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Grammar and metaphor: the consequences of an anomaly

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1. Introduction

In the past three decades or so, linguistic theory has been typically related to the aim of the construction of a precise and coherent system of grammatical rules that would generate, i.e. describe the set of well-formed linguistic expressions that a natural language can have. Various types of grammar have been proposed in this period, and they have been developed to a greater or lesser extent, but they all share the assumption that this enterprise is possible and important. Programme and method of linguistics have been heavily influenced by this assumption, and despite the superficial diversity of solutions it is easy to see that the bulk of linguistics proper is organised by the same paradigm, which I will call the grammatical paradigm. Although this notion begs a host of questions, it is a convenient shorthand term for the purpose of this paper (but for further characterisation see 2.4.); for I will use this term to introduce the related phenomenon of an anomaly that the paradigm in question cannot solve. More specifically, in this paper I want to discuss the problem of metaphor as a scientific anomaly that poses such difficulties to the grammatical paradigm that the latter is in radical danger of dissolution.

We need not waste words on the attractive side of the paradigm. Nor is it necessary to point out that there have been great problems since the very beginning. But they have never been so threatening that the basic idea of the possibility and use of the formulation of a grammar of natural language was abandoned. Not even the divide separating what Dik(1978:3-5) calls formalists and functionalists has gone so deep as to cause a split at the roots. Thus the claim that metaphor may be such a disruptive problem should be handled with care and precision. Let me, then, first suggest what a scientific anomaly looks like.

A paradigm in the sense of Kuhn(1970) should be understood as organising normal scientific investigation, which proceeds as if it is a kind of puzzle-solving. The puzzles, or questions, are known, i.e. provided by the paradigm, and the portion of reality that is investigated by the scientist, in our case language, is basically untroubling and mapped out in its rough contours. A change of paradigm is only possible through new discovery that reorders the map. This is where anomaly comes in:

Discovery commences with the awareness of anomaly, i.e., with the awareness that nature has somehow violated the paradigm-induced expectations that govern normal science. It then continues with a more or less extended exploration of the area of anomaly. And it closes only when the paradigm theory has been adjusted so that the anomalous has become the expected. Assimilating a new sort of fact demands a more than additive adjustment of theory, and until that adjustment is completed - until the scientist has learned to see nature in a different way - the new fact is not quite a scientific fact at all. (Kuhn 1970:52-53)

This paper will follow the three stages of the normal course of an anomaly, and accordingly deal with the following topics: first, metaphor as an anomaly for the grammatical paradigm; second, some of the relevant findings that have resulted from the exploration of the problem area that should be accounted for in linguistics; and third, possible ways of looking at this problem with an eye to making the anomalous the expected. In the first part, which will be more detailed and orient itself towards FG, I will attempt to establish that metaphor is indeed a principally insoluble problem within the existing framework, in FG but also in other grammatical approaches towards semantics, of which FG may be regarded as representative. The second and third points will be treated in a more general, suggestive and openended fashion, although FG will remain the principal point of reference throughout. I will now conclude this introduction by giving a brief indication of what the metaphor problem has been about in order to provide the reader with a minimal frame of reference.

1.1. Metaphor in linguistics

Metaphor became a structural problem for linguistics when the notion of selection restrictions was being explored at the beginning of the 60s in TGG. It was thus regarded as a form of deviant language: selection restrictions were broken but the resulting strings could still be meaningfully interpreted. This fitted in well with the prevalent notion of metaphor that ultimately still derives from Aristotle: 'a 'metaphorical term' involves the transferred use of a term that properly belongs to something else'. In several journals a discussion developed that started with the question of the possibility of a generative stylistic grammar and ended with all kinds of issues, from conceptual domains to Ricoeur's theory of

language. Within the transformational framework, various proposals were made to solve the problem of deviance, the best-known of which is perhaps Weinreich's(1966) idea of a feature-transfer. Many grammatical alternatives that followed, including the treatment of Dik(1978), are variants of this idea, as will be seen in the next section.

Meanwhile, it will be clear, metaphor had begun to live its own life. The notion of deviance is one that belongs to competence, but with the rise of speech-act theory other approaches were launched. Metaphorical use of fully grammatical sentences could not be accounted for in a TGG framework, and with the development of pragmatics metaphor was studied from the perspective of indirect speech acts, conversational implicatures and presupposition (see for example Loewenberg 1975, Grice 1975 and Mack 1975 respectively). The general approach was to specify a way to get from the literal, direct meaning of a sentence to the intended, conveyed meaning of the utterance. At a now famous symposium in 1977 in Illinois that was solely devoted to metaphor, the linguistic discussion still focussed on the opposition between "linguistic theory" and "pragmatics". And despite the growing awareness of the wide reach of the phenomenon and of the problem, metaphor was still typically approached as something strange and abnormal in most of the solutions that were offered by important representatives of both methods, such as Levin(1979) and Searle(1979).

Since 1977 there has been a tremendous growth in psycholinguistic research into metaphor, but at the same time there has not been much progress or comparable interest from the side of the linguists. A review of current research by Hoffman(1982) is astounding in comparison to the one that presented the state of the art in psycholinguistics in 1978 (Ortony et al.). Contrary to grammatical expectations, the crucial result that emerges from this impressive amount of work is that metaphor is not some parasitic form of language at all, but, on the contrary, provides the way in to central mechanisms of language itself. Especially the norm of literal and precise language to which metaphor was diametrically opposed in the form of derivative meaning is under great strain, as will be suggested in the third section of this paper. The metaphor discussion is thus reverberating beyond its proper limits and contaminating all kinds of

theoretical and empirical problem areas. Let us turn to the one that is the central concern of this paper, the theory of grammar.

