of his reliability—e.g., by deciding whether B is likely to know about John's driving already. If he knows that B has often driven with John, he is likely to take B's response as negatively conducive—i.e., as disagreement. But if A knows that B doesn't know anything about John's driving, he can't take the response *doesn't he* as outright agreement, since one can only agree on a subject that one knows something about: it simply shows A that B has heard what he said and is accepting it on a 'you know best' basis, in accordance with the sincerity condition on interrogatives. This makes positively conducive 'straight question' responses very different from 'exclamations', where the responder definitely agrees that the original statement is true.

　In all the examples so far, the 'original' has been a statement, i.e. a main declarative clause. This means that the responder knows that the first speaker believes the proposition to be true. However, there is nothing to prevent one from responding to a non-factive embedded clause:

(50) a. John says that caterpillars have legs.
     b. Well, don't they?

Here it will be seen that the rule for responses given above hasn't been followed, because the polarity of the original clause has been reversed: *that caterpillars have legs* vs. *don't they*. Similarly, if the original is positive, the response can be negative:

(51) a. John says that caterpillars don't have legs.
     b. Well, do they?

   Why should the rule for responding to embedded clauses be different from the one for responding to main clauses? Once again a pragmatic explanation is possible. The responder reverses polarity only if he has reason to think that the first speaker thinks the proposition (e.g. that caterpillars don't have legs) is false. Thus the naturalness of the response *Well, do they?* diminishes if we replace *John says* in 51 by *I believe*, and becomes zero if we replace it by a factive environment like *I now realize*. What the responder is questioning, then, is what he thinks the first speaker may be inclined to believe—which is the complement of the proposition he expressed. Hence the reversal of polarity. Otherwise responses like that in 51 are just ordinary examples of 'straight questions' used in a negatively conducive way, according to the rules already given.

   To sum up, responses can be either 'exclamations' or 'straight questions'. If the responder thinks the first speaker accepts the truth of the proposition, he leaves its polarity unchanged in his response; but if he has reason to doubt this (as in 51), he reverses the polarity. If his response is a 'straight question', it must be meant (and taken) conducively, but can be either negatively or positively conducively. Furthermore, the analysis of polar interrogatives given in §3 is confirmed in its entirety by the additional data discussed here, and needs no modification or supplementation. In other words, the semantic rules for polar interrogatives and a number of general pragmatic and common-sense principles would have permitted us to predict all these facts.

   4.2. TAG QUESTIONS ON DECLARATIVES. What is the relation between the meaning of interrogatives (whether full or reduced) and the meaning of sentences consisting of a declarative with a tag question added? According to one current transformational analysis (Burt 1971:9), tagged declaratives contain the interrogative marker Q in their deep structures, just like ordinary interrogatives; but the tag is introduced transformationally, by a rule that has nothing to do with the rules that form ordinary interrogatives. For this analysis, then, a tagged declarative has the same deep structure, and therefore presumably the same meaning, as the interrogative that is identical to the main clause in all respects except mood; but the tag question itself has a completely different derivation from the interrogative. E.g., 52a–b are given the same deep structure:

(52) a. Caterpillars have legs, don't they?
     b. Do caterpillars have legs?

But the *don't they* of 52a is just an arbitrary syntactic reflex of the underlying interrogative marker, introduced ready-made by the tag-formation transformation.

The fact that this inverts subject and auxiliary, just like the question-formation rule, is fortuitous.

There are good syntactic arguments against this analysis, but I shall simply refer the reader to Huddleston 1970 for these, and concentrate on the semantic relations in question. First, it surely isn't true that 52a–b have the same meaning: the ordinary interrogative (b) has the full range of uses listed in 32–34, including a completely non-conducive use, whereas the tagged declarative is always negatively conducive. Thus the following exchange would be odd:

> (53) a. My caterpillar is waving his legs.
>   b. Caterpillars have legs, don't they?

But the next one is much better:

> (54) a. My caterpillar is waving his legs.
>   b. Do caterpillars have legs?

If we say that the two replies both have the same semantic structure, there is no way of explaining the difference between 53 and 54.

Moreover, this analysis would presumably allow no way to distinguish the meanings of reversed polarity tags like 52b vs. constant-polarity tags like

> (55) Caterpillars have legs, do they?

