

THE SEMANTICS/PRAGMATICS INTERFACE FROM DIFFERENT POINTS OF VIEW

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CHAPTER 14

The Pragmatization of Semantics

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THE SEMANTICS/PRAGMATICS INTERFACE FROM DIFFERENT POINTS OF VIEW

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1. Introduction

During the middle of the present century, Charles Morris and Rudolf Carnap established their triadic division of the theory of language, which has since become one of the determinants of our theoretical understanding of language:¹

syntax was to deal with the relations between expressions;

semantics was to address the relations between expressions and what they stand for;

and

pragmatics was to examine the relations between expressions and those who use them.

The aim of this paper is to summarize some recent considerations of the nature of language and linguistic theory which seem to challenge the usefulness and adequacy of such a division and to indicate that these considerations may provide for a new paradigm. I attempt to show that these considerations indicate that the Carnapian boundary between syntax and semantics is, in the case of natural languages, misconceived; while that between semantics and pragmatics is more stipulated than discovered.

The Carnapian paradigm has been challenged, during recent decades, in two ways; we may call these the *internal* and the *external* way. By the *internal* challenge I am referring to the mutation of the Carnapian model evoked ‘from inside’, namely a development of linguistics and logic which extends Carnapian semantics far beyond its original boundaries to swallow up much of what was originally counted to pragmatics; while by the *external* challenge I mean the questioning of the whole model, namely a development within the philosophy of language which casts doubt on the entire Carnapian way of viewing language. These two movements are largely independent of each other, but they may be seen as manifesting the common drift to what can be called the *pragmatization of semantics*.

2. The ‘internal’ challenge to the Carnapian paradigm

2.1. *The problem of indexical and anaphorical expressions*

It was especially Carnap’s book *Meaning and Necessity* (1956) that pointed out the direction for those who wanted to account for the semantics of natural language via modelling it with the help of formal languages of logic. Before Carnap indicated how logic can surpass extensions, the models logic had been able to offer were, from the point of view of natural language, hopelessly oversimplified. Carnap initiated the process which culminated in Montague’s (1974) intensional logic,

¹ See, e.g., Carnap (1939).

thereby establishing a firm foundation for what we now call *formal semantics of natural language*.² The intensional model finally convinced many linguists and philosophers of language that to see natural language ‘as a logic’ and to develop logical languages for the purpose of modeling natural language may be enlightening. Thus Carnapian semantics came to fruition.³

However, it soon became clear that to reach an exhaustive semantic analysis of natural language we unavoidably trespass on the boundary which Carnap drew between semantics and pragmatics. The meaning of an expression in the sense of Carnapian semantics was supposedly something ‘context-independent’, i.e., something which had nothing to do with the context or circumstances under which the expressions happen to be uttered (for these were matters of pragmatics which Carnap obviously considered not addressable with the rigour he requested for semantics). However, the more practicing semanticists extended the range of natural language phenomena under semantic analysis, the less they found they could eliminate ‘context-dependence’.

The first kind of terms which resisted a ‘context-independent’ analysis were *indexicals*: words like *I*, *you*, *here*, *there*, *now*, etc. It was apparently impossible to say what these expressions meant without speaking about the circumstances of their utterance. Their denotations are obviously dependent on such or other aspects of the context; and in fact it is natural to see their meanings as some kinds of functions which yield a denotation when applied to the context. Thus, *I* may be seen as denoting an individual in a similar way as *Jaroslav Peregrin*, but the individual is determined only by the application of the meaning of *I* to the actual context (for what the application does is extract the utterer out of it). Hence indexicals appeared to be what I have elsewhere called *context consumers* (see Peregrin, ta1): to yield semantically relevant values, they had to be fed by the context.

The kind of expressions whose analysis then attracted the attention of most natural language semanticists towards the concept of context, some two decades ago, were *pronouns*. Again, it is hard to say what a pronoun means without talking about context: a pronoun’s function seems to be, just like that of *I*, to denote an individual somehow picked up from the context of its utterance. However, there is an important distinction between *I* and *he*: whereas *I* utilizes context in the sense of the ‘non-linguistic’ circumstances of utterance, *he* may utilize ‘linguistic’ context resulting from a preceding discourse. Thus, to understand the working of pronouns,

² For more about this establishing see Partee with Hendriks (1997).

³ In contrast to Montague, Carnap did not see the investigation of natural languages as the very same kind of enterprise as the investigation of formal languages of logic. In fact, in the beginning of his paper ‘Meaning and Synonymy in Natural Languages’ he identifies “the empirical investigation of historically given *natural languages*” with pragmatics and introduces the term “semantics” only within the context of “constructed *language systems*” (see Carnap, 1956, p. 233). However, he clearly *did* see his “constructed *language systems*” as models in terms of which we were to grasp natural languages (as witnessed, for example, by the fact that only two paragraphs later in the same paper he claims that the description of a language, such as German, “may well begin with the theory of intension”, i.e., with the theory of its semantics).

we have not only to understand that some expressions may be context-consumers, but also to realize that some other expressions may be *context-producers*: that they can provide such contexts on which pronouns (and other anaphoric expressions) then live.

Another kind of expressions the analysis of which has proved to require the concept of context are *articles*. Their classical, Russellian, analysis (see Russell, 1905; Peregrin, ta1, for a recapitulation) resulted in understanding *a* as expressing existence and *the* as expressing unique existence, but this has now been recognized as generally inadequate; for a great deal of the functioning of articles has likewise proved specifiable only in a 'context-dependent' way.⁴ The indefinite article, as it turned out, is generally best seen as a means of introducing a new item into the 'context' (and attaching a label to it); whereas the definite one is best seen as a means of pointing at a specifically labeled individual present within the 'context'. Thus, we may see *a man* as storing an item with the label *man*, and we can see *the man* as searching out an individual with precisely the same label. This allows for the intricate anaphorical structure of discourse (see also Peregrin, ta3).

2.2. *Topic and focus*

Such challenges to the traditional ways of construing the 'logic of language' have led also to the reassessment of the basic semantically relevant parsing of our pronouncements. Even the traditional concepts of subject and predicate, which were usually seen as expressing the most basic backbone of our sentences, demand a 'dynamic' approach: it seems that the concepts of subject and predicate, if they are to have the semantic import they are usually credited with, cannot be seen as delimited by the traditional rigid grammatical criteria. That part of the sentence which is most reasonably seen as its semantical subject need not always coincide with the grammatical subject, and similarly for the predicate. This is what was urged by Frege (1892b, p. 74): "Die Sprache hat Mittel, bald diesen, bald jenen Teil des Gedankens als Subjekt erscheinen zu lassen."