2. Metaphor as a grammatical problem

It is clear that any grammar will have some form of selection restrictions as it is an unavoidable instrument that is needed to bridge the gap between the separate elements of the grammar's semantic atoms and the structured wholes of linguistic expressions that are envisaged by the combinatory syntactic rules. As said above, metaphor was soon discovered as an exemplary problem for this set-up, and therefore I will concentrate on this definition of it in this section. For the sake of the argument I will, for the moment, follow the theory that was widely held some fifteen years ago (and that is still defended today by many) and approach metaphor as a feature-clash. The direction of the discussion, then, will go from abstract semantic characterisations upwards towards the more empirical level of their lexical realisations. (As it is common practice to divorce this level of enquiry from the processes of production and reception I will assume that, from this particular theoretical point of view, there is no difference between speakers and hearers.) The argument thus takes the grammatical approach to semantics in its clearest and most radical form, addressing its central assumptions rather than any weakened form that ultimately still relies on them. This will bring us quickly to the heart of the matter and reveal the kind of problem that any grammar of semantics will have with metaphor and, moreover, with meaning in general. The semantic theory of FG as presented in Dik(1978) is fully representative of the issues involved. I will briefly summarise his treatment of selection restrictions here.

In FG, selection restrictions are conditions on term insertion that are specified on the predicate frame. This is done by means of predicates tagged on to the variables of the predicate frame, and they indicate the kinds of terms that are allowed to replace the variables involved. The

operation of term insertion is governed by a compatibility condition, which requires that the predicates indicating the selection restrictions (I will indicate them as SRP's) should be compatible with the predicates defining the semantic features (SFP's) of the terms. When the compatibility condition is broken, special interpretation strategies are triggered off. Their operation is suggested in terms of the reinterpretation of one or more of the terms inserted or of the predicate frame itself. The formal basis of the triggering of these strategies is described as follows: the convention is adopted that an SRP $\overset{\delta}{\underset{\wedge}{\text{disappears}}}$ from the predicate frame when the term that is inserted into the frame possesses the same predicate in the form of an SFP. This is the case, for instance, when a predicate frame 1:

(1) $\text{smile}_V(x_1 : \text{human}(x_1))_{Ag}$

receives a human term such as "John" as in

(2) John smiled

When this is not the case, then the SRP's are retained in the predicate frame and the possibility of a clash between the SRP's and the SFP arises. An example is

(3) The brook smiled

The special interpretation strategies are triggered because of the clash between the SRP (human) and the SFP (inanimate), and their job is to reinterpret the term or the predicate in such a way that the clash disappears. In this particular case, a reinterpretation of the brook leads to a personification that might be encountered in a fairy-tale, for instance. And a reinterpretation of smile leads to a meaning that can be paraphrased with "sparkle", for example (cf. Levin 1979). This reinterpretation, finally, does not require any formal transfer of features (or predicates), as a Weinreichian solution does. This fits into the general, nontransformational mould of FG, and Dik(1978:46) comments: '...our conception of the predicate-frame allows us to put the selection restrictions in precisely the place where they exert their influence, namely in the

argument slots where the terms are to be inserted.'

This will suffice for a summary of the problem of selection restrictions. Although Dik's paragraph does not aim at an exhaustive treatment of the problem of metaphorical meaning, it does, in an implicit fashion, define and solve it in a particular way, and this manner is typical of the grammatical approach. Literal meaning is the grammatical norm:

when the compatibility condition is fulfilled, the
result should be a semantically well-formed predication
not requiring any special interpretation strategies.(1978:44)

And when the grammar's normative rules are broken, something special is going on that needs extra strategies.

In the following paragraphs I will show, first, that this thesis cannot be held when it is taken in its strict sense; and that this goes for its implied converse, too, i.e. that the breaking of the condition does not lead necessarily to metaphorical or special language. Moreover, when this thesis is taken in its more general purport as a starting-point for a theory of metaphor, it cannot be defended either, for the domain of metaphor is not accessible via this type of semantic rule alone. This will be dealt with in 2.1. Second, in 2.2. I will point out the difficulties that arise for the empirical study of meaning when this type of semantic analysis is taken as a starting-point. Metaphor is my point of reference, but it will be seen that 'normal' language is involved just as much. So if 2.1.provides an internal critique, 2.2. provides an external one on the use of this approach to grammar of meaning. A theoretical exploration of the assumptions behind this grammatical method is presented in 2.3. I will point out some of the basic misconceptions in this kind of set-up, and this will lead me into a general discussion of the grammatical paradigm in 2.4.

2.1. The compatibility condition and metaphor

Let us assume that the (non-)fulfilment of the compatibility condition provides us with a criterion of demarcation between literal and metaphorical language. It was not devised to this end, but it has been treated as implying as much by most if not all linguists working on grammar. Three issues arise, then, that in themselves are enough to destroy the thesis, but simultaneously have important implications for its further, original use. These are points that are purely internal to the idea of the compatibility condition as it now stands. Further complications that arise from its combination with other components of the grammar, and from theoretical considerations bearing on the assumptions that lie behind it, are treated in 2.2 and 2.3. respectively.

First, there is the matter of confining literal or metaphorical meaning to the linguistic structure of the predication. This means that metaphor is a semantic, as opposed to pragmatic, phenomenon. Dik's(1978:44)

(4) Rust eats iron

is a good illustration of what is meant here. But there is an important limitation to this view, for it cannot handle the difficulty that semantically well-formed predications can be metaphorical after all. According to the compatibility condition as it stands, these cases would not trigger off special interpretation strategies, although they should require them according to the spirit of the theory. The theory has a problem, then, in accounting for cases like

(5) The lion roared

which is metaphorical in the context of providing an answer to

(6) What kind of mood did you find the boss in today?

There are many examples of this kind where the presumed feature-clash does not reside in the predication itself but in the interface between

(a part of) the predication and (some aspect of) its context, linguistic or situational. Thus instances like (5) demonstrate that the compatibility condition in itself cannot be maintained as (5) is metaphorical but does comply with it. Moreover, to approach the issue from the side of metaphor, (5) also demonstrates that we do not have a criterion of demarcation: the breaking of the condition is not a necessary condition for the existence of metaphor, as there are many instances of metaphor that are compatible with it. This also means that a separate, extra basis for the triggering of the presumably required special interpretation strategies would have to be formulated for these "pragmatically controlled" cases.

