Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

THE METAPHYSICS MARKET

4 PUSHING LANGUAGE AS PLATONIC (NOT TO MENTION POPPERIAN)

by

Rudolf P. Botha

STELLENBOSCH PAPERS IN LINGUISTICS

NUMBER 23

1991

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

This is the fourth of a series of studies in which prototypical conceptions of language are subversively turned inside out. It has to be read together with the first three, *The Metaphysics Market: 1 Merchandizing Language as Matter (= **SPIL** 20, 1989)*, *The Metaphysics Market: 2 Billing Language as Behavioural (= **SPIL** 21, 1990)* and *The Metaphysics Market: 3 Selling Language as Soul (= **SPIL** 22, 1990)*.

I would like to thank Walter Winckler for contributing generously to the present study too. And I am grateful to Hildegard van Zweel for valuable editorial assistance.

R.P.B.

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

CONTENTS

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

4.0 Levitating Language

Good, clean philosophical fun --- can we have some of that here, please! Not that we're demanding anything, Downbeat Buyer, beyond what we doubly deserve. No, make that "triply deserve". After all, didn't we have to face the Philistine fatuousness of old-fashioned physicalism? Didn't we have to bear to the full the boredom of barren behaviourism? Didn't we have to submit to the mystery of modern mentalism? So here's what I suggest. We go right on up the Abstract Axis, making the ascent to its apex, because there we will be epistemically entertained by Magician Metaphysicists who conjure up (an image of) language as something absolutely abstract. The sight of languages being plucked out of top hats like so many realist rabbits, or Platonist pigeons, should go some of the way at least towards meeting our need for metaphysical amusement. And rest assured, the magic will be strictly white. Ah yes, it's quite some time now since Occult Ontologists were once and for all banned from practising their murky magic on The Metaphysics Market.

The choice, basically, is between two shows, Dear Shopper. For connoisseurs of conjuring ---- on the one hand --- capable of appreciating refined routines, the Athenian Abstractists will advance the most amusing answer to the question 'What is language in essence?'. If you haven't already guessed it, the founding father of this philosophically fleet-fingered family performed under the stage-name of Plato the Perfectionist. Ancient Audiences were captivated by this conjurer and his distinctive transforming trick: taking nothing that they could notice, and then turning it into --- hey Plato! --- an abstract object. And it is after this philosophical fashion that more than two millennia later a couple of our contemporaries, the Magicians of Manhattan, carry on their cultivated conceptual crafts.

Philosophically less sophisticated folk --- on the other hand --- may go for the sort of wizardry that is worked in

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

a more worldly way. Such more mundane meta-amusement is provided by World 3 Wand Wavers, Popperian Prestidigitators and assorted Common Conceptual Contortionists. Being not really interested in just any abracadabra conception of language, we won't, however, seek our epistemic entertainment in the fare offered by philosophical fork benders and fire-eaters. Nor will we let ourselves be enticed to attend such metaphysical one-man shows as those staged by Montague the Magnificent, Hans-Heinrich the Handy and sundry other solo sorcerers.

(Incidentally, many a Master Metaphysicist uses assistants-in-training for such menial metaphysical tasks as oiling hidden philosophical flaps and springs, opening and closing secret conceptual compartments, keeping epistemological escape ways clear and marking metaphysical cards. Only Thingumajig Magicians,though, conceal in their audiences conceptual confederates, stooges whose job it is to make their masters' mediocre magic work.)

But now let us sneak a peek at how Platonists and Popperians practise their profession: levitating languages so that these float, as it were, above time and space.

4.1 Performing Platonist Passes

Language is an abstract object. This is the ontological core of a conception of language that has been alternatively called 'realism', 'Platonism' or 'Platonic realism'. The best-articulated version of this linguistic ontology is due to Jerrold Katz and his associates Paul Postal, Terence Langendoen and Thomas Bever. As noted by Katz (1981:19, n. 17), various other linguists and philosophers have been attracted to realism but have refrained from developing it in a systematic way or from accepting its full implications.[1]

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

Before considering the Platonist conception of language, let us briefly look at Platonism from a more general philosophical perspective. As noted by Ryle (1967:334), it is not easy to capture the 'essence' of Platonism since it comprises a variety of doctrines: ontological, epistemological, ethical and so on. In quite general terms, however, Ryle characterizes Platonism as a metaphysical philosophy concerned with a transcendent reality. With this, Ryle observes, goes a rationalistic belief in the power of thought to grasp transcendent realities directly. But let us consider some of the specific ontological and epistemological doctrines that have been dubbed 'Platonist'.

Central to our concerns is the Platonist ontological theory of universals. Known as 'realism', the essence of this theory in the words of Woozley (1967:195) is that

> '... universals exist in themselves and would exist even if there were no minds to be aware of them ...'

Realists consider universals to be 'public somethings' that would be available for discovery even if there were nobody to discover them. Conceptualists, by contrast, believe universals to be in the mind: if there were no minds, there could be no universals. Universals, on a conceptualist construal, have the same status as thoughts, memories, mental images and dreams, none of which can exist in a mindless world.

The realist theory of universals can be understood against the background of a distinction drawn by Plato between what Popper (1977:43) has called three 'worlds': a world of 'visible objects', a world of 'affections or states of the soul' and a world of 'intelligible objects'. This last world is a transcendent one; its 'intelligible objects' --- called also 'forms', 'ideas' or 'essences' --- are those objects which general or universal concepts denote. The Good, the Beautiful and the Just are in Popper's (1977:43) phrasing 'the most important essences in his [i.e., Plato's]

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

world of intelligible forms or ideas'. In addition, this world contains the natural numbers. Plato's world of intelligible objects is not man-made: he conceived of it as timeless, immutable and of divine origin.

Associated with Platonic realism is an epistemological theory that provides for a faculty of (intellectual) intuition. The function of this faculty is to acquire a priori knowledge of whatever it is that makes up transcendent Platonic reality. Conventional Platonists have considered the knowledge acquired by this faculty to be infallible. This Platonist epistemology goes back to Plato's postulation of an 'eye of the soul'. For Plato, as noted by Popper (1977:44), this 'mental eye' is the seat of the faculty of intellectual intuition. It can 'see' an idea, essence or object that belongs to Plato's intelligible world. And, in Popper's (1978:44) phraseology,

> 'Once we have managed to see it, to grasp it, we know this essence: we can see it in the "light of truth". This intellectual intuition, once it has been achieved, is infallible.'

Against this background we can now go on to explore the Platonist conception of language.[2]

In par. 4.1, we will focus on Katzian Platonism, the version of realism that has been explicitly and energetically promoted by the so-called New York School as superior not only to Chomskyan mentalism but, indeed, to all other linguistic ontologies.[3] The basic questions we will consider are the following: What does it mean to say that language is an abstract object? Why is language considered abstract by Katz and his associates? What form of science is linguistics, given the view that language is something abstract? What methodology has been adopted by Platonists for investigating language as an abstract object? What are the merits and shortcomings of the Platonist conception of language?

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

4.1.1 Concealing Conceptual Compartments

Platonist linguistic reality is populated by sentences, individual languages and, possibly, something called '(natural) language (in general)'.[4] And these entities are abstract objects, objects that are **not** physical, mental, biological or social. In slightly less negative terms, Katz (1981:181) characterizes abstract objects as being 'objective, timeless, placeless entities that we discover and learn about'.[5] An abstract object is 'objective', Katz (1981:186) explains, in the sense that 'no one person has a special relation to it'. That is, no person has privileged access to it in the way that he/she may have to psychological states, events, etc. that occur in his/her consciousness. Abstract objects, moreover, are changeless in the sense of not 'being different at different times'. Rather, abstract objects are cohesive in the sense of 'having logically inseparable basic properties'.

But let us consider the three kinds of abstract linguistic entities mentioned above. As for sentences, Katz (1984:18) believes that they can be thought of in the same way that Platonist mathematicians conceive of numbers. This means to Katz (1984:18) that

> 'Sentences ... are not taken to be located here or there in physical space like sound waves or deposits of ink, and they are not taken to occur either at one time or another or in one subjectivity or another in the manner of mental events and states.'

Rather, Katz takes sentences to be 'abstract' and 'objective'. Sentences, he (1984:18) claims, are 'entities whose structure we discover', not entities that we create. And, on Katz's view, we discover the structure of sentences 'by intuition and reason, not by perception and induction'.

On the Platonist view, because sentences cannot have either spatial or temporal location, they cannot have material properties either. This timeless and 'spaceless' nature of sentences Katz and Postal (1989:7) illustrate with reference

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

to the sentence Flying planes can be dangerous. They observe, that is, that it is just as impossible for this sentence to occur on Christmas day in A.D. 2000 as it is for this sentence to be in Bethlehem. And since sentences are not located in either time or space, Platonists believe, they cannot be involved in causal interactions: sentences are not caused by anything and sentences cannot cause anything.[6] Concretely, what this means to Katz and Postal (1989:8) is that, for example, the sentence Flying planes can be dangerous cannot be caused by vocal-tract movements. Nor can this sentence cause crystal to break.

Continuing to clarify the abstract nature of sentences, Katz and Postal invoke Peirce's distinction between types and tokens. As timeless and 'spaceless' entities not involved in causation, sentences are types in terms of this distinction. As an abstract type, however, a sentence may have various concrete tokens that take on the form of written or spoken utterances. The text above, for example, includes two written utterance tokens of the sentence type 'Flying planes can be dangerous'. In contrast to sentence types, utterance tokens are material objects located in space and time. The properties of utterance tokens, moreover, are caused --- by vocal-tract movements in the case of spoken utterances. And utterance tokens can act causally on things --- produced at a sufficiently high pitch they can, for example, cause crystal to break.[7]

To further clarify the nature of abstract objects, Katz and Postal have drawn a distinction between Platonic abstract objects and abstract(ed) or ideal objects of the kind constructed in empirical inquiry.[8] In terms of a definition given by Katz (1981:55),

> 'An ideal object is a construction resulting from the idealization of actual objects and it is used to make statements about them [= the actual objects, R.P.B.] without undue complication.'

Completely frictionless planes and perfectly rigid rods are

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

typical examples of the ideal objects constructed by physicists. These ideal objects abstract away from those features of actual surfaces and bodies, respectively, which would unnecessarily complicate the statement of the laws of physics governing these actual objects. In linguistics, likewise, Chomsky's ideal speaker-listener is an ideal object too: it abstracts away from actual speaker-listeners by leaving out of consideration, for instance, so-called performance features that would needlessly complicate the statements of 'grammatical laws'.[9]

Platonic abstract objects, by contrast, are not idealizations or ideal objects. That is, they are not the products of any abstracting away from the complicating features of actual objects. And they are not constructed as the means by which to simplify the laws of a discipline. Katz (1981: 56) emphasizes the point that Platonic abstract objects differ in ontological kind from the physical and psychological objects represented in ideal objects. Platonic abstract objects, he contends, are like the *actual* objects of empirical science in that they are things of which the statements of a science may be true.

This brings us to the second kind of objects populating Platonist linguistic reality. The status of being components of this reality has been explicitly assigned by Platonists not only to sentences but also to individual languages.[10] Recently Katz and Postal (1989:29), for instance, have reiterated the Platonist position that 'NLs [= natural languages] are taken to be real things.' But beyond portraying languages as abstract, Platonists have had relatively little to say about their distinctive ontological properties. In an early characterization, Katz (1981:9) depicted a language as 'a timeless, unchangeable, objective structure'. And, in a more linguistic vein, he (1981:172) also described different languages as 'different systems of expressive forms associated with an invariant semantic structure ...' More recently, Platonists in their characterization of individual languages

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

have replaced the earlier notions of 'structure' and 'system' by the notion of 'collection'. Katz and Postal (1989: 27ff.), for example, have portrayed languages as being 'collections of sentences understood [or regarded] as abstract objects'. And certain mathematical properties of such collections have been discussed at length by Langendoen and Postal (1984).[11] But the question whether there is an ontologically significant difference between a 'system' or 'structure' on the one hand and a 'collection' on the other hand has, as far as I know, not been considered explicitly in recent Platonist writings. The clarity of the Platonist notion of 'a natural language', of course, has not been enhanced by this.

The ontological status and properties of a third kind of abstract object that may form part of Platonist linguistic reality is rather unclear. Certain formulations by Platonists suggest that, in addition to sentences and individual languages, '(natural) language (in general)' is also a component of this reality. For example, Katz (1981:76) states that

> 'The second, and stronger claim [of Platonism] is that sentences and **language** are abstract objects and thus linguistics is about abstract objects.' [emphasis mine]

This formulation may be read as indicating that language, as opposed to individual languages, may form a distinct part of Platonist linguistic reality. Other formulations, however, seem to suggest that sentences and languages are the only inhabitants of this reality. Thus, characterizing linguistic theory, Katz (1984:24) uses the phrase

> '... linguistic theory, being about natural languages collectively .....'.

Formulations such as this leave the ontological status of the putative Platonist object 'language' rather less than clear. This object, that is, may be something derivative in being nondistinct from 'natural languages collectively'.

The matter is not made any clearer by Katz's (1981) discus-

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

sion of the 'nature of language', 'the essential properties of natural languages', and 'linguistic universals'. In his (1981:229) words, Platonism has 'an alternative conception of the nature of **language** and linguistic universals' [emphasis mine]. Elaborating on this point, Katz (1981:229) switches, however, from 'language' to 'languages':

> 'We claim that the essential property of natural languages is that their grammatical structure constitutes an effable correlation of sentences with senses.'[12]

And in his formulation of the Platonist notion of 'linguistic universal', Katz (1981:229) uses the expression 'every/a natural language' rather than '(natural) language (in general)':

> 'A grammatical feature F is a linguistic universal if every natural language has F and a natural language could not be effable without having F.'[13]

But, in an earlier passage, Katz (1981:225) states that properties such as effability require

> '... another conception of the nature of **language**, one on which the properties conceived to be part of the nature of **language** are properties without which **language** would not be what it is.'[14] [all emphases mine]

In a technical ontological discussion, one must assume, the use of 'language' instead of 'languages' is not a matter of arbitrary terminological variation. Katz, however, has not divulged the reasons for his choice of terminology.

There is a particular formulation which suggests more strongly that Katz (1981:231) considers 'language' to be something distinct from 'languages':

> 'Some [properties] are definitional, entering into our concept of **the abstract object natural language**, while others, no less inseparable, are not.' [emphasis mine]

But Katz has refrained from indicating the respect(s) in which 'the abstract object natural language' is ontologically distinct from individual natural languages regarded as abstract

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

objects. He (1981:222) does state that 'the ontological category for natural languages taken collectively cannot be different from the ontological category for them individually.' This remark seems to say no more than that both individual languages and 'languages taken collectively' are abstract objects. It does not answer questions such as the following: Is 'the abstract object natural language' an entity that is distinct from 'individual languages taken collectively'? In ontological terms, what does it mean 'to take individual languages collectively'?, etc.