My suggestion is that what we should see as underlying the semantically relevant subject-predicate patterning of sentence is not its grammatical counterpart, but rather that which the linguists of the Prague Linguistic Circle once called 'aktuální členění větné', now usually translated as 'topic-focus articulation' (see Peregrin, 1996); for topic-focus articulation as an ingredient of the sentence structure see Sgall et al., 1986; Hajičová et al., 1998).⁵ The semantical subject coincides with

⁴ In fact, this finding goes back to Strawson (1950).

⁵ The stress which the exponents of the Circle put on this articulation is to be seen in the context of their *functionalism*, which took language to be first and foremost "a functioning system, adapted to its communicative role" (Sgall, 1987, p. 169). Such a position naturally leads to general tendencies to ground semantics in pragmatics.

the *topic* of the utterance ('východisko výpovědi'), whereas the semantical predicate coincides with its *focus* ('jádro výpovědi').⁶ This intuition can be accommodated within the framework of formal semantics in various ways. Perhaps the most straightforward of these is the one just sketched (and elaborated in Peregrin, 1996): to treat the topic as the semantic subject (picking up a piece of information 'as an object', thereby triggering an 'existential' presupposition) and focus as the semantic predicate (presenting some further specification of the object).

There are, however, other, perhaps less perspicuous ways, which nevertheless may better fit with current techniques of formal semantics. One is to base the account for topic and focus on the theory of generalized quantifiers and see them as arguments of an implicit generalized quantifier, or as – in terms of Partee (1994) – the *restrictor* and the *nuclear scope* of a *tripartite structure* (see Peregrin, 1994). In certain cases, the implicit quantifier can be overridden by an explicit focalizer, such as *always* or *only*, but also by negation (cf. Hajičová, 1994).

However, if we adopt a consequentially dynamic stance, it is best to see topic and focus as two phases of an information-conveying act (and they can be pictured as two segments of a dynamically viewed proposition). Topic corresponds to the phase where the information gets anchored to the existing 'informational structures', and focus to that where the genuine new information is being added. Therefore, the failure of the act during the topic-phase (i.e., the falsity of the relevant presupposition) means the failure of the whole act (which may precipitate a – possibly temporary – breakdown of communication), whereas that during the focus-phase (i.e., the falsity of the assertion) engenders merely the failure to add new information.

2.3. Meaning as 'context-change potential'

These and similar conclusions have led many semanticists to see meanings of natural language sentences as *context-change potentials*. (The term is, as far as I know, due to Irene Heim, who belonged, together with Hans Kamp, to the main initiators of the 'dynamic turn' of semantic theory of natural language; see Kamp, 1981; Heim, 1982.⁷) It has also led to the development of a new kind of logic which reflects this change of perspective and which gives logical analysis of natural language a surprising proximity to the theory of programming languages (see Groenendijk and Stokhof, 1991; van Benthem, 1997).⁸

In fact, we can see the development of formal semantics as the struggle for dominating increasing ranges of natural language locutions. We may see intensional

⁶ It is necessary to keep in mind that the terms *topic* and *focus* are sometimes used also in different senses.

⁷ Similar ideas have been presented by Hintikka and Kulas (1985), Seuren (1985), Sgall et al. (1986), Chierchia (1992), as well as by others.

⁸ The principles of this whole turn are summarized by Muskens et al. (1997).

logic as resulting from the effort to master the various *modal* aspects of language; we may see ‘hyperintensional’ semantic theories (like Cresswell’s, 1985, theory of structured meanings; Barwise and Perry’s, 1983, situation semantics; or Tichý’s, 1988, theory of constructions) as the result of turning attention to those aspects of language which concentrate within *propositional attitude reports*; and we can now see dynamic semantics as resulting from the effort to account for *anaphoric* aspects of language. And the same holds for the semantic entities brought about by these theories: for *possible worlds* and *intensions* of intensional semantics, for the various kinds of *structures*, *situations* or *constructions* of the ‘hyperintensional’ semantic theories, and for the *contexts* or *information states* and *context-change potentials* of dynamic semantics.

Note that the identification of the meaning of a sentence with its context-change potential does not entail that the difference between semantics and pragmatics vanishes. Take *I*: it remains a matter of pragmatics that when I now utter the sentence *I am hungry*, it will refer to me, while if you do so, it will refer to you. However, it is the matter of semantics that it always refers to *the speaker* (whoever she or he might be). Similarly it is a matter of pragmatics that *he* in *He is hungry* refers to me if the utterance of the sentence is accompanied by pointing at me, or if it follows the utterance of *Here comes Peregrin*; but it is a matter of semantics that *he* gets its referent, in a certain way, from the context.

Anyway, it no longer seems feasible to do formal semantics of natural language disregarding the concepts of context and context-dependence. The range of semantic phenomena which cannot be adequately explained without their help is vast, and the very working of language is essentially oversimplified if meanings are explicated in a way which does not account for how utterances interact with each other via contexts.

3. The ‘external’ challenge

3.1. Language as a toolbox

Along with this ‘internal’ challenge, the Carnapian paradigm has been challenged also in a quite different way; namely by the development of a wholly alternative view on language which has been claimed, by its partisans, to be philosophically more adequate and more fruitful. This view started to lurk in the writings of several analytic philosophers during the second half of this century. It is an approach based on viewing language not as a set of labels stuck on things, but rather as a kind of a toolbox, the significance of its elements thus lying in the way they function rather than in their attachment to things. The first prominent propagator of such a view was the ‘later’ Wittgenstein, who showed that to try to separate the question *what does a word mean?* from the question *how is the word used?* is futile; and concluded that thus what a word means *consists in* how it is used. “The meaning of

a word is its use within language”, as he puts it in his *Philosophical Investigations* (1953, §43).

A similar visual angle has been adopted by Willard Van Orman Quine and subsequently by Donald Davidson, who tried to approach the question *what is meaning?* via considering the question *how do we find out about meaning?* In Quine’s hands, this gave rise to the instructive contemplations of the problem of *radical translation* (see esp. Quine, 1960); Davidson speaks about *radical interpretation* (Davidson, 1984). This stance has served the philosophers to identify what it is that we learn when we learn an expression; with the conclusion, akin to Wittgenstein’s, that it is the way the expression is used. From this angle, it seems that it must be pragmatics, as the theory of how people use linguistic signs, rather than semantics, which should be the heart of a theory of language.