There is a counterargument available, namely that I have confused metaphorical predication or structure and metaphorical use. This distinction is common among grammarians and it derives from an inherent need of the paradigm. The distinction relies on the theoretical opposition between the potential meaning of the semantic predication and the actual meaning of language in action. But, from the point of view of natural language meaning itself, this opposition is false. Potential meaning in its common sense is either unlimited if one relates it to real speech events, witness (5); or it is idealised into intensional, dictionary meaning, i.e. its identity with "correct" reference - and this is another way of saying that it is provisionally frozen with regard to one context of use with the special aim of dictionary-making in mind (cf. Brown&Yule 1983:25-26 and 37, and Nunberg 1979:170).

What we are up against here is the fundamental problem of any grammatical approach to meaning. The ideal of specifying all potential uses of linguistic expressions is doomed to failure by definition, for the number of thinkable contexts is unlimited. The wish to account for this potential or creativity is, of course, precisely the drive behind all generative grammar since Chomsky postulated the notion of competence as the scientific goal of explanation. But the formulation of competence in terms of the elevation of one context of use into an untouchable norm is counterproductive and ill-conceived, something which we will come back to in the course of the argument. It creates false deviancies from that norm if one adopts a communicative point of view. These false problems, for instance metaphors, produce false solutions, like special interpretation

strategies. And these false solutions are even further complicated if they are to be formulated as two distinct rules applying to metaphorical structure and metaphorical use, respectively. Consider (7) as a pragmatic equivalent of (2) in the context under discussion:

(7) It smiled

The logic of the grammar would create a counter-intuitive division between (2) and (7), disregarding for the moment the problem of recognising it as metaphorical in the first place. The purpose of this separation would be the rescuing of the semantic theory of predications, something that goes against the grain of FG's axiom that pragmatics has methodological priority over the formal structure of predications. Theoretically and intuitively, then, there are good reasons to consider the counter-argument invalid, and, moreover, to consider the problem that it reveals concerning methodology as crucial to a functional theory of language and its meaning.

We now turn to the second issue. Not only is there an abundance of well-formed predications that according to the spirit of the theory should still be subject to special interpretation strategies, but the reverse is also true: there is a host of intuitively well-formed, so-called literal predications that do contain, nevertheless, a feature-clash. They would thus trigger off the special interpretation strategies and receive a "metaphorical" interpretation. Some examples are provided by Cohen(1979):

(8) A stone lion needs no feeding

(9) They have produced a new breed of animal - a hornless cow

In other words, assuming some non-controversial semantic representation of lexical items, they can always be combined with other lexical items that are incompatible with them although that need not produce metaphoricality. The breaking of the compatibility condition, then, is not a sufficient condition either for the existence of metaphor.

Cohen(1979) discusses several ways out of this problem by proposing various conditions on the kinds of features that are incompatible with regard to the ultimate literal or metaphorical status of the predication.

This does not lead him any further, however, and he turns to an extra-semantic, pragmatic criterion which I will come back to in the next section. Here it is important to bear in mind the enormous problems that any sophisticated theory of language must have if it is to formalise exhaustively and realistically all of the combinatory possibilities of a natural language. It seems that different types of predications need different types of amalgamatory rules that interpret them. As to the compatibility condition, we may now also conclude that it is neither a necessary nor a sufficient condition for the identification of non-metaphorical language and that it thus falls short of its aim.

There is still a third issue left. Disregarding for the moment the difficulties we have discussed above, I want to indicate a further problem if the theory were to work as it should that is connected to the remarks just made. This is the problem that "metaphorical interpretations" themselves are not homogeneous. "Metaphor" has become a kind of shorthand for all kinds of figurative language, but its original status as a particular figure of speech should not be ignored. It is usually opposed to other well-known figures, in particular metonymy and synecdoche, but although a "reinterpretation" would equally well be triggered off in these two cases, rather different phenomena are involved.

Compare the following two examples, taken from Lakoff&Johnson(1980:35):

- (10) Inflation robbed me of my savings
- (11) The hamsandwich is waiting for his check

Lakoff&Johnson argue that (10) is a kind of personification, so a metaphor, but that (11) is a specimen of metonymy (in the context of a waitress indicating a customer at a certain table to her colleague). They adopt the following position:

Metaphor and metonymy are different kinds of processes. Metaphor is principally a way of conceiving of one thing in terms of another, and its primary function is understanding. Metonymy, on the other hand, has primarily a referential function, that is, it allows us to use one entity to stand for another.

According to this account, there are metaphorical and metonymical concepts that account for the systematicity of the use of these figures. Some examples may illustrate the point about metonymy:

PRODUCER FOR PRODUCT, e.g. He's got a Picasso
OBJECT USED FOR USER, e.g. The buses are on strike
CONTROLLER FOR CONTROLLED, e.g. Nixon bombed Hanoi
PLACE FOR EVENT, e.g. Watergate changed our politics

This referential function about metonymy is noticed elsewhere, too (e.g. Nunberg 1979, Brown&Yule 1983).

The point is that the compatibility condition not only treats certain metaphorical and literal instances alike, one way or the other, as was shown in the previous pages; its non-fulfillment is also insufficient to calculate the different ways in which a figurative relation may hold between an expression and a particular referent. Bearing in mind example (11), we have the related instance of (12):

(12) John is the hamsandwich

Compare this to (13)

(13) John is a hamsandwich

How can the special interpretation strategies distinguish between the negative connotations of the metaphor in (13) and the neutral use of the metonymy in (12)? They could only do so by referring to pragmatic information, which contaminates their semantic nature. Moreover, the different meanings of the term are not dependent in principle on its identifying or property-assigning use, for one can switch these functions here without a resulting change. Although this is an argument in favour of the principles of FG, it is an argument against the purely semantic solution to the formal problem of incompatibility: context determines the status and content "deviant" language.

In fact, this discussion points the way to another definition of the problem of incompatibility. In the context of metonymy it is particularly

appropriate to take our cue from the notion of reference, already evoked in our discussion of the first issue as well. Dik(1978:55) writes:

referring should be regarded as a pragmatic, cooperative action of a Speaker within a pattern of verbal interaction between that Speaker and some Addressee.

This flexible treatment of the relation between a referring expression and its referent leaves all the scope necessary to a figurative link as functional, and most efficient in a certain context at that (Which Nunberg 1979:180 denies). The hamsandwich is a telling example. But referring is not the only linguistic act that can be treated this way.

