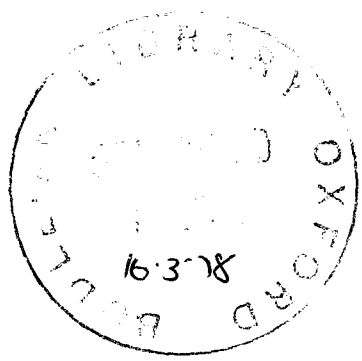
STRANDS IN THE THEORY OF MEANING FROM

FREGE TO WITTGENSTEIN



A Dissertation submitted for the degree of Doctor of Philosophy

to the University of Oxford, 1977

Kenneth Mark Helme

The Queen's College

Oxford

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ABSTRACT

Strands in the Theory of Meaning from Frege to Wittgenstein

Kenneth Mark Helme

The Queen's College, The University of Oxford

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Chapter 1 Wittgenstein's conception of Philosophy

I begin by comparing Wittgenstein's conception of philosophy to Russell's, noting that they held different views of philosophy in relation to natural science. Wittgenstein's 'method of examples' is compared with the Socratic method.
Might philosophy be different from what it in fact is?
Wittgenstein was a philosopher of language; the theory of meaning as fundamental. Examples given of the Private Language Argument and the philosophy of mathematics. Recapitulation. Appendix 1. Translation of 'Über Dogmatismus' from Wittgenstein und der Wiener Kreis. (pp 182 - 184)
Appendix 2. Translation of a chapter of the Big Typescript on the nature of philosophy (pp 406 - 435). Corresponding passages noted.

Chapter 2 Preliminary considerations in the Tractatus

A sketch of the genesis of the Tractatus, showing that Wittgenstein placed great emphasis on the doctrine of showing and saying.
Tractatus concerned with a perfect language? No, but with the conditions for any language. 'Ordinary' and 'logical' propositions in the Moore notes were not explained adequately. The possibility of 'semantic ascent' in relation to the doctrine of saying and showing.
Sketch of the picture theory. Explanation of the difference between 'abbilden', 'darstellen' and 'vertreten'. Discussion of isomorphism and the relation between language and ontology. Example taken of relation of Names and Objects. Structure and form. Comparison with Frege, and Frege's problems with 'the concept horse'. Waismann's criticism of Frege's use of Bedeutung repudiated.

Chapter 3 An elucidation of Tractatus 3.263

Tractatus 3.263 (on Erläuterungen) taken to be central to the saying showing distinction. Hacker criticised for arguing that 3.263 alludes to ostensive definition. Frege cited to show that the notion of an elucidation already had a place in the philosophy of language, and Hacker criticised for misunderstanding both Wittgenstein and Frege. 3.263 made clear by reference to Russell's theory of types, and Wittgenstein's own account of the principles of symbolism. An account of Philosophische Bemerkungen § 6 given. Relation of 3.263 to the notion of a grammatical proposition.

Chapter 4 The Doctrine of Saying and Showing

Account given of the doctrine of saying and showing. Shwayder and Schwyzer criticised with respect to the notion of a Satz. What can be shown cannot be said - an elucidation. Self-evidence and showing - a clear distinction. Kenny has criticised Wittgenstein for criticising Frege, and for using the notion of self evidence himself. I point out that Frege's views on self-evidence and intuition are not unitary, but apply differently to arithmetic and geometry, to axioms and laws of inference which is shown from Frege's writings. Wittgenstein vindicated. Comparison with Russell's notion of self-evidence.

Chapter 5 Functions

Frege's and Wittgenstein's notion of a function compared. Possibility of basing a theory of meaning on such a notion of a function. Dummett and Geach on simple and complex predicates discussed. The Tractatus distinction between a function and an operation drawn, contra Dummett. Reiteration of functions in relation to quotation discussed, and Frege's notion of a function criticised.

Chapter 6 Frege and Wittgenstein on Logical Form

Katz' view of Frege's concern with logical form is criticised, and Frege's attitude to natural language mentioned. Tugendhat's account of the meaning of 'Bedeutung' in Frege criticised, due to his assumption that the Bedeutung of a word had to be an object. Wittgenstein's notion of Bedeutung in the Tractatus. Wittgenstein's notion of logical form; a formal language constructed in which place holders are used for truth functions and quantifiers to elucidate the concept of an Urbild. The notion of a universalis characteristica compared with the Tractatus.

