

THE METAPHYSICS MARKET

2 BILLING LANGUAGE AS BEHAVIOURAL

by

Rudolf P. Botha

STELLENBOSCH PAPERS IN LINGUISTICS

NUMBER 21

1990

This is the second of a series of studies in which prototypical conceptions of language are subversively turned inside out. It has to be read in tandem with the first, *The Metaphysics Market: 1 Merchandizing Language as Matter* (= *SPIL and SPIL PLUS* 14, 1989). I would like to thank Walter Winckler for contributing generously to the present study too.

R.P.B.

CONTENTS

| | | |
|------------|---|-----------|
| 2.0 | MESSING ON THE MARKET | 1 |
| 2.1 | Brunching on Post-Bloomfieldian Burgers | 2 |
| 2.1.1 | Munching the Metaphysical Meat | 2 |
| 2.1.2 | Rummaging for the Recipe | 6 |
| 2.2 | Supping on Psychological Stuff | 11 |
| 2.2.1 | Stoking Up on Stimuli and Responses | 12 |
| 2.2.2 | Ripping Into Raw Reinforcement and the Rest | 15 |
| 2.2.3 | Diversifying the Diet | 23 |
| 2.2.4 | Defending the Dish | 26 |
| 2.3 | Feeding on Philosophical Fare | 30 |
| 2.3.1 | Biting into Behavioural Bangers | 31 |
| 2.3.2 | Weighing the Wittgensteinian Wurst | 36 |
| 2.3.3 | Dishing Up Dispositions | 40 |
| 2.4 | Boiling It Down to the Basics | 43 |
| 2.5 | Washing It Down with a Word of Warning | 49 |
| | NOTES | 53 |
| | REFERENCES | 70 |

2.0 Messing on The Market

You have been wondering all along whether there really is any logic in the lay-out of the Metaphysics Market. But of course, Dear Buyer. Sensible souls that they were, its Druid Designers meant The Market to be a statement in structural simplicity. Precisely one pair of cleverly conceived coordinates serves to order the display of what, on a superficial survey, seems to be incorrigibly a chaotic collection of conceptions of language. Fundamental is the Concreteness Coordinate. Along this, competing conceptions of language are astutely arranged from the completely concrete at the one end to the absolutely abstract at the other. Known also as the Abstractness Axis, this is the first line that we will follow, steadily step by studious step, in our appraisal of Prototypical Products of The Market.

As you should be able to recall, we started out by considering first of all the concretest of commodities: the Bloomfieldian materialist conception of language. A little less concrete than Bloomfieldian sounds and scratches is the action or behaviour of which they are the products. So, Dear Buyer, let us look next at a cluster of conceptions in terms of which language is something essentially behavioural.

The idea that language is something behavioural has been the staple food of generations of scholars and students on both sides of the Atlantic. Indeed, for decades it has been marketed for the masticating masses as a money-making meal by the MacDonaldis of Metaphysics. You sincerely hope, Dear Buyer, that this culinary conception of language can do something for your Angst, for the harrowing hunger you happen to have for an answer to the question 'What is language in essence?'. Or, that it would at least appease the persisting positivist pangs of our Buying Blue. There is only one way

to find out, for Buyer and Blue alike: by getting one's teeth into this form of philosophical fast food as it is dished up on The Market --- first by linguists, then by psychologists, and finally by philosophers.

2.1 Brunching on Post-Bloomfieldian Burgers

Language is something behavioural. This is the core of a cluster of conceptions of language that has traditionally been called 'taxonomic-behaviorist'¹ or 'post-Bloomfieldian'.² 'Behaviourist', however, is a multiply ambiguous term. So, as we proceed, it will become clear that not all conceptions on which language is something behavioural are 'behaviourist' in the technical sense of the term. The various post-Bloomfieldian conceptions of language to be considered in this section are, in fact, more aptly characterized as 'behavioural conceptions'.

2.1.1 Munching the Metaphysical Meat

The question, obviously, is: What is meant by 'something behavioural'? Each of the various answers given to this question portrays the essence of language in a slightly different way. On a first portrayal, language is identified with a certain variety of behaviour. Kenneth Pike (1967:26) has been a particularly strong proponent of this conception:

'It is concluded ... that language is behavior, i.e., a phase of human activity which must not be treated as structurally divorced from the structure of nonverbal human activity.'

The variety of behaviour in question is further characterized by Pike as 'human', 'verbal' and 'structured'. He (1967:26) contends moreover that 'language behavior and non-

language behavior are fused in single events'. And he (1967:26, 32) maintains that 'verbal and nonverbal elements may at times substitute structurally for one another in function'. On Pike's view, language and nonlanguage behaviour, then, are both structurally and functionally analogous.³ From this, he concludes that language and non-language behaviour must be 'handled by one approach'.⁴

Pike's identification of language with behaviour is absolute: language has no feature not present in behaviour. Dwight Bolinger (1968:14) also says that 'language is behavior' and that 'the essence of language is a way of acting'.⁵ But, in addition, he (1968:15) provides for the existence of a 'thing-like' system that persists through time from speaker to speaker. This system, on Bolinger's (1968:15) construal,

'... goes by various names --- competence, knowledge, *langue* --- to distinguish it from performance, or speech, or *parole* or whatever else we may call its practical use at any given moment.'

Clearly, Bolinger is careful not to conflate language and speech. Pike (1967:536), by contrast, does not see any basis for such a distinction. Thus, he contends that

'As more and more materials in speech begin to appear structured, the view that "language" as a structure differs from "speech" as activity is threatened.'

This is one of the 'factors' that brings him 'to abandon the distinction between *la langue* and "la parole" proposed by Saussure ...'.⁶

On a first post-Bloomfieldian behavioural conception, then, language is identified with behaviour itself. On a second one, a language is portrayed as something more abstract than behaviour itself. On the latter conception a language is a system of habits that controls language beha-

behaviour. This conception of a language has been propounded by post-Bloomfieldian linguists such as Charles Hockett (1958) and Robert Hall (1964).

To clarify the conception of a language as a (complex) set of habits, Hockett (1958:137, 141) draws a distinction between acts of speech and habits. He (1958:141) considers acts of speech --- also called 'utterances' by him --- to be historical events. These events are not habits but each of these events 'partly conforms to, reflects, and is controlled by habits'. Moreover, whereas acts of speech are directly observable, habits are not. Thus Hockett (1958:141-142) states that:

'Acts of speech, like other historical events, are directly observable. Habits are not directly observable, they must be inferred from observed events, whether the inferring agent is a child learning a language or an analyst seeking to describe one.'

On Hockett's view, language structure 'resides entirely' in habits. In addition to a speaker's 'structural' or 'linguistic' habits, Hockett (1958:143-144) provides for 'habits of some other order' that affect a speaker's fluency. Habits of the latter sort, which are not 'language habits in the proper sense', may cause a speaker to stutter, to hem and haw, to vary the register of his voice, to change his quality of tone, and so on. Hockett (1958:144) considers it 'proper to ignore' habits of the latter sort in the study of language.

On Hall's elaboration of this behavioural conception, the 'oral-auditory' habits making up language have both an individual and a social side. Thus, Hall (1964:19) contends that 'speech' habits are individual in that they are manifested in the habits, potential or actualized, of each individual speaker. As individual phenomena, these habits have their '*locus existendi*' in the individual brain. 'Speech' habits,

on Hall's (1964:17) view, are social

'... in that they are not the product of individual free will, but are common to the entire group of persons who use the language.'

Though 'speech' habits have their '*locus existendi*' in the speaker's brain, they are not mental entities. Hall (1964: 403) rejects a 'mental interpretation' of language, seeing no necessity for 'mental factors as necessary postulates for explaining linguistic phenomena'. And he (1964:404) contends that 'the nonmentalist assumptions of modern linguistics are no different from the basis on which all other scientific work rests'.

You have been told that one can eat one's way out of one's Ontological Angst. Well, Dear Buyer, it has definitely been tried before. Just think of all those students, sucklings and seniors, who have been forcibly fed Post-Bloomfieldian Behavioural Burgers to subdue the disquiet induced by the question 'What is language in essence?'. But fast food fads in terms of which language is behaviour, habit or something similar have turned out not to be nourishing notions. To see why not, we will in due course inspect the make-up of the metaphysical meals on the MacDonalds' Menu. Right now, we first have to consider a question of origin: Where did post-Bloomfieldians get the idea that language should be thought of as something behavioural? Who were the Conceptual Chefs responsible for the recipe of Behavioural Burgers?

2.1.2 Rummaging for the Recipe

The paternity of the idea that language is behaviour is often attributed to Bloomfield himself. Thus with reference to the roots of Pike's conception of language, Davis (1973:173), for example, contends that:

'The tagmemic theory of language, like Bloomfieldian and post-Bloomfieldian theory, views language as a particular kind of human behavior. Bloomfieldian theory considered language as human vocal behavior with respect to a matrix of stimulus-response.'

This view of the origin of the idea that language is behaviour cannot, however, be correct.

First, as noted by Hymes and Fought (1975:1004), Bloomfield's view of language was not really influenced by the behaviourism he took over from Weiss:

'... Bloomfield's views on behaviorism had perhaps more influence on others than they had on Bloomfield, and ... insofar they were necessary to his linguistic work, the necessity appears to have been personal and social, rather than linguistic.'

Bloomfield conceived of language as essentially something physical, not something behavioural.⁷ What is more, Bloomfield himself stated explicitly that he had developed his ideas about language without reference to psychological positions of any kind.⁸

Bloomfield did, of course, invoke the notions 'stimulus' and 'response' to outline his view of meaning. Thus, consider the following schematic representation of Bloomfield's (1933: 26):

$$S \longrightarrow r \dots\dots s \longrightarrow R$$

Bloomfield took the meaning of the 'speech occurrence/event'

r s to consist in the (nonlinguistic) stimulus (S) of the speaker plus the (nonlinguistic) response (R) of the hearer.⁹ But Bloomfield (1939:18) did not consider this to be an essentially behaviourist definition of meaning:

'This [definition] holds good even under a mentalistic view: in this view it is merely supposed that the speaker's stimulus and the hearer's response are "ideas", "concepts" or the like, which may be postulated in more or less exact accommodation to the uttered speech-forms and serve to link these to the actually observable stimulus and response.'

So even Bloomfield's use of the notions 'stimulus' and 'response' does not indicate that his thinking about language is behaviourist in a substantive sense. His use of these notions, specifically, does not indicate that he holds the view that language is behaviour.

Rather, as is clear from Esper's (1968:186ff.) account, Bloomfield's behaviourism is of a metascientific sort: views about the nature of science.¹⁰ These are the views, antimetaphysicist, anti-mentalist, pro-positivist and pro-empiricist, toward which he was guided by Weiss. So, Bloomfield's behaviourism was of a metascientific and not a substantive sort.¹¹

Who, then, in the context of American linguistics came up with the idea that language is a kind of behaviour? Pike (1967:32) contends that the people who did so were scholars who looked at language from a cultural or ethnological perspective. For instance, Sapir (1949:32, 166) treated language as 'symbolic behavior' and characterized it 'as strictly socialized a type of human behavior as anything'. He (1949:12), moreover, anticipated the idea that units of language behaviour and units of nonlanguage behaviour may constitute interchangeable parts of larger units of behaviour. And Kluckhohn (1949:148) articulated the view of a large number of ethnolinguistically oriented scholars when he stated that 'language is just one kind of cultural behavior'.¹²

The origin of the idea that language is habit is equally elusive. Hall (1964:17) refers to work by Twaddell for the view that 'language habits' are 'both below and above the control of the individual'. Twaddell (1949:4), having referred to language as 'that odd human practice', does characterize language in terms of a notion of 'habit'. But he leaves this notion unclear in regard to both content and origin. The same is true of the way in which Whitney (1971: 11) used a notion of 'habit' when he remarked more than a century ago that:

'The dominion of habit is not less powerful in language than in anything else that we acquire and practise.'¹³

There is an additional, rather obvious, possibility to be considered in regard to possible source(s) of the behavioural conception of language espoused by American linguists: the general idea that language is behaviour, habit or something similar may have been taken over by linguists from behaviourist psychologists. For the greater part of the first half of the century, behaviourism --- in the various forms developed by Watson, Thorndike, Tolman, Skinner, Hull and others --- was the dominant school in American psychology. In so far as behaviourists did have a conception of language, they depicted it as something behavioural.¹⁴ Their generally positivist view of science ruled out the possibility for language to be something mental. Language had to be something 'observable' such as verbal behaviour or something 'objectively' identifiable such as habits, dispositions or the like.¹⁵ It seems plausible that this view of language could have rubbed off on linguists who worked in the same academic environment and intellectual climate as behaviourist psychologists.

Strangely, though, this apparently did not happen. As noted by Fodor, Bever and Garrett (1974:24):

'... until the early 1950's there was a curious lack of fruitful interaction between psychology

and linguistics in the mainstream of American thinking ...'¹⁶

The reasons why linguists did not take over the behaviourist conception of language (behaviour) held by their psychologist colleagues are less than clear. Why behaviourist psychologists did not take over their linguist colleagues' views on language is easier to understand. The reason is to be found in the hardline empiricist view of science held by these psychologists. As noted by Newmeyer (1980:11), this view was so extreme 'that it had no place even for the unobservable phonemes and morphemes of structural linguistics'. Only measurable responses of speakers were admissible in the descriptions of verbal behaviour.¹⁷ So, until the fifties, American linguists and behaviourist psychologists had no significant intellectual interaction.¹⁸ Consequently, the behavioural conceptions of language that were popular with post-Bloomfieldian linguists before the fifties could not have had their roots in behaviourist psychology.

'Slipping in on the sly historical humbug again' is not what I have been up to, Bleating Blue. Nor have I been 'merely rambling on' about the opaqueness of the past of post-Bloomfieldian behavioural conceptions of language. Indeed, my message amounts to rather more than the 'piffling point' that these conceptions are the orphaned off-spring of Ancestors Anonymous. So what is it that I have had in mind?