The impression that semantics becomes, from this viewpoint, in a sense parasitic upon pragmatics (rather than the other way around), has been underlined by the considerations of another outstanding American philosopher of the second half of this century, Wilfrid Sellars. Sellars pointed out that what appears as semantics is often rather ‘pragmatics in disguise’: that what we really do when we seemingly state the semantic relationship between a word and a thing is to specify the function of the word in question by means of invoking that of some other, familiar word. Thus, ‘*Kanninchen* means rabbit’, according to Sellars, does not state a relation between two entities, the (German) word *Kanninchen* and, say, rabbithood, it rather describes the function of *Kanninchen* within German as a function analogous to the one the English word *rabbit* has in English (see Sellars, 1963).⁹

Perhaps the most symptomatic, and probably also the most popular, picture of language reached in this way can be found in the writings of Davidson, who has most consequentially assumed the stance from which language appears to be essentially a tool or an aspect of human *action*, inextricable from the network of other actions. Therefore I shall call this kind of approach to language, which I shall see as in competition with the Carnapian one, the *Davidsonian* approach (without thereby claiming that all its details are ascribable to Davidson).

3.2. *The roots of the Carnapian paradigm*

We can hardly deny that the new, Davidsonian paradigm is *prima facie* much less plausible than the old, Carnapian one. To explain what makes us nevertheless recommend it, we have to inspect the source of the apparent plausibility of its rival; we shall try to indicate that this plausibility is dubious.

Carnap’s triadic classification is based on a picture which is very natural: on a picture of language as a ‘nomenclature’ (as I called it elsewhere – see, e.g., Peregrin, 1995, Chapter 8), i.e., as a set of labels conventionally attached to certain

⁹ In fact, this position is close to that of Carnap before he embraced what we call the Carnapian paradigm. See Carnap (1934).

extralinguistic entities. What makes up language in the first place is, then, the linkage between its signs and some things which the signs *stand for*, and it is the theory of this linkage which is the subject matter of Carnapian semantics. This theory is then supplemented, on the one hand, by a theory of the idiosyncratic nature of the signs themselves; and, on the other hand, by a theory of how the signs are employed by human agents. (It is unnecessary to add a specific theory of the entities which the signs stand for, because these are supposed to be ordinary, non-linguistic things falling under general theories of concrete or abstract things.) The two other theories, syntax respectively pragmatics, may be considered as secondary to semantics: in so far as something qualifies as a language simply by its elements standing for their meanings, to analyze this 'standing for' relation is to analyze what is really essential. Pragmatics is then, and this was as Carnap indeed seemed to see it, a not very interesting matter of the idiosyncratic ways speakers employ words and sentences when they *use* language (what they feel and imagine when using its expressions, etc.). And syntax, although surely interesting in its own right, is inessential in the sense that language could fulfill the same function even if the idiosyncratic syntactic features of its expressions were quite different – provided the 'standing for' relation were retained.

I can see two main reasons leading Carnap to his triad (if we disregard the support it gains from its accordance with common sense): firstly that it is straightforward for artificial, formal languages, and secondly that it accords with the doctrine of logical atomism which tacitly underlaid the philosophical views of the majority of logicians and analytical philosophers of the first half of the present century.

Formal languages of logic have been usually defined by defining their syntax and semantics: syntax established how their formulas were to be formed and 'reformed' ('umgeformt', in Carnap's, 1934, German term), whereas semantics established what the formulas and their parts were to stand for. (In his 1934 book, Carnap's intention was to make do with syntax only, but later, especially under the influence of Tarski's development of 'scientific semantics', viz. Tarski, 1936, he fully embraced also the set-theoretically constructed semantics.) These two compartments of the theory of language had to be complemented, Carnap obviously thought, by a third one which would comprise everything that could not be directly subjected to logic – i.e., matters concerning the idiosyncratic ways people actually employ language.

That applying this view also to natural language well accorded with the doctrine of logical atomism is not hard to see. The doctrine, explicitly entertained by Russell (1914, 1918/19, 1924), but implicitly endorsed also by Wittgenstein (1922) and Carnap himself (1928) is based on seeing the language and the world as edifices erected upon certain atomistic bases; and seeing the link between language and the world in terms of an *isomorphism* of the edifices: what a complex statement (a *logically* complex, that is, for what really counts is the *logical* structure, which can be covert, not the superficial, overt structure) stands for is a certain conglomerate of that which is stood for by its parts (see Peregrin, 1995, §5.6).

However, I think that none of the reasons for the Carnapian paradigm is to be embraced; albeit the grounds for rejecting them are quite different. The reason stemming from the analogy between natural and formal languages is to be rejected because the analogy does not really exist; while the reason of atomism is to be rejected because the atomistic doctrine failed. Let us first turn our attention to the failure of atomism first.

3.3. 'The dismantling of atomism'

That the atomistic picture is far too naive to underlie an adequate account of the language-world relationship soon became clear. It is interesting that Wittgenstein, whose *Tractatus* offered probably the most philosophically fruitful elaboration of the atomistic picture, himself early recognized its weak points; and what took place in his thinking since 1929 is aptly called, by Kenny (1972), 'the dismantling of atomism'. It is instructive to consider the reasons for this dismantling.

The basic point was that Wittgenstein realized that the assumption of a basis of atomic statements underlying our language (and hence of a basis of atomic facts laying the foundations of our world) has no true support in reality. The constitutive feature of such a basis is the independence of its elements, i.e., the fact that each of them can be true or false independently of the truth or falsity of any other. However, when Wittgenstein examined more closely the most basic sentences of natural language, especially the ascriptions of colours which appeared to be exemplary cases of elementary statements, he realized that they are far from conforming to this picture. Such sentences, although constituting the most 'primitive' level of our language, are clearly not independent of each other: *x is blue*, for example cannot be true if *x is red* is (assuming, of course, that *x* is not a kind of object which can be *both* blue and red; viz. the well-known Sophists' argument criticized by Aristotle). Thus we have either to conclude that such statements are still *not* atomic, that they are compounds of some other, more primitive statements, whose nature is then, however, unavoidably mysterious (they are surely not statements of the overt language), or we have to give up the whole picture of an atomic basis. Some of the passages of the *Tractatus* indicate that Wittgenstein was at least dimly aware of this predicament already while writing this book and tried to resolve it in the former way, by indicating that his theory addresses some hidden structure underlying natural language rather than the language itself, which in fact immunizes his theory against any findings about real language. What he realized later was that a theory of language of this kind is nothing else than another kind of infallible metaphysics (just *because* of its immunity from any findings about the real language) which he himself always struggled to eradicate.

