MEANING, CONSTRAINT, AND FREE DISTRIBUTION

The failure to distinguish between meaning and reference is a very old error which fortunately no longer passes undetected. The failure to distinguish between meaning and grammar is a new error whose very novelty may lead to its passing undetected when it appears in a disguised form.

Until recently it would have been difficult to cite an example of the new error which was not in some way disguised. But a book just published has the error in its most naked form. Laszlo Antal (*Questions of Meaning*[1] p. 45) attacks Chomsky's very mild assertion[2] that *do* in *did he come?* "can hardly be said to have a meaning in any independent sense" as follows :

"Chomsky perhaps thought that, in the case of 'did he come', 'he' and 'come' had some actual parallel in the outside world whereas 'do' had none. In our terminology, this means that 'he' and 'come' have both meaning and denotatum whereas 'do' has only meaning and no denotatum. The lack of denotatum deceived Chomsky as to the meaning of 'do'."

This is of course a fantastic accusation. If Chomsky had merely wished to call attention to the fact that some morphemes need have no denotatum, his example would have been *unicorn* rather than *do*. The former has a meaning but no denotatum, whereas the latter does not even have a meaning in the construction cited.

Antal holds that the morpheme *do* necessarily has a meaning: all morphemes must have. It does not occur to him that to attribute a meaning to a grammatical unit simply in virtue of its being such a unit, is to deprive the word *meaning* of any distinctive sense. It is only if morphemes sometimes lack meaning, sometimes have various meanings, and so on (or at least, if these are

possibilities) that there can be any sense in attributing a common meaning to all uses of any given morpheme. Otherwise "common meaning" is just "what all instances of a morpheme have in common" — which may very well be something they share with grammatical units to which nobody attributes an independent meaning.

It is possible, with a wide enough use of *meaning*, to attribute meaning to any grammatical unit. If for instance any clue provided by an instance of such a unit for the interpretation of an utterance, confers meaning upon it, then it would be hard to think of any "unmeaningful unit." The so-called allomorphs would always have meaning independently of each other. For example the allomorph -*n* of the English plural morpheme would have a meaning independent of the allomorph -*z;* since in the sentence "the oxen are there" this allomorph affords a clue that the noun is *ox* rather than the proper name *Ox* (as in the sentence *the Oxes are there)* or (if somebody may have missed part of the utterance) than the other common noun *fox.*

It may seem excessively naive to refer to such things. Yet again and again one finds the "meaningfulness" of the morpheme defended on no better grounds. I have often heard the defence of the "meaningfulness" of the distinction of English singular and plural verb-forms based on just such arguments as would equally confer meaning on the "allomorphs" of the English noun-plural. Yet the former are in complementary distribution in the same way as the latter. In either case the complementarity depends, as it must, on the analysis. There is no complementarity if one takes *the crew disagree* as on a part with *the crew disagrees.* Nor in the latter case is there any complementarity if one takes *oxen* and *Oxes* as being plurals of the same noun. These are both absurd analyses, but it is of no importance to stress this: what matters is simply that morphemic analysis cannot imply anything for semantics. Two different morphemes may be in complementary distribution in the same way as two allomorphs — in fact the reason that verbal "singular" and "plural" are not taken as allomorphs is merely that the conditioning environments are inter-word rather than intra-word environments. Whether the analysis is appropriate in the individual case is totally irrelevant.

If any fault can be found in the assertion of Chomsky which Antal so roundly attacks, this fault is its rather uncharacteristic mildness: if the morpheme *do* has here no meaning "in any independent sense", presumably it may have a meaning in some "dependent sense". But what sort of sense could this be?

(i) It might be the sense in which allomorphs may be said to have meaning : cf. above. In this sense even phonemes, even allophones, may be said to have meaning. But how can this be called a "dependent sense"?

(ii) Chomsky's assertion might be translated into "*do* has no independent meaning". But the word *independent* then becomes redundant.

Quite simply *do* (need I add *within Chomsky's system?*) is a morpheme without meaning, a dummy-morpheme as he calls it elsewhere. Nothing whatsoever is gained by allowing that it might be said to have meaning either (a) in some dependent sense or (b) in some totally different system.