Chapter 7 Some recent proposals about Logical Form

Logical form and regimentation discussed, and Harman and Katz compared. Both criticised; Harman for begging the question, Katz for being confused about the aims of quantification theory and about the notion of assertion. Can we identify the logical constants, and is identity a logical constant? Wittgenstein's notation discussed in order to make the assumptions clearer in any such discussion.
What has logical form to do with understanding a language? Russell and Davidson compared; theorist and speaker compared. What is the aim of a semantic theory? Tarski's theory discussed. The notion of validity is central to a discussion of logical form. Is there one central notion of logical form which we may use as a basis? Realism versus Anti-Realism. Discussion of the dictum: 'Meaning is what an explanation of meaning explains'. The notion of learnability of a language. Must certain sorts of words be taught in a particular way? A theory of meaning is a theory of understanding.

Chapter 8 On the nature of a theory

The nature of a theory discussed, first generally, and then in relation to linguistics and semantics. Frege was ignored because it was not seen how to avoid psychologism. The distinction between intentional and non-intentional activities or events discussed in relation to a theory of meaning. The difference between a theory of reference and a theory of sense drawn in these terms.
The appeal to an idealisation of a speaker's mastery is ineffective in attempting to overcome doubts about realism. The debate between Dummett and McDowell discussed in relation to the austerity of truth theories. McDowell criticised, and Frege's notion of sense is discussed again. Wittgenstein's attitude to systematisation described in terms of such a debate.

Chapter 9 Possibility of a Systematic Theory of Meaning

This chapter consists entirely of an attempt to understand the claim that there is no distinction to be made between sense and force; it is mooted whether such a conception of language is to be found in the Philosophical Investigations, and to what extent we can find evidence in that book for such a view.
The distinction between force indicators and mood drawn. The notion of the point of an utterance discussed, and distinguished from speaker's intention. Is there a parallel between the relation between words and sentences and between sentences and language games? If not how can we learn a language? If so, what is the point of introducing the notion of a particular language game?
Wittgenstein's attitude to systematic theorising about language was in turn conditioned by his hostility to systematic theorising in philosophy, but we have no reason to think that there can be no degree of system in a theory of meaning.

PREFACE

This thesis was originally conceived as an extension of my B.Phil thesis 'A study of Wittgenstein's Tractatus with special reference to parabolic representation', submitted to the University of Oxford in June 1976. In fact the subject matter is only partially the same. Chapters 2 and 3 become chapter 2; chapters 4 and 5 become chapter 4 and chapter 4 has been rewritten so as to include mention of an article by Peter Hacker which, in the B.Phil thesis was mentioned only in an appendix, since it appeared some time after I had completed work on that chapter. The rest is new.

I would like to thank my supervisor Mr Michael Dummett for his help in thinking about the problems herein discussed, and also all those people who have over the years helped me to think about philosophy. I am most grateful to my wife, who not only checked the typescript(s) but who has also given me much encouragement in my work over the last three years.

The Queen's College,

September 1977

LIST OF ABBREVIATIONS

Full titles appear in the bibliography

WORKS BY WITTGENSTEIN:

NB	Notebooks 1914-16
TLP	Tractatus Logico-Philosophicus
CKO	Letters to C.K.Ogden
RKM	Letters to Russell, Keynes and Moore
WWK	Wittgenstein und der Wiener Kreis
PB	Philosophische Bemerkungen
PG	Philosophical Grammar
BB	Blue and Brown Books
RFM	Remarks on the Foundations of Mathematics
LFM	Lectures on the Foundations of Mathematics
PI	Philosophical Investigations
Z	Zettel
LE	'Lecture on Ethics'
BTS	The Big Typescript
MS	The Wittgenstein papers (von Wright numbering)

WORKS BY FREGE

BG	Begriffsschrift
FGA	Grundlagen der Arithmetik
NS	Nachgelassene Schriften
FBW	Briefwechsel
KS	Kleine Schriften
GGA	Grundgesetze der Arithmetik
GLG (I, II, or III)	'Grundlagen der Geometrie' (1906)
GLG	'Grundlagen der Geometrie' (1903)
FTA	'Uber formale Theorien der Arithmetik'
GB	Translations from the Philosophical Writings of Gottlob Frege

WORKS BY OTHER AUTHORS

PLP	Principles of Linguistic Philosophy	F.Waismann
LSP	Logik, Sprache, Philosophie	F.Waismann
PM	Principia Mathematica	A.N.Whitehead & B.A.W.Russell
PoM	Principles of Mathematics	B.A.W.Russell
KEW	Our Knowledge of the External World	B.A.W.Russell
PLA	'The Philosophy of Logical Atomism'	B.A.W.Russell
AT	An Introduction to Wittgenstein's Tractatus	
CB	Essays on Wittgenstein's Tractatus	(Eds) I.M.Copi & R.W.Beard
RIPL	Royal Institute of Philosophy Lectures	
APF	Acta Philosophica Fennica	