To see this, Confused Customer, think back for a moment to the Bloomfieldian conception of language that we dissected in (Botha 1989b). Recall, that we found this materialist conception to lack the curative capacity to do anything for the anxiety caused by perpetual puzzling over the question 'What is language in essence?'. Indeed we saw during our first foray into The Market that, poisoned by positivism, this conception could actually worsen one's worries about

metaphysical matters. But, and this might come as something of a surprise, the materialist conception is in a significant sense superior to the post-Bloomfieldian one. Though unsound in substance, the Bloomfieldian conception had at least some depth in its design.

Bloomfield, Dear Buyer, after all did take the trouble to try and tell us what 'material(ist)' is supposed to mean. Do I have to remind you how he went on about the nature of noise, using physicalist phrases such as 'sound waves', 'displacement of matter' and the like to describe it? But post-Bloomfieldians have been studiously silent about what 'behaviour', 'habit' and so on is supposed to signify. They have not even bothered to tell us how behaviour is supposed to differ from mere motion or accidental action, thereby making behaving a mysterious matter. And how habit differs from skill, practice and disposition --- not even to mention knowledge how and knowledge that in this connection --- is left a poser to be privately puzzled out by Potential Purchasers of their Product. So the very core of the post-Bloomfieldian conception of language consists of a strictly mysterious sort of stuff. What was supposed to be the meaty matter in the Burger turned out to be as savoury as sawdust.

Bloomfield, moreover, recited reasons and ruminated over roots. He revealed to us the materialist motives and positivist passions that propelled him toward portraying language as disturbances in the air. Post-Bloomfieldians, by contrast, have not cared to bare the bases of their belief that language is behaviour, habit or something similar. As the Sharp-eyed Shopper could hardly help noticing, foundations fail to figure in textbook treatments of post-Bloomfieldian portrayals of language as something behavioural. Perhaps this view seemed to be so 'common-sensical', so widely held, so popular, that it was considered perfectly proper to simply assert it without further support.¹⁹ Why, indeed, would any fast food firm hold up for public inspection the junk it stuffs into its burgers?

What this all adds up to? Firstly, the post-Bloomfieldian behavioural conception of language misses maturity in its ontological make-up. Secondly, this conception has all the makings of a *Metaphysical Misfit*, a point that will be pursued when we come to reconstructing its philosophical roots.²⁰ Could I, in the meantime, give you some gastronomic guidance? Certainly; for now, let the following culinary caveat suffice:

Biter, beware --- Behavioural Burgers, Habitual Hash and other such mysterious Metaphysical Mash don't make for a Belly-filling Bash.

'Cordon Bleu Burgers'? These, *Conceptions Consumer*, represent a culinary contradiction in terms. Blue Burgers are the sole speciality for patrons with a perversely positivist palate.

Would I please refrain from belittling the belief that language is something behavioural? Especially not in its bare bones embodiment in basic books by post-Bloomfieldians who are proud to present themselves as happy-go-lucky laymen in matters metaphysical. And you dare me, *Bristling Blue*, to turn my attention to the business of pros who are big on behaviour. By all means, *Fulminating Fellow*, let us get down to the beliefs of the *Big Boffins of the Behaviourist Breed*. Indeed, let us turn to the language lore of one B.F. Skinner who, for years and years, has ruled the *Reinforced Roost*.

2.2 Supping on Psychological Stuff

Within the framework of radical behaviourist psychology, Skinner (1957:2) identifies language with verbal behaviour. He uses the term 'language' in quotation marks, indicating graphically that he does not consider language to be something distinct from behaviour. Skinner (1957:2, 14) defines

verbal behaviour as

'... behavior reinforced through the mediation of other persons ...'

This formulation is intended to mean that a person's verbal behaviour is behaviour whose 'first effect is upon other men'. Verbal behaviour, that is, is 'effective only through the mediation of other persons'. Skinner includes in verbal behaviour the behaviour or 'practices' of individual speakers only. He excludes from it the verbal 'practices' of 'linguistic communities'. To come to grips with Skinner's conception of language we clearly have to take a closer look at the core notion of 'verbal behaviour'.

2.2.1 Stoking Up on Stimuli and Responses

Verbal behaviour, on Skinner's (1957:20) view, is made up of units that have traditionally been called 'responses'. He prefers the technical term 'operant' to 'response', an operant being a unit of behaviour which 'operates on the environment'. An operant has to be distinguished from an 'activity', which is 'primarily concerned with the internal economy of the organism'.

As units of behaviour, operants, moreover, are functionally related to one or more independent variables. More fully, Skinner (1957:20) defines a unit of behaviour --- verbal or nonverbal --- as being

'... composed of a response of identifiable form functionally related to one or more independent variables.'

In short, verbal behaviour is made up of responses that are under the control of objectively identifiable stimuli.

Ultimately, verbal behaviour --- and, therefore, language --- reduces to muscular movement. Thus, Skinner (1957:13)

states that

'Our subject matter is verbal behavior, and we must accept this in the crude form in which it is observed. In studying speech, we have to account for a series of complex muscular activities which produce noises. In studying writing or gesturing, we deal with other sorts of muscular responses. It has long been recognized that this is the stuff of which languages are made...'²¹

Skinner further characterizes verbal behaviour --- and thereby language --- in terms of what it is not. First, verbal behaviour is not identical to vocal behaviour. He (1957:14) considers 'any movement capable of affecting another organism [to be] verbal'. Consequently, verbal behaviour includes much more than vocal behaviour:

'... there are extensive written languages, sign languages, and languages in which the "speaker" stimulates the skin of the "listener." Audible behavior which is not vocal (for example, clapping the hands for a servant, or blowing a bugle) and gestures are verbal, although they may not compose an organized language. The skilled telegraphist behaves verbally by moving his wrist. Some of these forms normally arise only after vocal behavior has been established, but this is not necessarily so. Writing and typing may be either primordially verbal or transcriptions of a prior vocal form. Pointing to words is verbal --- as, indeed, is all pointing, since it is effective only when it alters the behavior of someone. The definition also covers manipulations of physical objects which are undertaken because of the effect upon people, as in the use of ceremonial trappings.'

Vocal behaviour is verbal behaviour 'executed' by the complex musculature of the speech tract.

Second, verbal behaviour is distinct from the 'objective entities' produced by it. Skinner (1957:7) observes that verbal behaviour leaves 'records' or 'traces' --- the sound stream of vocal speech, the words on a page, the signals transmitted on a telephone or telegraph wire. These may be studied as 'objective facts'. But Skinner (1957:7) insists

on preserving the distinction between an activity and its traces. The belief that 'speech has an independent existence apart from the behavior of the speaker' he considers an 'unfortunate' idea.

Third, verbal behaviour has no aspect that needs to be described or explained with reference to 'events taking place inside the organism'. Skinner (1957:5), accordingly, disallows any recourse to ideas, images, meaning, and so on in describing verbal behaviour and in explaining the causation of specific verbal responses. Verbal behaviour, on his view, can be causally explained in terms of notions such as 'stimulus', 'response' and 'reinforcement', terms taken over from experimental study of animal behaviour.²² Skinner's fundamental theses, in sum, may be formulated as follows:

'... external factors consisting of present stimulation and the history of reinforcement (in particular the frequency, arrangement, and withholding of reinforcing stimuli) are of overwhelming importance, and ... the general principles revealed in laboratory studies of these phenomena provide the basis for understanding the complexities of verbal behavior.'²³

In a Skinnerian account of behaviour, verbal and nonverbal, no reference to anything mental is allowed. Concepts involving purpose, desire, intention, feeling and so on are eschewed. Mentalistic terms such as 'thinking', 'expectation', 'understanding' and, of course, 'mind' are considered pejorative. Explanations of behaviour of human beings and animals have to be stated in terms of concepts designating only physical things and events.²⁴ In sum: Skinner's conception of verbal behaviour (or language) is behaviourist in an explicit, technical sense. This conception of verbal behaviour (or language) should be sharply distinguished, therefore, from 'common-sensical' behavioural conceptions of language held by post-Bloomfieldian linguists.

The Skinnerian Product seems to you quite close to the real Mackay, or rather MacDonald; just what the doctor ordered for Ontological Angst. It looks to you like the beefiest of Burgers, fit for a Behaviourist Blow-out! But, Dear Buyer, if I were you, I wouldn't right now go on an Operant Orgy. You see, quite a number of Conceptions Connoisseurs have tried the belief that there is no more to language than stimuli and paired responses. And they didn't take to the taste at all. When messing on The Metaphysics Market, one should chew on a conception of language to make sure that it will go down well. So before swallowing the belief that language (behaviour) consists of S-R stuff, let us enquire why Epistemic Epicures have found it a disagreeable dish.

2.2.2 Ripping Into Raw Reinforcement and the Rest

Both Skinner's ideas on the nature of verbal behaviour and his approach to studying it were subjected to searching criticism by Chomsky (1959). The impact of this criticism was such that MacCorquodale (1970:83), a staunch defender of behaviourism, observed:

'It ... was a virtuoso performance whose echoes are still reverberating in psychology and whose dust has still not settled after 10 years.'

Chomsky (1964, 1972, 1975a, 1975b) later extended his main points of criticism to behaviourist conceptions of language in general. This brought MacCorquodale (1970:83) to observe that 'No behaviorist escaped untouched'. And on his (1970: 98) view:

'Nearly every aspect of currently popular psycholinguistic dogma was adumbrated in it, including its warlike tone: the new look is a frown.'

Many linguists and psycholinguists, in fact, believe that Chomsky's criticisms effectively destroyed behaviourism as an

intellectually respectable framework for the study of language (behaviour).²⁵

So let us consider the essence of Chomsky's early criticisms of Skinner and also his subsequent extension of them to behaviourist conceptions of language in general. It will, of course, not be possible to consider all of Chomsky's criticisms of behaviourism. We will concern ourselves with the criticisms that bear on the belief that language is something behaviourist. Particularly relevant to our concerns are Chomsky's criticisms of Skinner's conception (also called a 'definition') of verbal behaviour as 'behavior reinforced through the mediation of other persons'.

First there are problems with the scope of this definition. On the one hand, Chomsky (1959:43) argues, this definition is clearly too broad, both in its earliest form and in the refined form later proposed by Skinner (1957:45). On both forms, Chomsky contends, the definition includes under verbal behaviour such examples as a rat pressing the bar in a Skinner-box, a child brushing his teeth, a boxer retreating before an opponent, and a mechanic repairing an automobile. Recall that Skinner (1957:14) considers 'any [emphasis added] movement capable of affecting another organism [to be] verbal'.

On the other hand, Chomsky (1959:45) contends, Skinner's definition of verbal behaviour is too narrow.

'Exactly how much of ordinary linguistic behavior is verbal in this sense [of the definition] is something of a question: perhaps, as I have pointed out above, a fairly small fraction of it, if any substantive meaning is assigned to the term "reinforced".'

Chomsky (1959:37ff.) argues that for much of ordinary linguistic behaviour there simply is nothing that could be identified as 'reinforcers' if this term is to have any objective meaning. For example, he (1959:46) notes, a speaker will not be able to respond properly to *Your money or your life* 'unless

he has a past history of being killed', having been killed before being the necessary 'reinforcer'. And Chomsky (1959: 37) discusses a great number of other cases in which Skinner has to use an essentially empty notion of 'reinforcement' in order to say that an instance of verbal behaviour has been reinforced.

Second, Chomsky (1959:56-57) argues, Skinner's conception of verbal behaviour fails to reflect fundamental properties of much that has been considered typical instances of language behaviour. Chomsky singles out three of these properties: much of a speaker-listener's language behaviour is innovative; much is not related by means of generalization to what is familiar; much is not under the control of discernible stimuli. As for the innovative character of language behaviour, Chomsky (1959:56) notes that speakers 'constantly read and hear new sequences of words'. And speakers recognize these as sentences and understand them despite their novelty. Turning to the role of generalization in language behaviour, Chomsky (1959:56) observes that

'It is easy to show that the new events we accept and understand as sentences are not related to those with which we are familiar by any simple notion of formal (or semantic or statistical) similarity or identity of grammatical frame.'

He considers 'talk of generalization in this case' to be 'entirely pointless and empty'.

Addressing the matter of 'stimulus control', Chomsky (1959: 31) uses a variety of examples to show that verbal behaviour typically is not under 'stimulus control', if the latter notion is to have any objective content. Thus, if one were to respond verbally with *Dutch* to a particular painting, this utterance would be under 'stimulus (= the painting) control' in the Skinnerian sense. But, Chomsky observes, one could instead have responded with *Clashes with the wall paper, I thought you liked abstract work, Never saw it before,*

Tilted, Hanging too low, Beautiful, Hideous, Remember our camping trip last summer or any of a [potentially infinite] number of other appropriate utterances. In order to say that the latter responses are under 'stimulus control', Skinner has to extend the notion 'stimulus' to the extent that it loses all objectivity in its usage. This, Chomsky (1959:32) concludes, means that:

'Stimuli are no longer part of the outside physical world; they are driven back into the organism. We identify the stimulus when we hear the response. It is clear from such examples, which abound, that the talk of "stimulus control" simply disguises a complete retreat to mentalistic psychology.'

The ability of speakers to behave linguistically in an 'innovative' and productive way cannot, therefore, be captured by means of Skinner's basic notions 'stimulus', 'response' and 'reinforcement'. These notions, Chomsky (1959:30) observes, are relatively well-defined with respect to the bar-pressing experiments conducted in the laboratory study of animal behaviour. But, he argues, these notions have no clear, objective meaning when one attempts to apply them to (human) verbal behaviour. The vagueness of these notions makes it impossible to answer what Chomsky (1959:54) calls 'the most elementary questions', including: 'What are in fact the actual units of verbal behavior?', 'How do we decide what stimuli are in "control" in a specific case?', 'When are stimuli "similar"?'.