Again, the meanings involved are surely not the same, though one could well argue that constant-polarity tags are nearer in meaning to the corresponding ordinary interrogative than are reversed-polarity tags. Even so, they are different in that constant-polarity tags have to be taken conducively, but ordinary interrogatives don't.

The analysis I shall propose identifies the meaning of the tag question itself (rather than the complete tagged sentence) with that of the ordinary interrogative corresponding to it—or rather, since I shall assume that tag questions ARE interrogatives (more precisely, reduced polar interrogatives), I shall give them the ordinary meaning of interrogatives discussed in the previous sections. I shall also maintain that the declarative itself has the ordinary meaning of a declarative. And I shall therefore argue that the meaning of the whole sentence is the automatic consequence of the interaction between the meanings of the declarative and the interrogative. In other words, there is really no need to say anything special about the meaning of tagged declaratives, since it is already covered by whatever we say about the meanings of interrogatives and declaratives.

Before expounding this analysis, though, I should point out that I am NOT suggesting that there is no need to mention tag questions at all in the grammar. The syntax of tags is unpredictable: I know of no other language which has them— or, more particularly, I know of no other language which seems to allow the complete reduction of the clause that produces the simple 'auxiliary-pronoun' structures of reduced interrogatives in general and of tags in particular (cf. Morin 1973 on French). What I AM suggesting is that, once we have said in syntax that reduced interrogative clauses can be added toward the end of the clause on which they are modeled, there is no need to say anything more about them in the semantics.

Turning now to the meaning of tagged declaratives, what is the semantic relation between the meaning of the tag and that of the declarative? Very simply, they both express the same proposition (except that polarity may be reversed). So, to the extent that the declarative and the interrogative have different sincerity conditions, they give different information about the speaker's relation to the same proposition. It naturally follows that the sincerity conditions of the declarative and interrogative must be compatible; otherwise, every tagged declarative would contain a logical contradiction. Taking the tag first, there is no difficulty in treating it semantically as a 'question', because all tagged declaratives are in fact subject to the sincerity condition (20) on 'questions': the speaker believes that the hearer knows at least as well as he does whether or not the proposition is true. Thus both of the following imply that the speaker thinks the hearer knows at least as much as he does about caterpillars having legs:

> (56) a. Caterpillars have legs, do they?
>   b. Caterpillars have legs, don't they?

(Of course, there are the usual problems of irony and other kinds of metaphorical extension, but these can be ignored under the general principle of §2.1 that we are taking interpretations that are not forced on us by extraneous factors—'normal' interpretations.) It is interesting to note, incidentally, that reversed-polarity tags like 56b are regularly used in working-class London speech without this sincerity condition, simply as a way of INFORMING the hearer. This usage always strikes outsiders as odd, as we should expect from our rule.

However, although tags are subject to the same sincerity condition as ordinary interrogatives, there is a difference: tags are always conducive (as was pointed out in discussing 52). Like ordinary interrogatives, they may be either positively conducive (expecting agreement) or negatively conducive (expecting disagreement), but they cannot be neutral. Consider the following exchange:

> (57) a. My caterpillar is waving his legs.
>   b. Caterpillars have legs, do they?

Here A will take B's response as positively conducive (though he may also see it as ironical—see below); but the same sentence would be odd in an exchange like the following, where it would have to be non-conducive:

> (58) a. Is there anything you'd like to know about caterpillars?
>   b. Yes; caterpillars have legs, do they?

Why are tagged declaratives restricted in this way?

This brings us to the sincerity conditions on declaratives, on the assumption that each of the two clauses imposes its own restrictions, and the range of possible interpretations of the whole sentence is just the union of the interpretations permitted by each of its constituent clauses. The sincerity condition for declaratives— or rather the corresponding semantic category, e.g. STATEMENT—seems to be simply this:

> (59) The speaker believes that the proposition is true.

Note that this condition says nothing about whether or not the hearer already knows that the proposition is true; this allows for the two uses noted by Labov

(1970), distinguished by whether or not the 'event' concerned is one the hearer knows about. For example, it is common to say things like the following in order to check one's facts, rather than to inform the hearer:

    (60) (Now let me see)—you're studying linguistics and philosophy, and your name is David Hughes.