However, considerations of the ascription of colours and of the nature of atoms of our language were neither the sole, nor the most decisive, reason for Wittgenstein's later change of mind. The crucial factor appeared to be the realization of

the fact that to see meanings as things and their relation to their expressions as correspondence is both unwarranted and futile. Meanings, as Wittgenstein clearly saw in the later period of his life, are best seen as ways of usage, not as things named.

Quine, Davidson, Sellars and other American (post)analytic philosophers later came with related critique; although sometimes put in rather different ways. Quine pointed out that atomism breaks down once we appreciate the essentially holistic character of our language, which becomes evident when we consider, e.g., the process of translating an unknown language or the process of verifying scientific hypotheses. (This led him also to his famous claim that we cannot keep positing an insurmountable hedge between truths which are analytic and those which are contingent.) Sellars' criticism is similar, although originally based predominantly on considerations of the nature of our knowledge and resulting in the rejection of the boundary between 'the given' and 'the inferred', implicit in the atomistic picture as the boundary between the knowledge of atomic facts (which is direct, we simply 'accept such facts into our minds') and of facts that are complex (which we then fabricate out of the direct intake). Given all this, it becomes less easy to see language as a collection of expressions each of which mirrors its own particular bit of the world independently of the others.¹⁰ Moreover, it almost inevitably leads to the view of meaning as a tool employed by an interpreter to comprehend language via classifying its elements.¹¹

However, if this is the case, then the Carnapian triadic division of linguistic matters becomes dubious. From this visual angle, it may seem as if pragmatics swallows up everything else. Everything that we learn when we decipher a language (and hence everything that there is to know in order to know the language) is how the speakers of the language use it. If language is no nomenclature, if meaning is only a classificatory tool of an interpreter, then there is no sharp boundary between those aspects of linguistic behaviour which are to be viewed by the prism of meaning and those which are not. We posit meaning where we see it helpful; and we do not posit it where we think we can make do without it.

3.4. *Natural and formal languages*

It is clear that there is no difficulty in separating semantics from syntax and pragmatics *in a formal language*. In fact, it is usual for an exposition of such a language to be given in three sharply separated chapters: syntax proper (delimiting well-formedness, i.e., the class of the expressions of the language), proof theory or 'logical syntax' (delimiting provability, i.e., the class of the theorems of the

¹⁰ This has been discussed in detail by Rorty (1980).

¹¹ This is stressed by Sellars (1974), who speaks directly about "meaning as functional classification". Elsewhere (see Peregrin, 1995, 1997a) I have pointed out that this means that any theory of meaning has to be 'structuralistic'.

language) and model theory or semantics (delimiting validity, i.e., the class of tautologies or analytic truths of the system). Each chapter constitutes its own self-contained field of study. The first two may be combined, following Carnap, under the common heading of *syntax*, while the third is left under that of *semantics*. *Pragmatics* then may be considered as not a matter of the system itself, but rather of the way in which the system is handled by those who employ it.

It is beyond doubt that the development of languages of modern logic advanced our understanding of natural language. It is also true that these languages can often be, beneficially, conceived of as models of natural language. Nevertheless, we should be careful in concluding that therefore the nature of formal and natural languages is the same: after all, although any model must be in some sense similar to what it models, the very fact that it is capable of serving as a *model* means that it is also, in some other sense, quite *dissimilar* to it. If we want a model of an atom, then we cannot simply take another atom, we have to make a metal (or plastic, or whatever) construction, which is in some important aspect ('structure') similar to the atom while in some other aspect (scale) utterly dissimilar.

It is the neglect of this important point that leads to pronouncements such as Montague's denial of any important difference between natural and formal languages, and it was the very same neglect that underlaid Carnap's approach. (To avoid misunderstanding: of course there *is* a sense in which we *have to* neglect the differences between the model and that which it models. Such neglect underlies the very employment of the model as a means of reasoning about the modeled. What we want to say is that if our aim is to account for the very relation of modeling and its terms, then we have to reflect their essential asymmetry.) The idea was that we could get syntax by studying the system of signs itself, semantics by studying on which things its individual signs hook, and pragmatics by studying how the signs get employed by their users. However, as Quine and Davidson demonstrated with their thought experiments of radical translation resp. interpretation, *to observe which expressions speakers employ and how they employ them is all there is to observe and all there is to understand*; there is no observing of how words hook on things over and above this.

However, this looks like an evaporation of semantics: there are matters of which expressions constitute language, i.e., which expressions are well-formed, which undoubtedly fall under the heading of syntax; and there are matters of how their users employ them, which appear to fall under that of pragmatics. There appears to be no room for an intervening semantics. Does this mean that natural languages have in fact no semantics (but only pragmatics) and that formal languages, in force of having one, are inadequate to them? Of course not: it only means that the Carnapian division may not be applicable to natural language so straightforwardly as many seem to think; that it may not be a matter of the phenomenon studied (natural language), but rather of our way, or our means, of studying it (the formal language model).

We should not be blind to the fact that natural language itself does *not* come in the three chapters in which formal languages do; we make it look so only when we devise a suitable formal language as a model, as a prism through which we look at it. (And note that doing this is not cheating, it is simply imposing an organizatory scheme which promotes our understanding.) In applying the model, we do our best to make it fit, to make all junctures of the latter be precisely superimposed on the corresponding junctures of the former. However, there are no natural junctures to be superimposed by the formal boundaries of Carnapian semantics, and so we have a certain latitude over our placing of it (we can move it here and there to the extent to which it does not pull other junctures which do have natural counterparts to superimpose).

Hence, it is crucial not to confuse the (natural) language which is the *object* of our investigation with the (formal) language which is a *means* of the investigation. As Putnam (1962) puts it, discussing the problem of the analytic/synthetic distinction, “we have a model of natural language according to which a natural language has ‘rules’, and a model with some explanatory and predictive value, but what we badly need to know are the respects in which the model is exact, and the respects in which the model is misleading The dispositions of speakers of a natural language are not rules of a formal language, the latter are only used to represent them in a certain technique of representation; and the difficulty lies in being sure that other elements of the model, e.g., the sharp analytic-synthetic distinction, correspond to anything at all in reality.” The same holds for the boundaries of Carnapian semantics: they are boundaries essential (and straightforward) for formal languages, but rather chimerical for natural languages. The problem is that we are so accustomed to viewing natural language through the prism of its formal-language model that we often mistake the latter for the former.