It is possible though that the answer to the question 'What is "the abstract object natural language"?' is a quite straight-forward one. Namely: 'the abstract object natural language' is whatever it is that is described, characterized, etc. by a Platonist linguistic or grammatical theory. Adopting this approach to find out what 'the abstract object natural language' really is, one 'simply' has to get to the bottom of the Platonist conception of 'a linguistic or grammatical theory'. Let us attempt to do just this, taking as our point of departure the distinction drawn by Katz and other Platonists between a (generative) grammar and (a) linguistic/grammatical theory.

Katz's (1981:55) characterization of a (generative) grammar is unambiguous in regard to ontological import:

> 'A generative grammar for a language L is a theory of the grammatical structure of the sentences of L, and these are abstract objects.'[15]

By constrast, the various characterizations that Katz and other Platonists have given over the years of (a) linguistic/grammatical theory and, thereby, of linguistic or grammatical universals are much less transparent.

Consider first a relatively early characterization given by

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

Katz (1981:55):

(C1) 'A linguistic theory is a theory of the grammatical universals of language, that is, a theory of the essential common structure of natural languages.'

If 'the abstract object natural language' were identical to what a linguistic theory is a theory of, this object would in terms of (C1) be exhaustively made up of grammatical universals. And grammatical universals are equated with the essential common structure of natural languages, a point which may be represented as follows for the sake of later reference:

(E1) 'grammatical universals = the essential common structure of natural languages.'

This relatively simple picture is complicated, however, by a later characterization given by Katz (1984:43) of 'linguistic theory' and 'a correct linguistic theory':

(C2) 'Linguistic theory, on the Platonist view, is a theory of the invariances in the grammatical structures of all natural languages .... A "correct linguistic theory" states all invariances and essential properties of natural language in the simplest way.'

As for its first statement, the characterization (C2) differs from (C1) in two respects: in (C2), 'language' is replaced by 'languages' and, significantly, in (C2) the idea of essentiality appears to have lost its status as a criterion for linguistic universals. The latter point, in a nutshell, may be represented as follows:

(E2) 'grammatical universals = the invariances in the grammatical structures of all natural languages.'

The second statement of (C2), however, reintroduces the idea of essentiality but, through the use of 'and', it nevertheless broadens the Platonist notion of linguistic or grammatical universals. In the form of an equation:

(E3) 'grammatical universals = all invariances **and** essential properties of natural language'.

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

In terms of the characterization (C2), 'the abstract object natural language' would be made up of 'all the invariances in the grammatical structures of all natural languages' plus 'all essential properties of natural language'. The characterization (C2) seems therefore to have (at least) two consequences. Firstly, it does not seem to matter whether or not the intended 'invariances' concern essential or non-essential aspects/features of the grammatical structures of natural languages. Nor, secondly, does it seem to matter whether or not the intended essential properties are invariant. What these two consequences of (C2) may mean is unclear to me.

But the Platonist notions of 'grammatical/linguistic theory' and 'grammatical/linguistic universals' have been made even more opaque by the following recent characterization offered by Katz and Postal (1989:13):

> (C3) '... grammatical theory on the realist view is an explication of NL universals. It is a theory of the principles which hold for all sentences of all NLs and of those holding for all full collections of such sentences.... The universal grammatical principles are either clauses of the definition of "NL sentence" or [clauses] of the definition of "NL" ...'

The characterization (C3) differs from (C2) in various respects. First, in terms of (C3), 'the abstract object natural language' --- if (C3) did in fact provide for the existence of this object --- would be made up not of 'invariances in grammatical structure' and 'essential properties of language' but of 'principles which hold for all sentences of all NLs **and** of those holding for all full collections of such sentences'. It may be that the expression 'principles ...' is intended to be synonymous with 'invariances ...' and 'essential properties ...'. But Katz and Postal do not say so. Second, 'universal grammatical principles' are portrayed not as parts or properties of a distinct abstract object somewhere 'out there' in a Platonic reality but as clauses of the definition of the notion 'NL sentence' and the notion 'NL'. This, obviously, is ontologically significant. In terms of

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

an equation-like formulation, the essence of (C3) boils down to the following:

(C4) 'NL universals = the principles which hold for all sentences of all NLs and those holding for all full collections of such sentences = clauses of the definition of "NL sentence" or of the definition of "NL".'

We can now return to the question that triggered our examination of the Platonist notions of '(a) grammatical/linguistic theory' and 'grammatical/linguistic universals', namely: Is the entity called by Katz 'the abstract object language' something distinct from 'all natural languages taken collectively'? The various characterizations offered by Platonists of the notions of '(a) grammatical/linguistic theory' and 'grammatical/linguistic universals' do not provide a clear answer to this question. On the contrary: given these characterizations, one may conclude that the Platonist notions of '(a) grammatical/linguistic theory' and 'grammatical/linguistic universals' are themselves in need of clarification.

Katz, of course, has anticipated modifications of the Platonist conception of 'linguistic universals'. Thus, referring to 'effability', he (1981:231) has stated that

> 'Since there is no reason to think that this property alone defines natural language, completion of the definition of natural language, like the enumeration of the full set of lingusitic universals, is a matter for future studies'.

But Platonists have refrained from explaining and justifying the various changes that they have made in (the formulation of) their characterization of the notion of 'grammatical/linguistic universals'.

In sum: Platonist linguistic reality incorporates sentences and individual natural languages. Whether this reality, in addition, includes '(natural) language (in general)' or 'the

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

abstract object language' as a distinct entity is unclear. So are the properties that may individuate this entity ontologically.

Thing Theurgy performances such as the one we have just watched essentially involve two tricks being done in tandem, Spell-bound Buyer. First, just to get the show on the road an alchemical act is presented by means of which, to the roll of realist drums, what ordinary ontologists would consider to be nothing is transmuted into sentences by Prime Practitioners of the Neoplatonist Arts.[16] *Next, muffled by the strains of metaphysical music, follows a magical move in which levers are thrown so as to set in motion the revolving realm of Platonist linguistic reality. And so, metaphysically mesmerised by its rapid rotation, the audience soon becomes unable to see whether, like sentences and like languages, 'language (in general)', though concealed in some third compartment, is also an inhabitant of this linguistic reality. It is this now-you-see-it-now-you-don't realist routine, Benumbed Blue, that induces the state of stupefaction in which many a seeker of the essence of language is unable to make out the ontological obscurities of the Platonist object 'language (in general)'.*

4.1.2 Motivating the Magic

Why would Katz and other Platonists like to think that (a) language is an abstract object? Among the beliefs in which the Platonist conception of language is rooted, four are basic:

(B1) A conception of language or foundational position must account more adequately than its rivals do for all the facts of 'linguistics proper'.

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

(B2) The facts that fall within the domain of 'linguistics proper' include the fact that, if certain sentences are true, certain others are necessarily true, and also the fact that certain sentences are true in virtue of their meaning.

(B3) For facts such as those mentioned in (B2) to be accounted for, the laws of logic have to apply to the senses of sentences.

(B4) The laws of logic cannot apply to the senses of sentences unless these senses and laws have the same ontological status, namely the status of abstract objects.

The beliefs (B1)-(B4) have been discussed in various Platonist studies, the most recent of which is a joint paper by Katz and Postal (1989).[17]

As for (B1), it is a meta-belief expressing a general condition that should be met by any foundational position, linguistic ontology, or conception of language. As formulated by Katz and Postal (1989:5), (B1) actually represents only the tip of submerged meta-mountain. That is, underlying this belief there are various more basic assumptions, not all of which are stated explicitly by Katz and Postal. The more basic assumptions include:

(A1) It is in principle possible to state a priori the (categories of) facts that fall within the domain or scope of a discipline.

(A2) Linguists, or at least a majority of leading linguists, agree that certain (categories of) facts fall within the scope of 'linguistics proper'.

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

(A3) The linguists referred to in (A2) agree that it makes sense/is wise, in a foundational context, to draw a distinction between 'linguistics proper' and whatever forms of linguistics this has to be distinguished from.

(A4) The linguists referred to in (A2) agree about what it is --- simplicity, deductive or explanatory depth, etc. --- that makes one linguistic account of 'the facts' more adequate than the alternatives.

To some of these assumptions we will return below.

As for (B2), the facts included in the domain of 'linguistics proper' are on Katz and Postal's (1989:4) view

> '... facts about NL sentences, covering every aspect of sentential structure, *viz*. syntactic, morphological, phonological and semantic. They are revealed in the judgments that fluent speakers make about their structure.'

And, as specified in (B2), these facts include facts about semantic relations like 'analytic entailment' and semantic properties like 'analytic'.[18] The relation of analytic entailment is illustrated by Katz and Postal (1989:4) with reference to the sentences *John killed Bill* and *Bill is dead* between (the senses of) which it holds. If the first of these sentences is true, then in virtue of natural language the second is necessarily true. The property of analyticity, in turn, is illustrated by Katz and Postal (1989:4) with reference to the sentence *Whoever is persuaded to sing intends/decides to sing*. The proposition expressed in this sentence is, on Katz and Postal's formulation, 'a truth of meaning independent of empirical fact'. In short, then, the facts referred to in (B2) are facts involving necessary truth.

Regarding (B3), the semantic theory developed over the years by Katz and his associates has always assumed what Katz and Postal (1989:9) call 'a substantive relation between NLs and

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

logic'.[19] They observe that definitions of semantic properties like 'analytic' and of semantic relations like 'analytic entailment' provide an account of one class of facts about logical implication. And since analytic entailments are valid, Katz and others have found it reasonable to suppose that the senses of natural language sentences contain semantic information essential to the theory of implication. The semantic theory in question has assumed, in other words, that senses provide at least part of the propositional information on the basis of which logical laws apply to natural language sentences. That is, it is assumed that there is an overlap between what Katz and Postal (1989:9) call 'aspects of grammatical form' and 'logical principles', respectively.[20]

As for (B4), it is closely interlinked with the assumption, just mentioned, of there being an overlap between the senses of sentences and the laws of logic. Thus, Katz and Postal (1989:9) state:

> '... acceptance of an overlap between the senses of NL sentences and logical objects involves linguists in foundational issues at least to the extent of committing them to a *common* ontological position for linguistics and logic. For the objects to which logical laws apply and those laws themselves can hardly belong to different ontological realms.'

For example, if logical laws are not psychological, the objects to which they apply cannot be psychological either, and vice versa.

Following Frege (1967), Platonists have argued that logical laws cannot be psychological. If they were, they could not be the laws of necessary connection that they are. As Katz and Postal (1989:10) put it:

> 'If logical laws were "laws of thought", that is, empirical laws about contingent things, they would be contingent and, like laws in physics and other natural sciences, could possibly be false. But, being necessarily true, logical laws could not possibly be false.'

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

Rather, laws of logic have conventionally been assigned a realist status. That is, these laws have been considered abstract objects: objective, timeless, placeless entities not involved in causation. But if laws and the objects to which they apply must have the same ontological status, then (senses of) sentences have to be considered abstract objects. This is the core of the justification furnished by Katz and Postal for their Platonist conception of language.

In terms of Chomskyan conceptualism, Katz and Postal (1989: 10) claim, the senses of sentences have to be psychological (or biological). To account for facts about analyticity and analytical entailment, Chomskyans would therefore have to adopt a psychological conception of logic too. Katz and Postal (1989:10), however, consider 'Frege's arguments against psychologism too compelling to contemplate defending a psychological view of logic'. Consequently, they (1989:15) contend, Chomskyan conceptualism cannot explain such facts as the validity of analytic inferences like that from *John killed Bill* to *Bill is dead*. And so, according to Katz and Postal, Chomskyan conceptualism fails to satisfy the condition embodied in the belief (B1).[21]

Katz and Postal (1989:11) maintain that the inability of conceptualism to provide an explanation for the logico-semantic facts in question springs from a particular 'mistake'. This mistake takes the form of a 'failure' which is parallel to the failure by American structuralism to draw a distinction between the knowledge of a natural language (competence) and the exercise of that knowledge (performance). The failure to draw the competence-performance distinction has led to an 'adulteration of grammar' with such 'extraneous facts' as memory limitations. Katz and Postal (1989:11-12) go on to argue that

> 'Conceptualism's mistake is the parallel failure to draw the further distinction between knowledge of an NL and the object it is knowledge of, the NL itself.'

Without this distinction, they claim, grammar is still being

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

adulterated by various extraneous factors. These are the particular features of information representation and processing in the human mind/brain. By taking grammars to be theories of epistemic states, Katz and Postal (1989:12) contend, conceptualism makes everything about a natural language a contingent matter of human psychology. Consequently, there is no place for necessary connection in grammatical structure. Given, however, the distinction between knowledge of a natural language and the natural language that is known, the grammatical structure of sentences can be specified in a way that enables them to play a role in logic, Katz and Postal argue. And, they go on (1989:12) to comment,

> 'Just as C's [= Chomsky's] competence/performance distinction provided a basis for a psychological formulation of the foundations of linguistics, the distinction between linguistic knowledge and its object provided one for a realist formulation.'

Accordingly, Katz (1981:77) considers his main criticism of conceptualism to be parallel to Chomsky's main criticism of nominalism (as embodied in American structuralism): 'the constraints imposed put too low a ceiling on the abstractness of grammars for them to be optimal'.

Katz (1981:77-78, 1984:34) has noted that the fundamental distinction drawn by Platonism between the knowledge that speakers have of their language and the languages that speakers have knowledge of is simply a special case of a more general epistemological distinction: the distinction between the knowledge that we have of things and the things that we have the knowledge of. Various disciplines provide for special cases of this distinction. In mathematics, for example, a distinction is drawn between an ideal calculator's knowledge of the natural numbers and the natural numbers themselves. And in logic, a distinction is drawn between an ideal reasoner's knowledge of implication and the implication relations themselves. Katz (1984:34) observes that

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

> 'Platonism is in part an attempt to be consistent in our treatment of the special sciences by drawing the same distinction between knowledge and its object in the case of linguistics that we draw, as a matter of course, in the parallel cases of logic and mathematics.'

In Katz's (1981:78) view, the Platonist position thus does not have to produce a justification for treating linguistics differently from mathematics and logic, a justification that to him 'seems not to be available'.

You are right, Dear Buyer. The justification put forward by Platonists for their conception of language has about it, undeniably, a ring of reasonableness. But, Buyer, beware: in the end, magic owes its power to what is hard to hear or see. And in keeping with this counsel, alas, adroitly articulated justifications too have to be closely consider for what they may conceal. So it is of some interest that, in justifying their Abstractist Act, realists have kept the assumptions (A1) and (A4) cleverly out of sight. But before contemplating the consequences of this concealment, we need to attend to another matter first.