A pragmatic approach to reference makes the notion of anomaly in most figurative expressions rather superfluous from a communicative point of view. It invites the parallel conception of predicating as "a pragmatic, cooperative action". The incompatibility of the needs of a normative and idealised grammatical paradigm and those of a pragmatic theory of language is revealed at a stroke by this juxtaposition. It ties in well with the remarks of other writers on this issue of predication, such as Verbrugge & McCarrell(1977:498), who speak of "sufficient resemblance" between one situation and another, or Ortony(1979:172), who speaks of "attempted predication". Brown & Yule(1983:58) and Bolinger(1976:424) have drawn attention to even more general principles of language that support this approach: the principles of "local interpretation" and "analogy" that guide us in making sense of utterances in discourse, and the "something-like" principle that is an equivalent of the latter principle and the one of Verbrugge & McCarrell. The question of whether such insights can be formalised in the kind of algorithm that a grammar aims at has only been answered programmatically

In sum, the compatibility condition can be shown to be inadequate on internal grounds and generates rather than solves problems. I have used this discussion to suggest the outlines of an alternative, pragmatic approach to the problems of meaning, referring and predicating that starts from the notion of success rather than correct grammar. This double procedure of pointing out difficulties of grammatical methodology and developing an alternative in contrast will be continued in the next section.

2.2. The compatibility condition and other grammatical components

The internal critique of the previous section is now supplemented by an external approach to the idea of the compatibility condition: following the logic of the grammatical paradigm we will find that the same problems that were discussed above turn up in this section, too. A generative grammar of whatever type has to specify selection restrictions on the semantic atoms prior to the realisation or interpretation of a linguistic structure, and this set-up leads to unavoidable methodological inconsistencies. This can be shown by looking at the interference of lexical and pragmatic factors in the working of the compatibility condition.

First there is the role of the lexicon. Consider

(14) John's wife is a gem

There is an incompatibility between the SFP's (animate) and (inanimate) of wife and gem respectively, and it is resolved metaphorically by the special interpretation strategies. Two solutions are possible: first, a gem is reinterpreted as being not inanimate, thus conveying something like "a very precious person"; or, second, John's wife is reinterpreted as being not animate, so conveying something like "the thing John values most". Note that the incompatibility is implicit.

There is no reason I can think of that a predication containing an explicit version of the incompatibility that manifests itself in (14) could not or even should not be metaphoric itself too. Thus we get:

(15) John's wife is inanimate

And indeed, one can interpret inanimate metaphorically too. But it is immediately obvious that the explicit, lexicalised feature-clash that is directly derived from the one implicit in (14) has a completely different significance in (15). In fact, taken at face value, (15) would be a case like the hornless cow or the stone lion, that is, it should not trigger special interpretation strategies at all. In other words, the logical

idea of incompatibility does not suffice to treat immediately related instances that are derivable from each other in a satisfying and consistent way. The same logical incompatibility triggers off special interpretation strategies in one instance (14) whereas it is unclear if it should do so in another, immediately related case (15).

Focussing on the lexical aspect of this question, we observe that (15) should have at least three possible interpretations, one literal construction being added in comparison with (14). Schematically we get:

- (16) John's wife is inanimate
 LIT MET
- (17) John's wife is inanimate
 LIT LIT
- (18) John's wife is inanimate
 MET LIT

The ground for these possibilities is of course the lexeme inanimate. Note that its metaphorical interpretation in (16), yielding something like "lifeless, dull", produces exactly the opposite picture of John's wife from the corresponding metaphorical interpretation of its concrete instance and predecessor gem in (14). So not only denotations matter in producing an extra interpretative (here literal) possibility, but also connotations matter in producing a new direction of meaning. This is the same phenomenon, but now approached from the lexical side, as the one we encountered before when discussing the use of hamsandwich in (12) and (13) above.

Let us consider for a moment the primary lexical differences between (14) and (15). In the former predication, the incompatibility is caused by a combination of two fairly concrete arguments, and the clash takes place at the abstract, implied level of their subcategorisation. In (15), on the other hand, the lexeme inanimate is not concrete but vague: it contains less information than gem for instance. There being, in (15), no such concrete vivid clash at first sight as in (14), the preferred strategy is the one that requires as little activity as possible and thus constructs inanimate as literally revoking a part of the so-called inherent charac-

teristic of John's wife on the appropriate abstract level of categorisation itself: she is pronounced dead.

All this should be taken as an estimate of the sentence out of context, however. And, as I have pointed out before, one can only talk of and about this preferred interpretation by constructing the most likely context that would evoke this kind of strange, but grammatical utterance, as I have in fact just done. Other contexts can be imagined, too, and let us now turn to the kind of situation we had in mind when we talked about (14). Actually, that situation consisted of two variants, also dependent on context. But we can use the same interpretation strategies that produced those two readings as the ones we need to produce (16) and (18) as readings of (15). The difference is clear again: since the predication is vaguer, it can lead to a different connotation in (16) and much less information in (18). Despite an identical semantic incompatibility that, if only in principle, could point to the same information on a referential level, (14) and (15) are totally incomparable from a pragmatic or communicative point of view on account of the different lexeme expressing the same incompatibility. The feature (animate) has a different value than the lexeme animate, which is interesting since in FG meaning definitions are given as 'lexical items of the object language, and not as theoretical predicates drawn from some semantic metalanguage' (Dik 1978:46).

The difficulty we are discussing in these pages is, of course, methodological rather than empirical. Because of the identity of the feature-clash in (14) and (15), which is not fortuitous but theoretically motivated on account of the derivation that produced the one from the other, we are forced to treat them similarly. The opposite approach, taking the two instances (14) and (15) out of context, "at face value", produces a contrary impression. The possibility of relating them in one theoretical argument and of opposing them in another demonstrates the pliability of linguistic expressions according to context. The clash between the implications resulting from one context of discussion, that of the derivational link between (14) and (15), and those resulting from another context of discussion, that of approaching (15) from the angle of "standard meaning",

is precisely what is at issue here. In fact there is only an apparent contradiction between the two approaches, as the first, grammatical approach dramatises the reliance on context just as much as the second, common-sense approach. That we are talking about context on a metalevel here makes no difference. The autonomous, semantic generation of linguistic structure (predications) leaves open too much to be of any use if it is going to be connected to and tested against actual language meaning. This is also the point of the second problem, that of pragmatic interference.