3.5. *Meaning as ‘interpretational construct’*

In order to fully understand the Davidsonian paradigm, we must break radically from viewing language in the Carnapian way. We must forget about ‘standing for things’; we must stop construing expressions like labels and instead see them as ‘tools’. To learn the meaning of a word is no longer to discover the thing (or the chunk of reality, or the thought) which the expression labels, but rather to learn the ways in which the expression is used within its ‘language game’. If it is not a word of our first language, then this usually involves finding a word or phrase of ours which is employed in the same way as the foreign word in question; to find the component of *our* toolbox with which we achieve (more or less) the same as the foreigners achieve with that element of *their* toolbox. Thus, from this perspective, translating a foreign language does not consist in finding the things which are the common nominata of the foreign and our words, it rather consists in something like comparing toolboxes.

However, if we took this idea at face value, would it not lead to absurd consequences? If we took the meaning of an expression to consist in the totality of cases in which the expression is really put to use, would it not mean that meaning is something which we can never really learn (for we surely cannot witness all the cases), and, moreover, something too idiosyncratic to an individual speaker? Would it not mean that we could almost never find an expression of the foreign language which would mean the same as an expression of ours? (It would be enough if my foreign informant once mistook a cat for a rabbit, while I did see it was a cat, and his *gavagai* would be bound to mean something else than my *rabbit* – no matter how many other times we would use the two words concurrently.)

The answer is that, of course, we cannot see meaning as consisting in *all* the cases of utterance. It is clear that we have to allow for marginal discrepancies in usage and not to construe meaning as the *entire* way an expression is actually put to use, but by something as ‘the most substantial part of this way’.¹² However, having given up the notion of language as a nomenclature, we cannot say that this ‘most substantial part’ is simply that part which is the matter of the expression’s ‘standing for’. Is there another feasible way of delimiting it?

We may think of identifying the boundary of the ‘most substantial’, ‘meaning-determining’ part of an expression’s functioning with the boundary between *the analytic* part of language and *the synthetic* part. Some statements, it is usually assumed, are analytic and meaning-constituting (hence they are, in effect, explicit or implicit definitions), others are synthetic and fact-expressing (they are reports of how things are). However, this way is in general precluded to us too – for as Quine (1952) has famously pointed out, even this boundary goes by the board with the notion of language as a nomenclature.¹³

This brings us to the central point of Quine and Davidson: linguistic holism. Language is a co-operative enterprise, and its working cannot be construed as a resultant of self-standing workings of mutually independent items. Let us imagine

¹² Besides this, we must realize that the fact that our conjectures about the ways the foreigners use their words are bound to be based on restricted evidence (for we can realistically witness only a severely limited subset of the cases of their utterances) is not an argument against knowing them. Drawing general conjectures from restricted evidence is the general way we put together our theories of our world, and we know that they do work despite this (although we must grant Hume and Popper that we can never be *sure* that our general theories are really true). So in this respect, our learning of foreign language is no more problematic than finding out about anything else within the world.

¹³ In fact, once we assume the Davidsonian stance, the same conclusion is bound to be forthcoming. Observing the natives, how could we tell an analytic pronouncement from a synthetic one? How could we tell difference in meaning from difference in claims? Suppose that the foreigner whose language we think we have translated into our language satisfactorily utters a sentence which we translate as ‘Pigs have wings’. How could we decide whether he really believes that pigs have wings, or whether we have only misinterpreted some of the words? Of course by asking him questions about pigs and wings (and indeed about having) to find out to which extent what he says differs from what we think – and if the differences are deep, we would be inclined to vote for an error in our translation manual, while if they are not, we could vote for differences in opinions. However, there is no criterion to draw a sharp boundary.

a clock: it shows time, and it does so by consisting of a number of co-operating parts. However, it would be futile to see its parts as carrying out each its independent subtask of time-showing, and to claim that the working of the whole clock is the resultant of such individual subtasks. Of course there are ways to specify *the role* of a part of the clock, but we can usually do so only relatively to the roles of other parts; and we can do it in more than one way. Is the role of the clockface simply to show the layout of the hours of the day; or to underlie the hands, or perhaps to give meaning to the positions of the hands? And is the role of the predicate to apply to its subject; or rather to let the subject be applied to itself; or perhaps something else?

This indicates that meaning, viewed from this perspective, becomes something as an ‘interpretational construct’.¹⁴ Assigning meaning is specifying a role, or possible roles, within a co-operative enterprise; it is to state how an expression could be useful for the purposes for which we use language. Thus, assigning a meaning to a word is not like discovering a thing effecting the word, but rather like the determination of a value which the word has from the viewpoint of a certain enterprise.

When a speaker *S* utters a statement *s*, then our way of perceiving it is that *S* has a belief *b* and that this belief is the meaning of *s*. However the belief is not something that could be found by opening *S*’s head, and similarly the meaning is not something that could be found by inspecting *s*’s linkage to a piece of the world; both are something we stipulate to ‘make sense’ of *S*’s utterances. We start from the observed facts about the speakers’ linguistic behaviour and ‘decompose’ the body of these facts into a theory of what the speakers believe and a theory of what their words mean. Thus we are to understand the pronouncement ‘the meaning of *s* is such-and-such’ more or less as only a metaphoric expression of ‘the way *s* gets employed within a certain language game is substantially such-and-such’ or ‘the position of *s* within a certain language is substantially such-and-such’; just as we understand the pronouncement ‘the price of *x* is such-and-such’ as being a shorthand for ‘the position of *x* within the selling-and-buying relations among people is such-and-such’.

3.6. ‘Semantics must answer to pragmatics’

While Davidson’s own writings do not pay much attention to the concepts of pragmatics and semantics, an explicit reflection of these concepts and their relationship is fostered by the writings of Wilfrid Sellars and carried out in detail by Sellars’ disciple Robert Brandom. Brandom (1994, p. 83) diagnoses the situation in the following way: “Semantics must answer to pragmatics. The theoretical point of attributing semantic content to intentional states, attitudes, and performances is to

¹⁴ Cf. Abel (1994).

determine the pragmatic significance of their occurrence in various contexts". According to him, the talk about the meaning of a statement is a disguised (sometimes quite misleadingly disguised) talk about what the statement is good for, and the talk about the meaning of a part of a statement spells out the contribution which this expression brings to the usefulness of those statements in which it may occur. "Semantic contents corresponding to *subsential* expressions", as Brandom (1994) puts it, "are significant only insofar as they contribute to the determination of the sorts of semantic contents expressed by full sentences".