4.1.3 Siting the Show in Science

What kind of discipline is linguistics? This is one of the questions engendered by the Platonist distinction 'language vs knowledge of language' and by the assumption that languages are abstract objects. Like other sciences that study an object as opposed to knowledge of this object, Platonist linguistics is construed not to be a form of psychology. Thus, with reference to mathematics and logic Katz (1981:78) observes:

> 'There is no temptation to conflate the psychological study of the ideal calculator's knowledge of number with the mathematical study of numbers,

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

> Or to conflate the psychological study of the ideal reasoner's knowledge of implication relations with the logical study of implication relations.'

And he goes on to ask rhetorically:

> 'But, if there is a clear distinction in these disciplines, why conflate psychological study of the ideal speaker's knowledge of a language with the grammatical study of the language?'[22]

Accordingly, one of the two basic claims made by Platonism is, in Katz's (1981:76) words,

> '... that linguistics is not a psychological science, that its theories are not about states of mind, mental events, or their neurological realizations, but about sentences and languages directly in the way that we ordinarily take linguistics to be about sentences and languages.'[23]

In arguing that linguistics is not a psychological science, Platonists do not mean to question the legitimacy of the study of knowledge of language or linguistic competence. Thus Katz and Postal (1989:13) remark:

> 'Naturally, realists acknowledge the legitimacy of questions about competence, just as conceptualists acknowledge the legitimacy of questions about performance. But according to realism, the study of competence belongs to the empirical field of psycholinguistics rather than to the formal discipline of linguistics.'

Note that the second one of the statements just quoted contains inter alia the core of the positive part of the Platonist answer to the question 'What kind of discipline is linguistics?'. Given the distinction between knowledge of language and language, and given the assumption that languages are abstract objects, linguistics is a formal science. But what does this mean?

To begin with, Katz (1984:27) assigns linguistics the status of 'a branch of mathematics'. Like the mathematician, Katz (1981:212-213) maintains, the linguist sees his task as that of constructing a theory 'revealing the structure of a set of abstract objects'. Linguistic theories, on the Platonist

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

view, are *'a priori* systematizations' of facts about natural language sentences.[24] This means that linguistics is not an empirical enterprise.[25] But this does not mean to Platonists that linguistics is not 'scientific', is 'devoid of intellectual interest' or does not pursue truth.[26] Thus, reacting to a criticism voiced by Chomsky, Katz and Postal (1989:19) remark:

> 'The last phrase of (14), which mentions "true theories", amounts to the gratuitous conclusion that failure to interpret talk about NLs as talk about psychological structures abandons interest in true theories. This has as little ground as would a claim that failure to interpret talk about real numbers as talk about psychological structures abandons interest in true (mathematical) theories. In linguistics, as in logic and mathematics, realists abandon interest in true theories of *psychology*, but this does not mean they abandon interest in true theories. True theories of psychology are abandoned in order to pursue true theories of NLs, implication and numbers.'

This brings us to the epistemological means adopted by realists for the pursuit of true theories of natural languages. If these means are not the means of empirical science, what can they be? How is it possible to obtain *a priori* knowledge of abstract objects, objects neither located in time and space nor involved in causality? The essence of the answer given by Katz (1981:193) is that

> 'Platonists invoke intuition to play essentially the same role in their account of *a priori* knowledge that perception and introspection play in accounts of *a posteriori* knowledge.'

On Katz's (1981:195) view, perception, introspection and intuition are mental faculties 'issuing in acts of apprehension'. That is, these three mental faculties provide people with basic knowledge. These three faculties differ on his view principally in terms of the kinds of objects about which they provide such knowledge. In perception, he contends, people observe physical objects: objects in the external world. In introspection, people observe objects of subjective experience: their own thoughts, feelings, emotions,

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

etc. And in intuition, Katz asserts, people grasp abstract objects: numbers, sets, sentences, etc. On his view, both intuition and perception involve internal representations of objects. These representations he considers to be the source of knowledge. But, he believes, neither in the case of perception nor in the case of intuition do they represent something psychological. What is represented in both cases, Katz (1981:196) claims, is 'something objective'. Introspection, by contrast, he considers to be a matter of obtaining 'mental meter readings'. The important point to Katz (1981:196), therefore, is that

> 'Though the source of an intuition is psychological, its import concerns objective matters of linguistic, logical, or mathematic fact.'

Finally, Katz (1981:199) assumes that, like perception and introspection, intuition is fallible: there can be genuine instances of erroneous intuition.[27]

Katz's (1981:200-202) Platonism differs in an important respect from traditional Platonism in regard to the way the faculty of intuition 'works'. Traditional Platonism has modelled its account of intuition on perception: intuitive knowledge depends on the knower's establishing some form of direct contact with the objects of knowledge. That is, the traditional Platonist account requires a causal relation between a perceiver and the perceived object. Katz (1981: 201), however, notes that abstract objects could not occur in such a causal relation:

> 'Being objective, abstract objects do not occur as a constituent of the conscious experience of a knower, and, being aspatial and atemporal, they cannot act on a knower through a causal process to produce a representation of themselves in the manner of sense perception.'

Hence, Katz (1981:202) prefers an alternative, Kantian, account of intuition. On Kant's account, Katz observes, intuitive awareness is not conceived of as a causal effect of an external event. Rather, intuitive awareness is considered 'the effect of an internal construction'. Katz (1981:203)

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

stresses that what is 'internally constructed' is not abstract objects themselves, but rather internal representations of abstract objects. The internal representations may or may not correspond to the abstract objects outside people. It is for this reason that Katz considers intuitions to be fallible.

Like research in mathematics and logic, linguistic research begins according to Katz and Postal (1989:36) with 'a finite number of basic facts provided by intuition'. And each type of research generalizes to infinite collections. In logic, for instance, research begins with intuitions about implication relations among propositions, consistency relations among propositions, and so on. These intuitions, they claim, involve a very small, finite number of cases which are generalized to principles about all propositions, principles such as those involved in Modus Ponens. Likewise, Katz and Postal (1989:36) maintain, linguistic research begins with 'a finite, in fact extremely small number of facts', facts such as those about analyticity and analytical entailment considered above. And these facts, similarly, are generalized to infinite collections of sentences. The grammars that result from the 'projection' of the initial or early facts are, as Katz (1984:23) notes, 'revisable in the light of later intuitions and canons of theory construction'. Truth or correctness in the case of Platonist grammars is assumed by Katz and Postal (1989:31) to be essentially 'a matter of factual coverage and simplicity'.

Sure, Bottled-up Blue, let fly and speak your mind about what you term 'tricky talk about intuition'. Indeed, the thought has occurred to me too that what is involved in the grasping of abstract objects is not intuition but rather illusion. But don't expect Manhattan Magicians to buy the suggestion that their Abstractist Act is an exercise in illusionist magic. Indeed, a certain Performing Platonist going by the

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

cryptic stage-name of J. the Fey has various ways of handling mistrustful members of an audience who dare to doubt the existence of intuition. For instance, on one occasion --- I recall it vividly --- this Resourceful Realist turned dramatically to the wings and summoned on to the stage a witness, Ram the Ham, reputed to be able to receive mathematical messages broadcast to us (or should that be 'beamed down'?) from the Platonic Plane:

> *'People without first-hand experience [of mathematical intuition] or people with doubts about the interpretation of intuition can examine the remarkable case of Ramanujan, an Indian postal clerk who discovered huge amounts of mathematics for himself without even a rudimentary knowledge of mathematical proof.' (Katz 1981:193-194)*

You find the Indian connection disconcerting? Well, so do I, so do I. But I won't go so far as to say that resorting to the establishment of a New York-New Delhi Axis has reduced Platonist epistemology to a realist rope trick. Not just yet, anyway.

4.1.4 Appraising the Abstractist Act

So far, there has not been a coherent debate about putative merits and flaws of the Platonist conception of language. On the one hand, this conception of language has been criticized by a variety of scholars who cannot be considered Chomskyans. Strangely, though, Platonists on the whole have failed to respond to these criticisms. On the other hand, Chomsky himself has so far refrained from directly subjecting the Platonist conception of language to systematic criticism. The rather cryptic critical comments that he has made on this conception of language have the character of asides scattered about in his various accounts of the foundations of conceptualism. Curiously, Platonists, notably Katz and Postal (1989), have taken great pains to collect and rebut these insufficiently explicated criticisms.

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

Below we will consider six of the more important points of criticism against the Platonist conception of language.[28]

1. Several aspects of Platonist linguistic ontology have not been sufficiently well explicated.

Two examples should suffice to illustrate this point of criticism. First, Dillinger (1984a:17) has observed that Katz (1981) does not specify the possible relations between the 'three independent kinds of reality: material, mental and mathematical'. Dillinger does not consider it sufficient for Katz to say that mental and mathematical objects can be linked by the 'knowledge of' relation which is 'simply left undefined'. Nearly ten years after the publication of the book reviewed by Dillinger, Katz and Postal (1989:34) still find themselves obliged to observe that

> 'It is, of course, hard at present to say what this relation consists in [i.e., the relation in which internal rules representing knowledge of language stand to the collection of sentences as sound-meaning-pairs], because the "knowledge of" relation is as complex as the "exercise of" relation linking competence and performance.'

Second, as we noted in par. 4.1.1 above, the Platonist notion 'the abstract object natural language' is obscure in regard to ontological import. Specifically, it is unclear whether a Katzian Platonist linguistic reality, in addition to including sentences and languages, also includes '(natural) language (in general)'. And it is equally unclear what the individuating properties of this putative object might be.

2. It is dubious whether particular individual languages denoted by terms such as 'English' or 'French' can be taken to exist as abstract objects of a Platonist sort.

Versions of this criticism have been offered by both Pateman (1983:283, 1987:51) and Carr (1990:122-123). It is based on

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

the observation that 'the act of intuition' does not yield direct judgements about languages such as English or French considered as wholes. In this regard, then languages are unlike sentences: there are no direct data on the basis of which particular individual languages can be linguistically defined. To put it another way: in terms of the 'knowledge of' relation, there are no intuitive data for the explanation of which a linguistic theory has to use concepts such as 'English' or 'French'.

Carr (1990:123) contends, accordingly, that Katz (1981:77, 79) is mistaken in using the 'knowledge of' relation to justify 'French', etc. as linguistic objects. One can take the 'knowledge of' relation as having sentences and their properties as its object, Carr maintains, without having to claim that 'French', etc. are linguistic objects. And he (1990:123) concludes:

> 'In having knowledge of a given set of sentences and their properties, or the grammar which underlies these, it is an arbitrary matter whether we refer to that grammar as "French", "Spanish", or whatever.'

Note, incidentally, that if the existence of an abstract linguistic object has to be justified by means of invoking the 'knowledge of' relation, it is dubious whether what Katz has called 'the abstract object natural language' can be claimed to exist in the realm of Platonist linguistic reality. No evidence has been offered that non-linguists, through 'acts of intuitive apprehension', have knowledge of this putative Platonist object.

3. The idea that languages are sets or collections of sentences is flawed in fundamental ways.

This point embodies Chomsky's criticisms of the conception of 'E(xternalized)-language'. In terms of this conception, a language is something external to the mind/brain. As Chomsky (1986:20) puts it, 'E-language' is a 'construct' that is

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

'understood independently of the properties of the mind/brain'. On this conception, Chomsky (1986:19) observes, a language has been viewed as a collection or system of actions, events, utterances or linguistic forms such as words or sentences.[29]

Chomsky's various criticisms of the notion of 'E-language' have been taken by Katz and Postal (1989) as applying to the Platonist conception of language as well. And they have attempted a systematic rebuttal of these criticisms. For the purposes of the present discussion, Chomsky's criticisms of the notion 'E-language' may be reduced to the following three:

(a) E-language is 'artificial' or 'epiphenomenal' in that it is too far removed from the psychological, ultimately biological, mechanisms involved in the acquisition and use of language.[30] As a consequence, an E-language can be characterized in various ways. Hence, Chomsky (1986:26) contends, 'there is no issue of correctness with regard to E-languages'. No questions of truth or falsity, he (1986:20) maintains, arise here.

Katz and Postal (1989:34) consider Chomsky's (1986:27) remark that 'E-language, however construed, is farther removed from (psychological) mechanisms than I-language, at a higher order of abstraction' to be 'incoherent':

> 'If E-languages do not exist ("are not real-world objects"), then *they* cannot be further removed from anything, and no distance measure can relate *them* to (presumably psychological) mechanisms. And if they *do* exist, the realist claim is granted and it hardly matters that E-languages represent "a higher order of abstraction".'

And to Chomsky's point that there is no issue of correctness with regard to E-languages, Katz and Postal's (1989:31) overly brief response is 'that correctness is a matter of factual coverage and simplicity'.

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

(b) In terms of the notion of 'E-language', languages are ill-defined in having no determinate boundaries.[31] In a more superficial sense, it is unclear in the case of many expressions or sentences --- e.g. *Give it me* whether they are contained by a particular E-language or not. In a deeper sense too, E-languages are vague and indeterminate. Chomsky (1987a:33) argues this point by referring to 'semi-grammatical sentences' such as *The child seems sleeping*. He asks whether this expression is in the language or outside, and maintains that either answer is unacceptable. All of this makes the status of E-language quite obscure in Chomsky's (1986:25) opinion:

> '... the bounds of E-language can be set in one way or another, depending on some rather arbitrary decisions as to what it should include.'

As regards the more superficial sense in which Chomsky considers E-languages to have indeterminate boundaries, Katz and Postal (1989:38) reply that 'the problem is the same for conceptualist and realist alike because it lies at the level of linguistics proper [as opposed to the study of the foundations of linguistics]'. On their view, many cases of apparent indeterminacy 'reduce to questions about distinct closely related NLs sharing many sentences'. So, they presume, everyone would judge that British English contains this sentence and American English does not. Katz and Postal's response to Chomsky's point that E-languages are indeterminate in a deeper sense as well is too detailed to represent in full here. The essence of their position, however, is that there is no dispute about the fact that *The child seems sleeping* is ill-formed. Realists, consequently, say that this string is not part of the relevant E-language. And to account for the interpretation of such 'semi-sentences', Katz and Postal argue, both they and Chomsky would have to appeal to auxiliary hypotheses of a nongrammatical character.

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

(c) The concept of E-language is too far removed from what is real; that is, it is not sufficiently close to the common-sense notion of language. In support of this claim, Chomsky (1986:27) observes that when people speak of a person knowing a language they do not mean that he or she knows an infinite set of sentences or sound-meaning pairs (taken in extension) or a set of behaviours or acts. Rather, they mean that the person knows 'what makes sound and meaning relate to one another in a specific way, what makes them "hang together".' Katz and Postal (1989:34) consider these remarks by Chomsky as being 'not really relevant to the issues between conceptualism and realism'. In any event, they contend, these remarks are based on a misconception, 'the illicit supposition that the fact in which knowledge of an NL consists is nonrelational'. For, they argue, if this fact is relational, 'then knowing an NL does mean knowing an infinite set of sound/meaning pairs'.[32]

4. Platonists have not given a satisfactory account of how people can come to have knowledge of abstract objects.

On Katz's view, let us recall, abstract objects are objective. This means that they do not form part of a person's subjective, conscious experience. Hence, a person cannot come to know anything about abstract objects by means of introspection. Katz believes moreover that abstract objects, being aspatial and atemporal, cannot act causally on a person's senses. Hence, a person cannot come to know anything about abstract objects by means of perception. These points, Katz (1981:201) summarizes as follows:

> 'Being objective, abstract objects do not occur as a constituent of the conscious experience of a knower, and, being aspatial and atemporal, they cannot act on a knower through a causal process to produce a representation of themselves in the manner of sense perception.'