CHAPTER ONE WITTGENSTEIN'S CONCEPTION OF PHILOSOPHY

1 PHILOSOPHY

2 LANGUAGE

3 RECAPITULATION

4 APPENDICES

CHAPTER ONE WITTGENSTEIN'S CONCEPTION OF PHILOSOPHY

1 PHILOSOPHY

Above all others, the concern of the writer of the Tractatus was to draw the limits of thought -- i.e., to draw the limits to the expression of thought. Such a concern embodied a conception of philosophy which was not to alter substantially throughout Wittgenstein's life, although in his later writings he came to reject the notion that one could determine once and for all what the limits of sense are, what Language is, what a proposition is (cf PI § 92). Nevertheless, Wittgenstein continued to concern himself with drawing attention to the limits of language. In the Tractatus the limit was, as we shall see, determined by the unalterable substance of the world ('Objects')[1] and by the general form of proposition; later, such a stipulation was seen to be a mistake, and epistemological considerations (in the widest sense) and 'general facts of nature' were to gain an importance which had been studiously ignored or repudiated in the early work.

Wittgenstein's conception of philosophy always stood in stark contrast to Russell's, who pictures philosophy as a type of science, logical atomism being merely one possible form, albeit the most favoured one. Russell's book Our Knowledge of the External World had as its sub-title 'as a field for scientific method in philosophy'. This conception was to be attacked time and time again, not only in the Notebooks and the Tractatus

1. In this work I shall capitalise the words 'object' and 'name' when they are used to refer to the Tractatus objects and names, thus indicating their technical nature. The central thesis about Names is that they cannot be further analysed by definition. I adopt this practice from Hidé Ishiguro 'Use and Reference of Names' in Studies in the Philosophy of Wittgenstein Edited by P.Winch, London 1969.

but also in the later writings. For example;

> The word 'philosophy' ought always to designate something over or under but not besides the natural sciences...it consists of logic and metaphysics, the former its basis. (NB p 93, cf p 44: TLP 4.111, 4.1121, PI § 89, 119, 122ff)

For Wittgenstein, philosophy was essentially concerned with elucidation and with the clarification of expression of thought as a critique of language (TLP 4.0031). He and Russell were in agreement (at least in the first two decades of the century) that logic has no relevance to what is but only to what can be[1]; but Wittgenstein saw far more clearly than Russell how such a programme of clarification and elucidation was to be carried out. All his remarks lack the tentativeness which characterises Russell's work[2].

Wittgenstein was later to distinguish between logic, mathematics and philosophy more decisively than he had done in the Tractatus (in that work logic and mathematics were on occasions construed as the same thing; e.g., 4.04, 5.43, cf 6.2-6.211). Logic, at the time of the Tractatus, was said to be the basis of philosophy, but in the later writing we find the thought expressed that no calculus can decide a philosophical problem (PG p 269 cp p 306). Yet mathematics was not on that account to be regarded as being any closer to the natural sciences, for in much of Wittgenstein's writing and lectures on the foundations of mathematics the point is laboured that the concept of a search has very different application in these two areas (e.g., WWK pp 34ff, PG p 377). This naturally involved the rejection of the Fregean notion that the mathematician discovers and does not invent (FGA § 96. cf RFM I,167).

Wittgenstein was most concerned to determine the separate domains of the philosopher, scientist and mathematician; the latter two were on occasions regarded as similar only in virtue of their sharing certain

1. 'In logic...we are concerned not merely with what does exist, but with whatever might or could exist or be..' Russell, Problems of Philosophy p 31

2.e.g., KEW p 62. PoM §12. cf PB § 158, TLP preface, and WWK pp 37, 182.

relations to philosophy. One of the clearest expressions of this attitude occurs in the Grammar, which throws a good deal of light on the Investigations passage about leaving everything as it is (§§ 120-127).

> The philosopher easily gets into the position of the ham fisted works manager, who instead of doing his own work and merely supervising his employees to see that they do their work well, takes over their jobs, until one day he finds himself overburdened with other people's work while his employees watch and criticise him. He is particularly inclined to saddle himself with the work of the mathematician. (PG p 369)

I think that the force of this extended metaphor is that the philosopher is in some sense a works manager ('philosophy'designates something above...) and not a shop-floor worker; that is to say, he is not someone who is initially likely to get into the position of a bad manager and thence into the position of a manager. The philosopher is to check the 'account books of mathematicians', not to create those books himself. The philosopher, not being a mathematician cannot then say to the mathematician 'Do it like this !' , but is rather to be seen as someone who is to set the standards of clarity and rigour to which any non-philosophical endeavor must attain. The sense in which philosophy is to leave everything as it is becomes clearer - it is akin to leaving everything alone; if we were to take this remark as implying that philosophy does not and cannot have any causal influence on (say) mathematics, we could only conclude that the author of the remark was either naive or disingenuous. If however we see the remark in the light of the metaphor quoted above, the force of the injunction becomes clearer. In another place in the Grammar Wittgenstein acknowledges such an influence and describes it as follows;