(iii) Chomsky's reservation may be intended to allow for the common view (first stressed by Sapir and later taken up in various ways by such scholars as Zellig Harris and Henri Frei) that the "sign-unit" in cases traditionally described as "congruence" or "rection" is the totality of morphemes directly involved : in Latin *civis bonus,* for instance, the unit would be *-is | | -us*. (Harris indeed takes the latter as a "discontinuous morph".) Similarly one might say that the "meaningful unit" in *do not come* is *do not* rather than just *not.* (Though Harris does not take this step, it would be in line with his approach to say that *do not* — translated into "morphs" — is an allomorph of *not.*)

This third interpretation is perhaps the most natural. But it is still very odd to say that if a sign consists of more than one morpheme, each of these morphemes has a meaning in some "dependent sense". Does the individual morpheme contribute to the meaning; obviously not, since if one were able to state its contribution this *would* be its meaning. On the other hand if it is merely intended to say that a sequence of morphemes has a meaning whereas none of the individual morphemes do, we are back

where we were. The morphemes *qua* morphemes do not have meaning.

At the grave risk of inviting irrelevant criticisms, I would like to compare the relation of morphemics to semantics with the relation of a traditional spelling-system to the phonological system it imperfectly represents. It goes without saying that the resemblance is purely *formal* : "sounds" are not the "meanings" of letters. It should also go without saying that the comparison breaks down in other ways. The most obvious way in which it breaks down is this : that there may be phonological distinctions which are not reflected at all in an orthographic system ,whereas there cannot be semantic distinctions which never have any counterpart in morphemics.

Spelling in such orthographic systems as Modern English is not entirely conventional : there are relations between letters and phonemes. In the favourable cases there is almost a one-one relation, e.g. between the letter *b* and the phoneme /b/. In rather less favourable cases there is still a systematic relation between orthography and phonology : e.g. *make* will by quite general rules be interpreted as /meyk/, although it would be absurd to say that the phoneme-sequence /ey/, let alone the individual phonemes /e/ and /y/, had any direct equivalence in the spelling. The systematic relation is not between a sequence of phonemes (/ey/) and a sequence of letters (e.g. *a..e*), but between a sequence of phonemes and a rule whereby it is represented by the letter *a* plus "the fact that" this vowel-sign precedes the letter *e* with not more than one single consonant-sign intervening. This is the simplest way in which one can express the relation with any approach to to adequacy. Correspondences, even when they are regular, are not necessarily correspondences between phoneme-sequences and letter-sequences, let alone between phonemes and letters. One has to use "the fact that..." on one side of the equation. And it should go without saying that "the fact that A follows B" is not to be identified with the sequence BA.

So much is surely obvious to everybody. But when it is a question of the relation between formal linguistic units and meaning, otherwise quite intelligent linguists seem to lose their wits. They argue in effect that since there is a regular semantic relation

between e.g. the German constructions of preposition plus noun in the accusative versus dative (*in die Stadt : in der Stadt = auf die Strasse : auf der Strasse*), there must be a correspondence between morphemes and "meanings". Yet in this case (which is a very favourable one) the best one can say is that the semantic features "kinetic" and "static" correspond, not to the morphemes "accusative" and "dative", but rather to *the fact that* in addition, these morphemes are in a special "preposition-noun" pattern. To look for a "meaning" of the dative as such is as absurd as to look for a phonemic equivalent of *e* in the graphy *take*. Of course the choice between accusative and dative in German is semantically relevant, just as the choice between the spellings *mad* and *made* is in English phonemically relevant. But in either case the relations are circuitous: there is no correspondence of *units*.

Antal cites with approval the statement of Lees: "many writers have treated meaning in linguistics as though it could be partitioned into various 'kinds of meaning'. In particular, they have attempted to isolate among parts of total meaning that portion determined solely by the linguistic environment, the so-called 'grammatical' or 'structural' meaning, as distinguished from the lexical or connotative meaning. This would seem to be nothing more than a strange and unorthodox use of the word 'meaning' to denote linguistic distribution."

Reading Lees' statement out of context, I should imagine him to be stressing just such poinst as I too have often had occasion to stress, e.g. (i) that no distinction can be made between lexical and grammatical meaning — the distinction between lexicon and grammar being irrelevant to semantics, (ii) that to talk of "grammatical meaning" when one merely intends what was hitherto called syntactic distribution, is to trivialise the term *meaning*, already a term which bears all the burdens its competitors, for one reason or another, seem inadequate to shoulder.

But from Lees' other remarks it is plain that he has not only the laudable intention of excluding "strange and unorthodox" extensions of the already wide use of *meaning*, but also the more dubious intention of obliterating the distinction between grammar qua constraint and meaningful distribution.