Just as the previous point was a restatement of a problem generated internally in the last section but this time from an external point of view, so this point is as well. And this point, too, can be used to point out another limitation of the grammatical paradigm that has hovered in the background of the discussion up to now. What I have to show here is that the semantic solution to the problem of metaphor is not autonomous and is in need of a pragmatic corrective, or better, framework. This is easily done considering example (4) above, or examples (12) and (13), for that matter. The compatibility condition cannot give a satisfying account of these cases, whereas a pragmatic theory of meaning can deal with such logical incompatibilities as subsidiary issues given a redefinition of the notions of referring and predicating in such terms.

An interesting thought on this matter is put forward by Cohen (1979). He suggests that the difference between metaphorical and literal language resides in the fact that the former usually works by the topic's imposing a reinterpretation of the comment and, vice versa, that in literal language the comment imposes a qualification of the topic. This would be in accordance with our preference for (17) as the most natural interpretation of (15), for instance. And it would also account for the need to specify that in (14) the first interpretation would concern the normal, expected discourse situation where John's wife would be the topic. The alternative, second interpretation, however, indicates a difficulty with the proposal: assuming that the syntactic order is the unmarked one for John's wife being the natural topic we can construct a discourse situation where there has been talk about wives, and where the second inter-

pretation of (14) is the intended follow-up. The effect is a kind of joke, of course, re-analysing the referent of the topic expression John's wife in metaphorical terms. The point is clear: here it is the topic that is the entity that is metaphorically reinterpreted by the comment, and not the other way around. Besides, this example illustrates the difficulty of distinguishing statically between topic and comment in itself, as a topic-shift from wives to gems is clearly possible.

But the main issue is still to be mentioned, and that is the role that linguistic context plays in the determination of meaning. According to Cohen(1979:74-75), counterexamples of the above kind, where the topic is the carrier of metaphoricity (cf. Mackenzie 1985), are only derivative of the normal case:

An original or unfamiliar metaphor, unaided by context, would not identify a topic with any clarity. For example, the sentence "The sparkle on summer dew has just run off with the milk-man" is a kind of nonsense if considered as an isolated unit. But its topic would become quite apparent if it occurred in some suitable sequence of sentences that contained

(27) My wife is the sparkle on summer dew

as an earlier element. Somehow or other, whether by being more readily intelligible, or by being present at least in the first occurrence of metaphor, the comment-making use of a metaphor is primary and any topic-identifying use is secondary and derivative.

Lakoff&Johnson's remarks about metaphor and metonymy spring to mind as pointing in a similar direction.

In general, Cohen's seems a valuable insight, but some qualifications should be made. First, it depends on a clearcut distinction between metaphorical and literal language to start with, i.e., a topic should be introduced literally, whereas there are many topics that simply cannot be treated, or in practice often are not treated, that way, especially abstract ones. Second, it ignores "nonsensical" introductions of a topic by way of humoristic constructions such as (14). (It would be interesting to explore the hunch that literature might exploit this extra dependence on context, so that it might have relatively more topics that are meta-

phorically introduced but which are made intelligible by explanation in retrospect from the context or from reading conventions.) Third, as Mackenzie notes as well, Cohen depends on a clear-cut distinction between topic and comment, which is a notorious stumbling-block in linguistic theory, too, witness the problems with (14) just discussed. Fourth, it depends on linguistic context for making the connections explicit, whereas this seems more a theoretical necessity than an empirical one, as reference by way of ostension or even deferred ostension is just as normal, witness (11). Given these qualifications, it is indeed the case that pragmatic information going beyond the sentence into linguistic co-text (and ultimately situational context) provides a better framework for accounting for metaphor, which, as established above, is in principle not possible in a semantic approach.

Let us conclude from a pragmatic point of view. Starting a theory about the meaning of predications with semantic features, selection restrictions and a compatibility condition is starting at the wrong end. The difference between for instance (12) and (13) testifies to this: the same feature-clash may yield totally different types of predication that need entirely different interpretation strategies. The logical end of this would be the construction (or at least assumption) of an overriding pragmatic apparatus of interpretation strategies that could match one predication to many potential contexts that would have to be predictable. We are back at the first problem of 2.2. This is basically what semantics has tried to solve since Katz&Fodor(1963), but it has only been able to do so for the idealised context, thus keeping out complications by referring to only one context in fairly clear-cut examples. With metaphor we can establish that the theory, in working its way up from the small components, is trying to accomplish the impossible: it has tried to master context. The idealised semantic atoms and syntax have been freezed prematurely, and only extra theoretical procedures, which are impracticable and unrealistic, can overcome their pragmatic inflexibility.

2.3. The compatibility condition and theoretical semantics

In this third section two further problems will be investigated, namely the theoretical status of the special interpretation strategies and of the selection restrictions and meaning definitions. As to the former, in principle Dik (1978:46) accords them a semantic status: 'Content-wise, this approach is the same as Weinreich's in that it lets a predicate impose its selection restrictions on the terms with which it combines.' The formal difference of keeping the (meaning) predicates in their proper position instead of transferring them from one term to another (including the predicate), then, is informally transcended by the interpretation strategies that follow. A closer look at their operation will reveal the problem.

Consider the previously cited example (4)

(4) Rust eats iron

Dik describes the second possibility open to the special interpretation strategies as follows:

- (ii) reinterpret the meaning of the predicate eat so as to be compatible with the ordinary meanings of rust and iron.
 - eat(x_1)(x_2) normally means that x_1 feeds himself with x_2 .
 - if x_1 feeds himself with x_2 , then x_2 is normally destroyed as a result of this process.
 - what does rust do to iron that is comparable to what eat normally expresses? Answer: corrode.
 - Conclusion: eat is here used as a vivid expression for 'corrode'.

I take it that the problem is clear: what type of semantic rule would have access to this type of information to solve the semantic incompatibility?