Chomsky's problems with the vagueness of Skinner's fundamental notions of 'stimulus', 'response' and 'reinforcement' lead him to the general conclusion that

'... with a literal reading ... the book [i.e., *Verbal Behavior*] covers almost no aspect of linguistic behavior, and ... with a metaphorical reading, it is no more scientific than the traditional [mentalistic] approaches to the subject matter, and rarely as clear and careful.'

To understand the innovative aspects of a person's language behaviour, Chomsky (1959:56) contends, one must attribute to

him/her an 'abstract ability', 'a grammar that each individual has somehow internalized'. Talk of 'stimulus generalization', in such a case of innovative behaviour not under the control of any discernible stimulus, 'simply perpetuates the mystery under a new title', according to Chomsky (1959:42). At the root of Skinner's failure to come to grips with the 'innovative' aspect of language behaviour lies, on Chomsky's (1957:28) view, the behaviourist belief that 'precise prediction of verbal behaviour involves only specification of the few external factors that he [i.e., Skinner] has isolated experimentally with lower organisms'. Complementary to this belief, Chomsky (1957:28) notes, is Skinner's idea that 'the contribution of the speaker [to his/her verbal behavior] is quite trivial and elementary'.

In later work, Chomsky has generalized his fundamental criticisms of the Skinnerian conception of verbal behaviour to behaviourist conceptions of language as a class. He (1972: 11-12) emphasizes his conclusion that the 'creative aspect of language use' cannot be accounted for within any behaviourist framework. The existence of this aspect turns, for Chomsky, on three observations. The first is that language use is innovative in the sense considered above and productive in the sense of being potentially infinite in scope.²⁶ The second observation is that the normal use of language is 'free from the control of stimuli, either internal or external'. And the third is that language use is 'appropriate to the situation'.

Chomsky (1972:4) argues that, if linguists are ever to understand the first two of these observations,

'... then we must abstract for separate and independent study a cognitive system, a system of knowledge and belief, that develops in early childhood and that interacts with many other factors to determine the kinds of behavior that we observe; to introduce a technical term, we must isolate and study the system of *linguistic compe-*

tence that underlies behavior but that is not realized in any direct or simple way in behavior.'

And, to Chomsky, the system of linguistic competence is qualitatively different from anything that can be described in terms of the concepts of S-R psychology.²⁷ Behaviourist psychology has no concept corresponding to his notion of competence, according to Chomsky (1972:72). Its characterization of verbal behaviour or 'language' is limited to a narrow and inadequate concept of what is learned, namely in the words of Chomsky (1972:72):

'... a system of stimulus-response connections, a network of associations, a repertoire of behavioral items, a habit hierarchy, or a system of dispositions to respond in a particular way under specifiable stimulus conditions.'

The 'creative aspect of language use' cannot be accounted for in such behaviourist terms.²⁸

Third, Chomsky (1959:42, 57) rejects Skinner's view of the acquisition of verbal behaviour or, for short, language learning. Thus Chomsky (1959:42) argues that

'It is simply not true that children can learn language only through "meticulous care" on the part of adults who shape their verbal repertoire through careful differential reinforcement ...'

Chomsky (1957:43) agrees that reinforcement, casual observation, natural inquisitiveness, a strong tendency to imitate, and the child's capacity to generalize are important factors in language acquisition. But, he argues, there are facts indicating that language acquisition involves the processing of information in a variety of 'very special and highly complex ways' which are poorly understood. These ways 'may be largely innate, or may develop through some sort of learning or through maturation of the nervous system'. The facts that conflict with the former behaviourist view of language learning --- and that point to the latter special ways of learning --- include, according to Chomsky (1959:42, 57), the following: children acquire their language in an astonishingly

short time; careful instruction by parents plays no significant role in language acquisition; this acquisition is to a large extent unaffected by children's intelligence; language acquisition takes place in a comparable way in all children; on the basis of exposure to concrete utterances, children acquire a grammar that is highly abstract and complex.²⁹

Facts such as these suggest to Chomsky (1959:57) that human beings are somehow 'specially designed' to acquire language. But Skinner's view of the acquisition of verbal behaviour denies the possibility of a child's making any contribution to language learning. This denial, Chomsky (1959:58) contends,

'... permits only a superficial account of language acquisition, with a vast and unanalyzed contribution attributed to the step called "generalization" which in fact includes just about everything of interest in this process.'

On Skinner's conception of verbal behaviour, Chomsky concludes, language acquisition is just as much of a mystery as the innovative and productive aspects of language use.

Over the years, Chomsky (e.g. 1972:72-73, 1975b:15-17) has fleshed out his criticisms of Skinner's view of the acquisition of verbal behaviour so as to apply to behaviourist theories of language learning in general. In essence, Chomsky's first major point of criticism of behaviourist accounts of language learning is one of logic: before one can have a concept of 'learning' one must have an adequate concept of 'what is learned'. Thus, he (1975b:16) points out:

'Where it [i.e., an adequate concept of 'what is learned'] is missing, the basic questions of "learning theory" cannot even be formulated.'

The reason why these theories fail is that they proceed from an insufficiently rich characterization of the complexity and abstractness of 'what is learned', of what Chomsky calls 'the underlying competence'. This is why these theories make the

unrealistic claim that language is learned by means of such simple mechanisms or operations as association, conditioning, generalization, abstraction, and induction.

Chomsky's (1972:72) second major point of criticism of behaviourist accounts of language learning is that an adequate concept of 'what is learned' 'lies beyond the conceptual limits of behaviorist psychological theory'. The reason for this is that

'... behaviorist psychology has quite consciously accepted methodological restrictions that do not permit the study of systems of the necessary complexity and abstractness.'

In an undiluted form, these restrictions rule out all entities that are not publicly observable, including of course the mind and its contents. In par. 2.4 below we will see that the restrictions flow from an ontology that is essentially materialist and from a view of science that is essentially empiricist. Chomsky's second major criticism of behaviourist theories of language learning and behaviour, thus, is ultimately of a meta-scientific sort.³⁰

How dare I deal with behaviourism in such a summary fashion?! In protest you would like to point out, Bristling Blue, that:

1. *the behaviourist spread includes rather more than Refined Reflexology;*
2. *the MacDonaldis Men have not exactly taken Chomsky's criticisms lying down.*

Before I go any further, you insist that I address these matters. But by all means, Beside-yourself Blue; that is just what I had in mind myself.

2.2.3 Diversifying the Diet

Behaviourism, G.E. Zuriff (1985:1) has argued, is not simply the science of behaviour developed by behaviourists since the turn of the century. Rather, on his view, it is the conceptual framework underlying that science. And this framework he (1986:687) characterizes in an inclusive way:

'First, it is a philosophy of science dictating standards for posing psychological questions and for the methodology, explanations, and psychological theory involved in answering them. Second, behaviorism is a philosophy of mind that makes certain assumptions about human nature and the working of the mind. Third, there are several very general empirical hypotheses that constitute a background theory for all behavioral theories. Fourth, behaviorism is an ideology, recommending goals for behavioral science and its application.'³¹

On this characterization, behaviourism is a diversified body of beliefs manifested in a variety of forms, branches, schools, theories, and so on.

The oldest family of behaviourist beliefs is that of philosophical behaviourism. In Kaufman's (1967:268) view, it is as old as reductive materialism. The most celebrated theory of this sort, Kaufman contends, is Hobbes's attempt to interpret all mental states as matter in motion. Philosophical-behaviourism has two branches: analytical behaviourism and logical behaviourism. Analytical behaviourism is a philosophy of mind maintaining that all mental terms can be analyzed in terms of behaviour.³² In doing so, it rejects the two-substance metaphysical doctrine known as Cartesian dualism, a point to which we will return in par. 2.3.4 below. Logical behaviourism, by contrast, is, on Zuriff's (1969:7-8) reconstruction, a philosophy of science. In terms of Hempel's (1969:165) characterization, this philosophy of science includes the work that was done in the 1930s and 1940s by logical empiricists on the nature and status of the social sciences in relation to other branches of scientific inquiry.³³

A younger family of behaviourist beliefs is alternatively called 'scientific behaviourism' and 'psychological behaviourism'. Scientific behaviourism, on Kaufman's (1967:268) analysis, starts with the work of J.B. Watson. In attempting to establish psychology as a science, Watson contended that states of consciousness are too private to study scientifically. On his view, only observation of behaviour is able to provide the necessary data for scientific psychology. Scientific or psychological behaviourism has taken on a great many forms. Some of the more general forms --- interlinked in various ways --- are: eliminative behaviourism, methodological behaviourism, radical behaviourism, molar behaviourism, molecular behaviourism, reflexology, mediation theory, interbehaviourism, and purposive behaviourism.³⁴ And in terms of a different kind of taxonomy, a distinction has been drawn between classical behaviourism, neobehaviourism, and neo-neobehaviourism.³⁵

Recently, moreover, ideas from various of the above-mentioned forms of behaviourism have been collectively 'reformulated' as 'reconstructed behaviourism'. This recent form of behaviourism is due to Zuriff (1985:1, 3-4; 1986:687); taking into consideration the entire scope of behaviourism --- roughly from 1910 to the present --- he has reconstructed its conceptual framework in a 'logical scheme'.

'In this reconstruction, the fundamental premise is that psychology is to be a natural science, and the major corollaries are that psychology is to be objective and empirical.'³⁶

There is no question, then, that behaviourism has been a doctrine characterized by considerable internal diversity. Equally true, however, is that this diversity has been constrained in crucial ways by certain basic ideas, as noted by Taylor (1967: 516), for example:

'Behaviorism has taken a number of forms and gone through a number of transformations, but certain basic ideas have remained throughout the changes.'

The most basic of these invariant ideas concerns the mind: the mind does not exist as a non-physical, non-physiological faculty distinct from the brain. Consequently, any reference to mental states, events or activity must be avoided as 'unscientific'.³⁷

As for your first point then, *Buying Blue*, nobody in The Market can afford to be dazzled by mere diversity. Chomsky's criticisms of the behaviourist conception of language cannot be countered by simply saying that there are many, many forms of behaviourism. And by trading on the hopeful implication that some of those forms will miraculously prove to be immune to these criticisms. This means that we will have to move on to your second point, Dear Blue.

Incidentally, like many others, I have been able to watch from a detached distance the difficult delivery of Zuriff's *Born-again Behaviourism*. But pieced together, as it is, out of verses from the *Watsonian Word*, *Skinnerian Scriptures*, *Tolmanian Teachings*, *Hullian Holy Writ* and other *Preachings of assorted Prophets*, this recreation of the creed does not offer a well-considered conception of language. Indeed, it has been argued that what Zuriff has wrought is no more than 'yet another variation and repetition of the [Watsonian] manifesto'.³⁸ And a *Believing Brother of the Breed* has complained that:

'Zuriff has done us a disservice by exhibiting behaviorism mainly as a midden of past meta-theoretical muddles.'³⁹

In similar vein, another *Professional Practitioner* has lamented that Zuriff has 'resurrected ... every nitwit idea ever proposed by behaviorists'.⁴⁰

I can see, Buyer-to-be, that you are craving for yet another caveat. Being not quite at ease in the Religious Register, you were wondering if I could switch back to Burger Babble, which you find altogether a more spicy species of speech. Anything to please you, Culinary Customer:

Buyer, beware: no buns baked from one of the Behaviourist Batters will make burgers that differ where it really matters.

2.2.4 Defending the Dish

Over the years, various scholars have attempted to defend the behaviourist conception of language against criticisms by Chomsky and like-minded cognitive psychologists.⁴¹ Though often spirited, these defences have, for a number of general reasons, failed to convince nonbehaviourists that the criticisms in question are less than devastating.

First, defenders of the behaviourist conception of language have failed to make clear what they would accept as a refutation of their beliefs about the nature of language (behaviour): This has prompted, for example, Marshall (1986:7) to remark:

'Zuriff's conclusion --- "while Chomsky's theory may force a development within S-R psychology, it does not refute it, or, at least, a sophisticated version of it" (p. 149) --- impels one to inquire what Zuriff would acknowledge as a refutation. And at this point one moves from science to ideology, as Zuriff himself is well aware (p. 3).'

⁴²

The same basic point was made nearly a quarter of a century ago by Koch (1964:6):

'... I am not even sure what a "refutation" [of behaviorism] would mean ... I do not see what, in [sic] final analysis, can be done for a truly obstinate disbeliever in mind or experience, even by way of therapy.'

Second, interlinked with this problem of irrefutability, is that of behaviourists' remarkable 'adaptability'. Thus, behaviourists have curiously contended that they can accept Chomsky's concepts of 'competence' and 'generative grammar' as 'a functional description of stimulus and response classes' or as 'a kind of hypothetical construct'.⁴³ This move in effect immunizes the behaviourist conception of language (behaviour) against some of Chomsky's most telling points of criticism, specifically against those relating to behaviourists' inability to account for the productivity and novelty of language behaviour. But this immunity is bought at a price. On the one hand, by stripping the technical terms 'competence' and 'generative grammar' of substantive, empirical content. On the other hand, by making empty claims in terms of obscure notions such as 'response class'. Thus, Chomsky (1972:92) has observed:

'The defect [i.e., the inability to account for linguistic productivity] can be overcome, he [i.e., Salzinger] argues, by making use of the notion "response class". True, it cannot be that each response is reinforced, but the class of acceptable sentences constitutes a response class, like the set of bar-presses in a particular Skinnerian experiment. Unfortunately, this is empty verbiage until the condition that defines membership in this class is established. If the condition involves the notion "generation by a given grammar", then we are back where we started.'⁴⁴

Behaviourists' general strategy of using terminological means to defend, apparently at all costs, their most basic beliefs was noticed years ago by Koch (1964:7) too:

'The usual device is a shifting use of an extraordinarily non-particulate and crassly defined technical vocabulary.'