Lees imagines that a linguist who does not regard the difference between *the crowd scatters* and *the dog scatters* as a difference between the grammatical and the ungrammatical, fails to do so because he regards the difference as having something to do with "the real world". This is a gross misunderstanding. The linguist commonly takes the latter as grammatical because its abnormality is due to the meanings of the words in question, neither to a grammatical constraint on the one hand nor to anything "in the world" on the other hand. Meanings are not constraints, nor are they "in the world". By supposing a two-fold distinction instead of a three-fold distinction, Lees begs all the points at issue.

Lees asserts "that there is no difference in principle between the 'ungrammaticality' of the dog is scattering (as compared with the crowd is scattering) and that of the dog are barking (as compared with the dog is barking). The former of course contravenes a rule which has far less scope than that which the latter contravenes, but that is all there is to it: 'it is simply a question of simplicity, economy, or generality'."

Many linguists might say that the infeasibility of *the dog scatters* in any normal context is due *simply* to the *meanings* of the words (and of the construction). This would be a very unfortunate way of putting things. For there are of course semantic incompatibilities, to be distinguished both from grammatical incompatibilities (e.g. a singular verb with a plural noun in English) and from the incompatibilities of logical grammar which Lees' example illustrates. An instance from English would be *he hates plenty of wine*. It is part of the meaning of the word *plenty* in English to express approval of quantity either by the speaker or by the subject referred to, and normally by both. This is not a grammatical constraint : it would be useless to make a list of verbs with which *plenty* is used as object. It is not a matter of logical grammar — which is language-neutral — but specific to English. Nor of course is it a matter of reference, like the incompatibility in *five-legged spider*. It is purely a matter of English semantics.

The confusion of "logical grammar" and semantics is very well illustrated by the paper of J.J. Katz and J.A. Fodor in a number of *Language* which has appeared at the moment of writ-

ing. It is a very pretentious paper, and I do not mean to discuss its wider claims. A trivial (as it may seem) point suffices.

The authors discuss the ambiguity of *bill* in English: *the bill is large* may mean that "some document demanding a sum of money... exceeds in size most such documents" (p. 174). It may also mean that "the beak of a certain bird exceeds in bulk those of most similar birds". But (p. 175) the wider context *the bill is large but need not be paid* is decisive in favour of the former interpretation.

Now of course it is not: what the last context determines is yet a third sense of *bill*, roughly "sum demanded on a document", and the sense of *large* is not "exceeds in size (or bulk)" but rather "exceeds in amount".

Of these three senses, (1) and (3) are semantically similar : this is why the authors have overlooked the difference; but their logical grammars are quite different. One can pay a bill (3) but not a bill (1) — it is nonsense to say *I paid the document* and hence nonsense to say *I paid the bill* if *bill* is to be taken in the sense of *document*. True, it is not very unnatural English to say *I paid and then tore up the bill* (where *pay* refers to the account, while *tear up* refers to the document, but this is just because semantic similarity plays a role in favouring conjunction, independently of the role played by "logical grammar".

On the other hand, *bill* (1) and *bill* (2) are similar in their "logical grammars", as opposed to *bill* (3). Logical grammar and semantics are of course related, but they do not always consort. Two "physical-object" terms, such as *bill* (1) and *bill* (2), have a similar logical grammar, but may be very remotely related in meaning. Two terms with quite different logical grammars, such as *bill* (1) and *bill* (3) may be closely related semantically.

One might be inclined to say that if two terms have the same meaning they also have the same logical grammar, while the reverse obviously does not hold (*left* and *right* in the relevant senses have the same logical grammar though their meanings are opposed). But of course, though the tendency of this paper is to shear off some of the most outrageous extensions of the term *meaning*, what is left is still very vaguely outlined. One can well

understand a linguist saying that *see* has the same meaning in *he sees the book* and *he sees the idea,* although these are different *uses* of the word. If so, one may have the same meaning with a difference in "logical grammar". No doubt this is merely a terminological matter.

"Logical grammar" is an unfortunate term, but popular enough to be fairly well understood. I have elsewhere used the term "free distribution". Whether or not free distribution should be excluded from grammar, as some scholars propose, I do not intend to discuss. Suffice it that it does not belong to grammar in the narrower sense of a *system of constraints.*

For those linguists (and they seem to be many) who do not find the distinction of grammatical distribution (in the sense of *constraint)* free distribution (as reflecting "logical grammar") and semantic distribution, at all obvious, a consideration of the ways in which these different forms of distribution must be learnt may be helpful.

Constraints must be learnt independently of the free uses of the morphemes involved. To learn the free uses of the plural morpheme in English, Russian and Turkish (which are very generally equivalent) will not help with the bound uses with numerals (which are completely different in the three languages).