> A philosopher feels changes in the style of derivation which a contemporary mathematician passes over with a blank face. What will distinguish mathematicians of the future from those of today will really be a greater sensitivity, and that will- as it were - prune mathematics; since people will be more intent on absolute clarity than on the discovery of new games. (PG p 381)

And in this connection we should not forget that

> 'Rigorous' means 'clear' (PG p 454)

Thus the task of philosophy as it touches other disciplines (perhaps like a tangent to a circle) is not one of interference but one of executive direction, even though such a directive is not couched in the imperative. It is not hard to discern in this picture both the philosophy of the Tractatus and the later writings; but this is not true of the method, which was to alter radically. According to Moore, Wittgenstein believed (in 1932) that 'a method had been found' and that he was doing a 'new subject', that there was now to be found in philosophy a 'kink in the development of human thought comparable to the invention of dynamics by Galileo and his contemporaries' (M p 322). It is interesting to note that Russell had said virtually the same thing in advocating a philosophy of logical atomism;

> ...The study of logic becomes the central study of philosophy: it gives the method of research in philosophy just as mathematics gives the method in physics. (KEW p243)
>
> ...It represents the same kind of advance as was introduced into physics by Galileo. (KEW p 14, cf p69)

There is at first sight a problem as to how Wittgenstein (and mutatis mutandis Russell) could continue to regard what he was doing as philosophy, and it is evident that Wittgenstein saw that there was a case to be answered; this he attempted to do in the lectures attended by Moore[1]. Wittgenstein was of the opinion that had his method been available to Socrates, he would have realised that such a method was what he had wanted all along. This is to be doubted, as Wittgenstein himself seemed in one place to aver[2].

> Socrates pulls up the pupil who when asked what knowledge is enumerates cases of knowledge. [e.g., Theaetetus 146D] And Socrates doesn't regard that as even a preliminary step to answering the question. But our answer consists in giving

1. Cf BB p 28 'One might say the subject we are dealing with is one of the heirs of the subject which used to be called 'philosophy'.

2. In the 'Diktat für Schlick' (MS 302) he writes 'I can't characterise my standpoint any better than by saying that it is precisely the opposite of that represented by Socrates in Plato's Dialogues' (p 14. cf LFM p 110)

> such an enumeration and a few analogies. (In a certain sense we are always making things easier and easier for ourselves in philosophy.) (PG pp 120-21. cf BB p 20)

Of course, what is crucial is the description under which Socrates would be presented with what Wittgenstein (thought he) was doing. There is a trivial sense in which, if Wittgenstein's method solved the problems which were occupying Socrates, then of course, that is what Socrates wanted all along, namely a solution to his problems. But as a matter of fact Socrates was presented with the sort of method Wittgenstein was advocating (as the passage in Theaetetus, alluded to above shows) and complained that his problems were not being solved, and it is quite clear that someone who propounded a method in all relevant respects the same as Wittgenstein's would fail to convince Socrates that he ought really to change his method and to accept the answers proffered as answers; Socrates' conception of philosophy was, as with Wittgenstein, indissolubly connected with his method of philosophising.

Whether or not Wittgenstein's remarks contain historical truth, they can I suggest be regarded, at least in part, as a criticism of an earlier self, whilst freely admitting that it is far too easy and superficial to treat the Grammar and Investigations as a sort of Confessions of an earlier (philosophical) self. In the Notebooks and Tractatus Wittgenstein exhibited an unreflective essentialism. For example;

> As I conceive e.g., the elementary propositions, there must be something common to them; otherwise I could not speak of them collectively as 'elementary propositions' at all. (NB p 90; cf pp 3, 39)

Moreover, the remark about making things easier for oneself serves to reflect the importance which Wittgenstein attached to the solution of the general form of the proposition in the Tractatus, a task which he found enormously difficult to express correctly, and which consequently gave him

'the most headaches'[1] The sense in which we do not make things easier for ourselves is the sense in which we imagine that what is required in philosophy is the accumulation of new facts, or the erection of new theories (each more complex than the last), and which thus exhibits a disregard for the individual case in its craving for generality.[2]

But whence this craving ? Wittgenstein never says; if it is an error we might choose to call it an error to which the human mind is naturally drawn, but such an answer is to reject the question, and does not serve to give content to the speculation. Anyhow, it is not my immediate concern to argue for or against such a view.