The role of pragmatic knowledge is implicitly acknowledged in another passage, but its precise position remains considerably unclear: 'I do not agree with those who claim that selection restrictions are only a matter of knowledge of the world, and should therefore be left unspecified in the description of the language system.' (1978:45) But the question is, are these

descriptions of the selection restrictions pragmatically motivated, or semantically? This question is not answered, but the reference to Weinreich's ideas, just as the general need of the grammar to start from small specified meaning-atoms, betrays a tendency towards a non-pragmatic, autonomous description. The informal, pragmatically oriented solution of incompatible formal combinations is the wastepaper basket of the system. In it come together in an incompatible way the needs of a semantic and those of a pragmatic account of meaning, the results of which clash have been demonstrated above.

The question of the status of the special interpretation strategies can be asked in another way as well: what kind of relation holds between the synthesising special interpretation strategies and the analysing predicate frame, what kind of objects are they? We have seen that in principle the special interpretation strategies are presented as semantic, but in practice they work pragmatically. How about our second topic, the predicate frame and its components of selection restrictions and semantic features of terms?

Returning to 1.1. for a moment, recall that the problem of metaphor in linguistics was "discovered" when the Chomskyan idea of selection restrictions and the sin inherent in them, their potential violations, was worked out. To put this differently, concepts like feature-transfer, feature-cancellation and special interpretation strategies are solutions to a formal phenomenon that apparently manifested itself often in metaphors, but in fact it should be realised that this is only accidental. These theoretical solutions, then, should be primarily regarded as answering a problem that is generated by the theory, that is an inherent limitation of the theory itself. They are necessary because the theory assumes feature-matrices and selection restrictions in some form or other. Note that these feature-matrices and selection restrictions are nothing but paradigmatic and syntagmatic alternatives of the same formal phenomenon, namely the accepted conditions of use for normed lexical possibilities of combination in the syntax of the language.

Now we are in a position to unravel the problem fully. The selection restrictions and feature matrices are only a shortened description of the conditions on the appropriate (in general, truth-related) use of a particular sentence. Contrary to what is held theoretically, these conditions are dependent on pragmatic information, and are idealised projections of that information onto the linguistic system. But the fact that in the real world the action of eating requires an animate agent does not stand in a one-to-one relation with the linguistic subject of the linguistic action in a predication. In language, rust can eat iron, just as solid foundations can support a theory or marriages can die. Elevating the normal situation of the world into a linguistic norm is a great category mistake if one wants to specify a theory of potential linguistic meaning: not even a flexible or fuzzy semantics can repair this shortcoming.

Moreover, formulating a norm and then adding that the parts composing the norm are 'inherent'(1978:44) to it is a vacuous but especially reificatory argument, which not only aptly demonstrates the potential misconceptions resulting from normative grammar, but is also systematically misleading in that it generates false problems and exceptions. A semantic theory of meaning, however, as it is conceived in the grammatical paradigm, can never get round this problem as it must be generative, that is, start from idealised small components and methodologically work its way up from them towards higher structures. This is why a sophisticated semantics is of no avail. The grammatical goal is incompatible with a pragmatic theory of meaning that starts from a particular communicative situation and relates all of the elements to that. As noted before, the former project establishes correct reference and predicating, the latter successful reference and predicating with regard to a certain pragmatic framework. The notions of selection restrictions and anomaly are dependent on the framework adopted.

2.4. FG and the grammatical paradigm

In the previous sections I have shown that metaphor in its form of grammatical or semantic anomaly is a problem that cannot be solved by FG in a principled way. In 2.2. I pointed out that the compatibility condition is not sufficient to distinguish between various types of predication and that it leads to counter-intuitive results both on a theoretical and on an empirical level. In 2.3. I reversed the procedure and indicated that both the lexicon and pragmatic information override the expectations of theoretical semantics. In 2.4., I suggested that the theoretical notions of selection restrictions (and implicitly incompatibility) and special interpretation strategies were ill-conceived, or rather confused, and that this leads the way to a proper understanding of the methodological difficulty. This is the subject of the present section. Specifically, the notion of a grammar will be explored with the aim of uncovering the basic confusion that we are up against.

In FG some play is made of the distinction between what are called the Formal Paradigm and the Functional Paradigm (Dik 1978:3-5; cf. Nuyts 1983). Other writers have reflected on this difference too, in different terms. It is however, rather striking that in the case of metaphor this distinction is fully absent in FG. Indeed, most of the arguments I have marshalled against Dik's treatment of the problem derive from the discussion that is going on about it between all kinds of grammarians and writers from other methodological angles. This is not surprising considering Dik's formulation of it in the light of its Weinreichian origin. In this particular area of FG, then, the F does not seem to make an impressive impact on the form of the G. The problem lies at the heart of the predication itself, and the Formal Paradigm handles that in just the same way as the Functional Paradigm, namely as an autonomous, grammatical given. The reader can check all of the issues discussed above in isolation, they will yield no difference.

Positing the problem at the heart of the predication is revealing in the following way: it puts formalism and functionalism on a par, not as paradigms, but as perspectives within one paradigm, that of the sentence-

grammar. The fundamental notion that lies behind the grammatical paradigm is the systematic (automatic) generation of correct sentences. The grammatical rule-system must satisfy the creativity-constraint, i.e., the condition that it be able to account for the correct description (that is, "interpretation") of all acceptable (novel or existing) utterances that a language (ideal speaker-hearer) may produce. Systematicity and correctness are the keywords, and they require precise and coherent sets of rules that apply to idealised atoms to produce a correct output of the system. Selection restrictions are essential to this project, and any grammar will have to define them in some way or other.

This notion of a grammar is of course fundamentally Chomskyan, and the question arises if a functional perspective does not or could not alter this conception. A look at linguistic practice suggests that the difference between the two approaches resides mainly in the somewhat wide scope of functional approaches, which also try to take into account pragmatic features of linguistic structure such as informational status and linguistic co-text, and which also refer to extra-linguistic phenomena as explanatory for linguistic structure. But the final aim of a normative sentences-grammar is not abandoned and, as can be seen from the case of metaphor, ultimately overrides principles of functionality and pragmatics.