With free distribution, to learn one use is to learn all the rest. If the use of the words in question in *the crowd went* and *the crowd scattered* has been learnt, no extra information is needed in order to have the use of the *the dog went* and the non - use of *the dog scattered.* It is not a grammatical constraint, but rather logical grammar, that precludes the latter (except of course in unusual contexts, or perhaps as an idiom.)

"Semantic distribution" is again different. Here the general use is learnt mainly *via* the restricted use. The difference between *plenty* and *a lot of* is learnt primarily via the use of e.g. *he likes to have plenty to do* and the non-use of e.g. *he hates to have plenty to do* as against the normal *he hates to have a lot to do.* Of course there is a semantic difference between *he likes to have plenty to do* and *he likes to have a lot to do,* but it is a tenuous one and

parasitic on the fact that when *hate* is substituted for *like* the two sentences are no longer in any way equivalent.

Another way of rendering the three-field distinction more obvious is to refer to the different reactions of speakers to "deviations" in each case.

(i) Deviation from the "grammar of constraints" is regarded as a failure to apply a grammatical rule, characteristic of a person who has not mastered the language.

(ii) Deviation from "logical grammar" is regarded as a special use of language (whether justified, like the deviations of a good poet or the writer of a humour-column, or unjustified like the deviations of a poor metaphysician.)

(iii) Deviation from "semantic distribution" is regarded as a mis-application of lexical items, characteristic of a person who has not mastered the language.

(i) and (iii) have in common that the deviation is regarded as needing *linguistic* correction. There is something that the speaker or author would *correctly* have said in place of what he did say. This is not so with (ii).

(i) and (ii) have in common a greater generality, though the generality of the latter is language-neutral.

(ii) and (iii) have in common that they normally apply to (superficially) similar items; when linguists speak about them they usually talk of *words*, whereas with (i) they usually talk of *morphemes*.

The confusion of (ii) and (iii) is very general. It goes without saying that a scholar merely interested in accounting for "English sentences" (whatever this may mean) will treat the limitations under the separate headings as similar in all relevant respects. But another sort of scholar may be inclined to say : "The oddness of *colourless green ideas* and *he hates plenty* is due to the meanings of the words, from which it is apparent that *colourless* cannot consort with *green* and *hate* cannot consort with *plenty*. 'Having colour' is part of the meaning of *green*, just as 'being liked' is part of the meaning of *plenty*. The cases are quite similar."

But "having colour" is not a conventional semantic function of the English word *green*. If it were, it would be sensible to ask whether there is another English word, similar in meaning to *green* in all other respects, but without the semantic component "having colour". Obviously the question would be absurd, "hat is green has colour" — this is the "logical grammar" of such language-neutral "words" for which the English word *green* may well stand proxy. But this has nothing to do with English. A fortiori, it has nothing to do with either English grammar or English semantics.

On the other hand "being liked" *is* part of the meaning of the English word *plenty*. Hence it is sensible to ask what other English words similar to *plenty* in other respects, differ from it by absence of the semantic implication "being liked". *A lot* and *a good deal,* and *much* in grammatically more limited environments, are obvious candidates. And *too much* of course differs from *plenty* by having the opposite implications.

The confusion between the typical *use* of a word and what this word *means* is in some cases fairly easy to expose. Thus it is easy to see that whereas *good* is typically used for the purpose of commendation, this is no part of its meaning. Otherwise we should be obliged to say that *good* did not have its fundamental meaning in the sentence *this is not good.* (It would be absurd to say that good is here still used to commend, the commendation being simultaneously withdrawn!)

Of course it would be in principle impossible to learn the meaning of the adjective *good* otherwise than via contexts in which it is used to commend. Similarly it would be impossible to learn the meaning of *green* except via its use in distinguishing otherwise similar coloured objects. But neither the way in which a word is used, nor the way in which the speaker learns to use it (even if it is the only way in which he can learn to use it, and hence to learn its meaning) is the meaning of the word.

But now (it will be objected) meaning turns out to be a mystical what-not underlying the actual uses of words: we are not told just how the meaning of *good* qualifies it to be used as a commendatory term, and we can never be told until we know

the meaning of *good* described independently of its commenda-
tory and other uses.

This is rather like saying that the phoneme turns out to be
a mystical what-not underlying the actual sounds of a language.

Meaning is a theoretical term; it presupposes among other
things that we have discounted all non-arbitrary (non-conventi-
onal) differences of usage, in a way rather similar to that in which
we discount all non-conventional differences in sound when
dealing with phonemics. At the phonemic level, we take no notice
of the difference between back and front *ɪ* in English, since this
difference can be explained (not merely *predicted*) in phonetic
terms.