The question then is: How can a person, e.g. a linguist, possibly get to know anything about abstract linguistic objects?

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

This, of course, is a question about the epistemology needed by Platonists for investigating abstract linguistic objects. And various scholars, e.g. Itkonen (1983:242) and Carr (1990: 120-121), have argued that the epistemology proposed by Katz is unsatisfactory.

As observed in par. 4.1.3 above, the epistemology proposed by Katz (1981:201 ff.) for acquiring knowledge of abstract (linguistic) objects is essentially a Kantian theory of pure intuition. In terms of this theory, we have seen, intuitive awareness is not a causal effect of an external event, but the effect of an internal construction.[33] That is, on a Kantian theory, a person is able to construct a mental representation of an abstract object.

To flesh out the Kantian conception of pure intuition for the special case of the apprehension of the grammatical structure of sentences, Katz proposes three further 'components'. The first is a Chomsky-like nativist theory of how speakers of natural language acquire their knowledge of its grammar. On this theory of Katz's (1981:204), there is an a priori source for the universal conditions that must be sufficient (a) for the construction of the abstract notion of a sentence of a natural language and (b) for the construction of the less abstract concepts of 'English sentence', 'French sentence', etc. as well as for their intuitive instantiations.

Given the distinction between knowledge and its object, Katz (1981:204) contends, the mental representation of the grammatical structure of a sentence may diverge from the grammatical structure of the sentence in the language. In Katz's (1981:205) phrasing

> 'such mental representations can, and probably do, contain errors of omission and commission about the structure of sentences of the language.'

In order to explain how intuition compensates for such errors or misrepresentations, Katz proposes two further compo-

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

nents for his theory of intuition. One component --- the second component of his 'fleshed out' theory of Kantian intuition --- corrects for such errors on the basis of what Katz (1981:205) depicts as 'an innate notion of the "knowledge of" relation'. He assumes that the faculty of intuition has access to this innate notion and that it utilizes the distinction between knowledge and its object 'to compensate for [mental] misrepresentations of grammatical structure'. The other 'corrective' component --- the third component of Katz's 'fleshed out' theory --- is based on the assumption that people have an innate idea of an abstract (linguistic) object. Intuition, in Katz's (1981:205) terminology, 'sculpts' a person's innate idea of the abstract object 'sentence' into the concept of a sentence *in concreto*.[34] So what Katz assumes is, in short, that the ontological characteristics of the object that grammatical knowledge is knowledge of are specified by the innate idea of an abstract object.

The interaction between the three components of his epistemology is depicted as follows by Katz (1981:205):

> 'Using both the "knowledge-of" relation and the idea of an abstract object, the faculty of intuition can operate on principles reflecting the form tacit grammatical rules take in humans and depsychologize them, reconstructing representations of sentences as concrete concepts of abstract objects. These two further components seem sufficient, since they can rectify the respects in which a speaker's tacit rules misdescribe facts about the language and construct concepts of abstract objects that properly describe sentence structure.'

As outlined above, Katz's theory of intuition accounts for only those intuitions based on tacit knowledge. He (1981: 205-206) 'extends' this theory by assigning also to explicit knowledge, i.e. 'knowledge acquired in scientific pursuits', the role of 'input to the faculty of intuition'. Katz (1981: 206) believes that

> 'Intuitions based on tacit knowledge come first ontogenetically but as soon as explicit knowledge is acquired it feeds back into the faculty of intuition.'

By means of this extension Katz provides for a source of in-

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

tuitions about abstract objects postulated in the context of 'advanced theories'.

Katz's theory of intuition is problematic in various respects. First, Katz's explication of this highly intricate theory is at a level of generality and abstraction that leaves many specific points unclear. It is because of this, it appears to me, that Itkonen (1983:242) has maintained that this 'rather exotic apparatus' of Katz's does not give a satisfactory account of how people can come to have knowledge of something that has no causal relation to them. Thus, Itkonen remarks, Katz's account does not explain 'why there should be so good a fit between abstract objects, on the one hand, and innate ideas and internal representations, on the other'. Recourse to 'the innate idea of an abstract object' does not really contribute much to a solution for this problem. For, as Carr (1990:121) has observed, Katz leaves it unclear how people are supposed to come to possess their innate knowledge of the concept 'abstract object'. This is a problem for Carr (1990:121), 'especially when one considers that abstract objects are not available for causal interaction during the evolutionary process'.

Second, Katz (1981:206) does not see his account of the operation of the faculty of intuition as representing 'an actual model'. His account is, on his own view, the product of having performed the 'philosophical task' of explaining 'how we can have inner representations of grammatical abstract objects without there having to be a causal relation of some sort between the subjective representation and the objective sentence'. Katz considered it 'fanciful' to think of providing 'at this time' an 'actual model' of the set of 'operating rules' of the faculty of intuition. Accordingly he was not obliged to present any factual evidence in support of his theory of intuition.

Ten years later, however, Katz has still not presented an 'actual model' which could be subjected to empirical appraisal. In the absence of such an 'actual model' supported by factual

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

evidence, Non-Platonists will remain skeptical about the ability of people to come to have knowledge of abstract objects. And this skepticism will, understandably, extend to the existence of such objects. It is the absence of such an 'actual model' that has made it possible for Allan (1983:679) to 'remain skeptical of his [Katz's] refurbishment of the immortal soul'. And possible for Dillinger (1984a:302) to pose the rhetorical question: 'How is intuition to be distinguished from delirium, religious enlightment or dreams?'.[35]

5. The Platonist conception of language is heuristically not relatively fruitful.

In terms of Non-Platonist linguistic ontologies such as conceptualism, languages are acquired and used (utterances in them are produced and perceived), languages are subject to change and variation, languages are influenced by contact with other languages, and so on. That is, languages are believed to be ontologically integrated in a wider linguistic reality. Given this belief, it is required that a conception of language should be heuristically fruitful in the sense that its adoption leads to a better understanding of phenomena such as language acquisition, speech production and perception, language change, linguistic variation, language contact and so on. Conversely, such phenomena are viewed as potentially valuable sources of independent evidence about the nature and structure of language and languages. In sum: a conception of language that forms the core of such a Non-Platonist approach is epistemically exposed to the corrective pressure and substantiating impact of evidence from a wide variety of sources.[36] On the Platonist conception of language, by contrast, it is not languages that are involved in the processes or phenomena indicated in the list above. Rather, it is knowledge of languages. Witness Katz (1981:9):

> 'The language is a timeless, unchangeable, objective structure: knowledge of language is temporal, subject to change and subjective.'

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

> 'Language acquisition and language change thus involve a change in people's knowledge of language, with concomitant changes in their relationship to the linguistic structures in this infinite range [of languages].'

Katz (1981:9) considers the study of languages to be 'the study of these linguistic structures'. And he considers this study to be 'distinguishable from the study of human (or other) knowledge of them, its acquisition, use, or change'. The former study he labels 'linguistics (proper)'; the latter, 'psychology'.

On the Platonist view, then, languages are ontologically relatively isolated and claims about language(s) epistemically relatively insulated. Against this background, it is understandable why the Platonist conception of language has not been instrumental in linguists' gaining a better understanding of the linguistic processes or phenomena listed above.[37] Moreover, data about such phenomena have not been used as independent evidence in support of the idea that languages are abstract objects. These observations, probably, form the basis for Fodor's (1985:160) view that

> '... unlike the Platonistic linguist, the psycholinguist thinks that other kinds of data can constrain the choice of grammars too. He is therefore professionally interested in how languages are learned, how utterances are understood, whether there are linguistic universals, whether transformations are innate, how cognition affects language, how language affects cognition, aphasic speech, schizophrenic speech, metaphorical speech, telegraphic speech, dolphin speech, chimp speech, speech production, speech acts, and, in short, all that stuff that got people interested in studying languages in the first place. Go ahead, be a Platonist if you like. But the action is all at the other end of town.'

As a consequence, Fodor (1985:159) states, 'deep down nobody is remotely interested in it [= Platonism]'.

Platonists may contend that it does not follow from their beliefs that languages are ontologically isolated in an absolute sense. Nor, they may maintain, is it the case that their con-

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

ception of language is epistemically insulated or heuristically unfruitful. In support of these contentions they may argue, for example, that, via knowledge of language, abstract linguistic objects are indirectly 'involved' in the above-mentioned linguistic processes or phenomena. And data about these processes or phenomena may be brought to bear indirectly, via theories of linguistic knowledge, on the Platonist conception of language. In this connection, Katz and Postal (1989: 13) have stated that

> '... realists can entertain the possibility of inferences from features of competence to features of NLs [= natural languages], just as conceptualists can entertain the possibility of inferences from features of performance to features of competence.'

How it is possible to draw inferences from features of competence to features of natural languages, however, is not explained by Katz and Postal. Specifically, what is unclear is how data, facts, etc. obtained by conceptualists in the *empirical* study of competence can, as a matter of principle, be used by Platonists in the *formal*, *non-empirical* study of natural languages. Katz and Postal's analogy in the remarks quoted above breaks down in a crucial respect. The study of features of competence, and the study of features of performance, are both taken to instantiate empirical inquiry. This means that, unlike inferences from features of competence to features of natural languages, inferences from features of performance to features of competence do not have to 'leap across' the epistemological divide separating empirical science from formal science. In the final analysis, Platonists have to show that Dillinger (1984a:302) is wrong in claiming that

> '... interpreting linguistic theories in terms of abstract objects unrelated to mind or matter [and thereby turning linguistics into a branch of mathematics --- R.P.B.] makes all the rest of science, from anatomy to zoology, absolutely irrelevant to linguistics.'[38]

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

6. In developing and defending their linguistic ontology and in criticizing alternative ontologies such as conceptualism, Platonists make use of stipulation at crucial junctures.

Let us consider four examples of the meta-practice mentioned in 6. The first example involves the way in which Platonists go about defining the 'subject matter' or fixing the 'scope' of a discipline. Recall that in par. 4.1.2 above we saw that, in arguing for Platonism and against conceptualism, Katz and Postal proceed from the implicit assumption (A1): It is possible to state a priori the (categories of) facts that fall within the domain or scope of a discipline. In line with this assumption, they state that all linguistic theories have to account for, amongst other things, facts about analyticity and analytic entailment. And they proceed to argue that, whereas linguistic theories based on a conceptualist conception of language cannot do this, linguistic theories based on a Platonist conception can. Therefore, they conclude, the Platonist conception is to be preferred to the conceptualist one.

This line of argumentation embodies what Fodor (1985:147-148) has called 'the Wrong View' of linguistics. On Fodor's characterization the Wrong View maintains

> '(a) that there is a specifiable data base for linguistic theories; (b) that this data base can be specified antecedently to theory construction; (c) that the empirical content of linguistic theories consists of what they have to say about the data base; and (d) that the data base for linguistics consists of the corpora of utterances that informants produce (or, in some versions, would produce given specified forms of prompting).'

Fodor suggests that if (d) were modified so as to read 'the data base for linguistics consists of the intuitions (about grammaticality, ambiguity and so on) that informants produce or would produce', then one gets the view of linguistic inquiry common to Stich (1985) and the later Katz (1977).

Fodor (1985:150-151) proceeds to argue that the view that the

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

scientist can stipulate what data are to count as relevant to the (dis)confirmation of his theories is simply not plausible, given the way that real science is conducted. He takes this to be a point of the utmost methodological importance since it implies that 'either the Wrong View misdescribes linguistics or what linguists do is somehow an exception to the methodological principles that other sciences endorse'.

Of course, if the assumption (A1) is to be disallowed, and if facts about analyticity and analytical entailment do not necessarily bear on the adequacy of linguistic theories and on the conceptions of language underlying these, then Katz and Postal's main argument for a Platonist linguistic ontology loses much of its force.

The second example of the use of stipulation by Platonists concerns the relevance of the evidence they use for the justification of linguistic theories. Recall that this evidence consists of linguistic intuitions of native speakers. Katz (1981:71) has even assigned intuitive evidence the status of 'direct evidence', saying thereby that it takes priority over other kinds of evidence.

Fodor (1985:151), however, has argued that any science is under an obligation to explain why *what it takes to be* data relevant to the justification of its theories *are* indeed data relevant to the justification of its theories. A scientist typically meets this condition by exhibiting a causal chain that runs from the entities that a theory posits, via the instruments of observation, to the psychological states of the observers. If the scientist is unable to connect the observations to the postulated entities by means of such a causal chain, he has no warrant to appeal to those observations as evidence for (or against) his theories.

Fodor (1985:152), moreover, observes that these general con-

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

siderations apply, *mutatis mutandis*, to linguistics:

> 'In particular, an adequate linguistics *should explain why it is that the intuitions of speaker/hearers constitute data relevant to the confirmation of grammars*. The Right View meets this condition. It says "We can use intuitions to confirm grammars because grammars are internally represented and actually contribute to the etiology of the speaker/hearer's intuitive judgements." The Wrong View says only: "We do it because we have always done it", or "We do it by stipulation".'[39]

Being unable to establish a causal chain between abstract entities and native speakers' linguistic intuitions, Fodor observes, Platonists have to *stipulate* that linguistic intuitions are relevant to the justification of their linguistic theories. The ontological belief that linguistic entities are abstract, thus, forces Platonists to introduce an arbitrary element into their epistemology.

The third example of the use of stipulation by Platonists concerns the conditions on the basis of which conceptions of language or foundational positions should be appraised. In the introductory section of their paper, Katz and Postal (1989:5) have the following to say about these conditions:

> 'To establish the superiority of any foundational position, one would have to meet the following general condition:
>
> (10) Show that the position
>
> a. provides a coherent account of the nature of the objects linguistics proper is about;
>
> b. offers a more adequate account than its rivals of all the facts in linguistics proper.
>
> (10a) requires a consistent account of the foundations of linguistics. (10b) requires that the account sacrifice a minimum of unchallenged facts in the domain of linguistics proper.'

Katz and Postal's (10a) and (10b), needless to say, are not the only conditions that may be used for appraising a conception of

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

language or foundational position. Of the various other conditions that have figured prominently in foundational debates, I mention two only:

(C1) A conception of language/foundational position should be heuristically fruitful.

(C2) A conception of language/foundational position should not necessitate the adoption of an obscure or obviously flawed epistemology.