Now another form of the same question arises, namely, are functionalism and the grammatical paradigm compatible at all? As said before, functionalism does not imply correctness but success. And, restricting ourselves to the most interesting function of language, the matter of how it means, we have to say that it can mean in many more ways than just the idealised correct manner. A pragmatic redefinition of referring and predicating is essential to functionalism. Nunberg(1979:177) makes a strong case for the ultimate limit in this respect:

We do not have to know what a word names to be able to say what it is being used to refer to. (Sometimes, we do not even have to know what sort of thing it refers to in order to be able to say what the sentence that contains it is being used to do; ...)

From a functional point of view, then, the status of selection restrictions and meaning definitions is a clumsily prescriptive starting-point that complicates the link to language in use. This leads to sometimes inefficient constructions as the norm that has to be preferred on theoretical grounds (ignoring the case of the hamsandwich) and to the necessity of extra procedures in order to save such real "functional" meaning as metaphor. These extra procedures overload the grammar, whereas they are psychologically questionable in many cases. And the element of prescription finally lets the cat out of the bag: whereas functionalism approaches and describes language as it is being used, a grammar approaches it as it should be used. The former starts from given language data, the latter from constructed semantic fields or atoms. In this sense, grammar and functionalism provide contradictory perspectives on language.

We should note in this respect that speech act theory, programmatically tied to functionalism and pragmatics, also falls under the grammatical paradigm. Just as sentence-grammars have explored part of the predication to yield fragments of a formalised grammar, so speech act theory has drawn up the outlines of a prescriptive theory of speech acts. It has heavily relied on a non-pragmatic, grammatical notion of the propositional act that starts out from idealised correct meaning. Metaphor as an indirect speech act or as an illocutionary type thus misses the point: the pragmatics of predicating and referring are crucial to an explanation of metaphor but the grammatical paradigm has shielded them off or rather has made them into the unquestionable basis of the further discussion.

The notion of a grammatical paradigm is not very exciting but insightful in that it links historical and theoretical considerations pertaining to contemporary linguistic theory. Two historical precedents are relevant here, first that of the model for language learners and second that of the algorithm for the machine. The first model is as old and strong as the Classical Romans and the second as young and attractive as computer technology. Theoretically, grammar has abstracted away from real language use by creating an ideal speaker-hearer. This is why a confrontation of its theoretical implications with the description of actual language use

can produce such widely diverging views of purportedly the same thing. The notion of actual language use is of course heavily theory-laden, but the following claim, characteristic of linguistics at the end of the 60s and the beginning of the seventies, can now be seen as a predecessor to what I regard as a grammatical view of the problem: 'However, abstract, or formal, modern linguistic theory might be, it has been developed to account for the way people actually use language.' (Lyons 1968:51) With the development of other methodologies, a critique of such empirical claims of grammar became possible. To cite one instance, Lass (1980:121) puts it as follows: 'I do not think there is any strong evidence that existing speakers are a necessary assumption (and much less a central concern) for any important school of general linguistic theory.' The grammatical paradigm is but one way in to the description of aspects of language in modern science; its limitations have been revealed clearly by the case of metaphor.

3. Metaphor as a psycholinguistic problem

In section 2, I have tried to establish that metaphor, in the form of a feature-incompatibility, is a scientific anomaly for the grammatical paradigm. The fast-developing discipline of psycholinguistics soon provided an alternative view of the problem and towards the end of the seventies metaphor was growing into a trendy object of research. The second stage of the Kuhnian anomaly had arrived, and one can indeed speak of 'a more or less extended exploration of the area of anomaly'. In a survey of recent research on metaphor, Hoffman (1982:2) sets the stage as follows:

Metaphor and discussions about metaphor are part of the climate of our current age. Figurative language is a very hot topic in linguistics, philosophy, psychology, education and other disciplines. There have been something on the order of 15 books, a few major conferences, and scores of special meetings, and dozens of seminars. Since 1977, experimental psychologists alone have organized 15 symposia involving close to 100 researchers.

In this section I will indicate some of the findings of this research that are relevant to our discussion of metaphor as a grammatical issue.

I assume that psycholinguistics developed so fast because it had the Chomskyan framework as a model, so that many theoretically motivated claims could be tested empirically. This is important because it means that psycholinguistics started from the same assumptions about meaning that I discussed above. They will be listed presently. The distance that must be crossed today between some linguists and some psycholinguists, then, does not arise from incomparable definitions of the problem but from the length research has gone since the discovery and definition of the original anomaly.

The most important result of the psychological perspective has been the demythologising of the myth of literal language. The structure of our language abounds with metaphor, and research has spread towards proverbs, idioms, conventional metaphors and figurative language, as well as novel figures of speech. Lakoff&Johnson have drawn up an impressive list of examples, following the original lead of Reddy(1979) who explored the structure of what he called the "conduit metaphor", the most familiar concept in terms of which we structure our talk about language. To illustrate:

Implying that human language functions like a conduit enabling the transfer of repertoire members from one individual to another.

e.g. get RM across (to someone)

"It's very hard to get that idea across in a hostile atmosphere."

send RM (to someone)

"Next time you write, send better ideas."

Implying that signals convey or contain the repertoire members, or else fail to do this in unsuccessful communication.

e.g. s be hollow

"Your words seem rather hollow." (Reddy 1979:311-314)

An explanation of this type of metaphorical ubiquity, systematicity and coherence requires a new account of meaning and understanding, it is concluded. Lakoff&Johnson(1980) offer a theory of experientialism that takes a functional and pragmatic view of language and cognition, and their proposals go a long way to describing coherently all kinds of phenomena that lie outside the scope of grammar. Although this book can be criticised in its own right, it is useful as a complementary perspective on a critique of a grammatical approach to semantics.

Grammar as a type of traditional approach to metaphor is ranked under the sin of objectivism. A representative list of assumptions, suggesting also what lies behind what I call the grammatical paradigm, is quoted here:

Truth is a matter of fitting words to the world.

A theory of meaning for natural language is based on a theory of truth, independent of the way people understand and use language.

Meaning is objective and disembodied, independent of human understanding.

Sentences are abstract objects with inherent structures.

The meaning of a sentence can be obtained from the meanings of its parts and the structure of the sentence.

Communication is a matter of a speaker's transmitting a message with a fixed meaning to a hearer.