This 'device' allows behaviourists, in Koch's words, to 'artfully conceal discrepancies between precept and practice'. With the aid of this 'device', even the most flawed conception of something can be indefinitely maintained.⁴⁵

Third, in defending their conception of language, behaviourists have relied heavily on arguments in terms of 'what might be the case', 'what can be done', 'what is not necessarily so'. Consider as a case in point the following remarks by Zuriff (1985:149):

'It might prove necessary to include a transformational grammar, but this step does not necessarily violate behaviorist standards. A generative grammar can be interpreted as a structural description of functional stimulus and response classes.'

Of this form of argument, or rather rhetoric, Hamlyn (1985:703) has aptly observed:

'Something has to be preserved, it seems to be suggested; there are such and such possibilities of doing so. But surely what is wanted is the truth --- the correct way of understanding the situation, not merely how it might be understood if we were determined to observe supposed criteria of scientific acceptability of a positivist kind.'

The 'what might be' form of argument --- in conjunction with empty terminology --- can of course be used to fix just about any flaw in a conception of language.

Fourth, it has been argued that in defending their beliefs on verbal behaviour (or language), behaviourists have deliberately avoided addressing Chomsky's real criticisms. This has been done by changing these criticisms into claims which Chomsky has not argued and by defending behaviourism against such straw men. These points have been argued by, for example, Erwin (1978:91) with reference to the most extensive defense on Skinner's views, namely that by MacCorquodale (1970). Thus, referring to MacCorquodale's incorrect 'reduction' of Chomsky's criticisms of the Skinnerian conception of verbal behaviour, Erwin (1978:91) observes that:

'MacCorquodale (1970, p. 84) admits that none of the preceding criticisms is explicitly stated by Chomsky, but contends that his review "adumbrates" them. However, he provides no evidence for this claim, and it is not plausible. Neither Chomsky's conclu-

sion nor his supporting arguments rest on any of the preceding criticisms ... it should be made clear that refuting the preceding criticisms would not in itself answer any of Chomsky's arguments.'

Yet, as noted by Erwin (1978:90), MacCorquodale's defence of Skinner's views is now being cited by behaviourists 'as satisfactorily answering Chomsky's arguments'.

For general reasons, then, behaviourists' defence of their conception of language (or verbal behaviour) has been found to lack credibility.⁴⁶ Behaviourists, specifically, have not been able to convince their critics that the nature of 'what is learned' --- that is, language --- can be captured by modifying behaviourism in essentially terminological ways. The unwillingness or inability of behaviourists seriously to address criticisms of their most fundamental assumptions seems to have elicited two general sorts of reaction from the critics. The first is that of disinterest in further debate. This, for example, has been Zuriff's (1985:720) experience:

'It is perhaps a sign of behaviorism's decline that nearly all the antibehaviorists invited by BBS [= *Behavioral and Brain Sciences*] to review *Reconstruction* [= Zuriff 1985] did not deign to do so.'

The second is that of dismissive denouncement. Both long ago, when Koch reacted as follows in a debate with behaviourists:

'I would be happy to say that what we have been hearing could be characterized as the death rattle of behaviorism, but this would be a rather more dignified statement than I should like to sponsor, because death is, at least, a dignified process.'⁴⁷

And more recently, when Hamlyn (1985:705) portrayed Zuriff's defense of behaviourism as 'an attempt to shore up what ought to be abandoned forever'.

There's no need to ask for it, Dear Buyer; here is your caveat:

*Buyer, beware — dressing them with verbal whip
will not make up for the mental meat
that's missing from Behavioural Burgers.*

Indeed, Brownd-off Blue, there is more to defending a dish than reflexively rewording its recipe. Once all empty expressions have been expunged, behaviourist conceptions of language, including the Baked-again Brand, are seen to share the same Skin-ner Skewing:

*All, all is but skin;
There is no mind within.
Yes, insides are forever out;
Just outsides will be always in.⁴⁸*

Have I not forgotten all about the British Brand? No, Prospective Purchaser, it is the next item on our Metaphysical Menu.

2.3 Feeding on Philosophical Fare

The view that language is something behavioural has been defended by some linguistic philosophers too. Of particular interest in this regard are two related but distinct kinds of linguistic philosophy that were dominant in Britain in the forties and fifties. The first is the later philosophy of Ludwig Wittgenstein; the second the ordinary language philosophy of Gilbert Ryle, J.L. Austin and other Oxford philosophers.⁴⁹ These, however, are not the only philosophies that have portrayed language as something behavioural. Of the various others that have done so, Quine's philosophy has perhaps been the most influential. But let us start by looking at the later Wittgenstein's conception of language.

2.3.1 Biting into Behavioural Bangers

The ideas of both the later Wittgenstein and the ordinary language philosophers are complex and susceptible to diverging interpretations. Here we can consider only the ontological outlines of the conception of language attributed to these scholars.⁵⁰

In his later work, represented by *Philosophical Investigations*, Wittgenstein espoused various views on the nature of language. On one of these, it is claimed, Wittgenstein considers language to be 'a bewildering variety of complex human **activities** [emphasis added], undertaken with multifarious purposes'.⁵¹ The view that language exists as activities --- also called a 'practice' --- is still advocated by present-day Wittgensteinians. Thus Baker and Hacker (1984: 285) contend that:

'A language is a *normative* practice, a practice of using signs according to rules. It is also a *social* practice. It exists in the activities of language users in a community ...'

The practice mentioned in this quotation is normative in the sense that speakers are guided by rules. On Baker and Hacker's (1984:259ff.; 1985:62ff.) reading of Wittgenstein, rules tell speakers what ought to be done. But speakers determine what is done. Moreover, rules are created by the free will of speakers and may be modified or annulled by them. And rules can be consulted and broken by speakers: a rule is 'not a set of rails down which one is forced'. Rules cannot be consulted, followed and violated unless they can be publicly expressed and tabulated. This, moreover, means that rules must be more or less transparent and consciously known to speakers.

Baker and Hacker (1984:256) hold a behaviourist view of the acquisition of language as well, claiming that 'language use *begins* (with children) as imitative, reactive and habitual behaviour'. They, moreover, claim that "the roots of the mas-

tery of language lie in *training*'. This is consonant with Wittgenstein's view that teaching and training are important in language learning.⁵²

Chomsky (1964:24-25) considers Wittgenstein to have a '(taxonomic-)behaviorist' view of the nature of language. In the context of this study, however, it would not be wholly accurate to say that the Wittgensteinian views on language jointly constitute a conception of language in the conventional sense. Recall that a conception of language is conventionally taken to be an answer to the question 'What is language in essence?'⁵³ But Wittgenstein and ordinary language philosophers were not concerned with determining the essence of language, number, knowledge, truth, existence and so on --- at least, not if this essence had to be captured by means of analysis with complete exactness in terms of defining properties. For in Wittgenstein's view

'... in philosophy a rigorous demarcation of such concepts as language, proposition, number, object, property, etc. is otiose precisely because in this sense of "explain", philosophy explains nothing. It should not be seen as a system of hypotheses from which deductions are to be made. This takes away the main reason for seeking a strict definition of language.'⁵⁴

Wittgenstein contended that words such as 'language', 'Satz', 'number', and so on are not 'explained' by giving 'Merkmal-definitions'. Rather, such words are 'explained' by giving examples to which they apply and by pointing to overlapping similarities between these examples. These similarities Wittgenstein compared to the resemblances holding between members of a family.⁵⁵ So Wittgenstein's means of elucidating the meaning of 'language' is that of family resemblance characterization, not of 'Merkmal-definition'. He judged the question 'What is language?' to be formulated in a misguided form since it looks like a quest for the impossible: a sharp definition in terms of one or more 'Merkmale'.⁵⁶

Ordinary language philosophers also followed this approach to the question 'What is language?', as is clear from the following remarks by Stuart Hampshire (1966:267):

'... we do not in philosophy need to state precisely what are the necessary and sufficient conditions for calling a signalling system a language; for we are not particularly concerned with defining the word "language". Nor are we concerned with a systematic classification of the different grammatical forms of language; the interest of contemporary philosophers in forms of speech neither is, nor should be, scientific or systematic.'

A fundamental concern of these philosophers, rather, was to describe the ordinary uses of words, expressions and idioms in particular languages. By doing so, they hoped to dissolve philosophical problems caused by the misuse of ordinary language. As noted by Katz (1966:75), Wittgenstein considered conceptual confusions and metaphysical speculations to be symptoms of such misuses. And the therapy for such philosophical confusions consists in detailed description of the actual use of the words or expressions whose misuse caused them. The philosophical confusions and speculations concerning the existence of a spirit or mind are a case in point. It is through the misuse and literal understanding of mentalistic expressions that philosophers are misled into postulating a spirit or mind.⁵⁷ Wittgenstein's later philosophy, thus, has a strongly negative thrust: ridding philosophy of meaningless metaphysics and mythology.

The concern of Wittgensteinians with normative rules that guide the 'activities' of speakers is, ultimately, a *philosophical* concern as well. Thus Baker and Hacker (1985:54) state that:

'Philosophy is concerned with rules of grammar, rules for the use of expressions, only in so far as they shed light upon particular philosophical problems ...'

Philosophy aims, not at producing a grammar, but at resolving philosophical questions. For example, the Wittgensteinian

philosopher would be concerned with the different rules for the use of sensation and perception words to dissolve conceptual puzzles and to resolve confusions about perception and speakers' knowledge of the world. This philosopher, Baker and Hacker (1985:55) explains, would point out that it makes sense to say 'I see better, more distinctly, than you' but not 'I feel pain better, more distinctly, than you'. Wittgenstein, in their (1985:55) words, considered grammar

'[to be] the account book of language. Its rules determine the limits of sense, and by carefully scrutinizing them the philosopher may determine at what point he has drawn an overdraft on Reason, violated the rules of an expression and so, in subtle and not readily identifiable ways, traversed the bounds of sense.'

The fact that Wittgensteinians have portrayed language as something behavioural does not make them psychological behaviourists. Indeed, Wittgenstein himself denied that psychology concerned him:

'I conceive of understanding, in a sense, behaviouristically --- What is behaviouristic in my conception consists only in that I do not distinguish between "outer" and "inner". Because psychology does not concern me.'⁵⁸

Rather, Wittgenstein and such ordinary language philosophers as Ryle have been considered 'philosophical' or 'analytic(al)' behaviourists.⁵⁹

As manifested in the work of Ryle, analytical behaviourism may be reduced to a negative and a positive thesis. The negative thesis asserts that everyday talk about the mind does not entail the mind-body dualism defended by Descartes. It is the incorrect use of mentalistic language --- expressions taken to refer to mental attributes, processes, states, events and so on --- that contributed to Descartes's mistake of regarding

'the soul as some special sort of object, ontologically distinct from physical objects, belonging

to a category of objects that are nonspatial, immaterial, and knowable only through introspection.'⁶⁰

The positive thesis is that everyday mentalistic language can be analyzed as referring to material objects and their behaviour. Thus, Ryle (1949:25) remarks that

'when we describe people as exercising qualities of mind, we are not referring to occult episodes of which their overt acts and utterances are effects; we are referring to those overt acts and utterances themselves.'

In support of this thesis, Ryle analyzes the ordinary use of various mentalistic words. He tries in particular to show how words that apparently refer to mental life, including emotion and feeling, can be understood as referring to 'witnessable activities'.⁶¹

In sum: analytical behaviourism rules out, as a matter of principle, the possibility that either language or grammar could be something mental.

Why can't I work up an appetite for ordinary Oxbridge Bangers --- to your taste the one conception of language not filled with philosophical fat and mythological meat? Cutting down on conceptual calories, I would agree, Baffled Blue, could possibly cure a cardiac condition. But that is not the point of putting a metaphysics meal on The Market; rather, the point is to fill a void caused by the absence of an answer to the question 'What is language in essence?'. And for filling this void, the watery wisdom cooked up in Colleges by kilojoule-counting conceptioneers won't do much. I should go a little deeper into the reasons for my dissatisfaction with the British Brother of the Behavioural Burger? This is a sensible suggestion, Dear Buyer; never take a marketeer's word simply on trust.

2.3.2 Weighing the Wittgensteinian Wurst

The views of Wittgenstein and the ordinary language philosophers do not make up a full-blown conception of language.⁶² We will consider three reasons why this is so, reasons discussed in an insightful manner by Katz (1966).

First, as already noted above, Wittgensteinians were not concerned with isolating the essence of language. In particular, they argued that it is impossible to capture this essence in terms of a definition that spells out the properties that are necessary and sufficient for something to be language. Katz (1966:72) observes, however,

'... that Wittgenstein offers no specific arguments for his position that we cannot expect to find definitions which express a necessary and sufficient condition for applying a given word.'

All that Wittgenstein does, Katz points out, is to show that certain 'simple-minded' definitions are not acceptable for the application of certain words. 'Game' is Wittgenstein's famous example of a word whose various uses ought rather to be characterized in terms of the notion of a 'family resemblance'. But, Katz argues, Wittgenstein fails to establish that there is no condition that is necessary and sufficient for a word such as 'game' to be applied correctly. And, Katz (1966:73) concludes:

'... he [i.e., Wittgenstein] neither provides a reason why a statement of the family resemblance is the best we can do, nor does he try to analyze his cases to show that they amount to more than multiple senses of the same orthographic element, such that some of the simple-minded definitions he considers work for some senses and others work for other senses.'

Katz's basic points carry over to 'language'. It has not been shown that the essence of 'language' cannot be captured by means of a 'Merkmal'-definition. Wittgensteinians have not furnished any principled reasons why characterizations of the essence of language have of necessity to be vague.

Second, the Wittgensteinian view of language is not linked systematically enough to the reality of which it is supposed to bear. This view, we saw, is concerned with linguistic details, with properties of individual, isolated words and expressions. As noted by Katz (1966:88), this concern with specific facts of natural language

'... went hand in hand with a failure to take into account the complex structural organization in which such facts are systematized in actual languages.'