(C1) played an important role in Chomsky's incisive critique of Bloomfieldian physicalism and (Skinnerian) behaviourism. He argued persuasively that, if these conceptions of language were adopted, no progress could be made in gaining new insights into/a better understanding of important aspects of linguistic structure, language acquisition and language use.[40] Platonists such as Katz and Postal, of course, have accepted Chomsky's criticisms of physicalism and behaviourism.[41] It is therefore strange that they do not consider a condition with the gist of (C1) when embarking on a comparative appraisal of realism and conceptualism. They simply stipulate that their (10a) and (10b) are the conditions pertinent to their critical exercise.[42]

Turning to (C2), this condition --- as we saw above --- has been invoked by various scholars in their appraisal of Platonism. And Katz (1981:193) himself has noted that 'chief' among the 'doubts' about the respectability of the philosophical basis of Platonism 'is the fear that Platonism does not mesh with an acceptable epistemology'. Accordingly, he uses a whole chapter of his 1981 book in an attempt 'to mitigate these doubts as much as possible by developing an [intuitionist] account of how humans obtain *a priori* knowledge of abstract objects'. But when selecting conditions for establishing the 'superiority' of foundational positions, Katz and Postal (1989:5) simply stipulate that these should be their

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

(10a) and (10b), making no mention of a condition with the general thrust of (C2). It is tempting to speculate that Katz and Postal's refraining from the use of either (C1) or (C2) in their comparative appraisal is somehow linked to the fact that Platonism has not turned out to be heuristically fruitful or to be associated with an 'acceptable epistemology'.[43]

For the fourth example of the objectionable use of stipulation by Platonists, we consider yet again Katz and Postal's condition (10b). This condition gives rise to a question: What it is that makes one (grammatical/linguistic) 'account' of 'the facts' more adequate than its rivals. That is: What are the criteria of adequacy for a comparative evaluation of rival grammatical/linguistic theories? Elaborating on (10b), Katz and Postal (1989:3) mention one such criterion, which may be restated as (CA1).

> (CA1) An account A1 is more adequate than an account A2 if A1 'sacrifices' fewer unchallenged facts in the domain of 'linguistics proper' than does A2.

In discussing the 'issue of correctness' as it arises in Platonist linguistics, Katz and Postal (1989:31) state that 'correctness is a matter of factual coverage and simplicity'. Presumably, by 'factual coverage' Katz and Postal mean a criterion of adequacy such as (CA1) and by 'simplicity' one that may be stated as (CA2).

> (CA2) An account A1 is more adequate than an account A2 if A1 is (in some sense) simpler than is A2.

But Katz and Postal give no reasons for choosing (CA1) and (CA2) from among the stock of criteria that have been used by present-day linguists for appraising grammars and lingusitic theories.[44] It is sufficient to cite here two other criteria belonging to this stock, criteria which Chomskyan linguists have considered

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

to be particularly important:

(CA3) An account A1 of linguistic facts is more adequate than an account A2 if A1 has greater deductive depth than does A2.

(CA4) An account A1 of linguistic facts is more adequate than an account A2 if A1 uses unifying principles whereas A2 uses superficial generalizations.

Both (CA3) and (CA4) are keyed to gaining deeper insight into or better understanding of facts rather than to providing wider coverage of them.[45] Why Katz and Postal prefer the criteria of adequacy (CA1) and (CA2) to alternatives such as (CA3) and (CA4), they do not explain. They simply stipulate (CA1) and (CA2).

Which brings us back to The Market and, this time, to the Theatre of Thaumaturgism. Reviewing a sizzling solo show by Katz (1981), the disrespectful detractor called Dillinger (1984a:301-302) has dressed down this Master of Miraculous Metaphysics for dexterously dealing himself diverse criterial cards in order to demonstrate that Platonism is the 'proper' ontological interpretation for linguistic theories:

> *'Essential to this argument is that the sense of "proper" remain obscure, as it does, throughout the book. "Proper" can thus be made to indicate a set of criteria specific to logical and mathematical theories and which, of course, no factual theory will be able to meet, e.g. maximal absolute simplicity and abstractness. With the cards stacked in this way, the conclusion is inevitable: the argument holds, abstract objects must exist, and linguistics is a kind of mathematics. This is what is touted as "an approach [that] can expect to settle ontological controversies non-arbitrarily and without begging philosophical questions" (pp. 12-13)!'*

Being a trumping trick in Katzian Conceptual Cards, then ---

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

as Catching-on Customer, you have anticipated all too accurately --- Stacking by Stipulation amounts to pure magic. Dillinger (1984a:302), incidentally, felt that our Artist-at-Arcanery would have done better to perform a spell binding speech act:

'Abracadabra would surely have been more to the point.'

4.2 Practising Popperian Prestidigitation

The ontology propounded by Karl Popper (1972, 1977) contains the rudiments of a conception of language. In terms of this conception, language is an 'objective' entity autonomous of a 'self-conscious mind'. The Popperian conception of language differs in important ways, however, from the Platonist one defended by Katz and his associates. In this paragraph, we will consider the Popperian conception of language, first in the rudimentary form it has in Popper's own work and then in the more fleshed-out form in which it has recently been defended by Carr (1987, 1990). Obviously, two matters of special interest to us will be, firstly, the basic differences between the Popperian and Platonist conceptions of language and, secondly, the relative merits of the Popperian conception.

4.2.1 Working World 3 Wonders

Popper's ontology makes provision for three worlds, which it portrays as interacting with one another.[46] World 1 is the world of physical things and of states of physical things: molecules, clouds, animals, plants, brains, and so on. World 2 is the world of mental states, including not only states of consciousness and psychological dispositions but also 'unconscious states'. What Popper calls 'the self-conscious mind' is, accordingly, located in World 2. World 3 is the world of products of the human mind: stories, explanatory myths, tools, scientific theories and problems, social institutions, works of art. World 3, on an equivalent formulation, is the world of

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

'culture' and of 'objective knowledge'. Many World 3 objects, however, Popper (1977:38) contends,

> '... exist in the form of material bodies, and belong in a sense to both World 1 and World 3.'

As examples, he cites sculptures, paintings and books. Concerning books he (1977:38-39) observes:

> 'A book is a physical object, and it therefore belongs to World 1; but what makes it a significant product of the human mind is its *content*: that which remains invariant in the various copies and editions. And this content belongs to World 3.'

In addition, Popper (1977:41-42) provides for 'unembodied World 3 objects' as well. For example, with the invention of natural numbers, Popper observes, there came into existence odd and even numbers 'even before anybody noticed this fact or drew attention to it'. Until their existence was noticed, odd and even numbers, then, were instances of 'unembodied World 3 objects'.

Being products of human thought, World 3 objects are 'man-made'. But, Popper (1977:40) maintains, they nevertheless have 'a certain degree of autonomy':

> '... they may have, objectively, consequences of which nobody so far have thought and which may be *discovered*; discovered in the same sense in which an existing but so far unknown plant or animal may be discovered.'

Once made by man, that is, World 3 objects 'begin to have a life of their own', to use Popper's (1978:40) words. Popper emphasises his view that World 3 objects are 'objective' in that they have this autonomy in relation to the (subjective) thought --- belonging to World 2 --- of which they are products.

Popper (1972:153) considers the relationship between the three worlds 'one of the fundamental problems of this pluralistic philosophy'. He maintains that the three worlds are so related that, on the one hand, World 1 and World 2 can 'interact'

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

and, on the other hand, World 2 and World 3 can 'interact'. This implies that the second world, namely the world of subjective or personal experiences, can interact with each of the other two worlds. It also implies, however, the first and the third world cannot interact 'save through the intervention of the second world'.[47]

That World 3 exists 'in reality', Popper (1972:159) contends, is clear 'from its tremendous effect on the first world [i.e., World 1], mediated through the second world [i.e. World 2]'. This contention reflects his (1977:10) belief that (unobservable) things are real 'if they can causally act upon, or interact with, ordinary real material things'. The same belief underlies the sufficient condition/criterion for 'being real' which Popper (1977:39) expresses as follows: 'interaction with World 1 --- even indirect interaction --- I regard as a decisive argument for calling a thing real'. To illustrate the validity of this condition/criterion, Popper (1972:159) cites, among other things, the impact of atomic theory (a World 3 object) on our inorganic and organic environment (World 1 objects).

Popper (1977:43) notes that his World 3 corresponds in some ways to Plato's world of intelligibles, a world to which we were introduced in par. 4.1 above. But he denies that he is a Platonist (1972:122-123, 154, 1977:43-44) and points out various differences between the two 'abstract' worlds.[48] These include the differences indicated below:

Plato's World of Intelligibles	Popper's World 3
1. Divine in origin, eternal	1. Man-made, the products of human thought
2. Immutable	2. Changing
3. Contains essences	3. Essences 'play no significant role'
4. Does not contain problems, conjectures or theories.	4. Contains problems, conjectures and theories (true and false)
5. 'Grasped' by means of infallible intuition	5. 'Grasped' by making or remaking its objects

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

As for the fifth difference tabulated above, Popper (1977:44) admits that there is something like intellectual intuition, but does not consider it infallible. For 'grasping' a World 3 object, Popper contends, people do not have 'an intellectual sense organ' or 'eye of the mind'. Rather, the 'grasping' of a World 3 object is 'an active process' in that it entails 'the making, the recreation, of that object'. This process Popper (1977:44) illustrates by means of examples such as those he presents in the following terms:

> 'In order to understand a difficult Latin sentence, we have to construe it: to see how it is made, and to re-construct it, to re-make it. In order to understand a *problem*, we have to try at least some of the more obvious solutions, and to discover that they fail; thus we rediscover that there is a difficulty --- a problem. In order to understand a *theory*, we have first to understand the problem which the theory was designed to solve, and to see whether the theory does better than do any of the more obvious solutions.'

Popper's (1977:45) view of the 'grasping' of World 3 objects assumes, therefore, the 'ability to produce certain World 3 objects, especially linguistic ones'. In turn this ability, on his view, is 'no doubt the result of practice'. So Popperians, let us note, differ from Platonists as regards the nature of the epistemological means necessary for acquiring knowledge of objective/abstract objects: Platonists, we saw in par. 4.1.3 above, postulate for this purpose a special faculty of intuition.

Popper's choice of the 're-construction' of a difficult Latin sentence to illustrate the activity of 'grasping' gives an indication also of where languages fit into his trialist ontology. He (1977:49) believes that

> '... the various languages are man-made: they are cultural World 3 objects, though they are made possible by capabilities, needs, and aims which have become genetically entrenched.'

Here we have a fundamental difference between the Popperian and the Platonist conception of language: on the latter conception languages are not man-made objects. Platonists, we

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

have seen, believe that languages belong to an eternal, unchanging ontological realm with which people cannot interact causally.

In line with his 'third world' view of language, Popper (1977: 45) portrays language learning as 'not natural but cultural and social'. As a 'World 3 learning process', Popper (1977: 48) claims, the learning of a particular language 'is not a gene-regulated process and therefore not a natural, but a cultural process'. And he (1977:49) believes that 'every normal child acquires language through much active work'.[49]

In earlier pronouncements, Popper (1972) was less clear about the 'worldly' status of languages. In certain passages, he (1972:159-160) expresses the view that 'human language' is part of the third world:

> 'According to the position which I am adopting here, the third world (part of which is human language) is the product of men, just as honey is the product of bees, or spiders' webs of spiders. *Like language* [sic] (and like honey) human language, and thus larger parts of the third world are *the unplanned product of human actions*,[9] though they may be solutions to biological or other problems.'

In other passages, however, 'human language' is portrayed as belonging to all three worlds. Thus Popper (1972:157) contends:

> 'This, it seems, was first seen by the Stoics who developed a marvellously subtle philosophy of language. Human language, as they realized, belongs to all three worlds.[6] In so far as it consists of physical actions or physical symbols, it belongs to the first world. In so far as it expresses a subjective or psychological state or in so far as grasping or understanding language involves a change in our subjective state,[7] it belongs to the second world. And in so far as language contains information, in so far as it says or states or describes anything or conveys any meaning or any significant message which may entail another, or agree or clash with another, it belongs to the third world. *Theories, or propositions, or statements are the most important third-world linguistic entities.*'

Popper's use of expressions such as 'marvellously subtle' and

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

'realized' seem to indicate that he accepts the view of the Stoics that 'language' belongs to all three worlds. From the examples he (1972:157) uses for elucidating this 'trialist' conception of language, it is clear that he takes the 'linguistic entities' belonging to the third world to be units of 'objective logical content', units of 'information' or 'message' units. These, Popper (1972:20) states, are used in 'descriptive' and 'argumentative' functions. In his earlier work, in sum, Popper seems to have an E-language conception of language: a language is a collection of entities, important amongst which are units of (objective) content.

When in his later work Popper (1977) portrays language as World 3 objects, it is not clear whether he is talking about units of 'objective logical content' only. He does not explicitly invoke the traditional threefold distinction of concrete utterances as units of (physical) substance, sentences as units of (linguistic) form or structure and propositions as units of (logical) content. In fact, it is not clear whether he sees the need to distinguish between speech/*parole*/performance/or the like on the one hand and language/*langue*/competence/or the like on the other hand. Though Popper talks in the 'product' mode about language (units), he does not explicitly draw a distinction between an underlying linguistic system and the products that result from the use of such a system. Nor does the distinction between individual languages and language in general figure in Popper's linguistic ontology in any principled way. Popper, in fact, appears not to be well aquainted with fundamental conceptual distinctions standardly drawn in linguistics. And he has made no attempt to justify his conception of language vis-à-vis the major conceptions of language that have been entertained by leading twentieth-century linguists.

It is on account of such limitations in its conceptual well-foundedness that I have called Popper's conception of language 'rudimentary'. It also has limitations of a more serious kind, however: limitations which arise from flaws in Popper's trial-

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

ist ontology. These further limitations, though, are more interesting to consider with reference to a version that makes slightly better contact with present-day linguistic theory and linguistic ontology. So let us move on to Carr's fleshed-out Popperian conception of language.

Understanding metaphysics as practised in the magical mode is a matter, Conceptions Customer, of seeing through the spectacle and its splendour and discerning the deception and its details. Especially spectacular, of course, is the adroit juggler's act of keeping all of three worlds aloft at one and the same time. And truly impressive, too, in Sir Karl's Conceptual Cabbalism, are the Producing Passes and Remaking Routines by which to 'grasp' those wondrous World Three Things. And yet. And yet: the details of how all this is done suggest that much of Magical Metaphysics boils down to tricks that in themselves are both relatively trivial and quite traditional.

Take, for example, our Nimble-knuckled Knight's illustration of the acitivity of 'grasping'-by-remaking. Specifically, I have in mind here the so-called re-construction of an unidentified, 'difficult' sentence from Latin, a language --- please note --- of which in our day the Making and Remaking Rules have to be systematically taught and consciously learned. Instead of Latin, why not take a language such as English, of which many of our contemporaries are native speakers, who acquire the language naturally and use it naturally? Why not select for the purpose of illustration a 'simple' sentence such as Sir Karl is too clever to expect us to catch out? The structures, rules and principles which are 'grasped' through remaking --- why not explicitly represent them as those involved in the 'production' and interpretation of this sentence? But, of course, when it comes to getting out of a metaphysical mess, shortchanging an audience on specifics is, needless to say, the oldest of extraction tricks. That every native speaker

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

of English can 'make' this sentence is probably true, Dear Blue. But, and here comes the conceptual Catch, 'making a sentence' does not equal 'making out how a sentence is made'.