Following Sellars, Brandom moreover stresses the essentially *normative* nature of pragmatics: pragmatics, as he understands it, is essentially a matter of *norms*: it is a matter of *rules* which institute what is *right* and what is *wrong* within the realm of usage of language. According to him, the meaning of a statement, i.e., what the statement is good for, consists first and foremost in the *commitments* and *entitlements* which the assertion of the statement brings about, and these commitments and entitlements are in turn reflected by the inferences in which the statement participates. Thus, the meaning of a statement is, according to Brandom, its *inferential role*.¹⁵

In this way any 'semantic interpretation' is merely a spelling out of the 'pragmatic significance': "It is possible", writes Brandom (1994, p. 84), "to associate all sorts of abstract objects with strings of symbols in formalized languages, from sets of models to Gödel numbers. Such an association amounts to specifically *semantic* interpretation just insofar as it serves to determine how those strings are correctly used. For example, Tarski's mapping of well-formed formulas of the first-order predicate calculus onto topological domains qualifies as a semantic interpretation of them only because he can derive from it a notion of valid inference, a way of telling what follows from what – that is, a notion of their correct use".

Thus, I think that Brandom's book, appropriately called *Making it explicit*, offers the clearest exposition of the pragmatization of semantics implicit to what we have called the Davidsonian approach: it makes explicit that once we give up the notion of language as a nomenclature, there is no way to extricate semantics from pragmatics.

4. New boundaries?

4.1. *Semantics and syntax*

The considerations of the previous sections have posed serious challenges to the Carnapian paradigm and to those boundaries between syntax, semantics and pragmatics on which this paradigm is based. However, their upshot should not be that there are no such boundaries, but rather that the Carnapian way of drawing them is

¹⁵ Cf. also Peregrin (ta1).

inadequate. Let us first look at what separates semantics from syntax; we shall denote the Carnapian notions as *syntax_C* and *semantics_C*. Thus, *syntax_C* is supposed to be about relations between expressions, whereas *semantics_C* is supposed to be about those between expressions and extralinguistic objects.

It is clear that this definition makes real sense if there is *a matter of fact* underlying the distinction between properties of expressions and relations linking expressions to extralinguistic objects, i.e., if those relations between words and things which are the subject matter of semantics are in some sense 'real'. Given the atomistic character of the language-world relationship and assuming a 'real', 'matter-of-factual' link between a thing and that expression which denotes this thing, the boundary between syntax and semantics becomes an *empirical* matter. It is like a boundary between relations among trees in a forest (e.g., 'a tree T_1 is bigger than a tree T_2 ') on the one hand and relations between trees and men taking care of the forest (e.g., 'a tree T has been planted by a man M ') on the other. To ascertain which properties of a tree are of the former kind (i.e., which are 'natural') and which are of the latter kind (i.e., which are caused by an extraneous agent) is the matter of an empirical inquiry: it is in principle possible (though, as the case may be, in practice difficult) to find out whether, say, a scratch in the trunk of a tree is 'natural' or whether it was caused by an action on the part of a forester. And it would seem likewise possible to ascertain which aspects of an expression are 'natural' and which were caused by an external agent – its meaning.

However, if we relinquish the notion of language as a nomenclature and embrace the ensuing holism, this boundary – just like the boundary between the analytic and the synthetic – ceases to be directly grounded in the nature of things and becomes – in this sense – rather visionary. Once we deny the possibility of empirically discovering the factual link between an individual expression and its meaning, then we must accept that there is no real boundary at all. Once meaning becomes an 'interpretational construct', there ceases to be an absolute boundary delimiting the cases of its employment. Whenever we have an expression E having a property P (a *syntax_C* matter), we can treat P as an object associated with E (i.e., as a *semantic_C* matter). On the other hand, whenever there is an object O associated with an expression E (a *semantic_C* matter), we can speak about E 's having the property 'being-associated-with- O ' (i.e., view it as a *syntax_C* matter).

Let us take an example. What does it mean for a statement to be true? *To be true* is surely a property; but we can just as well articulate it, as Frege did, as the relation between the statement and a posited extralinguistic object ('the truth'). If we do nothing more than reify it in this way, then we surely do not do anything substantial; however, we stop speaking about a property of expressions (i.e., about a unary relation and hence about a *syntax_C* matter) and start instead to speak about a relation of the expression to an extralinguistic object (a *semantic_C* matter). Another example: Let us take the statement *A man walks and he whistles*. We say that its part *a man* and *he* refer to the same object – which amounts to speaking about a relation between words and a thing. However, the situation can be equally

well accounted for by saying that the statement in question is synonymous with the statement *A man walks and the (same) man whistles* – and we are talking about a relation between two statements to the same effect.¹⁶

This leads to the conclusion that the nature of the syntax/semantic boundary is quite similar to the analytic/contingent boundary – that both rise and fall with the atomistic view of language. This is, indeed, true – however only if we keep with the Carnapian definition drawing the boundary as that between relations linking words to words and relations linking words to things. It is not true if we construe the syntax/semantics boundary along different lines.

The basic intuition underlying our employment of the pre-theoretical concepts of syntax and semantics is that there is a distinction between questions concerning words *per se* and questions concerning words-as-meaning-what-they-mean. However, this intuitive distinction is misconstrued by the Carnapian definition: ‘to be about’ is not a naturalistic matter of ‘hard facts’, it is rather the matter of interpretation and hence cannot mark a distinction which would be absolute. The right way to construe the intuitive syntax/semantic distinction is another, and if we adopt the Davidsonian stance, it is rather straightforward. It takes the distinction as marking the boundary between *what* we use to communicate and *how* we use it. Thus, we suggest to consider syntax as the theory of *which* expressions people use to communicate (i.e., a theory of well-formedness), while semantics¹⁷ as the theory of *how* they use them.