The rejection of a conception of philosophy which requires new facts partially justifies the continued use of the word 'philosophy', for such a view is by no means original to Wittgenstein; yet few others in the history of philosophy have expressed themselves so vehemently, or so continually (almost neurotically one might say)..The remarks on the nature of philosophy in the Investigations are by no means the product of the years immediately prior to Wittgenstein's death. As the appendices to chapter one indicate, the nature of philosophy was something about which Wittgenstein was to think for many years before his death.

The remark

> One might also give the name 'philosophy' to what is possible before all new discoveries and inventions (PI § 126)

also occurs in the Big Typescript. It has often been said of logic and mathematics - in virtue of the putative necessity of their truths - that

1. PI § 65.

2. The introductory essay by the editor of the Blue and Brown Books is to be consulted at this point, page xi. It is important that Wittgenstein did not see at the time of the dictation of the Books the source of an excluded metaphysic as being exclusively caused by language. That is to say, Wittgenstein's views on the nature of a philosophical problem were to change by the time of the Investigations in that his view of the origin of such problems was to alter.

they would be the same in any possible world. (What is at first sight odd about such a remark is that the word 'possible' in 'possible world' is just as much within the province of logic as anything else.) The claim that philosophy is also independent is less frequently made, although we do find such a stance adopted in Russell's Our Knowledge of the External World (p 90). But to attribute such a view to Wittgenstein would be superficial and misleading.

In the Tractatus and the contemporary writings of Russell, the actual world is considered as one example of a range of possible ones; the number of such possibilities, where n is the number of elementary propositions is determined by the formula 2^{2^n}. In this (perhaps one) respect, the Tractatus can be seen as strongly reminiscent of Descartes.[1]

1. In asserting this I certainly do not want to suggest that Wittgenstein thought of himself as following Descartes. Frege's influence on Wittgenstein, especially in his early years,is well known and not in dispute. Nor do I wish to controvert - in outline at least - Dummett's claim that Frege replaced the emphasis in philosophy from epistemology to the theory of meaning. H.Sluga in two articles 'Frege and the rise of Analytical Philosophy' Inquiry 1975, and 'Frege as a Rationalist' Studies on Frege, Vol 1 Logic and the Philosophy of Mathematics ed M.Schirn, has attacked Dummett's account of Frege's place in the history of philosophy. (Dummett has replied in 'Frege as a Realist' Inquiry 1976.) According to Dummett (Frege; p 667), Frege completely ignored the Cartesian tradition, and succeeded in rotating the fundamental task of philosophy towards the theory of meaning. What has to be emphasised (which Dummett notes only in passing) is that many of Frege's concerns were clearly epistemological - the most obvious being his concern with the foundation and justification of mathematics and arithmetic in particular. But Frege starts from an actual practice, and then investigates it, rather than asking how any such practice may be justified. His questioning for a justification is better seen as an attempt to spell out what is inherent in those extant practices; in this Frege's relation to the later Wittgenstein can be seen clearly. It is in this sense that Frege rejects the Cartesian tradition - namely as taking the question 'how can we know?' as fundamental. It might well be argued that the inadequacy of Frege's philosophy of language arises because of his reticence of asking such questions (the realism/ anti-realism debate), and consequently that we ought to see Wittgenstein, rather than (say) Tarski, as the true heir to Frege. See below p 191.

The starting point adopted by Descartes in the Meditations is that of systematic doubt in order to achieve surety and clarity. Logical space - as it were - was construed as quite empty, whose only inhabitant in the initial stages of the argument is the res Cogitans which is claimed to be identical with Descartes.[1] In a passage famed for its obscurity, Wittgenstein writes

> Here it can be seen that solipsism, when strictly followed through, coincides with pure realism. The self of solipsism shrinks to a point without extension, and there remains reality co-ordinated with it. (TLP 5.64)

Of course, such a passage does not fit perfectly with Descartes, since not even the res Cogitans is here said to exist, yet in the Tractatus the existence of the subject which thinks does not serve to characterise the world or any proposition about the world. Logical space is quite empty of such objects, only allowing for the possibility of being filled by an infinite number of place holders for thinking subjects. Possibility in the Tractatus is always bare logical possibility, a notion which it is claimed is exhaustively explained by the method of truth functions. In the Investigations a radical break is made with this sort of realism, which consists in a refusal to countenance any such notion of bare possibility but rather only regards an actualisation of a possibility, an emphasis which is to be observed more markedly in On Certainty.[2]

1. To invoke Descartes "proof" of the existence of God is neither relevant nor damaging to my point. Moreover, Barth has argued persuasively that in Descartes' programme the existence of God is dependent upon the prior acknowledgement of the existence of the res Cogitans. Cf Church Dogmatics III/i pp 350 ff.