Because the sincerity condition on declaratives does not refer to the hearer, it cannot conflict with the condition on interrogatives, which refers exclusively to the speaker's beliefs about the hearer; and consequently there is nothing to prevent both conditions from being associated with the same proposition, as is the case with tagged declaratives (according to the proposed analysis).

It is easy now to see why tags, unlike ordinary interrogatives, must be conducive: the non-conducive interpretation is ruled out because it is incompatible with the sincerity condition on the declarative. Consider this example:

    (61) This coffee is for me, is it?

The sincerity condition on the declarative means that the speaker believes that the coffee is for him, and that for the interrogative (i.e. the tag) means that he thinks the hearer knows just as reliably as he does whether this is so. But if the speaker already thinks the coffee is for him, his reason for saying the interrogative cannot be the one (32) that leads to non-conducive interpretations.

The reader will no doubt have seen a difficulty in the sincerity condition on 'statements' (declaratives) given in 59: it is quite common to use declaratives WITHOUT believing the proposition to be true. Suppose that A is explaining to B why he's fallen behind on his work schedule:

    (62) a. Well, you see, the sun came out.
        b. So you had no alternative but to go out and sit in it?

B is here putting words into A's mouth, which he himself disbelieves—although syntactically the words concerned are declarative, and therefore he ought to believe in them. However, I think this is a genuine instance of metaphorical extension, rather than a counter-example to the rule: we would say that B was 'pretending' to believe in the truth of the proposition, in the hope that A would see through this pretense.

The same explanation extends to tagged declaratives; e.g.,

    (63) So caterpillars don't have legs, don't they?

In the right context, 63 can be taken as denying the truth of the proposition, rather than asserting it—e.g., if it is followed by *Well, what are these things then?* Indeed, as has often been noted, this is one of the most common ways to use tags with constant polarity—they are commonly used 'in an ironical sense' (H. E. Palmer, 264), 'almost [as] threats—implying that the speaker is incredulous' (F. R. Palmer, 41), as 'a very aggressive challenging remark' (Sinclair, 79). But this is by no means the only use of such tags, and it can be taken as a metaphorical extension of their normal use—where, again, the speaker is pretending to believe the proposition, but relying on the context to make it clear that he doesn't in fact believe it.

I have argued so far, in this sub-section, that tags on declaratives are ordinary

interrogatives subject to the normal sincerity condition on 'question'; that the declaratives to which they are attached are also subject to the ordinary sincerity condition on 'statement'; and that the two conditions involve the same proposition, so that any interpretations of the whole sentence have to be compatible with BOTH conditions—which rules out the non-conducive interpretation of the tag. Two questions remain: what is the relation between constant-polarity tags and reversed-polarity tags? and can all tagged declaratives be either positively or negatively conducive? I shall take the questions in order.

The tags below both have reversed polarity:

    (64) a. Caterpillars have legs, don't they?
        b. Caterpillars don't have legs, do they?

The most commonly identified function of such tags is 'to obtain confirmation' (cf. Jespersen 1940:481): i.e. the speaker thinks the proposition is true, but wants the hearer to confirm it. But it isn't necessary for the speaker to be uncertain about the truth of the proposition, as this definition implies (otherwise he wouldn't be asking for confirmation of it); e.g., the proposition can be analytically true, in which case the speaker must know for certain that it is true:

    (65) a. Business is business, isn't it?
        b. Students are human, aren't they?

In such examples it is clear that the speaker is simply confirming that the hearer is taking account of the proposition in his current thinking about the matter in hand, because it is in some sense relevant. What 64–65 have in common is not that the speaker is asking for information, but rather that he is asking the hearer to consider whether the proposition is true—the implication being that it IS in fact true, and that the hearer knows this too (cf. 34 above).

With this slightly different approach to the meaning of reversed-polarity tags, we can look back to the discussion of reduced interrogative responses in §4.1, especially ex. 51—A: *John says that caterpillars don't have legs.* B: *Well, do they?* The point about this example was that B is not certain as to A's beliefs about caterpillars having legs, and that his reduced interrogative response *do they?* was designed to get A to consider this question. This was an example, I suggested, of an interrogative being used with negative conduciveness, to get the hearer to consider the truth of a belief that the hearer suspects he may hold (cf. 33). The device that B uses is: he takes A's proposition '*that caterpillars don't have legs*', reverses its polarity (to represent the belief that A seems to hold), and turns this into a reduced interrogative *do they?*, thereby questioning A's supposed belief.