In much the same way, meaning is an abstraction from usage.
Good may be used in various ways, and very typically it may be
used to commend, but we do not regard it as a difference of mean-
ing when *good* is not so used (as in *a good instance of his incom-
petency*). This is because we can account for such other uses in
terms of the context. It is not a convention of English that *good*,
having the other uses that it does, should also have this use as
well. It is a language-neutral use. Not in the sense that any other
language need have the equivalent of the English word *good;*
obviously it need not. Nor in the sense that, *otherwise* having
such an equivalent, it should show this use *too*. For obviously
again, the other language might have a special word for *good* in
contexts implying disapproval, just as English has a special word
(*plenty*) which may replace *a lot of* only in contexts which imply
approval. In these senses, no words are ever language-neutral; and
it is just for this reason that I am able to use the term *language -
neutral* in a technical sense which does not conflict with any
popular sense having some genuine application.)

At this point I may refer back to the phonetic parallel of the
two articulations of English /ɪ/. This is a private affair of English
in the sense that no other speech-form may provide the same kind
of phonetic distribution (though in fact some others do) — but
it is language-neutral in the sense that one should turn to the
phonetician, not to the specialist in English, for an explanation
of the distribution; just as one should turn to the "logical gram-
marian" and not to the English specialist for an account of the

uses of "good" as opposed to an account of the meaning of the English word *good*.

The failure to make such distinctions is at the source of many ambitious theories. It is easy to generalise when one cannot see any differences. The semantic meta-theory of Katz and Fodor is an instance.

J. J. Katz and J. A. Fodor present their semantic meta-theory in language so slipshod and at the same time so pretentious that even the most uninformed reader may be inclined to suspect the quality of the contribution. The authors cannot write "speakers can grasp the structure of any sentence"; it has to be "speakers possess an ability that enables them to apprehend the structure..." (p. 173).

Only this insensitivity to language can explain how they came to imagine that the complexities of meaning-relations could be accommodated by a single theoretical model, based on dictionary entries giving such information as "human" "male" "young" under such a heading as *bachelor*.

The authors have of course chosen a favourable instance : if their tree-diagram reprensentation of semantic connections applies anywhere it will probably apply to words in the domain of kinship. (*Bachelor*, in its principal sense, is a negative kinship term.) But in order to give their theory any plausibility, they should have chosen an instance which is *prima facie* implausible, and then have shown that their model can apply even when one might least have expected it.

Take for instance the numerals — how can even their numerical senses be set out on a branching diagram? What is there in the remotest way parallel to the relation of *bachelor* and *spinster* among the numbers? Yet numbers are a relatively favourable case, for at least their relations are highly systematic. They can readily be displayed on a diagram, though certainly not on a tree-diagram.

But numerals have many other ordinary uses. *Twenty* may among other things mean (i) a number (ii) a sequence of digits (iii) a figure-type (iv) a figure-token. To reverse the order of digits in 20, is not to perform an operation on a number, but simply to exchange a meaningful sequence of digits for a meaningless one.

We have a marginal case in *twenty is a good round number,* where *round* means "ending with o and not too high among the decades", the former being a property of a digit-sequence while the latter is quasi-numerical. (iii) is illustrated by *the Arabic twenty is not a very elegant number,* and (iv) by *the twenty has fallen off the clock on the tower.* The latter would of course be unusual for referential reasons, but substitute *three* for *twenty* and the sentence is normal even in this irrelevant sense.

These are none of them abnormal uses. Instances of *mention* (*20 is a sign with two symbols*) are not included; nor have I included instances in which the numeral is used to *mean* a numeral, as in *Twenty is a compound word in some other languages.* In my examples the numeral is used *as* a numeral, which is incompatible with its being used to *mean* a numeral.

What is it, to "use a word as a numeral"? It is to use it over this sort of range. A word which is not used in counting is not a numeral, but neither is a word which is used only in counting.

The ordinary dictionary records *twenty* as a numeral, and defines it as a number. Since we know the way in which numerals are used, even when they are not used as numbers, we do not feel that we have been robbed of any information. On the contrary, we should laugh at a lexicographer who solemnly recorded under all the numerals, their common use for "physical objects".

A lexicographer who would take the trouble to tell us in general about the way in which words recorded as "numerals" are used would (whether or not we felt he had gone outside his province) at least command our respect. Scholars who suggest that such information should be in the dictionary under each separate item invite merely contempt.