2.In the Investigations, Wittgenstein as it were transcendentally deduces the necessity of a common form of life, for the existence of a Verständigung. In On Certainty this notion is given substance, often with surprisingly little force. It is this notion of the actualisation of a possibility which forms the crux of Wittgenstein's so-called 'Anti-Foundationalism'. Such a stance is adopted in the field of theology for example, by Barth. Barth is mentioned twice by Wittgenstein (MS 130,9; 173,93) and Professor T.Torrance informs me that Barth certainly knew Wittgenstein's work, perhaps as a result of his friendship with H.Scholz, who was Frege's literary executor.

Wittgenstein's later attitude to philosophy and mathematics is to be seen in this light. In the remark from the Investigations (§ 126) quoted above, it is clear that what is being implied is that there are certain non-discoverable limits to the discoverable; certain states of affairs whose possibility would not be called into question in the Tractatus, but in the later work are not countenanced since they ultimately call into question a notion of linguistic sense which is required for any framework within which any proposition could have a sense. The facts which are thus relevant to philosophy are thus not new facts, or facts of which a few privileged people are aware, but very general facts of nature over which we pass because of their very ordinariness and ubiquity (cf PI § 129; BTS p 419)

How ought we to regard such remarks about the nature of philosophy ? They could be regarded as historical assertions, but it is unlikely that Wittgenstein meant them in that way, and it would not be interesting to do so. Firstly, Wittgenstein knew little about the history of philosophy other than a reading of Schopenhauer, Frege, Plato and perhaps Kant (AT p 12) and many of his remarks about philosophy strike one as distinctively autobiographical. Take for example PI § 137;

> The real discovery is the one that makes me capable of stopping doing philosophy when I want to. (My emphasis)

In general, it is better (as Fogelin[1] has suggested) to treat most of Wittgenstein's remarks on the nature of philosophy as regulative. But this does not mean that we are not able to attempt to determine the consistency of such remarks, both internally and with respect to Wittgenstein's actual practice.

If it were the case that general facts of nature were different from what they are, would it not then be the case that the activity known as 'philosophy' would be different from what it now is ? (And if so, philosophy would not be the same in all possible worlds.) In making such a supposition, we are supposing not that we could come to discover that

1. R.J.Fogelin The Arguments of the Philosophers: Wittgenstein p 126

such general facts of nature are in fact different from what we have supposed them to be, but that they are as it were, ab initio, different. The point is that we cannot coherently talk of discovering such facts of nature at all, for it is the existence - possibly just the acceptance - of these facts which give life to our concept of discovery. Once this point has been made, the difference between natural science and mathematics is manifest, since there are no general facts of mathematics over and above general methods of application which could serve to give mathematical statements sense. And this I suggest, is the clearest way of interpreting Wittgenstein's remark that we rarely require a purely mathematical statement other than in the transition from one non-mathematical statement to another.

In the individual case it may be difficult to determine the precise point at which a calculation becomes an experiment[1], but that will be seen to be due to the wide range of possible applications of what we now call mathematics. Compare for example, arithmetic as used for counting and computation with our using the infinitesimal calculus, the inscriptions of which are used as wall-paper designs. But the question is whether we would regard such an activity as an application of mathematics. For mathematics is what it is in virtue of the uses to which it is put. Yet we may identify a calculus without explicitly talking about its application, just as there are descriptions of calculi which are indifferent to a Platonist or Intuitionist conception of mathematics. In spite of certain remarks by Wittgenstein to the contrary (e.g., PG p 306; PB p 130) we cannot just read off the application from a calculus, although there will be descriptions of the calculus where this will be possible.

1. cp. TLP 6.2331. This theme is taken up in LFM pp 93 - 101

The distinction between action and precept apart, are Wittgenstein's precepts regarding philosophy consistent ? Since philosophy is that which is possible before all new discoveries and inventions, might not science, (acting as the agent of discovery and invention) be effective in changing the status of certain forms of words originally regarded as 'grammatical propositions'?[1] That is, would render grammatical propositions significant - viz give them a truth value. This conflict appears in this context since one of the tasks of a philosopher, as one whose aim is the clarification of propositions, is to assemble grammatical propositions - propositions which show how words are used and thereby their sense, in the clearest possible way. (This aspect will be expanded in the sequel concerning the Tractatus Erläuterungen.) I personally find this aspect of Wittgenstein's philosophy of language the least satisfying and well worked-out, but must put it on one side for the present. Clearly Wittgenstein did not intend to deny a connection between science and philosophy, any more than one between a works manager and his employees. Be that as it may, Wittgenstein contends that this relationship is not one of colleagueship, but one of subordination. Although such a conception is not original to Wittgenstein, it is a view according to which philosophy has no subject matter, and as such none of its results (findings, remarks, or what you will) are considered to be controvertable by any result in natural science.