Similarly, tagged declaratives like 64–65 express a proposition that the speaker believes true, then ask the hearer whether he thinks that its complement (with reversed polarity) is (really) true—implying, of course, that the speaker believes its complement to be false. If this analysis is correct, reversed-polarity tags are simply instances of negatively conducive interrogatives, and need no special treatment in the grammar.

It is comforting to note that declaratives with reversed-polarity tags can always be matched functionally by simple interrogatives with negative or positive polarity

as in the TAG,[8] and not as in the declarative (contrary to the transformational analysis discussed at the beginning of this sub-section):

    (66) a. Caterpillars (really) have legs, don't they?
         b. Don't caterpillars (really) have legs?
    (67) a. Caterpillars don't (really) have legs, do they?
         b. Do caterpillars (really) have legs?

As for constant-polarity tags, they are much more straightforward: the declarative says that the speaker believes the proposition is true, then the interrogative says that he believes the hearer knows at least as well as the speaker whether this is right. The function of these tags seems to be simply that of showing that the speaker isn't trying to tell the hearer anything, but rather is expressing shared beliefs (cf. Cattell 1973:615 for a similar interpretation). In this, they correspond exactly to positively conducive interrogatives with, again, the same polarity as the tag:

    (68) a. (Oh), caterpillars have legs, do they?
         b. (Oh), do caterpillars have legs?
    (69) a. (Oh), caterpillars don't have legs, don't they?
         b. (Oh), don't caterpillars have legs?

The answers we have given to the first question, about the relation between reversed-polarity and constant-polarity tags, really also answer the second question about the relation between positively and negatively conducive tags. Reversed-polarity tags must all be negatively conducive, because otherwise there would be no point in their reversal of polarity; and constant-polarity tags must all be positively conducive, since negative conduciveness would conflict with the fact that the speaker must believe the proposition to be true, because of the declarative.

To complete a discussion of tagged declaratives, one should have something to say about their intonation. With regret I must once more leave out this part of the discussion, except to note that I have found no evidence that the difference between rising and falling intonation contours carries a different meaning here from that which it carries on ordinary interrogatives. An interesting problem which I haven't solved is why intonation on constant-polarity tags has to rise: is there a semantic or pragmatic explanation for this, or is it just an arbitrary formal restriction?

To summarize this sub-section: I have tried to show that the illocutionary meaning of tagged declaratives is made up of the intersection of the possible illocutionary meanings of declaratives and interrogatives. Of the three main uses of interrogatives, (1) non-conducive use can be ruled out in all cases, because it is incompatible with the meaning of the declaratives; (2) negatively conducive use can be ruled out for constant-polarity tags; and (3) positively conducive use can be

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[8] As John Lyons has pointed out to me, it would be wrong to say that tagged declaratives and their corresponding interrogatives are IDENTICAL in function. Thus, as he says, '66a presents a positive proposition which the speaker is inclined to believe, but offers the hearer the right to reject, whereas 66b questions a negative proposition which has been presented to the speaker (or presents itself to him) and occasions him some surprise. They both expect the answer *yes*, but they do so in different contexts.' The difference is clear if one adds *then*: cf. *Caterpillars have legs then, don't they*, whose meaning is different from that of *Don't caterpillars have legs then?*

ruled out for reversed-polarity tags. None of these exclusions need be stated in a grammar of English, since they are all pragmatically predictable.

4.3. TAGS ON NON-DECLARATIVES. Tag questions can be attached not only to declaratives, but also to exclamatives, imperatives, and (for some speakers) interrogatives. I shall discuss these three possibilities in turn.

EXCLAMATIVES are all 'exclamations', as seen in §2.4; and if tags are attached, they can always be taken as reduced 'exclamations'. Thus in 70a, the tag *isn't she* can be given the same analysis as the full interrogative in 70b:

> (70) a. What a nice girl she is, isn't she?
>   b. Isn't she a nice girl?