Of course, if it were enough simply to add such items as *numeral* to the categories of Katz and Fodor, along with such items as "physical" and "social", their model could be upheld. Indeed in this case my objections would be merely pedantic, since the authors are not presenting a theory, but rather a meta-theory illustrated by a part-theory of English itself illustrated by categories chosen from a very limited field.

But there is no way of adding such items as *numeral* to the categories they choose within the framework of their theory. To use their own abominable jargon, they "do not have the explicit conceptual machinery to correctly characterise the difference" (p. 175) between numbers, digits, figures and so on, let alone the resemblance between number-words and letter-words, and the relations between different uses of number-words — which are not related by having some characteristic in common, *qua* uses, but rather by being the uses of the *same* words; not just the same words but a whole set of words which are systematically ambiguous in the same way.

A dictionary-maker deceives himself if he imagines he gives us the meanings of words. He gives us specimen-meanings, which are a reasonably adequate guide only because our experience tells us what sort of meanings tend to cluster together. This is not a shortcoming of our present dictionaries. What we need is not some vast dictionary which records all normal meanings under every rubric, but rather careful studies of individual areas by individual scholars. Such scholars will be incapable of making such insensitive observations as that of Katz and Fodor on the "synonymity" of *Two chairs are in the room* and *there are at least two things in the room and each is a chair*. (If any sense can be wrested from the latter sentence, it is that there are at least two chairs in the room, and no objects which are not chairs.)

Different models will no doubt be applicable to different areas, indeed the area may well best be marked off by the model that best applies to it. We might come to call "kinship-area" that area to which a "branching model" best applies, even if it includes a majority of terms which have nothing to do with kinship in the anthropological sense. On the other hand there are "areas" to which no one model could possibly apply, e.g. the "numerical area". Numbers make one system, numerals another, digits yet another, in decreasing order of language-neutrality. The "physical-object" uses of numerals cannot profitably be systematised at all, but these uses of numerals are still quite unlike the use of *bachelor* for "knight serving under the standard of another knight" (Katz and Fodor p. 186). One might at the one extreme say that these uses are all synonymous although referentially distinct; at the other extreme one might say that they are best

regarded as making up the same semantic system as that of the number-uses on which they are referentially parasitic.

"What is the domain of a semantic theory?", the authors ask, and their paper is an attempt to answer this and other questions. But the question is an empty one: the only answer is the equally empty "the domain of a semantic theory is the domain it selects". One can of course ask "what is the domain of *this* semantic theory?" when the semantic theory is presented. Had the authors presented a semantic theory of English, one might ask just what was its domain. But they do not pretend to do this; they claim merely to "characterise the form of semantic theories", in fact of course a far more ambitious aim.

However they do claim also to have reached this end "by describing the structure of a semantic theory of English" and even to have achieved results applicable to other languages. To have described the structure of a semantic theory of English without having a semantic theory of English would be a remarkable feat of semantic meta-theory, no less remarkable than the foresight that the results will apply to other languages as well. Presumably therefore the authors' examples afford some clue to a "semantic theory of English" which they (and perhaps some others) hold.

The claim that the results will apply to other languages is in a way probably justified. In so far as "results" can be said to have been reached, and in so far as they may be said to apply to English, there seems no reason whatsoever to suppose that they are not equally applicable to all languages. But we are not told of any way in which they *might* fail to apply. Hence they seem to apply vacuously.

The authors seem to have had some obscure premonition of this objection, and have tried to cope with it by a distinction between "markers" and "distinguishers". "The part of the meaning of a lexical item that a dictionary represents by a distinguisher is the part of which a semantic theory offers no general account" (p. 189). One could suppose that the next statement would be about the *particular* as opposed to the *general* account which the semantic theory now offers. But no: the word *general* was just thrown in for good measure. The meta-theory finds a place for distinguishers, but not within any semantic theory.

An attempt to account for "the fundamental semantic features" via such terms as "physical object", "human", "colour" etc., is quite mistaken. Languages do not have classes of words reserved primarily for physical objects. Most languages do not even have a single word for *physical object*, let alone a class of words with this as part of their content. Languages do indeed have words to express that an object is physical: *physical* and *real* may have this function in English, while *imaginary* has an opposed function. But such words are needed precisely because the words they qualify are neutral in respect of the distinction. Since *stone* is not a "physical-object noun" we can speak equally well of a "real stone" and an "imaginary stone" without any change in the linguistic meaning of *stone*, though of course the logical status of the two expressions, on any ordinary interpretation, is quite different.