But why should anyone wish to hold to such a position ? It is one thing to argue that a philosopher is a citizen of no community (Z 455), and quite another to argue that philosophy should have no empirical import. Philosophers have no special dispensation from trying to say things which are true, although it remains an open question what the truth of philosophical statements should consist in. By the same token, once we admit that philosophy has certain empirical constraints, we are at the same time countenancing

1. The notion of a grammatical proposition, and of grammar is one to which Wittgenstein was to return time and time again. There may be insuperable problems to such a conception.

situations in which tension arises between philosophy and the empirical sciences. (The inevitability of such a tension should not however be pre-supposed; the tension between the philosophy of mind and cognitive psychology for example, rests largely on mutual ignorance.)

That philosophy neither has nor should have a subject matter requires argument: or it constitutes part of a creed. Possibly Wittgenstein's position is the latter.

As an appendix to this chapter I have provided a translation of a passage from the Wiener Kreis notes; the particular interest of this passage is that it shows just how little Wittgenstein's conception of philosophy was to change in the following twenty years. This passage should be taken as a credo as to Wittgenstein's self-image qua philosopher, and thereby gives us a standard against which we can judge his success; it does not provide a standard against which we can judge the relevance or truth of his remarks about topics other than philosophy however[1].

Even though Wittgenstein officially disclaimed theses in philosophy, he does adduce them. (His disclaimers to the effect that his views on the nature of philosophy itself were not theses - the orthography example at PI 121 for example - are rarely convincing.) Nevertheless, he did try not to produce theses[2]

1. cf e.g., the scattered remarks in LFM about not being a systematic philosopher, and not wanting to force his opinion on anyone. Such remarks may either be taken seriously, indicating what Wittgenstein thought he was doing, or may be regarded as no more than an official line which Wittgenstein would have in fact disapproved of, if he were taken seriously.

2. In the sequel I shall make use of Waismann's book The Principles of Linguistic Philosophy. The justification for the inclusion of this book is only partial; Wittgenstein worked for a number of years with Waismann on a book which was intended to be a systematic presentation of Wittgenstein's ideas - essentially those of the Tractatus, (cf the advertisment for the book in Erkenntnis 1; LSP p 650)not as Harré writes a commentary on the philosophy to be found in the Investigations. The book was frequently altered, and Wittgenstein was finally to veto its publication, thus rendering any reference to the book secondary. The chapter which was excluded from Logik, Sprache, Philosophie on hypotheses contains notably more theses than the other parts of LSP. It is interesting to note that LSP was refused publication in the Library of Exact Philosophy. (I owe this last piece of information to Mr B.F.McGuinness.)

If we tried to say that Wittgenstein never propounded theses we would be contorting both ourselves and the texts, and finally ascribe an attitude to Wittgenstein which would be both sophistical and scholastic. For example, 'It is what is regarded as the justification of an assertion that constitutes the sense of an assertion' (PG p 81). The number of philosophers who have taken this remark as expressing an insight into the way language functions are few, and we can hardly maintain that such a proposition expresses what everyone already knows, or that the truth of this remark (if it contains one) is always before our eyes (PI § 129) etc. Nevertheless, it might be that the circumstances (in the widest sense) which would render such a remark true are open to inspection, the acknowledgement of which requiring no discovery of previously hidden facts. But such a supposition, though coherent, is enormously difficult to work through to a satisfactory conclusion.

2 LANGUAGE

Wittgenstein was a philosopher of language. In the Tractatus he was to write;

> All Philosophy is a critique of language (though not in Mauthner's sense). (TLP 4.0031)[1]

In the Notebooks he wrote;

> My whole task consists in explaining the notion of the proposition. (NB p 39)

Although much of the post Tractatus writing concerns matters which are best not described as the philosophy of language (pre-eminently the philosophy of mathematics and the philosophy of mind), Wittgenstein

1. For a discussion of Mauthner see Wittgenstein's Vienna by Janik & Toulmin, pp 120 ff.

explicitly discusses language more than any other topic. Those areas mentioned as falling outside the proper domain of the philosophy of language do however stand in close relation to it. The two major instances of this are the private language argument, and the appeal to a constructivist mathematics. It is a matter of interest whether we should regard Wittgenstein's philosophy of mathematics and mind as being conditioned by his philosophy of language or vice versa.