As I explained in connection with exx. 10a–b (in §2.4), exclamative 'exclamations' like 70a minus the tag differ in meaning from interrogative ones like 70b, due to the fact that the latter are also QUESTIONS and therefore credit the hearer with as reliable views as the speaker: saying 70b implies that the hearer will agree, but saying 70a without the tag doesn't. This is why 71a is natural, but 71b isn't:

> (71) a. What a horrid dream I had last night—let me tell you about it.
>   b. Didn't I have a horrid dream last night—let me tell you about it.

When a tag is added to an exclamative, however, it becomes subject to the same restrictions as an interrogative 'exclamation', as we should expect.

The analysis of 'exclamations' also explains a syntactic fact: that tags on exclamatives appear to be exclusively reversed-polarity tags:

> (72) a. What a nice girl she is, isn't she?
>   b. *What a nice girl she is, is she?

The explanation for this is, of course, that the tag is an 'exclamation' and must therefore be positive, but as an interrogative 'exclamation' it must have the (non-negative) marker of 'exclamation', namely *n't*. Far from being reversed-polarity tags, these are in fact constant-polarity tags—which is just as well, since it would have been hard to explain why they should have reversed polarity, given the usual meaning of reversed-polarity tags.

IMPERATIVES allow a much richer range of tags, all the following being possible for me (though not, apparently for some speakers—cf. Arbini 1969:207):

> (73) a. Have some more, will you?
>   b. Have some more, won't you?
>   c. Don't have any more, will you?
>   d. Let's have some more, shall we?
>   e. Let's not have any more, shall we?

The distribution of tags after imperatives seems capricious: why are there no constant-polarity tags after negative imperatives, like 74a? and why are negative tags, as in 74b, impossible after *let's* imperatives?

> (74) a. *Don't have any more, won't you?
>   b. *Let's have some more, shan't we?
>   c. *Let's not have any more, shan't we?

I don't pretend to understand the reasons for these restrictions, except to the extent that I can push the problem back one step, by showing (following Huddleston 1970) that the same restrictions apply to full interrogatives used 'imperatively':

(75) a. Will you have some more?
      b. Won't you have any more?
      c. Will you not have any more?
      d. *Won't you not have any more?
      e. Shall we have some more?
      f. ?Shan't we have some more?
      g. Shall we not have any more?
      h. *Shan't we not have any more?

Although this does not in itself explain the gaps among the tags, at least it supports the general principle of analysing tags as ordinary interrogatives, so that whatever restrictions apply to 75 can also apply automatically to 74.

As far as the meanings of tagged imperatives are concerned, there seems to be no problem in treating them in the same way as tagged declaratives—the main point about tagged imperatives being that they leave it to the hearer to decide what to do, which 'softens' them from commands to invitations, requests, or the like. This is fully consistent with our analysis, in which the tag is used to show that the speaker thinks the hearer knows at least as well as the speaker whether the proposition is true. Thus, suppose that I say to you:

(76) Come here, will you?

The proposition here is 'that you will come here'; the imperative means something like 'I want the proposition to be true'; the interrogative, 'I believe that you know at least as well as I do whether the proposition is true'—which in this case clearly depends on whether you want to MAKE it true, so I am leaving it to you to decide whether to comply or not. Similarly, the difference between reversed-polarity and constant-polarity tags seems to fit the rules worked out for tagged declaratives.

As for INTERROGATIVES, tags are quite impossible after them for my dialect, and I know of them only from references to American English (Bolinger, 36, 46) and Australian English (Cattell, 616). From these sources I have culled the following examples:

(77) a. Did he go there, did he?
      b. How did he go there, did he?
      c. Did John do it, was it?
      d. Will he fairly soon, will he (BUT *Will he, will he?)
      e. Did John drink beer, did he? (BUT *Did John drink beer, didn't he?)

Since I cannot control the data for tagged interrogatives, I shall say nothing more about them.

SUMMARY

5. I have tried to show that, in discussing the meaning of polar interrogatives ('yes–no questions') it is necessary and possible to keep the following strictly separate: syntactic categories (interrogative, declarative, exclamative, imperative); semantic categories (QUESTION, EXCLAMATION, STRAIGHT QUESTION, STATEMENT);

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'sincerity conditions' on semantic categories (given in 17, 20 and 59); general pragmatic principles, such as Gricean rules of conversation; and whatever con-conclusions the hearer may draw from a particular utterance on a particular occasion. It is to the last category that the notion of 'illocutionary force' belongs.

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