It is of course true that the meaning of *stone* could not even theoretically speaking be learnt except in the first place in such contexts as imply a physical object. But the meaning of a word and the way it must be learnt are two different things.

It is not quite inconceivable that some language does have a special class of "physical-object words". But this is an empirical matter. It happens that English has a semantically rather unusual class of nouns — "animal-insult nouns" which are seldom or never used of actual animals, e.g. *swine* as opposed to *pig* and *ass* as opposed to *donkey*. I suppose that in the same way there may be a language in which there is a class of "physical-object nouns", a language in which "imaginary stone" might be as odd as "1st - class pedigree swine " would be in English. But I repeat — this is an empirical matter. At any rate there is no ground to set up a universal before we know that there is even one particular.

The authors conclude their paper with a contrast between grammatical and semantic "markers". The former are needed in order to handle syntactic relations; the latter are "introduced to specify something about the meaning of lexical items" (p. 209). "Grammatically the words *ship*, *England*, *fortune*, and *fate* are marked feminine, but clearly they cannot receive the semantic marker (Female) if sentences are to receive the correct semantic interpretation".

But the English *words* are not "grammatically marked feminine". True, *she* is used of ships and countries, in some of the senses conveyed by the English words in question, and this is a convention of English. But the convention is a semantic convention regarding the use of the English pronoun *she*, which is applicable to ships and countries however named. It is quite unlike the syntactic convention of German, whereby *Kunst* and *Liebe* (but not necessarily their synonyms) are associated with feminine pronouns. (They are also of course part of a more complex system of gender-constraints, but this is not the point: even if the use of the feminine with certain German nouns were a mere question of the associated pronouns, it would still be quite a different matter from the use of *she* in English, not with any set of nouns, but with any words whatsoever when there is occasion to use them for certain purposes.)

The reason why English *fate* and *fortune* cannot be regarded as "feminines" in the semantic sense is not a reason for regarding them as "feminines" in the grammatical sense. In order to see this, it suffices to see what is meant by "feminine" as a semantic term within the range of the authors' discussion. Actually they use the marker-term "Female", not the term "feminine", for the distinctively semantic sense; but this just helps to beg the question.

English *fate* and *fortune* are not feminines in the semantic sense if by "feminines" one means nouns which have the same semantic relation to some other noun as *spinster* has to *bachelor*. Of course not, but then *spinster* is also not a feminine noun, if by such is meant a noun that has the same semantic relation to some other noun as *fate* has to any other noun. First we are invited to regard the relation of *bachelor* and *spinster* as the example of a semantic (as opposed to a grammatical) relation. Then we are confronted with such words as *fate* and *ship*, which in some respects are treated like *spinster* is a matter of semantics, and since the association of *she* with *ship* is not the same association, the second association cannot be a matter of semantics. Hence it must be a matter of grammar!

It would not be possible to sort out all the muddles here : most of them should be evident enough. To put things simply, all

the questions above are questions of semantics. The semantics of *spinster* is different from the semantics of *fate,* but the use of both words with *she* is just this difference in semantics, not a difference between the semantical and the grammatical. In neither case is there any rule of word-combinations. There are only meaning-rules. The meaning-rule which (indirectly) leads to such meaningful expressions as *she is a spinster* is quite different from the rule which leads to the equally meaningful *she is a good old ship,* but this is not the difference between semantics and grammar. In English the pronoun *she* is subject to more than one set of meaning-rules. When one set fails to apply the other comes into force. Because the one set of rules is "semantic" it does not follow that the other must be "grammatical". (There are also grammatical rules applying to *she,* e.g. the rule whereby *she which* etc. are not sequences permitted by English grammar, but these are clearly distinguished from the semantic conventions.)

The confusion between the grammatical and the semantic is all the more striking in the work of Katz and Fodor since they are confusing just what they set out to distinguish. Their confusion between semantics and "free distribution" is less striking merely because they do not even consider whether such a distinction ought to be made.

My three-fold distinction is still a very crude one. It is a disgrace that some linguists can put up with even less distinctions. It is still more of a disgrace that an inability to make these distinctions can be claimed as a feat of generalisation. Most of the extravagant claims for recent theories are based on just such inabilities.

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[1] It is still made, however, even by otherwise well-informed linguists. Thus W. E. Bull (*Time, Tense and the Verb* p. 8), says that «listen! I hear it is thundering» is «by no means an accurate description of the facts». This is a double error. First the reference to an event which, in fact, lies in the past, has nothing to do with the meaning of the preterite. But even if it did, the use of the present instead here could not conceivably be described as «inaccurate». For then it would be part of the meaning-range of the present to describe just such past events.