4.2.2 Withdrawing Into the World of Wizardry

In a recent study, Philip Carr (1990) pursues the question 'Can we reasonably speak of linguistic realities?' In answer to this question, he proposes a Popperian metatheory for theoretical linguistics or, as he calls it, 'an autonomist metatheory for the generative enterprise'. The generative enterprise, on Carr's (1990:33) construal, is built on a particular 'metaphor', namely 'the notion that "a language" is a set of sentences'. And on his (1990:33) view, 'the notion "rule" counts as a central metaphor in the generative linguist's attempt' to 'describe the mechanisms in the underlying linguistic reality'.

Carr's metatheory --- which is meant to be superior to Chomskyan 'psychologism' --- has two components. The first is an epistemology in terms of which linguistic theories consist of potentially falsifiable propositions that attempt to describe the above-mentioned underlying linguistic reality. The second is a Popperian ontology in terms of which 'linguistic realities' (or objects) **are not** (a) psychological entities as argued by Chomsky (e.g., 1986) and Fodor (e.g., 1975), (b) social norms as Itkonen (e.g., 1978) would like to believe, (c) dualistic objects with a naturalistic (or biologistic) side and a social (or socio-political) side as suggested by Pateman (e.g., 1987), or (d) abstract objects of a Platonic sort as proposed by Katz (e.g., 1981) and others. Rather, on Carr's (1990:124-141) Popperian linguistic ontology, Linguistic realities', **are** 'speaker-external', 'public', 'autonomous', 'objective' objects to be found in Popper's World 3.

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

According to Carr (1990:37), the linguistic realities/objects just referred to include 'rules and sentences and thus languages'. The status of 'language in general' as a putative linguistic object inhabiting Popper's World 3 is left unclear by Carr. He (1990:43-44) does, however, attempt to elucidate the nature of sentences as 'linguistic realities' by invoking 'the sentence/utterance distinction' as defended by Burton-Roberts (1985). For this distinction to be upheld, it has to be assumed that sentences are abstract objects which do not exist in a context. Sentences, on Burton-Robert's portrayal, are not events and 'do not occur'. Moreover, in Carr's (1990: 43-44) phrasing;

> 'We cannot attribute spatial location to them [i.e., sentences], and yet it is perfectly reasonable to say that they are linguistic realities whose properties we may investigate. The ontological status here attributed to sentences fits rather naturally with the idea of objective knowledge, [that is,] with the notion that linguistic objects exist in a public space as intersubjective objects of mutual knowledge, and not as objects in physical space.'

Recall that, as we saw in par. 4.1.1 above, Platonists such as Katz and Postal also operate with an explicit distinction between (abstract) sentences and (concrete) utterances.

Linguistic objects, on Carr's (1990:41-42) ontology, are not only abstract; they are 'public' as well. Reduced to its essence, his argument for the latter claim runs as follows:

1. The lexicon is a public object in the sense that 'the individual does not know all of the existing lexical morphemes of the language, and that this set of morphemes is definable only over sets which constitute members of communities.' (p. 42)

2. 'If lexical meaning is indeed reasonably described as a public, speaker-external state of affairs ... then sentence meaning too has this ontological status.' (p. 42)

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

3. 'Thus the rules for semantic interpretation are public, and so are rules in general.' (p. 42)

4. 'And, if linguistic rules are public, so are the objects which they define: sentences and their subparts.' (p. 42)

5. 'Thus the syntactic, phonological and semantic rules may be said to enjoy the same intersubjective status.' (p. 42)

On this ontological interpretation of the 'generative enterprise', Carr (1990:42) considers it proper to say 'that a language, constituted by its rules, is a public object'.

How credible, then, is Carr's claim that 'linguistic realities' are 'autonomous', 'objective' objects located in Popper's World 3? Let us appraise this claim in terms of two of the minimal conditions which any theory of 'linguistic realities' --- or, to put it more mundanely, any conception of language --- must meet:

(C1) the 'roots condition': no conception of language should be based on general ontological assumptions which are seriously flawed;

(C2) the 'fruits' condition: a conception of language should be heuristically fruitful or, at least, more fruitful than its competitors.[50]

Let us take up the 'fruits' condition first. According to Carr (1990:3), Chomsky's mentalist (or 'psychologistic') ontology probably continues to be held by the majority of linguists.[51] Consequently, one of the things which Carr has to show is that, in regard to heuristic fruitfulness, his own autonomist ontology is superior to Chomsky's mentalist ontology. This means in turn that Carr has to show amongst other things that there are one or more classes of linguistically

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

significant generalizations or facts which cannot be captured within Chomskyan mentalism but which can be captured within his own autonomist ontology. Carr (1990:46, 127) does seem to recognize the importance of this condition. In this connection, he (1990:46) refers in general terms to 'ambiguities [of strings] in themselves', 'to generalisations about rules and sentences' and to 'phonological generalisations which are not phonetic'. And he (1990:128-138) proceeds to argue --- *contra* Donegan and Stampe (1979), Hooper (1976), Vennemann (1974) and Ohala (1974) --- that 'there are phonological generalisations which are not phonetic generalisations and therefore that there are phonological objects which are not phonetic objects'. Carr (1990:138-141), moreover, argues --- *contra* Givon (1984) --- that there are 'linguistic realities' of a syntactic sort that 'cannot be reduced to facts about discourse, or communication in general'.

But these arguments of Carr's are beside the point. What he has to show is that the phonological and syntactic regularities or generalizations in question cannot be expressed in terms of Chomskyan linguistic theories **because of** the mentalist (or biologistic) import of recent versions of Chomskyan ontology. And he has to show, of course, that these regularities or generalizations can be captured by 'purely' or 'autonomously' linguistic accounts **because of** the autonomist import of Popperian ontology. It is futile to argue against Chomskyan mentalism by attempting to discredit 'concretist' or 'reductionist' accounts of linguistic phenomena. Obviously, 'ontological mentalism' does not equal 'concretist phoneticism' or 'reductionist pragmaticism'.[52] The **form** of argument which Carr should have used is that within whose framework Katz and Postal (1989) attempt to show that there are facts about logico-semantic properties of sentences which cannot be accounted for by Chomskyan mentalism.[53]

The 'fruits' condition (C2) may be applied in reverse as well. When so applied, it requires Carr to show that it is possible to capture within the framework of his nonpsychologist, auton-

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

omist ontology all the kinds of significant generalizations or facts which can be accounted for within Chomskyan mentalism. Carr does not, however, attempt to do this. Such an attempt would require detailed linguistic analysis, an undertaking which in its turn would require, amongst other things, a well-articulated theory of linguistic structure. To establish a linguistic ontology as heuristically fruitful requires much more than metascientific argumentation, a point generally poorly understood by proponents of (new) conceptions of language.[54]

In sum: Carr has failed to show that his autonomist ontology passes the 'fruits' condition in either of its two directions.[55]

Let us take up next the 'roots' condition for linguistic ontologies: how sound are the Popperian bases of Carr's autonomist ontology? Obviously, this ontology of Carr's cannot be sane if its Popperian bases are less than sound. Now, Popper's 'three-tiered' 'trialist' or 'dualist-interactionist' ontology has come in for some rather destructive criticisms. Let us consider a few of these.

First, Dennett (1979:97) has argued that Popper's dualism 'has been composed as an alternative to a materialism no sane materialist holds'.[56] This means that Popper has not discredited 'the reigning orthodoxy among philosophers of mind'. A reason for this, Dennett (1979:91) suggests, is that Popper's work --- and that of Eccles too --- 'fails to make serious contact with the best theoretical work of recent years'. Dennett (1979:92) observes, moreover, that Popper

> '... does not usually manage to extend his appreciation of depth and intricacy to the works of other authors, who almost invariably are drastically under underestimated by him.'

But this means that Popper has made the required sort of case not even for postulating the existence of his World 2.

Second, Cohen (1979:303) has found Popper's claims about the

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

'interaction' between the World 1 brain and the World 2 self-conscious mind to be 'empty'. He (1979:303) argues as follows:

> 'The self-conscious mind, they say, integrates sensations, measures time, initiates body-movements, corrects recollections, and diagnoses perceptual illusions. But how does it do all those things? or even any one of them? To that question we are given no answer. We are not offered any hypothesis whatever about the structure of the self-conscious mind. We are not told what it is that enables the self-conscious mind to perform certain activities and unfits it to perform others. And it is a symptom of this emptiness of the Popper-Eccles hypothesis that it is sterile. It generates no new testable predictions because, as an explanation, it really has almost nothing to say.'

These criticisms are justifiable because Popper and Eccles adopt Popper's methodology, which excludes any sharp differentiation between science and philosophy. Eccles (1977:375), moreover, has claimed explicitly that their hypothesis about the unconscious mind 'belong to science because it is based on empirical data and is objectively testable'. The further question, of course, is this: How could one even begin to make a credible case for the existence of World 3 products of a World 2 mind if questions such as Cohen's can be raised about such a mind?

Third, Popper's notion of interaction is obscure in crucial ways. For instance, Dennett (1979:94) has asked

> 'What kind of causal interaction can this be between a [World 2] thinking and a [World 3] theory?'

He observes that 'we are not told' by Popper. And he continues:

> 'Popper waves his hands about how modern physics has vacated all the old-fashioned philosophical ideas about causation, but does not give a positive account of this new kind of causation ... '

Also Beloff's (1978:270-271) 'main worry' about Popper's trialist ontology concerns the way the key notion of 'interaction' has been 'deployed' by Popper. Essentially, Beloff --- who

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

is generally quite sympathetic to Popper --- is worried by the fact that

> '... if we take the term "interaction" literally, we may define it as a two-way causal process between two distinct entities. Now, the entities of World 3 are, as Popper clearly states, timeless abstractions. How, then, can a timeless abstraction actively participate in what, by definition, is a temporal process? The answer, surely is that it can not ... '

Beloff comes to the conclusion that Popper's notion of 'interaction' cannot be taken literally. This means that, from the point of view of perspicacity, the criterion adopted by Popper for assigning existence to World 3 objects is in poor shape.

Strangely, in fleshing out the Popperian conception of language, Carr has failed to consider 'roots' criticisms such as those by Dennett, Cohen, Beloff and Mortensen. Carr, in fact, has even compounded some of the problems concerned. Thus, he (1990:81) arbitrarily conflates Popper's notion of 'interactionism' with a homonymic but distinct notion which, on Shaphere's (1969:155) analysis, plays a role in **physica**l reasoning, that is, in the context of a materialist ontology that does not provide for ontological domains similar to Popper's World 2 and World 3. Shaphere (1969:156) notes specifically 'that what counts as an "interaction" is also specified on **scientific** [emphasis added] grounds'. Carr fails to notice that 'interaction' within this context does not involve the curious kind of causality that he and Popper have to appeal to.

'Interaction(ism)', within Popper's trialist ontology, is an obscure notion. As a consequence, Popperians lack the epistemological means for obtaining (scientific) evidence about, amongst other things, World 3 linguistic entities. In this connection Carr has refrained from attempting to make sense of Popper's view that linguistic entities such as sentences can be 'grasped' by 'making' or 'recreating' them. And as we will see below, Popperians cannot fall back on ordinary

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

linguistic intuition as a source of direct evidence about World 3 linguistic entities.

In sum: such criticisms of Popper's ontology as those by Dennett, Mortensen, Cohen and Beloff clearly indicate that the roots of Carr's autonomist theory of linguistic realities are seriously flawed. Having failed both the 'roots' condition (C1) and the 'fruits' condition (C2), this linguistic ontology cannot be considered a serious alternative to Chomskyan 'psychologism'. Carr, in fact, is not in a particularly good position to criticize Chomskyan ontology in an incisive way: he appears not to be sufficiently well-informed about the basic beliefs constituting the more biologised version of mentalism espoused in Chomsky's more recent writings. Thus, contrary to what Carr seems to believe, these writings --- e.g. Chomsky (1987a, 1987b, 1987c, 1988a, 1988b, 1988c, 1988d, 1989) --- make it clear that Chomsky does **not** take (a) languages to be sets of sentences (1990:33, 36, 42, 54, 103, 123, 126, 139), (b) rules to be real linguistic objects (1990:33), or (c) I-languages to be systems of rules (1990:49). We have seen that on Carr's view, 'the notion that "a language" is a set of sentences' is 'the metaphor on which the "generative enterprise" is built' (1990:33), and 'the notion "rule" counts as a central metaphor' of the 'generative enterprise' (1990:33). These views may be true, by stipulation or definition. But if so, then Chomsky, strange to say, is no (longer) practitioner of the 'generative enterprise'.[57]

Moreover, given the way in which considerations focusing on explanatory adequacy, on the poverty of the stimulus and on parameter-fixing have recently been invoked in the justification of Chomskyan linguistic analyses, Carr is wrong to believe (a) that 'considerations as to psychological plausibility rarely seem to figure in grammatical descriptions' (1990:119), and to believe (b) that 'Chomskyan GB theory ... may effectively be divorced from its psychological interpretation' (1990:127). Because Carr is mistaken about (a) and (b) he errs, too, in thinking that autonomist lingusitics can

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

have the same evidential basis as Chomskyan linguistics (1990:56). He is, moreover, incorrect in assuming that grammaticality judgements have the same status within the evidential bases of these two approaches. As we saw in par. 4.1.4 above, because the Chomskyan language faculty is central to the etiology of such judgements, they constitute in a principled way relevant evidence about the nature and properties of this faculty. Since non-psychological, autonomous linguistic objects clearly cannot be involved in this way in the etiology of grammaticality judgements, Carr, by contrast, has to stipulate that judgements of the latter sort constitute evidence about objects of the former kind. As regards recourse to intuitive linguistic judgements, Popperians face, contrary to what Carr seems to believe, the same problem as Platonists.[58]

Carr's criticisms of Chomskyan mentalism, in fact, boil down to a few very general remarks. Taking over a point that Botha (1979) made about a mid-seventies version of Chomskyan mentalism, Carr complains that Chomskyan mentalism is 'ontologically indeterminate': Chomsky, he (1990:89) alleges, has not actually come up 'with anything in the way of coherent proposals for dealing with the dualist/physicalist problem'. But Carr fails to consider the question whether this complaint applies to Chomsky's late-eighties version of mentalism, which differs from the earlier one in being much more biologistic. Carr is disturbed, moreover, by the fact that Chomsky has not been able to rid his mentalism of all reductionism, 'reductionism' being a dirty word in the Popperian vocabulary. But to discredit Chomskyan mentalism, one has to take apart the real thing --- the more highly biologised, late-eighties conception of language --- and show that it has specific flaws of a crippling sort.[59]

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

Should you itch to try your own hand at a little Popperian Prestidigitation, Dear buyer, do think again about what it demands. Requiring philosophical flexibility and epistemological elasticity, it is a most demanding form of magic; actively 'grasping' World 3 objects is definitely not an Arthritic Act. And much more seriously, it may scar your sanity. Thus you will be able to recall that on Dennett's diagnosis, Popper's work 'fails to make serious contact with the best theoretical work of recent years'. And I myself have been forced to suggest above and elsewhere (Botha to appear b:13-14) that Carr's contact with work highly relevant to his concerns is surprisingly slight. What we have here, Concerned Customer, are symptoms of a withdrawal by Popperian Wizards into a scholarly world of their own. Conceptually, of course, it will be curtains for those Popperians who, on this retreat, cross the boundary by which the weird and wonderful realm of magic, ranging from white and mild to black and wild, is marked off from the realm of madness.