The boundary between syntax and semantics conceived in this way is surely an existing and observable one: to delimit the range of expressions encountered by the natives is one thing, and to describe when and how they employ them is another (though the former may be thought of as a prerequisite for the latter).¹⁸ However, it is a boundary substantially different from the Carnapian one: what Carnap called *logical syntax* now falls on the side of *semantics*, not on the side of syntax – for inference is clearly a matter of *how* statements are used. It is nevertheless precisely this which it takes to gain a solid and real boundary.¹⁹

¹⁶ The situation is reminiscent of the old philosophical question about the reality of *univerasalia*: it is clear that if the question is simply whether *to be red* is to have a property, or rather be connected to an object (‘redness’), then it is a pseudoquestion.

¹⁷ Here we, of course, use the term *semantics* broadly, in the sense of *semantics-cum-pragmatics*. How to separate these two ingredients will be the subject of the next section.

¹⁸ The former task amounts to formulating some recursive rules characterizing the class of well-formed expressions, whereas the latter amounts to articulating relevant likenesses and differences between expressions (between the foreign expressions as well as between them and our expressions). Quine (1953, p. 49) puts it in the following way: “What had been the problem of meaning boils down now to a pair of problems in which meaning is best not mentioned; one is the problem of making sense of the notion of significant sentence, and the other is the problem of making sense of the problem of synonymy.”

¹⁹ To indicate the consequences of the shift, let us consider the concept of *provability*. Carnap would count it to (logical) syntax, for to prove something is a matter of applying some ‘reformation’ rules transforming statements into other statements; and so would undoubtedly also many of the contempo-

4.2. Semantics and pragmatics

In this way we have managed, after all, to draw a clear and distinct dividing line between syntax and semantics (or we should rather say between syntax and the rest, i.e., semantics-cum-pragmatics); albeit differently than Carnap. However, what about the opposite boundary of semantics, that which delimits it from pragmatics?

We have seen that the considerations of the ‘external challengers’ indicate that we could or should see meanings as ‘ways of usage’, ‘inferential roles’ or some other usage-based creatures; and that those of the ‘internal challengers’ suggest that we can no longer find an adequate theory of meaning without employing the concept of context (or some equivalent). Is there still room for distinguishing between meanings and ways of putting to use?

I think there is; but again, to find it we should better forget about the Carnapian paradigm, for seeking a boundary between ‘hooking on things’ and ‘being employed by speakers’ can give us no cue. What I suggest is that we should attend to the concept of *invariance*: Meaning of an expression is, roughly speaking, that which is invariant among various cases of employment of this expression. (Interestingly, this is what was urged by Roman Jakobson as the core of linguistic structuralism: “If topology is defined as the study of those qualitative properties which are invariant under isomorphic transformations, this is exactly what we did in structural linguistics”.²⁰) This is obviously a very abstract and perhaps ambiguous specification, for there can be various *kinds* of invariances; but what has been concluded above indicates that we should *not* see the boundary between semantics and pragmatics as altogether unambiguous. (Thus the status of this boundary is essentially different from that of the boundary between semantics and syntax – we found, in the end, that syntax *can* be delimited quite unambiguously.)

Let us hint at what kind of invariances we may have in mind: On one level, semantics may be held to be that which is invariant to individual utterances of the same expression, pragmatics as that which is not. Thus, when I say *I am hungry*

rary logicians. But it is important to see that this usage institutes an ambiguity of the word ‘syntactic’: *to be provable* is *not* syntactic in the sense in which, say, *to begin with the letter ‘a’* is – it is not a property of statements *per se*, i.e., statements as sequences of marks on a paper, but rather of statements as meaning something, as used within a certain language. *To be provable* primarily means *to be demonstrably true*, or *to be the result of recursive application of some obviously truth-preserving inferential rules to some obviously true statements* (only secondarily is it sometimes used also within the context of formal languages in the sense of *to be the result of recursive application of whatever counts as inferential rules to whatever counts as axioms*). It clearly makes no sense to say whether a sentence is provable unless it means something (whereas we *can* say whether it begins with ‘a’ even so). (Of course we can be given some instructions with the help of which we can identify some provable statements even without understanding them, but this is equally true for *any* property of expressions, however purely semantic it may be.) The boundary proposed here does away with this ambiguity: proving is clearly a matter of what statements mean, i.e., how they are *used*, so provability now falls on the side of semantics.

²⁰ Jakobson (1971, pp. 223–224).

and you say *I am hungry too*, the fact that the first *I* refers to me, whereas the second to you, is a pragmatic matter. What is invariant is that it always refers to *the speaker*. On another level, we can see semantics as that which is invariant to the idiosyncratic ways individual speakers employ words, and pragmatics as that which is not. The fact that it is true to say *I am hungry* when one is hungry is a matter of semantics; while the fact that I never utter the sentence when I am in somebody else's place, whereas someone else does unscrupulously announce her hunger even in such situations is a matter of pragmatics. Similarly, the fact that I always imagine a roasted boar when I say that I am hungry, whereas my companion imagines the emptiness of her belly, and somebody else imagines nothing at all is the matter of pragmatics: what is invariant is the very utterance and the norms governing it. Of course all such boundaries are fuzzy: but this is of a piece with the conclusion that meaning should not be seen as a thing, but rather as an interpretational construct.

In Section 3.5 we concluded that assuming the Davidsonian stance implies taking the meaning of an expression as the 'most substantial part' of the way the expression is being put to use; and we stressed the important fact that the boundary is thus not 'in the nature of things', but is, in an important sense, in the hands of the interpreter. Now the idea of invariance indicates that the interpreter at least has some cues what to count to the substantial part and what not – the interpretation is, in effect, nothing else than a case of the old pursuit of the *e pluribus unum* which seems to be the basic pattern of our grasping the world.

4.3. Objections

The proposals made in the previous sections will, no doubt, be felt by many people as counterintuitive. Here I shall try to indicate that this feeling may be the result of, to paraphrase Wittgenstein's (1953, §115) bonmot, 'being held captive by the Carnapian picture', rather than the insufficiency of the proposal. Let us consider some of the possible objections to it.

Perhaps the most obvious objection is that the new picture fails at doing justice to the most basic 'semantic intuition', namely that words *are* a matter of labeling things. Is, say, the word *cat* not a label used to label cats? Does it not fly in the face of reason to deny that, say, the name *the cat which chases Jerry* is the label of Tom?