The most important reason for this failure lies, on Katz's analysis, in the antitheoretical orientation of ordinary language philosophy. This orientation is, according to Katz (1966:88-89), a reaction

'to the logical empiricist's excesses in theory construction, and ... to the theoretical systems developed in some traditional metaphysical enterprises.'

A theory of linguistic structure forms an essential link between a conception of language and the deeper and more systematic aspects of linguistic reality. In the case of the Wittgensteinian view of language, this link or coupling is absent. This view, consequently, could play only a limited heuristic role in exploring less superficial and more systematic aspects of this reality. Wittgensteinians did make fragmentary descriptions that provide insight into especially the meaning of words and expressions.⁶³ Much of what is regular and systematic at less superficial and more complex levels of language, specifically syntax, has, however, been beyond their reach because of their unwillingness to formulate a theory of linguistic structure.

As a consequence Wittgensteinians have an oversimplified view of language, a view in which the complexity and abstractness of language is seriously underestimated. And this has caused their conception of the nature of language learning and the rules of (philosophical) grammar to be simplistic. Recall that on the Wittgensteinian view, teaching and training are

crucial to language learning. Speakers of a language, moreover, are claimed to have conscious knowledge, publicly expressible, of rules of grammar. But from careful work that has been done in generative syntax particularly, it has become clear that fundamental aspects of linguistic structure are too abstract to be taught or to be learned by means of training. Ordinary speakers simply do not have any conscious knowledge of the grammatical rules underlying such aspects of linguistic structure. In sum: the fact that Wittgensteinians do not (wish to) have a theory of linguistic structure has insulated their view of language from corrective pressures exerted by more abstract aspects of linguistic reality.⁶⁴

Third, Katz (1966:90) notes, ordinary language philosophers' aversity to having a theory of linguistic structure reflects something deeper: 'a thoroughgoing distrust of generalizations'. He quotes Ryle, who articulated this distrust by saying that 'in philosophy, generalizations are unclarifications'. Generalizations are considered to come between a philosopher and the so-called facts, preventing him/her from seeing the facts for what they really are. The core of the 'methodological' position of ordinary language philosophers is characterized as follows by Katz (1966:90):

'Contrary to the scientific view that explanation consists in the systematization of detailed facts in the form of generalizations that reveal their underlying organization, the ordinary language philosopher's view ... seems to be that explanation in philosophy consists in overthrowing generalizations by showing that the facts they purport to cover do not fit nicely as instances.'⁶⁵

Wittgensteinians, thus, were concerned with finding counterexamples to generalizations. But their view of the methodological role of counterexamples was less than sophisticated. They failed to appreciate that counterexamples bear in the first place on the **formulation** of generalizations. They, moreover, did not see that counterexamples have the positive

role of indicating the direction in which generalizations should be revised. Katz's (1966:91) formulation of these two shortcomings in ordinary language philosophers' view of counterexamples deserves being quoted in full:

'Counterexamples are indeed conclusive against the *formulation* of a generalization, but this does not mean that the generalization which we seek to formulate is wrong or that every feature of the formulation shares equally in the guilt. The ordinary language philosopher also fails to appreciate the role of counterexamples to indicate the direction in which the formulation of a generalization should be revised, not just to accommodate them, but to increase the degree to which the generalization reveals the underlying organization of the facts.'

A conception of language, it was noted, has to make systematic contact with linguistic reality. For this purpose, we have seen above, an adequate theory of linguistic structure is required. Even more essential, however, is a proper methodology for analyzing and interpreting the facts of linguistic reality. An approach --- whether 'philosophical' or 'purely linguistic' --- that does not properly appreciate the role of generalizations and counterexamples has to be sterile. Its conception of language cannot guide fruitful exploration of the reality on which it is supposed to bear. And such a conception is immune to the corrective pressures exerted by this reality.

It is interesting to note in this connection the following disclaimer by Wittgenstein:

'... it is, rather, of the essence that we do not seek to learn anything *new* by it [i.e., ordinary language philosophy].'⁶⁶

This may be an extreme formulation, not acceptable on a literal reading to all ordinary language philosophers. Its general tenet, however, helps us to understand why ordinary language philosophy could not shed much light on the nature of language.⁶⁷

One can understand why Wittgensteinian Word-watchers are averse to conceptual corpulence caused by the consumption of mushy metaphysics and mythology. But, as an alternative, philosophical frailty and theoretical thinness pose just as big a hazard to the health of the Conceptions Consumer. This is why practitioners of preventive metaphysics won't prescribe the buying of a conception of language on which language has no definable essence, on which a theory of linguistic structure belongs to the realm of religion, and on which generalizing about language(s) is seen as an exercise in generating obscurity. So, to sum it up in a clinician's caveat specially for you, Dear Buyer:

Buyer, beware: the alternative to Ontological Obesity cannot lie in Metaphysical Malnutrition.

You would like to point out, Dear Blue, that a Wittgensteinian Work-out is not the only way of becoming linguistically lean, philosophically fit. Could it be that I have never heard of the Quinian form of fighting philosophical flab? But I have, Dear Blue. And for our Buyer's sake, we will take the briefest of looks at the Quinian conception of language.

2.3.3 Dishing Up Dispositions

In his *Word and Object* (1960), the American philosopher W.V.O. Quine presents a number of views on language that can be collectively taken to constitute a behaviourist conception of language. For, on a particular reconstruction by Chomsky,⁶⁸ it would seem that Quine (1960:11) proposes that language is

'... a fabric of sentences variously associated to one another and to non-verbal stimuli by the mechanism of conditioned response.'

Quine (1960:27), moreover, characterizes language as

'... the complex of present dispositions to verbal behavior, in which speakers of the same language have perforce come to resemble one another ...'

Quine's view of language learning is behaviourist too. He (1960:9) considers language learning to be the learning of (a network of) sentences. And sentences can be learned by three means, all of which are behaviourist: by 'direct conditioning' of a whole sentence to some sensory stimulation; by 'association' of sentences with other sentences; and by building up sentences from learned parts by 'analogy' with the way in which those parts have been previously seen to occur in other sentences. And in all of this, Quine (1960:82) assigns to 'reinforcement' a central role:

'It remains clear in any event that the child's early learning of a verbal response depends on society's reinforcement of the response in association with the stimulations that merit the response, from society's point of view, and society's discouragement of it otherwise.'

Quine (1960:82) explicitly describes his view of language learning as 'congenial enough to Skinner's scheme ...'.

Quine's conception of language and its learning has been severely criticized by Chomsky. To Chomsky (1968:64-65) the description of language as 'a complex of present dispositions to verbal behavior' seems 'rather perverse'. On the one hand, Chomsky (1968:57-58) argues that Quine's shifting use of the term 'dispositions' makes it all but impossible to determine what he means by 'disposition' and 'language'.⁶⁹ Hence in this context, on Chomsky's view, 'disposition' is an essentially empty notion. On the other hand, Chomsky (1968:65) rhetorically asks:

'... what point can there be to a definition of "language" that makes language vary with mood, personality, brain lesions, eye injuries, gullibility, nutritional level, knowledge and belief,

in the way in which "dispositions to respond" will vary under these and numerous other irrelevant conditions.'

Underlying the 'dispositional' characterization of language, Chomsky suggests, is the typical behaviourist confusion of what a person does or is likely to do and what he knows. Quine, on Chomsky's reading, therefore confuses performance with competence in characterizing language as a complex of dispositions to behave. Belonging to the realm of performance, the notion of 'dispositions to behave' is not appropriate for characterizing the nature of language. Thus, Chomsky (1975b: 23) has remarked that:

'The notions "capacity" and "family of dispositions" are more closely related to behavior and "language use"; they do not lead us to inquire into the nature of the "ghost in the machine" through the study of cognitive structures and their organization, as normal scientific practice and intellectual curiosity would demand.'⁷⁰

On Chomsky's view, the proper way to exorcise the ghost in the machine is to determine the structure of mind and its products.

Since Quine's conception of language learning is essentially behaviourist, it has all the shortcomings discussed in par.2.2.2 above. And Chomsky (1968:64) finds the entire notion of 'learning sentences' to be 'almost unintelligible'. He (1968: 64) justifies this judgement with the aid of a concrete example:

'Suppose that I describe a scene as rather like the view from my study window, except for the lake in the distance. Am I capable of this because I have learned the sentence: "This scene is rather like the view from my study window, except for the lake in the distance"? To say this would be as absurd as to suppose that I form this and other sentences of ordinary life by "analogical substitution", in any useful sense of this term.'

When we learn a language, we obviously do not 'learn sentences' or acquire a 'behavioural repertoire' through training. Rather, Chomsky's (1968:64) contends, we 'develop certain principles...

that determine the form and meaning of indefinitely many sentences'.⁷¹

If, Dear Buyer, you don't want to pursue philosophical firmness at the risk of becoming epistemically emaciated, here is a final dietary directive you should heed:

*Buyer, beware: dieting on dispositions
is notionally no more nourishing
than celebrating on cerebral sausage and cider.*

At last then we are ready for diagnosing the deepest drives of Behaviourist Brokers and for dissecting these in broad daylight. (You cannot have failed to notice, Dear Buyer, that The Market is a rather poorly lit place.)

2.4 Boiling It Down to the Basics

What, then, has brought behaviourist psychologists to portray language as essentially something behavioural? The hard core of the answer lies in Zuriff's (1985:261) statement that '[i]n many ways behaviorism can usefully be understood as a psychological version of positivism'. That is, on an alternative characterization of his, the behaviourist conceptual framework is 'underlied by characteristics of positivism'. Thus, behaviourist psychologists portray language as something essentially behavioural because they ultimately believe in positivism. In a suitably modified form, this applies to behaviourist philosophers or analytical behaviourists too. But what does it mean to say that someone's positivist philosophy drives him/her toward a characterization of language as behaviour, activity, a practice, habits or dispositions? This is the general question that will concern us below. In answering

it, we will consider those 'characteristics of positivism' that, on Zuriff's (1985:261ff.) reconstruction, underlie the behaviourist conceptual framework.⁷²

First, behaviourists share the positivist rejection of what Zuriff (1985:271; 1986:698) calls 'metaphysicalism'. Acting in a typically positivist spirit, behaviourists have been concerned with the demarcating of 'positive knowledge'. This is to be done by discriminating between beliefs that deserve to be called 'knowledge' and beliefs that should be discarded as 'metaphysical' because they 'generate endless disputes that thwart the purposes of intellectual inquiry'. Behaviourist 'anti-metaphysicalism' boils down to the denial of the existence of the mental --- particularly a 'consciousness' --- as an independent substance. This antimentalism precludes on a priori grounds the possibility that behaviourists could characterize the essence of language in non-empty mentalist terms.

Second, complementary to behaviourists' anti-mentalist doctrine is their materialist ontology. In a typically positivist way, 'matter is considered the sole constituent of the universe', to use a formulation of Zuriff's (1985:271). Expressed in ontological jargon, this means that behaviourists are 'physical monists'. On Bunge's (1980:3, 5) analysis behaviourists such as Watson, Skinner, Rorty and Quine are eliminative materialists: they claim that there are no mental states and events. To physical monists, of course, the essence of language cannot consist in any sort of stuff other than matter. And to those who are psychologists, there is no substantive option other than that of depicting language as something behavioural, behaviour (or the behavioural) being considered a form of matter.

Third, behaviourists' materialism is in consonance with the deeper positivist commitment to a nominalist ontology. As noted by Zuriff (1986:699), the distinction between appearance

and reality is rejected by behaviourists. Specifically, they believe that there is no deeper (level of) reality beyond the 'realm of observation'. They concede that much of our knowledge consists in abstract concepts or abstractions. But these are not taken as referring to 'transcendents' in a realm beyond experiences. Reification --- characterized by Zuriff (1985:269) as the treating of an abstract term as the name of [a] substantial entity with an independent existence of its own --- is considered extremely dangerous. It misleads the scientist 'into asking fruitless questions, pursuing futile lines of investigation, and formulating specious explanations'. The myth of 'the ghost in the machine' is, on Ryle's analysis, a product of reification. And, on Zuriff's view, reification or hypostatization --- as he also calls it --- underlies the view that grammar represents a distinct mental entity. So, given their nominalist stance on abstract concepts, behaviourists cannot locate the essence of language in any realm other than that of the observable.

Fourth, behaviourists, in keeping with the positivist tradition, adopt an empiricist epistemology. This means, in Zuriff's words (1986:698), that

'The positivist preference for knowledge based on direct experience expresses itself in behaviorism as the emphasis on experimentation, direct observation, and scientific empiricism.'

This epistemology is intended to ensure that scientists will not speculate about the 'metaphysics' of unobservable events in the organism. And as Zuriff (1986:698) sees it, this empiricist 'attitude also underlies the behaviorist insistence that theoretical terms be securely linked to observables'. Behaviourist epistemology, in addition, has a pragmatist flavour. Specifically, the truth of a statement and the meaning of a concept are, as Zuriff (1986:698) notes, 'matters of their usefulness rather than transcendent properties of words'. As a consequence, behaviourists do not view theories as sets of statement that express true or false statements. Instead, theories are taken to be instruments that may be more or less

useful for predicting and controlling behaviour. And, ultimately, science is viewed, in the words of Zuriff (1985:268), as an instrument aiming to achieve a 'pragmatic validity', as 'an instrument of adaption'. More fully, Zuriff (1985:250) says:

'Science is defined in behaviorism as those methods which the behavioral science [sic] determine to be most effective in enhancing the knower's ability to predict, control and therefore adapt to the environment.'

But to return to the central issue: given their empiricist epistemology, behaviourists are forced to portray the essence of language as a stuff that can be investigated by means of their 'positive', 'objective' methods.