4.3 Bowing Out to Bouquets and Boos

Levitational Linguistics, then, delivers lots of good laughs, Doubled-up Buyer. But at the same time some serious lessons may be learned at the Apex of the Abstractness Axis of The Market. Let me list you five of these lessons:

1. *On the essence of language: it cannot be arcanely abstract.*
2. *On linguistic objects: they cannot be Mathematical Maroonees.*
3. *On establishing a conception of language: it needs extensive epistemological exposure.*
4. *On means for learning about language: Extra Eyes, Sixth Senses and Grasping Gestures are the means, and marks, of magic.*

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

5. *On ontology in general: the more Worlds, the more Woes.*

Let me say something more about the core of these lessons, primarily with reference to the Platonist conception of language, the Popperian one not being of matching significance.

Collectively, the first four lessons mean that, in its present form, Platonic realism is not the remedy for the Ontological Angst caused by the question 'What is language in essence?'. True, Dear Blue, Katzian Platonism has the distinct virtue of proceeding from a well-founded conceptual distinction between language and knowledge of language. For this, the Manhattan Magicians deserve bouquets from all of us. But the kind of abstractness they attribute to language makes it an arcanum, unfathomable by less problematic epistemological means. It is pointless to create for this purpose special means, such as Kantian intuition, that are in effect more mysterious than language itself. The kind of abstractness in question, moreover, turns languages into Conceptual Castaways, cut off causally by an ontological ocean from the mainland of linguistic processes, events and states which they naturally inhabit. Neither our understanding of languages nor our understanding of those linguistic phenomena can benefit from our instituting this sort of insularity.

Lesson number five warrants a special word, Dear Buyer. Its underlying logic is transparent, or so one would have hoped. Clearly, the more Worlds one postulates, the more vexing becomes the problem of accounting for the 'interactions' among them, especially if some of those Worlds are ontologically rather exotic. And the more difficult it becomes, too, to shun esoteric epistemological means for exploring those Worlds. So, as far as the creating of Worlds is concerned, conceptual conservatism would seem to commend itself as a prudent policy.

If you had been taking all of this for granted anyway, Conservative Customer, I have a last little surprise for you: it

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

has in fact been proposed that Popper's framework should be 'extended' to include not three Worlds but four! The proponent being a linguist, no less. Missing from Popper's 'framework', Geoffrey Leech (1983:51) maintains,

> *'... is a world of societal facts ... intervening between his second (subjective) and his third (objective) worlds. Thus Popper's objective "third world" becomes, in this redefinition, a "fourth world" ... '*

No, Dismayed Blue, Leech seems not to have reckoned with the possibility that by multiplying Worlds he may make himself even more dependent on magic as a metaphysical means. So it may well be that I speak for many a Magician Metaphysicist as I cite, in closing, the lament of Marlowe's tormented Doctor Faustus:

> *''Tis magic, magic that hath ravished me'.*

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

NOTES

1. In this connection, Katz mentions Partee (1979), Montague (1974) and Lewis (1969, 1975). Katz (1981:92, n. 1) considers Hjelmslev a possible forerunner of Platonism. Hjelmslev (1936:49) believed that extra-linguistic criteria, i.e. physical, physiological or psychological criteria, cannot be relevant in defining linguistic elements such as phonemes. (For this belief cf. also Hjelmslev 1947.) Carr (1990:116), however, does not consider Hjelmslev to have embraced realism.

2. Many scholars think of present-day Platonism primarily as a mathematical metatheory. As such a theory, it consists of two distinct doctrines, called 'ontological platonism' and 'epistemological platonism' by Steiner (1973:57). According to ontological platonism, 'the truths of mathematics describe infinitely many real objects'. And in terms of epistemological platonism 'we come to know facts about mathematical entities through a faculty akin to sense perception [i.e., a faculty of mathematical intuition], or at least some people do'.

3. For a discussion of three of these ontologies, namely physicalism, or materialism, behaviourism and mentalism, see Botha 1989b, 1990a, and 1990b, respectively.

4. For a succinct characterization of the make-up of Platonist linguistic reality cf. Katz 1981:3, 6, 15, 48, 76-78, 231, 1984:18, 24, 34, Katz and Postal 1989:1, Bever 1982:433, 436.

5. Cf. also Katz 1981:55-56, 201, 230-231, Katz and Postal 1989:5-6, 7-8, 37, 51-52.

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

6. Cf. Katz and Postal 1989:5-6.

7. We will see in par. 4.2.2 below that Popperians who advocate an abstractist conception of language invoke a 'sentence-utterance' distinction too.

8. Cf. Katz 1981:55-56, Katz and Postal 1989:51-52.

9. For a discussion of some of the idealizations used by Chomsky, cf. e.g. Botha 1989a:152-153, 1990b:14-18.

10. Cf. e.g. Katz 1981:76, Katz 1984:24, Katz and Postal 1989:30ff.

11. Langendoen and Postal's (1984:vi) central claim is 'that the collection of sentences comprising each individual natural language (NL) is so vast that its magnitude is not given by any number, finite or transfinite'. This means to them 'that NLs cannot, as is currently almost universally assumed, be considered recursively enumerable, hence countable (denumerable) collections of sentences.' Rather, they maintain, these collections are 'mega-collections'.

12. This correlation is 'effable' in the sense that it is complete at both ends: 'there are sufficient sentences and senses so that, no matter what the performance capabilities of a speaker, there will never be a case where the non-existence of a sentence or a sense is the reason why a speaker is unable to express a thought' (Katz 1981:225-226). 'Effability' denotes a property that more conventionally has been called 'unboundedness in scope' (Akmajian et al. 1970:7).

13. Katz (1981:229-230) refers to this characterization by means of '(LU)' and mentions recursiveness and compositionalitity as features that are linguistic universals in terms of (LU). With reference to recursiveness, Katz

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

argues that if the rules of syntax were finite in number and not recursive, the language would be restricted to finitely many sentences. And since a sentence has only finitely many senses, the language would be unable on the expressive side to express all of the infinitely many propositions.

14. In this quotation, 'another conception' means 'a conception other than/distinct from the Chomskyan conception'. On the Chomskyan view, 'essential' is equated with 'innately specified or biologically necessary' (Botha 1989a: 130ff., 1990b:10-11). Katz (1981:224-225), however, contends that this equation cannot rule out all non-essential properties. Nor can it 'rule in' all essential properties: 'Some innately specified non-essential properties will count as part of the nature of language and some non-innately specified essential properties will not count as part of the nature of language' (p. 224).

15. For equivalent formulations cf. e.g. Katz 1984:18, 42-43.

16. **'the+ur+gy** ('θi:ˌɜ:dʒɪ) *n.*, *pl.* **+gies.** 1. ... 2. beneficient magic as taught and performed by Egyptian Neoplatonists and others [C16: from Late Latin *theūrgia*, from Late Greek *theourgia* the practice of magic, from *theo-* THEO- + *-urgia*, from *ergon* work].' *(Collins Dictionary of the English Language)*

17. For an historical account of the way in which some of these beliefs originated cf. Katz 1981:4-6. For a technical discussion of the logico-semantic facts mentioned in (B2) cf. Katz 1972:171ff., 1981:94ff., 179ff. Both Allan (1983:678) and Carr (1990:115) trace Katz's Platonism back to Katz 1972. Carr (1990:114), however, considers Katz 1977 to constitute Katz's 'first public statement of an overtly Platonist line on linguistic representation'.

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

18. Katz and Postal (1989:13) consider any property of relation determined on the basis of the structure of the sentences of an NL to be a feature of that NL.

19. For the earliest version of this theory cf. Katz and Fodor 1963.

20. There are differences of opinion as to what level of grammatical structure it is that provides the semantic information necessary for the application of logical laws to sentences. In the words of Katz and Postal (1989:9): 'Intensionalists take that level to be the sense structure of sentences; extensionalists take the logically relevant grammatical level to be that at which the referential apparatus of NLs is most transparently presented.'

21. Katz and Postal (1989) criticize conceptualism, in particular as it has been developed by Chomsky, for a wide range of other alleged flaws as well. Some of these have been considered in Botha 1990b:69ff.

22. Cf. also Katz 1984:34 for these views.

23. According to Katz (1989:76), this is the 'weaker' claim made by Platonism. The other, 'stronger', one is that sentences and languages are abstract objects (and that linguistics consequently is about abstract objects). Cf. also Katz 1981:9, 1984:25-26, 27-28 for equivalent formulations of the former, 'weaker', claim.

24. Recall that Katz and Postal (1989:4) characterize these facts as 'covering every aspect of sentential structure, *viz.*, syntactic, morphological, phonological and semantic'. They furnish various typical examples of such facts, including those about analyticity and analytical entailment that we considered in par. 4.1.2 above.

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

25. See in this connection the remarks by Katz and Postal (1989:13) quoted above as well as similar comments in Katz 1981:46.

26. Cf. Katz 1981:2, 3, 46; 1984:19, Katz and Postal 1989: 19, 37.

27. Descartes, by contrast, believed in the infallibility of intuition. For a discussion of the various accounts of the nature of intuition within Platonism and for Katz's preference of a particular, Kantian, one cf. Katz 1981: 200ff. We return to the Kantian account in par. 4.1.4 below.

28. Other criticisms --- which I do not propose to discuss here --- include those indicated in the list below:

    1. The advocates of Platonist linguistics have not 'demonstrated' that there are Platonic linguistic objects (cf. Chomsky 1987a:34-35 and for a reply Katz and Postal 1989:26).
    2. Abstract (linguistic) objects are not to be found in the real world: they are 'constructed' by people (cf. Chomsky 1987a:34-35 and, for a reply, Katz and Postal 1989:26-27).
    3. Katz 'is at least as mysterious as Plato on where these abstract objects exist ...' (cf. Allan 1983: 679).
    4. Language is not 'ontologically homogeneous', i.e., it is 'one meeting place of the abstract object and the non-abstract' (cf. MacQueen 1984:417).
    5. It would be more correct 'to let historical and social norms of language rather than "eternal" Platonic entities stand for the abstract objects analyzed by grammatical theory' (cf. Itkonen 1983:240-241 and Pateman 1983:284, 1987:51-52). To this criticism I will return in Botha to appear a.

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

6. There are 'obvious' differences between languages and other abstract objects such as mathematical entities: the former but not the latter are subject to diachronic change and social variation (cf. Itkonen 1983:241).

7. Platonist linguistics 'has no empirical relevance, no relevance to the real world' (cf. Chomsky 1987a:35 and, for a reply, Katz and Postal 1989:27).

8. Using Occam's Razor consistently, Katz has to dispose of abstract objects since, within his Kantian epistemology, they remain in themselves unknowable, our knowledge being confined to the phenomenal world of Katz's concepts of abstract objects (cf. Pateman 1983:283, 1987:50).

9. Katz's account of the analogy between formal logic and linguistic theory is too 'sketchy' to be convincing (cf. Itkonen 1983:242).

10. Necessary truth is as amenable to a conceptualist as to a Platonist interpretation (cf. MacQueen 1984:417).

11. Katz does not consider whether abstract theoretical constructs exist 'independently of theories of linguistic analysis', or 'independently of the minds of linguistic analysts' (cf. Allan 1983:679).

12. If linguistic Platonism rejects the psychologistic competence/performance distinction, then Katz has not yet 'disentangled him from the terms' (cf. Allan 1983:680).

13. It is mistaken to assume, as Katz does, that nominalism, conceptualism and realism 'encompass the entire range of twentieth-century philosophies in linguistics (cf. Carr 1990:115-116).

Note, incidentally, that one can argue that sentences and languages are abstract Platonic objects, without having to assume that numbers are such objects too. So, if it turned out that there are strong reasons for denying numbers the status of Platonic objects, the former case would

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

not thereby collapse. But Katz, Postal and others have of course based their model of linguistics as a 'branch of mathematics' on the assumption that mathematics should be assigned a Platonistic ontological interpretation. And the latter assumption is still quite controversial as is clear from the ongoing debate conducted in studies such as Steiner 1975 and Wright 1983 (chapter 2 of the latter is particularly relevant).

29. For a discussion of the notion of 'E-language' cf. Botha 1990b:5-9. In terms of the alternative conception of I(nternalized)-language, the conception defended by Chomsky, a language is '... some element of the mind of the person who knows the language, acquired by the learner, and used by the speaker-hearer'. For an explication of Chomsky's notion of 'I-language' cf. Botha 1990b:10-13.

30. Cf. Chomsky 1986:26-28.

31. Cf. Chomsky 1986:25.

32. The distinction between the knowledge of a thing and the thing known that lies at the basis of Katz and Postal's use of the notion of 'relational' was considered in par. 4.1.2 above.

33. Cf. Katz 1981:202.

34. Following Kant, Katz (1981:204) takes a concept *in concreto* to be 'a particular concept of something, e.g., a cube, the number seventeen, or the sentence "They are flying planes", in the form of a concrete object of intuition'.

35. Katz (1981:193) furnishes two general considerations as the basis for the claim that intuition exists: '... first hand experience with its operations, on the one hand, and the elimination of all other faculties as capable of sup-

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

plying the knowledge in question, on the other'. His reference, via Hardy (1940), to the case of Ramanujan --- see the quotation at the end of par. 4.1.3 above --- involves the first consideration.

36. For a more detailed discussion of this point cf. Botha 1980:77ff., 1989a:182-185, and Chomsky 1981:9, 1986: 34ff.

37. For just how difficult it is to say in Platonist terms something of substance about language acquisition cf. Bever 1982.

38. Dillinger (1984a:302) considers this interpretation of linguistic theories 'a regress for linguistics' since he takes progress in science 'to be showing new relations between things rather than assuming a head-in-the-sand position on old ones'.