[2] L. Antal, *Questions of meaning*, the Hague 1962.

[3] *Syntactic Structures*, p. 100.

[4] *Methods in Structural Linguistics*; cf. the critical remarks by F. Householder in IJAL 18, p. 267.

[5] R. B. Lees, «The Constituent Structure of Noun-Phrases», AS 36, p. 161.

[6] J. J. Katz and J. A. Fodor, «The Structure of a Semantic Theory», *Language* 39, pp. 170-210.

[7] I am assuming that *paid* may be taken as transitive; the possible ambiguity is removed by substituting *I paid the bill and then tore it up*.

Z. Veblen (*Analytical Philosophy*; Oxford 1962, p. 30) writes of the conjunction *violent and unexpected explosion* : «The adjectives remain grammatically different in spite of the possibility of conjunction : 'It is unexpected that it explodes', but not 'It is violent that it explodes'». In fact, the conjunction is possible because the two adjectives belong to overlapping semantic classes : *sudden* belongs also to the area of the overlap. Both the grammatical differences (which exist but are not illustrated by Veblen's sentences) and the differences of «logical grammar», which his sentences do illustrate, are irrelevant.

[8] Free variation of forms is a special instance of constraint, namely zero-constraint, which is different from the mere absence of constraint in much the same way as zero-morph is different from the mere absence of a morph.

[9] Of course, as has often been pointed out, any deviation may lead the hearer to seek a «normal» interpretation of the sentence, e.g. by construing some *use* as an instance of *mention*. But since this reaction is common to all deviations, it is useless for the present purpose of distinguishing between them.

[10] On the distinction of meaning and use as applied to the word *good* cf. J. R. Searle, «Meaning and Speech-Acts», *Philosophical Review* 71, pp. 423-32.

[11] The «physical-object» use of numerals is not an abnormal use of such words, in the way that it is an abnormal use of such words as *this* or *happy* or *happiness*, if indeed the latter words ever have such uses. Of course it is also not a normal use either, if by *normal* one means *primary*. The primary use of numerals is their use as numbers.

In the same way, the primary use of such words as *stone* and *(red) ball* is their use as references to physical objects. But just as one must not confuse their primary use with the references themselves, one must also not confuse this primary use with their meanings. A meaning is no more a use (even a primary use) than it is a reference.

The best way of conveying a meaning may well be by way of a sample-reference to a physical object (and perhaps this is the best way of dealing with such words as *table* and *chair*). It may also well be by way of a sample-use (e.g. the use of *good* to commend). The meaning of *he* and *she* is best conveyed by an indication of how indexical terms are used, though the difference between these two pronouns is of course not indexical, and a combination of rules of use, reference and grammar may be needed.

But in the end, the meaning is just the theoretical unit profitably adopted to account for the variety of uses; just as the phoneme is the unit profitably adopted to account for the variety of its «exponents». Both have a «psychological reality» as well - and this is not surprising if one reflects that this reality is no more than our intuition of linguistic relations.

[12] Of course an illiterate people will not actually use numerals in all these ways, but *ipso facto* there can be no meaning-convention which prohibits this use. It is still a potential use and with literacy probably becomes actual. The rare case is that of words reserved e.g. for the counting of certain animals. These are numeral - like words, but not numerals. A class of words reserved for counting, yet not reserved for counting certain kinds of object only, has yet to be recorded for any language.

[13] On the various uses of *real* cf. J. L. Austin, *Sense and Sensibilia* (Oxford 1962), pp. 62-67.

[14] One might object that the conventional association of given nouns with given pronouns in German, when it operates across sentences rather than within them, is not an instance of grammatical constraint, since the units are not determined by the environment in any automatic way. I would agree that it is only a marginal instance, but within the very rough framework I have been obliged to adopt it belongs here rather than elsewhere. Katz and Fodor (p. 180) make the quite interesting suggestion that sentence-breaks in discourse can be resolved by sub-stituting a single equivalent sentence. I suspect that there are far more difficulties in this idea than those which they notice, but even to entertain the idea is to see how cross-sentence associations may, other things equal, be regarded as instances of grammatical constraint.

[15] Thus Tsu-Lin Mei, «The Logic of Depth Grammar», *Philosophy and Phe-nomenological Research* 24, pp. 97-105, says «the conclusion seems inevitable that the more we know about the structure of English the less need there will be for ordinary language philosophy» (p. 105).