The behaviourist conception of language, clearly, is essentially an aprioristic one. It has its bases in metaphysics --- a situation that is rather paradoxical, given behaviourists' aversion to metaphysics. Behaviourists' anti-metaphysicalism, anti-mentalism, materialism, nominalism and empiricism represent doctrines that are essentially metaphysical. These doctrines cannot really be justified with what behaviourists consider 'empirical means of investigation'. The claims which these doctrines express are not 'established on direct experience', to use a behaviourist catch phrase.⁷³ Yet, behaviourists have allowed these doctrines to force them to depict language as something essentially material. These doctrines, moreover, place behaviourists in a scholarly straight-jacket: they are not allowed to reflect freely on the nature of language, nondogmatically looking for every possible means of justifying or refuting whatever ideas such reflection may yield. These doctrines, thus, have had a stifling effect on what Koch (1964:20) has called behaviourist's 'problematic curiosity'.

A conception of language dictated by philosophical doctrines must inevitably reflect the limitations of these doctrines. And in the preceding discussion of the Bloomfieldian materia-

list conception of language, it was shown that the forms of materialism, nominalism, empiricism and instrumentalism associated with logical positivism have been considered fundamentally flawed.⁷⁴ Instead of reviewing these general flaws once again, let us rather focus on a more specific additional problem with which behaviourists have grappled unsuccessfully for decades: giving an adequate definition of 'behaviour'.

The difficulties with defining 'behaviour' become clear when one considers certain questions on which behaviourists have failed to agree.⁷⁵ These questions should be viewed against the background of what Kaufman (1967:269) considers the common sense definition of 'behaviour' as 'any movement of an organism'.

1. Does the term 'behaviour' also apply to the physiological processes of or physiological events in an organism?⁷⁶
2. Should the effects produced by movements be considered part of behaviour as well?⁷⁷
3. Must a movement be involved in something an organism is *doing*, in some *action* he performs, in order to constitute behaviour?⁷⁸
4. Can everything that a human organism does be viewed as behaviour?⁷⁹
5. Should such unobservables as 'pain', 'intentions', and so on to which reference has to be made in describing certain actions of a person be considered part of his/her behaviour?⁸⁰

On the answers to these and similar other questions behaviourists have disagreed for decades.

In this connection, Zuriff (1985:93) --- a committed beha-

viourist --- has remarked that

'Even for behaviorists, among whom there is general consensus that the goals of psychology are the prediction and control of behavior, criteria cannot be formulated in a universally agreed way. First, there is no common opinion on what is meant by the "behavior" to be predicted and controlled.'

This means that the nature of the primary stuff that language is supposed to consist of on the behaviourist conception is unclear. And we have seen above that this holds true for such secondary behavioural entities as dispositions as well. In sum: the metaphysical doctrines held by behaviourists dictate to them that language can only be something behavioural, yet the exact nature of this something is unclear to them.

Anti-metaphysicalism, materialism, nominalism and empiricism, then, make up the bare bones of the behaviourist conception of language. And, Dear Buyer, they represent reflexes of the most basic ingredient of all, positivism. In this respect, the behaviourist conception of language is identical to the materialist one propounded by Bloomfield. Yet, the latter conception did not taste nearly as bad as the former. No, Beaming Blue, you have not caught me in the act of perpetrating a paradox. You see, when Bloomfield got hooked on positivism, it was still a fairly fresh philosophy that held out, at least initially, some promise of progress. But by the time that behaviourists selected positivism as the basis of their Burgers and Bangers, it had already gone sour. This is what Koch (1964:5) means when he observes that

'Psychology is ... in the unenviable position of standing on philosophical foundations which began to be vacated by philosophy almost as soon as the former had borrowed them.'

And, with reference to their methodological beliefs, Koch

(1964:22) points out that the behaviourist

'began to become bereft of his extracurricular [i.e., positivist] methodological supports very shortly after he discovered them. Behaviorism has stood pat on a few issues dissected out of the methodology of science anywhere from twenty to thirty years ago. But philosophers and scientific methodologists have not stood pat.'

So, Dear Buyer, if yours is a stomach that cannot stand stale stuff, behaviourist conceptions of language will only aggravate your Angst.

2.5 Washing It Down with a Word of Warning

So much, then, for eating out ontologically on *The Market*. Behaviourism, you would agree *Disappointed Diner*, is far too feeble a fare to feed one philosophically, to ease the sense of epistemic emptiness caused by the question 'What is language in essence?'. But we have learned some general lessons:

1. On the essence of language: it is not of any known behaviourist brand.
2. On constructing a conception of language: couple it with care.
3. On appraising a conception of language: stuffs must be sampled with circumspection.
4. On the nature of conceptions: essences are of the essence.

On lesson number one we need not dwell much longer. Though language might, unexpectedly, turn out to be something behavioural, this wouldn't be within the behaviourist ontology that we have considered. Behaviourism, as we know it, has no future on *The Metaphysics Market*, *Embittered Blue*. We have indeed reached 'the end of the long and boring behaviourist night', to quote an *On-duty Ontological Oracle*.⁸¹

Let me refresh your memory as regards the message of the second lesson, Dear Buyer. The beliefs making up a conception of language cannot be free-floating flotsam. They have to be tied down tightly to the reality that they are supposed to be about. For this, we have seen, two kinds of conceptual couplings are required: theories of linguistic structure and associated methodologies for exploring this reality. A theory of linguistic structure has to ensure that the abstract beliefs are ultimately grounded in the full complexity of linguistic reality, including the realm that is hidden from the naked eye. The task of a methodology is to ensure that this grounding is done in accordance with respectable canons of intellectual inquiry. A conception of language that is not carefully coupled to linguistic reality has the fabric of fiction. It may well sound 'common-sensical', 'clever' or the like, but it fails in its fundamental function: informing us about the essence of something 'out there', a something called 'language'.

The third lesson, Buyer and Blue, is perhaps the most important of all. In characterizing the stuff that language is supposed to be made up of, it does not pay to be cryptic. It won't do simply to say that language is behaviour, action, practice, habit, or disposition, full stop. Rather, the substance of these stuffs has to be carefully characterized. And the stuffs have to be distinguished from one another in a non-arbitrary manner.

Let me illustrate the general point with the aid of a final example, the Firthian conception of language. Inspired by the anthropologist Bronislaw Malinowski, J.R. Firth and such followers of his as M.A.K. Halliday have also characterized language as something behavioural. Halliday (1973:51), for example, has contended that

'If we regard language as social behaviour ...
this means that we are treating it as a form

of behaviour potential. It is what the speaker can do.'

Halliday goes on to equate 'behaviour potential' in the case of language with 'meaning potential'. Language, therefore, is 'what the speaker can mean'. And, Halliday (1973:52-53) tries to explain, the Firthian notion of 'meaning potential' is not the same as the Chomskyan notion of 'linguistic competence':

'A word or two should be said here about the relation of the concept of meaning potential to the Chomskyan notion of competence, even if only very briefly. The two are somewhat different. Meaning potential is defined not in terms of the mind but in terms of the culture; not as what the speaker knows, but as what he can do --- in the special sense of what he can do linguistically (what he "can mean", as we have expressed it). The distinction is important because "can do" is of the same order of abstraction as "does"; the two are related simply as potential to actualized potential, and can be used to illuminate each other. But "knows" is distinct and clearly insulated from "does"; the relation between the two is complex and oblique'

This sounds eminently reasonable to you, Dear Buyer? But do you have any idea of how 'potential' is supposed to differ from 'ability', 'skill', 'capacity', 'habit' or 'disposition'?⁸² Halliday has not told us. And are you capable of locating 'potential' in the scheme of things, given that 'potential' exists neither in the mind nor in actual behaviour? Halliday does not help us in doing this either. Moreover, within what kind of ontology does it make sense, Dear Frowning Fellow, to lump 'potential' and 'actualized potential' together as being of 'the same order of abstraction'? Halliday has nothing to say on this nicety. So do we really know what sort of stuff 'potential' is supposed to be? Do we have any reason not to despatch 'potential' to the ontological limbo? Having tasted 'potential' with some circumspection, we surely cannot summarily swallow it as a stuff that will cure the Ontological Angst induced by the question 'What is language in essence?'

Lesson number four deals with a meta-matter, our conception of conceptions. This is a lesson, you will recall Dear Buyer, that we learned when looking at the winding Wittgensteinian way of thinking about things. The lesson is all about being maximally clear, accurate and non-arbitrary when constructing a conception of something. Trying to capture the essence of something in terms of distinctive properties or necessary and sufficient conditions aids the careful conceptualizer in pursuing the values just referred to. To deride the pursuit of essences as 'naive', to denounce the search for distinctive properties or necessary and sufficient conditions as 'vulgar', is simply to take evasive action. To do this, Buyer and Blue, amounts to little more than relinquishing the responsibility of being as clear, accurate and non-arbitrary as one can about what something really is. To those wary of waffle, conceptions are about essences.

Suppose, counterfactually I guess, we were all to agree with Noam Chomsky (1975a:40) that behaviourism is 'a dead end, if not an intellectual scandal'. Where then do we turn next for a conception of language that even this most consummate of conception cooks would consider kosher? The time, Dear Buyer and Blue, is ripe for inspecting the Product of this Master Metaphysician himself.

NOTES

1. By, for example, Chomsky (1964:25), who speaks explicitly of 'a taxonomic-behaviorist point of view concerning the nature of language'.
2. By, for example, Hockett (1987:1) and Davis (1973:173).
3. Pike (1967:25) illustrates this position with reference to a party game in which a 'gesture song' is sung. The song is repeated various times. On each repetition a certain word is replaced by a gesture. In the end, only a few connecting words like the remain --- 'a sequence of gestures [being] performed in unison to the original timing of the song'.
4. For a detailed discussion of this approach, called 'tagmemics', see Pike 1967. For a more synoptic account see, for example, Davis 1973:173ff.
5. The kind of behaviour that Bolinger (1980:11) has in mind is 'communicative': 'Language is the most intensified part, but still only the inner part, of an enveloping scheme of communicative behavior'.
6. A second factor seems to be internal to Pike's (1967: 536) tagmemic approach: 'In behavioremics ... the structural units always retain substance as relevant to their manifestation mode ...'. For what this statement may mean see Pike 1967:par. 6.91, 7.85, and 8.82.
7. For the physicalist or materialist terms in which Bloomfield characterized the essence of language see Botha 1989b:2-4.

8. Cf. Hymes and Fought 1975:1005 for references documenting this point.
9. Bloomfield, in fact, takes the stimulus to include more than the immediate cause of the action (*r*). It includes the whole of the situation of the speaker, both the external situation in which he finds himself and the condition of his body, including genetic properties, as is noted by Kaldewaij (1986:72-73).
10. Cf. Kaldewaij 1986:74 for a similar point. For Bloomfield's views on the nature of science cf. Botha 1989b:15ff.
11. To say that Bloomfield's conception of language was materialist and not behaviourist is not to deny the existence of a principled link between materialism and behaviourism. To the nature of this link we will turn in par. 2.4 below.
12. We will consider the conception of language as something cultural in a separate study.
13. This study of Whitney's was first published in 1867.
14. This point will be fleshed out in par. 2.2 below.
15. In par. 2.2 we will consider specific examples of such conceptions of language held by behaviourist psychologists.
16. This ties in with Bloomfield's claim (noted above) that his views on language were not influenced by any psychological position. And it is also in line with Hall's (1964:404) observation that 'In recent decades, linguistics has become somewhat estranged from both philosophy and psychology ...'.
17. The view of science associated with behaviourism will be discussed in detail in par. 2.4 below.

18. As observed by Fodor, Bever and Garrett (1974:24ff.), structural linguists and more moderate behaviourist psychologists (of the Hullian school) started in the fifties to cooperate in establishing the field of psycholinguistics. As is clear from, for example, Rosenberg's (1968:63) work, psycholinguists commonly operated with the assumption that language is a system of habits, habits being uninformatively characterized as 'input-output constraints'.
19. For an analogous speculation about the status of the view that language is a 'social art' see Katz 1981:7. In justifying an ontological position, the apparent 'common-sensicality', 'evidentness', 'popularity', etc. of this position carry little, if any, objective weight.
20. Cf. par. 2.4 below.
21. Earlier, J.B. Watson defended the extreme view that language --- and thought in general --- could be reduced to laryngeal movement, a view seriously criticized by Lovejoy (1922).
22. Lachman, Lachman and Butterfield (1979:78) provide the following illustration of these notions: "In the laboratory, a pigeon can be trained to peck a circle, by giving him food whenever he pecks it. It is further possible to get him to peck the circle when it is red, but not when it is green. This is done by feeding the pigeon only if the circle is red when he pecks it. His pecking gets no food when the circle is green. This common laboratory situation is a prototype of Skinner's explanations of language. The colour of the circle is the *stimulus*; it elicits the *response* of pecking. In Skinner's terms, pecking is *under the control* of the stimulus, "red circle". The appearance of the food is a *reinforcer*. Because it comes right after the pigeon pecks, it causes

the pecking response to persist, and even increases its frequency'.

23. Cf. Chomsky 1959:27 for this formulation.
24. Cf. Taylor 1967:516 for this characterization of (psychological) behaviourism.
25. This view is not shared by all, a point to which we will return below.
26. Thus Chomsky (1972:12) observes that 'much of what we say in the course of normal language use is entirely new, not a repetition of anything that we have heard before and not even similar in pattern --- in any useful sense of the terms "similar" and "pattern" --- to sentences or discourse that we have heard in the past'.
27. Nor, on Chomsky's view, could this system be described in terms of the taxonomic methods of structural linguistics, or the notions of either the mathematical theory of communication or the theory of simple automata.
28. Cf. also Chomsky 1964:17ff. for an elaboration of this claim. Here the expression 'creative aspect of language' denotes the innovative and productive aspect of language use as well as its freedom from stimulus control. The expression excludes here appropriateness to the situation as being a phenomenon that, on Chomsky's (1972:12) view, exceeds the bounds of mechanical explanation, whether behaviourist or other.
29. As noted in (Botha 1989a:19-20, 181-182), in later work Chomsky (e.g. 1980) stresses an additional fact as crucial to the understanding of language acquisition: the so-called poverty of the stimulus.