39. The 'Right View' as instantiated, for example, by Chomskyan conceptualism entails on Fodor's (1985:148-149) characterization the following: '(a) Linguistic theories are descriptions of grammars. (b) It is nomologically necessary that learning one's native language involves learning its grammar, so a theory of how grammars are learned is *de facto* a (partial [?]) theory of how languages are learned. (c) It is nomologically necessary that the grammar of a language is internally represented by speaker/hearers of that language; up to dialectical variants, the grammar of a language is what its speaker/hearers have in common by virtue of which they are speaker/hearers of the *same* language. (d) It is nomologically necessary that the internal representation of the grammar (or, equivalently for these purposes, the internally represented grammar) is causally implicated in communication exchange between speakers and hearers in so far as these exchanges are mediated by their use of the language that they share; talking and understanding the lan-

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

guage normally involve exploiting the internally represented grammar.'

40. Cf. e.g. Chomsky 1964; Botha 1989b, 1990a.

41. Cf. Katz 1981:2, 12 and Katz and Postal 1989:4.

42. In par. 4.2.2 below we will see that a condition with the general tenor of (C1) is pertinent to the appraisal of Popperian linguistic ontology as well.

43. Suppose that it turned out to be possible to present a well-argued case for including facts about analyticity and analytical entailment within the scope of linguistic theories. Then, would Katz and Postal's condition (10) (b) guarantee that the Platonist conception of language was more highly valued than the conceptualist one? Not necessarily, since --- as we will see directly below --- extensive coverage of data/facts is only one of several conditions pertinent to the appraisal of the linguistic theories constructed on the basis of a linguistic ontology.

44. Nor do they consider the well-known difficulties involved in assigning in a non-arbitrary way a clear content to the notion of 'simplicity'. For some of these difficulties cf. e.g. Chomsky 1972:125, 129. Cf. Botha also 1989a:189ff. for the various notions of simplicity that play a role in Chomskyan linguistics.

45. Cf. Botha 1982:6ff. and 1989a:150-151 for the Chomskyan notions of 'deductive depth' and '(theoretical) unification'.

46. This account is based on Popper 1972 (chapters 3 and 4) and 1977 (chapter P2).

47. In Popper's earlier work 'first world', 'second world'

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

and 'third world' denote what in his later work are called 'World 1', 'World 2' and 'World 3', respectively.

48. Popper (1972:107, 154) maintains that his World 3 is not Hegelian either. Rather, his World 3 'has more in common ... with Bolzano's theory of a universe of propositions in themselves, though it differs from Bolzano's also. My third world resembles most closely the universe of Frege's objective contents of thought'.

49. Popper (1977:48) does claim that language learning is 'a process in which genetically based dispositions, evolved by natural selection, somewhat overlap and interact with a conscious process of exploration and learning, based on cultural evolution'. What this is intended to mean in empirical terms, however, he does not spell out with reference to the acquisition of any specific lingusitic forms, structures, rules etc. of any specific languages.

50. For these two conditions cf. Botha 1989b:38-39. Two subcases of the 'fruits' condition were considered in the discussion of the Platonist conception of language in par. 4.1.4 above.

51. Similarly, Katz and Postal (1989:5) take Chomskyan conceptualism to represent the 'current orthodoxy' in theoretical linguistics.

52. Interestingly, some of the most serious criticisms of (Chomskyan) SPE phonology were directed at the excessive 'abstractness' of its level of phonological representation (for references cf. Goyvaerts and Pullum (eds.) 1975:2-4). And, of course, over the years Chomskyans have acquired the reputation of being the champions *par excellence* of an autonomous syntax. For some discussion and many references cf. Newmeyer 1983:5-27, 96ff.

53. For this form of argument cf. par. 4.1.2 above.

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

54. For some discussion of this point cf. Botha 1990b:37-38, 49-50.

55. Nor has Carr shown that his linguistic ontology would lead to a better understanding of 'external' or 'extra-grammatical' processes such as those considered above under point 5 of par. 4.1.4.

56. Mortensen (1978:264), in similar vein, has argued that 'discussions [by Popper and Eccles] of recent physicalist strategies for dealing with mental phenomena are inadequate'.

57. The '1990' references above and below are to Carr 1990. For a detailed discussion of the late-eighties version of Chomskyan linguistic ontology cf. Botha 1990b and Katz and Postal 1989.

58. See also Fodor 1985:151.

59. I have not discussed above --- or in Botha to appear b --- everything that I consider problematic in regard to Carr's linguistic ontology. Thus, I have not commented on the variety of hidden assumptions necessarily involved in Carr's argument for the 'public' nature of linguistic objects. Nor have I attempted to give an exhaustive survey of (philosophical) criticisms of Popper's ontological theory. For example, I have not gone into Platonist criticisms of the Popperian view that World 3 objects are man-made. Katz (1981:201), for example, has observed that if objects of the third world are 'of our making' then 'Popper has to claim, inconsistent with realism, that numbers are contingent objects that didn't exist until humans came into existence. Further, he has to claim that numbers can be destroyed just as honey and webs of spiders can'. And on Katz's (1981:201) judgement, too, 'Popper seems not to appreciate the fact that objective entities

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

with neither spatial nor temporal location cannot enter into causal relations'. For a variety of serious criticisms of Popperian interactionist dualism cf. also Bunge and Ardila 1987:10.

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

REFERENCES

Achinstein, P. and Barker, S.F. (eds.). 1969. The Legacy of Logical Positivism. Baltimore: The Johns Hopkins Press.

Akmajian, A., Demers, R.A., Farmer, A.K. and Harnish, R.M. 1990. Linguistics. An Introduction to Language and Communication. Third Edition. Cambridge, etc.: MIT Press.

Allan, K. 1983. Review of Katz 1981. Language 59:678-683.

Beloff, J. 1978. Is mind autonomous? The British Journal for the Philosophy of Science 29:265-273.

Bever, T.G. 1982. Some implications of the nonspecific bases of language. In Wanner and Gleitman (eds.) 1982:429-486.

Bever, T.G., Carroll, J.M., and Miller, L.A. (eds.). 1984. Talking Minds: the Study of Language in Cognitive Science. Cambridge, Mass.: MIT Press.

Botha, R.P. 1979. Methodological Bases of a Progressive Mentalism. (SPIL 3). Stellenbosch: Department of General Linguistics.

Botha, R.P. 1980. Methodological bases of a progressive mentalism. Synthese 44:1-112.

Botha, R.P. 1982. On the 'Galilean style' of linguistic inquiry. Lingua 58:1.50.

Botha, R.P. 1989a. Challenging Chomsky. The Generative Garden Game. Oxford: Basil Blackwell.

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

Botha, R.P. 1989b. The Metaphysics Market: 1 Merchandizing Language as Matter. (**SPIL** 20 and **SPIL PLUS** 14). Stellenbosch: Department of General Linguistics.

Botha, R.P. 1990a. The Metaphysics Market: 2 Billing Language as Behavioural. (**SPIL** 21 and **SPIL PLUS** 15). Stellenbosch: Department of General Linguistics.

Botha, R.P. 1990b. The Metaphysics Market: 3 Selling Language as Soul. (**SPIL** 22 and **SPIL PLUS** 17). Stellenbosch: Department of General Linguistics.

Botha, R.P. To appear a. The Metaphysics Market: 5 Stocking Language as Something Social. (**SPIL** 24). Stellenbosch: Department of General Linguistics.

Botha, R.P. To appear b. Review of Carr 1990. Journal of Linguistics.

Bunge, M. and Ardila, R. 1987. Philosophy of Psychology. New York, etc.: Springer-Verlag.

Carr, P. 1987. Psychologism in linguistics, and its alternatives. In Modgil and Modgil (eds.) 1987:212-221.

Carr, P. 1990. Linguistic Realities. An Autonomist Metatheory for the Generative Enterprise. Cambridge: Studies in Linguistics 53. Cambridge, etc.: Cambridge University Press.

Chomsky, N. 1964. Current Issues in Linguistic Theory. (Janua Linguarum, Series Minor 38). the Hague, etc.: Mouton & Co.

Chomsky, N. 1972. Studies on Semantics in Generative Grammar. (Janua Linguarum, Series Minor 107). The Hague, etc.: Mouton.

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

Chomsky, N. 1981. Lectures on Government and Binding. Dordrecht: Foris Publications.

Chomsky, N. 1986. Knowledge of Language: Its Nature, Origin and Use. New York: Praeger.

Chomsky, N. 1987a. Language in a Psychological Setting. (= Sophia Linguistica 22). Tokyo.

Chomsky, N. 1987b. Generative grammar: its bases, development, and prospects. S.E.L.L. (Special issue of bulletin of English Department.) Kyoto University, Japan.

Chomsky, N. 1987c. Language and problems of knowledge. Revised version of paper delivered at a conference in Madrid, April 28, 1986.

Chomsky, N. 1988a. Language and Problems of Knowledge. Cambridge, Mass.: MIT Press.

Chomsky, N. 1988b. A personal view. Paper presented at conference session Linguistics and Adjacent Fields: the State of the Art, Israel, April 1988.

Chomsky, N. 1988c. Prospects for the study of language and mind. Paper presented at conference session Linguistics and Adjacent Fields: the State of the Art, Israel, April 1988.

Chomsky, N. 1988d. Language and interpretation: philosophical reflections and empirical inquiry. Contribution to U. Pittsburgh Series of Philosophy of Science.

Chomsky, N. 1989. Mental constructions and social reality. Paper delivered at Conference on Knowledge and Language held in Groningen, May 1989.

Cohen, L.J. 1979. Review of Popper and Eccles 1977. Mind 88:301-304.

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

Dennett, D.C. 1979. Review of Popper and Eccles 1977. The Journal of Philosophy 76:91-97.

Dillinger, M. 1984a. Review of Katz 1981. The British Journal for the Philosophy of Science 35:301-303.

Dillinger, M. 1984b. Review of Katz 1981. Philosophy of Science 51:175-176.

Dinnsen, P. (ed.). 1979. Current approaches to Phonological Theory. Bloomington: Indiana University Press.

Donegan, P.J. and Stampe, D. 1979. The study of natural phonology. In Dinnsen (ed.) 1979:126-173.

Eccles, J.C. 1977. Part 2 of The Self and Its Brain by Popper and Eccles. 1977. Berlin, etc.: Springer-Verlag.

Edwards, P. (ed.). 1967. The Encyclopedia of Philosophy. New York and London: Macmillan.

Fodor, J.A. 1985. Some notes on what linguistics is about. In Katz (ed.) 1985:146-160.

Frege, G. 1967. The Basic Laws of Arithmetic. Berkeley: University of California Press.

French, P., Uehling, T. and Wettstein, H.K. (eds.). 1979. Contemporary Perspectives in the Philosophy of Language. Minneapolis: University of Minneapolis Press.

Givón, T. 1984. Syntax: A Functional-Typological Introduction. Amsterdam: Benjamins.

Goyvaerts, D.L. and Pullum, G.K. (eds.). 1975. Essays on The Sound Pattern of English. Ghent: E. Story-Scientia.

Gunderson, K. (ed.). 1975. Language, Mind, and Knowledge. (Minnesota Studies in the Philosophy of Science 7). Minneapolis: University of Minnesota Press.

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

Hardy, G.H. 1940. A Mathematician's Apology. London: Cambridge University Press.

Hjelmslev, L. 1936. Contribution to Proceedings of the International Congress of Phonetic Sciences. Cambridge.

Hjelmslev, L. 1947. Structural analysis of language. Studia Linguistica. I:69-78.

Hooper, J.B. 1976. An Introduction to Natural Generative Phonology. New York: Academic Press.

Itkonen, E. 1978. Grammatical Theory and Metascience. Amsterdam: Benjamins.

Itkonen, E. 1983. Review of Katz 1981. Lingua 60:238-244.

Katz, J.J. 1972. Semantic Theory. New York: Harper and Row.

Katz J.J. 1977. The real status of semantic representations. Linguistic Inquiry 8:559-584.

Katz, J.J. 1981. Language and Other Abstract Objects. Oxford: Basil Blackwell.

Katz, J.J. 1984. An outline of Platonist grammar. In Bever, Carroll and Miller (eds.) 1984:1-33.

Katz, J. (ed.). 1985. The Philosophy of Linguistics. Oxford: Oxford University Press.

Katz, J.J. and Fodor, J.A. 1963. The structure of a semantic theory. Language 39:170-210.

Katz, J.J. and Postal, P.M. 1989. Realism and conceptualism in linguistics. Unpublished manuscript.

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

Langendoen, D.T. and Postal, P.M. 1984. The Vastness of Natural Languages. Oxford: Basil Blackwell.

Leech, G. 1983. Principles of Pragmatics. London and New York: Longman.

Lewis, D. 1969. Convention. Cambridge: Harvard University Press.

Lewis, D. 1975. Languages and language. In Gunderson (ed.). 1975.

MacQueen, K. 1984. Review of Katz 1981. Journal of Pragmatics 8:411-417.

Montague, R. 1974. Formal Philosophy. New Haven: Yale University Press.

Mortensen, C. 1978. Review of Popper and Eccles 1977. Australian Journal of Philosophy 56:264-266.

Newmeyer, F.J. 1983. Grammatical Theory. Its Limits and its Possibilities. Chicago and London: University of Chicago Press.

Partee, B. 1979. Montague grammar, mental representation, and reality. In French, Uehling and Wettstein (eds.) 1979.

Pateman, T. 1983. Review of Katz 1981. Journal of Linguistics 19:282-284.

Pateman, T. 1987. Language in Mind and Language in Society. Studies in linguistic reproduction. Oxford: Clarendon Press.

Popper, K.R. 1972. Objective Knowledge. An Evolutionary Approach. Oxford: Clarendon Press.

Stellenbosch Papers in Linguistics, Vol. 23, 1991, 01-80 doi: 10.5774/23-0-84

Popper, K.R. and Eccles, J.C. 1977. The Self and Its Brain. An Argument for Interactionism. Berlin, etc.: Springer-Verlag. [References to the edition published in 1983 by Routledge and Kegan Paul.]

Ryle, G. 1967. Platonism and the Platonic tradition. In Edwards (ed.) 1967, Vol. 6:333-341

Shaphere, D. 1969. Notes towards a postpostivistic interpretation of science. In Achinstein and Barker (eds.) 1969:115-160.

Shuy, R. and Bailey, C.-J. (eds.). 1974. Towards Tomorrow's Linguistics. Washington, DC: Georgetown University Press.

Steiner, M. 1973. Platonism and the causal theory of knowledge. The Journal of Philosophy LXX:57-66.

Steiner, M. 1975. Mathematical Knowledge. Ithaca and London: Cornell University Press.

Stich, S.P. 1985. Grammar, psychology and indeterminacy. In Katz (ed.) 1985:126-145.

Vennemann, T. 1974. Phonetic concreteness in natural generative phonology. In Shuy and Bailey (eds.) 1974: 202-219.

Wanner, E. and Gleitman, L.R. (eds.). 1982. Language Acquisition. The State of the Art. Cambridge, etc.: Cambridge University Press.

Woozley, A.D. 1967. Universals. In Edwards (ed.). 1967, Vol. 8:194-206.

Wright, C. 1983. Frege's Conception of Numbers as Objects. Aberdeen: Aberdeen University Press.