How a person understands a sentence, and what it means to him, is a function of the objective meaning of the sentence and what the person believes about the world and about the context in which the sentence is uttered. (Lakoff&Johnson 1980:196)

As Lakoff&Johnson(1980:197) point out, the account they give of metaphor is inconsistent with this. Standard theories of meaning are rooted in these assumptions, as is shown convincingly. The way metaphor reveals the limitations of objectivism is the next issue in their book.

The crux of their argument is the necessity of interactionism, and this is contrary to the myth of objectivism. For instance, the explanation of metaphors on the basis of similarity is ill-conceived. 'In general, similarities do exist, but they cannot be based on inherent properties. The similarities arise as a result of conceptual metaphors and thus must be considered similarities of interactional, rather than inherent properties' (1980:215). If objectivism then retreats from this abstractionist account of metaphor into an homonymist position (the fortuitous coincidence of semantic similarity), it basically refuses to explain the problem:"it's not our job". A reduction of their task then follows: they want to be concerned only with the objective meaning, or truth, of normal sentences.

And this, again, is the core of the matter, for that kind of objectivity does not exist. Objectivist models of meaning are then explained and re-evaluated as partial theories that have some application and success, but which should not be confused with what human understanding is about.

I have given some attention to this book because it is an exhaustive alternative to the grammatical paradigm that draws explicit conclusions from the revealed metaphoricity of language. It also provides me with an opportunity to focus on the basis of the grammatical paradigm from a critical perspective, something that Lakoff&Johnson do not do in their argument. For I want to draw attention to the fact that the creativity constraint itself is related to a basic objectivist hypothesis that must explain the observed phenomena, namely the placement of something called competence in the human mind. This foregoes completely the interactional, dynamic and restructuring aspects of human communication that account for a good deal of this type of linguistic creativity. From a functional perspective, the openness and partiality of the language system promotes its indeterminacy and social production, and this is a prerequisite to its ongoing transformation and thus paradoxical self-preservation. This brings it more into the realm of codes that are studied by semiotics than that of algorithms that are developed by logicians and mathematicians (see, e.g. Even-Zohar 1979). Problems of meaning change that metaphor has drawn attention to, and which are notorious stumbling-blocks for grammars, are handled in motivated ways in such approaches. The psychological notion of competence suggests an incorrect picture of the way language really functions.

But cogent as their argument may be, Lakoff&Johnson(1980) have not received the attention from linguists they deserve. Although their work relies on psychological insights about language, this is not what most people think of when metaphor and psycholinguistics are connected. It is especially work on the process of comprehension that has been produced by psycholinguists, and this has been aimed at investigating the claim that metaphor is a kind of indirect, two-stage phenomenon. The question addressed is whether metaphorical comprehension takes longer than literal comprehension,

starting from the assumption that first literal meaning is computed and then metaphorical meaning is derived some way from this first stage. This general idea has been falsified by experimental evidence, and it has come to be replaced by the primary importance of context.

Because of the constraints imposed by our common cultural heritage of idioms and metaphor formulas, and because of constraints on contextual information, we are biased to perceive the figurative meaning of many nonliteral utterances. It takes special contextual manipulations to get people to take idioms and metaphor formulas in a literal way. In ordinary contexts, figurative language takes no longer to comprehend than ordinary communication, because figurative language is ordinary communication. It does not seem to require special comprehension processes, if to be "special" means "to take more time."(Hoffman 1982:24)

The precise and literal view of meaning that is based on the separate word which informs all grammatical approaches to meaning, then, is on the defensive. In actual language use, the concentration on the isolated word and its exact meaning is only a fail-safe device where normal parameters are insufficient or overruled by other parameters (think of literature). Hoffman(1982:20) writes: 'Sentence comprehension is so dynamic that it makes more sense to talk about it "from the world up" by looking experimentally at the dynamics of comprehension.' The construction of a semantic theory on a kind of logical atoms serves a different purpose than the description of meaning in language use.

The normal parameters of linguistic meaning are not literalness, but linguistic and situational context, which means that general cognitive structures and processes play a role in the determination of conveyed meaning. There has been a development recently of models of knowledge representation like scripts and frames and of knowledge bases that operate in processing like scenarios and schemata, and this has served as a framework for new work on contextualised meaning and the way it is comprehended by hearers. Some of the metaphor investigations have been conducted in this context, too. In general, this seems a better way in to the function of meaning in natural language than the atomised bottom-up procedure

that is necessary in a grammatical theory. Of course components and bottom-up processing do remain necessary in a theory of language, but their axiomatic position is a philosophical and methodological misconception. Despite the empirical problems of what may be called a discourse perspective, it seems that it is this perspective and not the grammatical paradigm that has the best chances of accounting for meaning in natural language in an intuitively satisfying way.

4. Conclusion

Some scientists have learned to see metaphor as the expected. Its relation to general linguistic theory has not been established clearly, however. The following points result from this paper:

- meaning is dependent on use; linguistic elements and structure receive their particular functional aspect from a particular context; literal, autonomous sense is incomplete and not the same as meaning.
- a theory of meaning should start from the complete data, i.e. from actual discourse that is transactionally and interactionally motivated, so that linguistic structure and elements are empirical correlates of psychological, social etc. needs and are interpreted by the analyst dynamically.
- a functional theory of meaning has no quarrel with the psychological and social reality of relatively autonomous existing meaning in language, but it assigns it a different place, displacing its status of basis for the theory and reformulating it as one of the most important effects and variables in communication to be reckoned with.
- referring and predicating are not conceived as grammatical but as pragmatic categories: success (or interaction) overrides correctness (or linguistic autonomy); metaphor is thus not an anomaly, but one device among many to establish effective communication.
- competence as an explanatory hypothesis behind linguistic creativity is too one-sided and autonomous to encompass these ideas realistically; its materialisation of language in the subject ignores the social completion of language in communication and cannot account for the historical dynamism in a principled way.

- grammatical descriptions of aspects of language, such as selection restrictions and semantic fields, apply to 'regularised, standardised and decontextualised data' (Brown&Yule 1983:21 about Lyons 1968) and should be relativised as such in a functional theory of language; they serve didactic or computational goals better than those of linguistic theory.

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