30. Chomsky's theory of language acquisition will be discussed in some detail in a separate study dealing with his conception of language.
31. Cf. Zuriff 1985:1-3 for a discussion of each of the four points mentioned in this quotation.
32. Mace 1948-49:2; Whiteley 1961:165; cf. Kaufman 1967: 268, 270; Zuriff 1985:7-8, 204-205, 207-209.
33. For further discussion cf. also Scriven 1969.
34. *Eliminative behaviourism* denies the legitimacy of mental(ist) language and asserts that, contrary to what has always been believed, people do not act on their ideas, they do not have beliefs, and they are not swayed by emotions. (Zuriff 1985:202)

Methodological behaviourism rules private events out of bounds because there could be no public agreement about their validity. (Zuriff 1985:27)

Radical behaviourism, as opposed to methodological behaviourism, does consider (nonmental) events taking place in the private world within the skin. It does not call such events unobservable and it does not dismiss them as subjective (Zuriff 1985:27). Such events, however, must be characterized behaviourally in functional terms (Kaufman 1967:272).

Molar behaviourism is the position that an autonomous science of behaviour independent of physiology is not only possible but also desirable. Lawfulness, it holds, can be found at the behavioural level without appeal to physiological events inside the body. (Zuriff 1985:31; cf. also Taylor 1967:517).

Molecular behaviourism holds that functional relations at the molar level could in all likelihood be accounted

for in terms of physiological connections. (Taylor 1967:517)

The *reflexological model* or *S-R psychology*, in a strong form, claims that all behaviour can be analyzed into discrete, stereotyped movements, each of which is elicited by an immediately preceding discrete impinging of energy on a sensory receptor. In a weaker form, it claims that behaviour consists of responses, each caused by antecedent stimuli. (Zuriff 1985:99)

Mediation theory, in contrast to the basic reflexological model, partially liberates behaviour from its total dependence on the environment by locating some causes of behaviour within the organism. These causes, however, are themselves instigated by external stimuli and mediate between the latter stimuli and responses. (Zuriff 1985:104)

Interbehaviourism studies so-called interbehaviour: the interactions of the stimulus and response functions forming the psychological situation. It opposes radical behaviourism in using the formula $S \longleftrightarrow R$ rather than the formula $S \longrightarrow R$. (Zuriff 1985:108)

Purposive behaviourism takes the position that behaviour has descriptive properties beyond those of movements and achievements because behaviour has purpose. (Zuriff 1985:45)

35. For this tripartite distinction cf. Koch 1964:7-20.
36. Cf. Zuriff 1986:687.
37. Cf. Taylor 1967:516; Zuriff 1986:696-697.
38. Cf. Epstein 1986:702.
39. Cf. Rozeboom 1986:714.

40. Cf. Schnaitter 1986:715.
41. For typical examples of such defences see Wiest 1967, MacCorquodale 1970, and Salzinger 1967. The major points of these and other similar defences have been summarized by Zuriff (1985:130-149). For a typical rejoinder by Chomsky cf., for example, Chomsky 1972:92. As explained in some detail by Lachman, Lachman and Butterfield (1979: 61ff.), many cognitive psychologists (also referred to as 'information-processing psycholinguists') came to share Chomsky's criticisms of the behaviourist conception of language (behaviour): '[They] found the arguments against behaviorism compelling, and they focused on language as a rule-governed, abstract system. They considered it important to develop theories of competence and imported such concepts as competence, grammar and generative grammar'. (p. 61). And: 'As a result of their contact with linguistics ... many psychologists came to believe that satisfactory theories of language would never emerge from studying what people *do* unless we also attempt to explain what they *know* about language that enables to do it' (p. 81).
42. Marshall refers to Zuriff 1985.
43. Cf., e.g., Salzinger 1967:34-35 and Zuriff 1986:137ff.
44. Behaviourists have rejected introspective judgements and intuitions as useless, downright misleading and unscientific. (See, for example, Lachman, Lachman and Butterfield 1979:85 for some discussion of this point.) But part of the initial motivation for adopting the concepts of 'competence' and 'generative grammar' was the concern of Chomskyan linguistics with explaining introspective judgements of linguists and intuitive judgements of native speakers about properties of utterances. How the former concepts could be retained, substantially un-

changed, if the latter judgements were rejected, behaviourists have failed to explain. This further illustrates behaviourists' willingness to rely on empty terms, e.g. 'competence' and 'generative grammar', for defending their most basic beliefs.

45. In Wann (ed.) 1964:162, Koch sees in this strategy 'an absolute contempt ... for subject matter'. He, for example, considers the way in which behaviourists have constantly referred to experience as a 'field of private stimulation' to manifest 'an absolutely Philistine and almost malicious attitude toward the universe'. It exemplifies, to Koch, the 'constant, ubiquitous importation of ... vaguely disguised experiential meaning into a quasi-objective vocabulary'. And he considers 'field of private stimulation' to represent the 'thinnest of metaphors'. Johnson-Laird (1988:19) has also commented on the way in which some behaviourists invented theoretical devices that enabled them to talk about internal processes without seeming to give up objectivity. This manoeuvre allowed mentalistic theories to be accommodated within behaviourism. On Johnson-Laird's view, this caused "[w]hat began as an objective science [to become] an ideology".
46. There are more reasons than the three considered above. An additional one is that behaviourists and neobehaviourists have restricted their study of language behaviour to the use of individual words or untypically simple sentences, thereby evading the need to come to grips with the full complexity of normal language behaviour. As observed by Lachman, Lachman and Butterfield (1979:81): 'Before Chomsky, psychologists seldom studied sentences, preferring instead to deal with words. On those rare occasions when they did try to explain how sentences are understood, it was always by reference to the understanding of individual words. No neobehavioristic psychologist ever seriously tried to develop a theory of grammar.'

That would have required the recognition that rules, as well as words, were an internal part of language, and the neobehaviorist paradigm did not cope well with rules'.

47. In Wann (ed.) 1964:162.
48. Apologies to Walter Winckler for the wrinkles that I have put into his witticism. Incidentally, Skinner (1964:84) does provide for events that take place within the skin, but these do not differ essentially from events taking place outside the skin: 'An adequate science of behavior must consider events taking place within the skin of the organism, not as physiological mediators of behavior, but as part of the behavior itself. It can deal with these events without assuming that they have any special nature or must be known in any special way. The skin is not that important as a boundary.' These comments do not indicate that Skinner concedes that invoking the mental is legitimate. Thus, he says: 'I am a radical behaviorist simply in the sense that I find no place in the formulation for anything which is mental'. Cf. Wann (ed.) 1964:106 for the latter statement. The discussion in Zuriff (1985:200ff.) makes clear, perhaps unintentionally, just how ambiguous behaviourist stances on 'mental concepts' and 'mentalistic language' have been.
49. For an outline of core ideas of Wittgenstein and the ordinary language philosophers cf. Quinton 1967:394-395, Alston 1967:387, Katz 1966:68ff.
50. There are nontrivial differences between Wittgenstein's later philosophy and the ordinary language philosophy of which it forms the foundations. At this juncture these differences do not matter that much. They will be referred to again in note 57 below. A point of terminology: where these differences are not relevant to the discussion, I will use the expression *Wittgensteinians* to refer

collectively to Wittgenstein and the ordinary language philosophers.

51. Cf. Quinton 1967:395. This view contrasts with that in Wittgenstein's earlier work --- represented by his *Tractatus Logico-Philosophicus* --- that language is 'something whose essence can be displayed as a formal, logical calculus' (Quinton 1967:395). In his *Tractatus*, Wittgenstein argued specifically for 'the acceptance of an ideal, artificial language in which concepts are precisely defined and propositions unambiguously express the real form of facts' (Katz 1966:69). Wittgenstein in his later work operated with a notion of 'grammar' as well: 'Grammar is a free-floating array of rules for the use of language. It determines what is a correct use of language, but is not itself correct or incorrect' (Baker and Hacker 1985:40). On the basis of this formulation one could argue that Wittgenstein drew a distinction between 'language' and 'use' and, moreover, that 'language' is not identical to 'activity'. This illustrates just how difficult it is to determine what Wittgenstein's views on the nature of language really were. The elusive nature of these views has caused Wittgenstein scholars to propose radically diverging exegeses of these views. This point is substantiated by, for example, the disagreement between Kripke (1982) and McGinn (1984) and that between Pateman (1987:chap. 6) and Baker and Hacker (1984). For comments on the former disagreement, see also Malcolm (1986:154ff.).
52. Cf. Baker and Hacker 1980:70ff. The idea that training is important in language learning is suggested by Wittgenstein's famous game analogy. He drew a number of analogies between the idea of language and that of a game (chess specifically), one of which concerns training. In the words of Baker and Hacker (1980:93): 'The foundation of the ability to play a game lies in training ...'. Baker

and Hacker (1984:256), strangely, attribute their behaviourist view of language learning to Chomsky too.

53. Cf. Katz 1980:46 and Botha 1989b:1.
54. Cf. Baker and Hacker 1980:344-345.
55. For an exegesis of Wittgenstein's notion of 'family resemblance' and an illustration of how he applies this notion to elucidate the meaning of the word 'game' cf. Baker and Hacker 1980:325ff.
56. Cf. Baker and Hacker 1980:495. There is a way, though, in which Wittgenstein thought that philosophy could go about laying bare the essence of language: by giving an *Übersicht* of it. An *Übersicht* is a perspicuous survey that makes something 'transparent in a homely sense', 'capable of being seen all at a glance'. For this point cf. Baker and Hacker 1980:495.
57. For a discussion of a variety of cases of the misuse of words or expressions which on Wittgenstein's view caused philosophical confusions, cf. Baker and Hacker 1980:468ff. Oxford ordinary language philosophers had a number of concerns that went much further than the Wittgensteinian concern of dispelling philosophical confusions and paradoxes caused by the misuse of language. Thus Quinton (1967:394) notes: 'For the philosophers of ordinary language, however, metaphysical paradox is not simply a conceptual disorder to be cured: it is, rather, a convenient point of entry into the task of setting out the complex and informal logic of the philosophically crucial terms of ordinary speech, a task Ryle has called "logical geography" and Austin "rational grammar"'. For an insightful discussion of three specific points of difference between Wittgenstein and ordinary language philosophers cf. Katz 1966:80-87.

58. Quoted by Baker and Hacker (1980:637). Cf. also Baker and Hacker 1980:339-340 and Kaufman 1967:271 for further indications that Wittgenstein's views should not be interpreted behaviouristically in a psychological sense. In this respect Wittgenstein and the Oxford philosophers differ from Quine (1960:82), who explicitly couches his account of, for example, language learning in Skinnerian notions, as will be shown in par. 2.3.4 below.
59. Cf., e.g., Kaufmann 1967:271, Quinton 1967:395, Zuriff 1984:207-209. The term 'analytical behaviourism' is credited to Mace (1948-49:1-2), who distinguishes analytical behaviourism from metaphysical and methodological behaviourism. Metaphysical behaviourists admit, in Mace's terminology, that it is conceivable that the world contains two sorts of stuff: the stuff of which material things are made and the stuff of mind. But they deny that mind, as so conceived, is realized in fact. They deny that mind or consciousness exists. Methodological behaviourists concede more. They admit not only that mind or consciousness is conceivable as irreducibly different from matter, but also that mind and consciousness, so conceived, are realized in fact. But they deny that mind or consciousness is amenable to systematic treatment by scientific method. To analytical behaviourists, by contrast, the existence of mind or consciousness, defined as irreducibly distinct from matter, is not conceivable in any positive terms. They contend that statements about mind or consciousness turn out to be, on analysis, statements about the behaviour of material things. Hanfling (1989:78-79) has argued that Wittgenstein was **not** trying, like thinkers of a behaviourist persuasion, to deny or question the reality of mental processes. On Hanfling's analysis, Wittgenstein merely attacked 'the mental theory' that words express ideas or meanings that exist in the mind.

60. Cf. Katz 1966:84.
61. Cf. Urmson 1967:270. Cf. also Katz 1966:84-85 for further explication of this point. Wittgenstein's analysis of the mentalistic concept of 'understanding' is considered a prototypical instance of this kind of analysis. Cf. Baker and Hacker 1980:605 for a detailed discussion of this analysis.
62. The views under consideration have for decades been the subject of vigorous debate. Thus 1989 will see the Fourteenth International Wittgensteinian Symposium, with nearly seventy participants. The literature on Wittgenstein's two philosophies forms a vast, ever-expanding corpus. See note 51 above for a few sample contributions by philosophers to the discussion of Wittgenstein's later views on language. For one of the more substantive recent contributions by a linguist cf. Chomsky 1986:221ff.
63. Cf. Katz (1966:87-88), who singles out Austin's analysis of performative uses of language, Ryle's and Vendler's discussions of achievement verbs, and Urmson's work on grading adjectives and parenthetical verbs as examples of 'careful and insightful linguistic description[s]' in the tradition of ordinary language philosophy.
64. A theory of linguistic structure is the basic link between a conception of language and linguistic reality, but not the only one. A conception of language should also be linked to other aspects of linguistic reality, including language change, language variation, language pathology and so on. The links required for this take on the form of theories of language change, language variation, language pathology, and so on. Such theories, however, presuppose a theory of linguistic structure, hence the latter is basic. It also follows that a conception of language is less directly linked to language change,

language variation, and so on, than to linguistic structure.