I think that this 'semantic intuition' is in fact a malign (i.e., misleading) mixture of various heterogeneous, more or less benign (i.e., just), intuitions. First, it is obviously true that some expressions are intimately connected with some kind of objects (viz. *cat* with cats) in the sense that the way we use them would be hardly specifiable without mentioning (or indeed pointing at) objects of this kind. However this hardly establishes a name-like relation. For a general term like *cat* it holds that if we want to treat it as a name of an entity, then this entity would,

of course, have to be not a cat, but rather something as a ‘cathood’. However, as millennia of disputations of philosophers have made plausible, ‘cathood’ seems to be nothing else than an entity brought to life precisely only by our desire to have something for *cat* to name – and hence can be hardly taken as something which prompted us for being labeled by the word.

If we, on the other hand, consider a singular term like *the cat which chases Jerry*, then it is true that the term can be seen as naming an object, but it is notoriously well known that the object has little to do with the *meaning* of the phrase: you can surely know the meaning of the phrase without knowing Tom (or even without knowing whether there really is any such cat). This fact has been clearly analyzed, for the first time in the modern context, in Frege’s (1892a) famous *Über Sinn und Bedeutung*. Thus it seems that whereas using language may involve various kinds of relations which may be seen in terms of labeling, it does not follow that the word-meaning link is one of them.

Another objection might be that if we give up the good old notion of semantics as semantics_C, we will not be able to explain truth. If we do not see words as essentially denoting things, then we cannot say that a statement is true if things are the way the statement declares them to be. Language, the argument may continue, is the matter of a words-things relation, so an explanatory account of language must be semantic_C. This objection is, of course, question begging – it simply presupposes the view of language as a nomenclature which we have eschewed as inadequate. Our Davidsonian stance implies that language is primarily *not* a collection of word-thing relations, but rather a collection of human actions and rules for such actions; and also that truth neither needs, nor admits, an explanation in terms of correspondence. (*How* truth is to be explained in such a case is another question; but proposals are numerous. See, e.g., Peregrin, ta2.)

Then there are objections which are likely to come from logicians. One such may be that if we give up semantics_C, then we shall not be able to give truth conditions for quantifiers – for the substitutional view of quantification is usually considered as unsatisfactory. We cannot give the truth conditions for $\forall x.P(x)$, this argument says, otherwise than via amounting to those things which *P* can be considered to apply to, namely as *P applies to every individual*. If $\forall x.P(x)$ is understood as an expression of a formal calculus (e.g., of the first-order predicate calculus), then there is no problem: formal languages do have their explicit model theories and nothing that has been said here can prevent them from keeping them. On the other hand, if $\forall x.P(x)$ is taken to be not an expression of a formal calculus, but rather a mere regimentation of a natural language phrase, then there is – anyway – no nontrivial way of stating its truth conditions over and above repeating or rephrasing the sentence itself – for an utterance like $\forall x.P(x)$ iff *P applies to every individual* de-schematizes to the trivial *Everything is P iff P applies to everything*. (For details see Peregrin, 1997b.)

However, the objection which most logicians would be likely to take as the most crucial is that, as Gödel proved, we need semantics_C in order to make any sense

whatsoever of some theories. Some theories, it is claimed, such as arithmetic, are not axiomatizable, we can specify them only model-theoretically; and this is taken to mean that the very ‘grasp’ or ‘apprehension’ of these theories (on our part) must be based on semantics_C. A thorough discussion of this problem would exceed the bounds of the present paper; so let us only note that the key is again in carefully distinguishing between formal and natural languages. We have very little to say about formal theories in formal languages; that the class of theorems of formal Peano arithmetic is not complete is a mathematical fact (the fact that a certain formally constructed set has a certain property), and nothing which has been said here is meant to interfere with this kind of truth of mathematics. On the other hand, if Gödel’s results are interpreted as stating that there are truths which are accessible only semantically_C, then this is hardly true: there *does* exist a proof of Gödel’s undecidable sentence (its truth is easily demonstrable to any adept of mathematical logic by means of a gapless chain of reasoning), albeit it is a proof which cannot be, curiously enough, squeezed into a single formal system.²¹

5. Conclusion

The ‘external challengers’ have disputed the view that expressions are basically names which stand for their nominata; they have done so by looking at language ‘in action’. They have concluded that what makes an expression ‘meaningful’ is not a thing for which it would stand, but rather the fact that it can serve as a tool of communication – that there is a way we can use it for certain communicative purposes.²² Thus, meaning is better not seen as an object, but rather as something as a *role* or a *value*, a reification of the way in which its expression is useful. The ‘internal challengers’ keep explicating meaning as a (set-theoretical) object, but they have made it plausible that if we want to account for the riches of natural languages, then this object is bound to become something which is no longer reasonably seen as a real ‘thing’, it is again more a reification of the way the corresponding expression ‘works’, i.e., in which it alters the context into which it is uttered. In this way, the two challenges seem to be almost complementary expressions of what I called the pragmatization of semantics.

The Carnapian trichotomy which has underpinned, explicitly or implicitly, our grasping of language for much of this century, should be reassessed: it is a product

²¹ The reason is that the proof requires switching from reasoning on the ‘object level’ to reasoning on the ‘metalevel’. See also Dummett (1963) who duly points out that the nature of Gödel’s discovery is rather obscured by the talk about models.

²² The fact that we have concentrated on the Davidsonian approach, which we consider as the most penetrating, should not conceal the fact that the repudiation of the ‘language as nomenclature’ notion is a much broader matter. It is for example surprising to see how close, in this respect, Chomsky (1993) appears to be to the Davidsonian view – despite all the grave differences between his and Quine’s or Davidson’s view of the nature of language.

of a particular, now rather outworn, philosophical doctrine, and of the unscrupulous assimilating of natural language to formal ones. This paradigm played a positive and a stimulating role for some time, but now it seems to be more misleading than fruitful.

The new paradigm which grows out of the writings of various recent philosophers, linguists and logicians is the paradigm of language as not a nomenclature, but rather a toolbox. Whereas Carnapian theories saw a theory of language as consisting of *syntax* (the theory of relations between expressions and expressions; further divisible into *syntax proper* and *logical syntax*, i.e., *proof theory*), *semantics* (the theory of relations between expressions and things) and *pragmatics* (the theory of relations between expressions and speakers), this new, Davidsonian theory of language, the usefulness of which has been urged here, envisages a theory of language partitioned instead into *syntax (proper)* amounting to which expressions come into the language, *semantics*, amounting to the 'principal', 'core' or 'invariant' part of the way the expressions are employed, and *pragmatics* amounting to the remaining, 'peripheral' aspects of the way they are employed.

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