65. Cf. also Baker and Hacker (1980:69ff.) for a discussion of Wittgenstein's views that are consonant with this characterization.
66. Quoted by Katz 1966:90.
67. Assuming that Wittgensteinians are not concerned with defining the essence of language, with learning anything new, or with practising (linguistic) science, why should one take the trouble to consider their kind of conception of language at all? In addition to the inherent interestingness of this conception, there are three strategical reasons for doing so. First, the way Wittgensteinians have construed the nature of language has influenced the linguistic ontology of many philosophers and linguists. Second, certain Wittgensteinians --- e.g., Baker and Hacker (1984) --- have been sharply critical of other conceptions of language, believing the Wittgensteinian one to be superior. For some discussion of this second point cf. Pateman 1987:120ff. Third, with reference to the Wittgensteinian conception of language it is possible to illustrate features that a conception of language cannot afford to have, e.g. insufficient coupling with structural aspects of linguistic reality.
68. Cf. Chomsky 1968:54ff.
69. Chomsky (1968:58-59) argues, among other things, that Quine vacillates between two things which are not the same: a person's total 'disposition to verbal response under arbitrary stimulus conditions' and his 'dispositions to be prompted to assent or to dissent from the sentence' under the particular conditions of a *Gedankenexperiment* outlined by Quine. In addition to finding it

difficult to determine the precise content of Quine's notion 'speech dispositions', Chomsky (1968:57-58) has serious difficulties with assigning probabilities to sentences, as Quine's conception of a language as a 'complex of dispositions to verbal behavior' seems to require. Chomsky argues, for example, that the probability of his producing English sentences such as 'Tuesday follows Monday' and 'Birds fly' is indistinguishable from his probability of his producing a given Japanese sentence: 'Hence if a language is a totality of speech dispositions ... then my language either does not include the sentences just cited as examples, or it includes all of Japanese'.

70. 'The ghost in the machine' is Ryle's (1949:15-16) expression for denoting the Cartesian 'dogma' or 'doctrine' that every human being has both a body and a mind, and that body and mind have different kinds of existence or status. Bodies exist in space and are subject to mechanical laws; minds, however, are not in space and their operations are not subject to mechanical laws. For a fuller characterization of what is also known as 'Cartesian dualism' cf. Ryle 1949:11-13.
71. Kitcher's (1978:8) more recent portrayal of a speaker's linguistic ability as a set of psychological dispositions (to pass from one type of psychological state to another type of psychological state) is not, according to Chomsky (1980:262-263), any more meritorious than the original Quinian dispositional account.
72. Zuriff's discussion of these characteristics, on the whole, represents a consensus view. It reconstructs the positivist underpinnings of behaviourism as these have been identified earlier by a variety of other scholars. And it is in accord with such independent characterizations of these underpinnings as those by Koch (1964), Kaufman (1967), Taylor (1967) and Bunge (1980).

73. It has been suggested --- cf., e.g., Zuriff (1985:251; 1986:698) --- that behaviourist epistemology may be considered as a theory about the behaviour of scientists. Historically, however, this is false. Behaviourists have taken over their ontology and epistemology from logical positivist philosophers of science. For a discussion of this point cf. Koch 1964:10.
74. For a discussion of this point cf. Botha 1989b: 13ff. The technical philosophical literature dealing with the flaws under consideration is vast and cannot be surveyed here.
75. I base these questions on Kaufman's (1967:269) discussion of problems involved in defining 'behaviour'.
76. Is the heart's pulsation a form of behaviour (cf. Kaufman 1967:269)?
77. Should the sounds produced by movements of the vocal tract be considered part of verbal behaviour (cf. Kaufman 1967:269)?
78. Should the motion of someone's arm by a hurricane be considered behaviour (cf. Kaufman 1967:269)?
79. Though dreaming, reflecting, observing and inferring represent things that people do, should they be considered behaviour (cf. Kaufman 1967:269)?
80. The difficulty that behaviourists have in defining 'behaviour' is compounded by their inability to agree on what observability is. Thus, commenting on Zuriff's 'pragmatic' definition of observability --- namely, the test for observability is consensus --- Hocutt (1985:707), a fellow behaviourist, finds that he has to be 'a stick in the mud' and point out that the metaphy-

sical question cannot be evaded by adopting Zuriff's pragmatist approach. It is remarkable that, though Zuriff and other behaviourists agree that 'behaviorism is the insistence that psychologists limit themselves to what is publicly observable' (Hocutt 1985:706), they still disagree after fifty years on what they call 'the test for observability'. This, evidently, does not lend much credibility to their quest for 'objectivity'.

81. Cf. Bunge 1980:ix.
82. For a discussion of how Chomsky has gone about drawing distinctions between notions such as these cf. Botha 1989a:47ff.

REFERENCES

- Alston, W.P. 1967. Language, Philosophy of. In Edwards (ed.). 1967:386-390.
- Baker, G.P. and Hacker, P.M.S. 1980. Wittgenstein: Understanding and Meaning. Oxford: Basil Blackwell.
- Baker, G.P. and Hacker, P.M.S. 1984. Language, Sense and Nonsense. A Critical Investigation into Modern Theories of Language. Oxford: Basil Blackwell.
- Baker, G.P. and Hacker, P.M.S. 1985. Wittgenstein: Rules, Grammar and Necessity. Oxford: Basil Blackwell.
- Bloomfield, L. 1933. Language. New York: Henry Holt.
- Bloomfield, L. 1939. Linguistic Aspects of Science. (= International Encyclopedia of Unified Science. Vol. 1, No. 4.)
- Bolinger, D.L. 1967. Aspects of Language. Second Edition. New York, etc.: Harcourt Brace Jovanovich.
- Bolinger, D.L. 1980. Language the Loaded Weapon. The Use and Abuse of Language Today. London and New York: Longman.
- Botha, R.P. 1989a. Challenging Chomsky. The Generative Garden Game. Oxford: Basil Blackwell.
- Botha, R.P. 1989b. Merchandizing Language as Matter. (SPIL 20 and SPIL PLUS 14). Stellenbosch: Department of General Linguistics.

- Bunge, M. 1980. The Mind-Body Problem. A Psychobiological Approach. Oxford, etc.: Pergamon Press.
- Chomsky, N. 1959. Review of Skinner 1957. Language 35: 26-58.
- Chomsky, N. 1964. Current Issues in Linguistic Theory. (Janua Linguarum, Series Minor 38). The Hague: Mouton.
- Chomsky, N. 1968. Quine's empirical assumptions. Synthese 19:53-68.
- Chomsky, N. 1972. Language and Mind. Enlarged Edition. New York: Harcourt Brace Javanovich.
- Chomsky, N. 1975a. The Logical Structure of Linguistic Theory. New York: Plenum Press.
- Chomsky, N. 1975b. Reflections on Language. New York: Pantheon Books.
- Chomsky, N. 1980. Rules and Representations. New York: Columbia University Press.
- Davis, P.W. 1973. Modern Theories of Language. Englewood Cliffs, N.J.: Prentice-Hall.
- Epstein, R. 1986. Behaviorism as the praxist views it. Behavioral and Brain Sciences 9:702-703.
- Erwin, E. 1978. Behavior Therapy. Scientific, Philosophical and Moral Foundations. Cambridge, etc.: Cambridge University Press.
- Esper, E.A. 1968. Mentalism and Objectivism in Linguistics. The Sources of Bloomfield's Psychology of Language. New York: American Elsevier Publishing Company.

- Fodor, J.A., Bever, T.G. and Garrett, M.F. 1974. The Psychology of Language. An Introduction to Psycholinguistics and Generative Grammar. New York, etc.: McGraw-Hill.
- Hall, R.A. Jr. 1964. Introductory Linguistics. Philadelphia and New York: Chilton Books.
- Halliday, M.A.K. 1973. Explorations in the Functions of Language. London: Edward Arnold.
- Hamlyn, D.W. 1985. 'Higher criticism' of behaviorism. The Behavioral and Brain Sciences 9:705.
- Hampshire, S. 1966. The interpretation of language: words and concepts. In Mace (ed.) 1966:267-280.
- Hanfling, O. 1989. Wittgenstein's Later Philosophy. London: Macmillan Press.
- Hempel, C.G. 1969. Logical positivism and the social sciences. In Achinstein and Barker (eds.) 1969: 163-194.
- Hockett, C.F. 1958. A Course in Modern Linguistics. New York: Macmillan.
- Hockett, C.F. 1987. Refurbishing Our Foundations. Elementary Linguistics from an Advanced Point of View. Amsterdam/Philadelphia: John Benjamins.
- Hocutt, M. 1986. Zuriff on observability. The Behavioral and Brain Sciences 9:706-707.
- Hymes, D. and Fought, J. 1975. American structuralism. In Sebeok (ed.) 1975:903-1176.

- Johnson-Laird, P.N. 1988. The Computer and the Mind. An Introduction to Cognitive Science. London: Fontana Press.
- Kaufman, A.S. 1967: Behaviorism. In Edwards (ed.) 1967, Vol. 1:268-272.
- Kitcher, P. 1978. The nativist's dilemma. The Philosophical Quarterly 28:1-16.
- Kluckholm, C. 1949. Mirror for Man. New York and Toronto: McGraw-Hill.
- Koch, S. 1964. Psychology and emerging conceptions of knowledge as unitary. In Wann (ed.) 1964:1-41.
- Kripke, S. 1982. Wittgenstein on Rules and Private Language. Oxford: Basil Blackwell.
- Lachman, R., Lachman, J.L. and Butterfield, E.C. 1979. Cognitive Psychology and Information Processing: An Introduction. Hillsdale, N.J.: Lawrence Erlbaum Associates.
- Lovejoy, A.O. 1922. The paradox of the thinking behaviorist. Philosophical Review, pp.135-147.
- MacCorquodale, K. 1970. On Chomsky's review of Skinner's Verbal Behavior. Journal of the Experimental Analysis of Behavior 13:83-99.
- Mace, C.A. 1948-49. Some implications of analytical behaviourism. Proceedings of the Aristotelian Society 49:1-16.
- Mace, C.A. (ed.). 1966. British Philosophy in the Mid-Century. A Cambridge Symposium. Second Edition. London: George Allen and Unwin.

- Malcolm, N. 1986. Nothing is Hidden. Wittgenstein's Criticism of his Early Thought. Oxford: Basil Blackwell.
- Mandelbaum, D.G. (ed.). 1963. Selected Writings of Edward Sapir in Language, Culture and Personality. Berkeley and Los Angeles: University of California Press.
- Marshall, J.C. 1986. Is behaviorism under stimulus control? The Behavioral and Brain Sciences 9:710.
- McGinn, C. 1984. Wittgenstein on Meaning. An Interpretation and Evaluation. Oxford: Basil Blackwell.
- Newmeyer, F.J. 1980. Linguistic Theory in America. The First Quarter-Century of Transformational Generative Grammar. New York, etc.: Academic Press.
- Pateman, T. 1987. Language in Mind and Language in Society. Studies in Linguistic Reproduction. Oxford: Clarendon Press.
- Pike, K.L. 1967. Language in Relation to a Unified Theory of the Structure of Human Behavior. The Hague and Paris: Mouton. (= Janua Linguarum, Series Maior XXIV).
- Quine, W.V.O. 1960. Word and Object. Cambridge, Mass.: M.I.T. Press.
- Quinton, A. 1967. British Philosophy. In Edwards (ed.) 1967:369-396.
- Rosenberg, S. 1968. Language habits and the recall of connected discourse. In Zale (ed.) 1968:63-74.

- Rozeboom, W.W. 1986. Average behaviorism is unedifying.
The Behavioral and Brain Sciences 9:712-714.
- Ryle, G. 1949. The Concept of Mind. London: Hutchinson.
- Salzinger, K. 1967. The problem of response class in verbal behavior. In Salzinger and Salzinger (eds.).
1967:35-54.
- Salzinger, K. and Feldman, R. (eds.). 1973. Studies in Verbal Behavior: An Empirical Approach. New York: Pergamon Press.
- Salzinger, K. and Salzinger, S. (eds.). 1967. Research in Verbal Behavior and Some Neurophysiological Implications. New York: Academic Press.
- Sapir, E. 1963. Selected Writings. In Mandelbaum (ed.).
1963.
- Schnaitter, R. 1986. The gentrification of behaviorism.
Behavioral and Brain Sciences 9:714-715.
- Sebeok, T.A. (ed.). 1975. Current Trends in Linguistics. Volume 13. Historiography of Linguistics. The Hague: Mouton.
- Silverstein, M. (ed.). 1971. Whitney on Language. Selected Writings of William Dwight Whitney. Cambridge, Mass.: MIT Press.
- Skinner, B.F. 1957. Verbal Behavior. New York: Appleton-Century-Crofts.
- Skinner, B.F. 1964. Behaviorism at fifty. In Wann (ed.).
1964:79-97.

- Taylor, C. 1967. Psychological Behaviorism. In Edwards (ed.). 1967, Vol. 6 :516-520.
- Twaddell, W.F. 1949. Meanings, habits and rules. Language Learning 2:4-11.
- Urmson, J.O. 1967. Ryle, Gilbert. In Edwards (ed.). 1967, Vol. 7:269-271.
- Wann, T.W. (ed.). 1964. Behaviorism and Phenomenology. Contrasting Bases for Modern Psychology. Chicago: University of Chicago Press.
- Whiteley, C.H. 1961. II. - Behaviourism. Mind 70:164-174.
- Whitney, W.D. 1971. Language and the study of language. In Silverstein (ed.) 1971:7-110.
- Wiest, W.A. 1967. Some recent criticisms of behaviorism and learning theory. Psychological Bulletin 67:214-225.
- Wittgenstein, L. 1922. Tratatus Logico-philosophicus. Translated by C.K. Ogden. London: Routledge and Kegan Paul.
- Wittgenstein, L. 1967. Philosophical Investigations. Translated by G.E.M. Anscombe. Second Edition. Oxford: Basil Blackwell.
- Zale, E.M. (ed.). 1968. Proceedings of the Conference on Language and Language Behavior. New York: Appleton-Century-Crofts.
- Zuriff, G.E. 1985. Behaviorism: A Conceptual Reconstruction. New York: Columbia University Press.
- Zuriff, G.E. 1986. Précis of *Behaviorism: A Conceptual Reconstruction.* Behavioral and Brain Sciences 9:687-724.