It seems to me that Wittgenstein adopted the first position[1]; he was no mathematician, nor was he interested in being one,[2] yet his attitude to the relation between mathematics and philosophy (of language), if I am right is in certain important respects similar to a standpoint adopted by Michael Dummett in recent years. Dummett's remarks on anti-realism as a theory of meaning are prima facie a straightforward application of aspects of the philosophy of mathematics to the theory of meaning. For example;

> What I have done...is to transfer to ordinary statements what the Intuitionists say about mathematical statements. ('Truth' in Philosophical Logic (Ed)Strawson p 66)

Should we think such a transference suspect, due to the possibility that there exist special factors which mark out mathematics as the only domain for which the principles of intuitionistic logic hold, Dummett later remarks;

> The exposition of Intuitionism I have just given was not based on a rejection of the Fregean notion of a mathematical reality waiting to be discovered, but only on considerations about meaning. (Ibid p 68: cf 'The Philosophical Basis of Intuitionistic Logic', in Logic '73 (Eds) Ross & Sheperdson, p 5)

In other words, the philosophy of mathematics is already conditioned by a theory of meaning. This appeal to some extent reflects the approach

1. It will I hope, become clearer in the course of the thesis why I adopt this position

2. cf PG p396; 'Philosophy does not examine the calculi of mathematicians, but only what mathematicians say about these calculi.'

of the Intuitionists themselves, who, in arguing for a wholesale revision of mathematics concerned themselves solely with non-mathematical (i.e.,quasi-philosophical) arguments. Of course I do not wish to suggest that they were not interested in intuitionistic mathematics; rather, any justification of such a mathematics came from without the mathematical system itself. This explains why they failed to show any interest in the fact that IPC can be shown, using classical logic, to be complete.

The actual arguments employed by Brouwer are unacceptable, being excessively psychologistic, a fact which may have detracted from the interest of Intuitionism. To object that Intuitionism is incoherent in virtue of its psychologism is to object on the basis of an ignoratio, although neither Brouwer nor Heyting have the right to feel aggrieved about this, since they often failed to see where the real strength of their position lay. This chapter is not the place to continue the debate between realist and anti-realist theories of meaning (theories of meaning which underlie classical and intuitionistic logic respectively), but it seems clear that classical logic cannot be attacked from within, even if we think of failure to justify a calculus as a criticism, since it is consistent and complete, and large fragments of it are decidable. (This is a corollary of a remark by Wittgenstein that I can only search within a system, not for it; (WWK p 35)). It might be thus possible to regard Wittgensten's attitude to Intuitionism (e.g., LFM p 237· RFM p 126) as a hostility born of the bad argumentation of Brouwer et al in support of the adoption of Intuitionistic principles.

It goes without saying that the so-called 'Private Language Argument'[1] proceeds from considerations about language; considerations of the conditions

1. Even if we forget its title; I do not know who first coined the phrase - it was certainly not Wittgenstein.

under which language may be used correctly or incorrectly, under which an objective, inter-subjective language (ie, Language) is possible, and what it means to understand a language. Clearly if the argument is valid (and we miss its depth and complexity if we think of it as simply an argument which is valid or invalid) it would have repercussions within cognitive psychology (if it were understood), and would at the same time render a purely behaviouristic or mentalistic theory of meaning incoherent.

Whenever Wittgenstein philosophises outside the philosophy of language, it is the theory of meaning which determines his frame of reference. There is however, a radical shift of perspective between the Tractatus and the later writings - very different answers would be given to the question why language matters to philosophy. The change in his attitude is not a once and for all event, but shows itself gradually, so that in the Bemerkungen he still speaks of what can and cannot be said, indicating that he was as yet concerned with drawing limits to the expression of thought. Why Wittgenstein thought that such a goal was important is a question not easy to answer in a short space - since any answer would have to give an account of Wittgenstein's attitude to ethics and the 'mystical' Suffice it to say that he believed it important to stop all the chattering about the really important things in life.[1]

Wittgenstein often spoke about the tendency to run one's head against the limits of language[2], a tendency he thought which was a document of the human mind, and in certain religious contexts could not help but respect deeply[3]. Yet he appears to contradict himself by saying that language is not a cage (WWK p 117). Perhaps by this last remark, Wittgenstein

1. 'I really do think it important that an end is made to all the chattering in ethics - whether there is knowledge, whether there is value, or whether the Good can be defined etc' (WWK p 69)

2. e.g., LE passim; WWK pp 68, 93

3. LE p 12

is thinking of the following. For a cage to be effective - for it to have a point- there needs to be something outside it which cannot be reached by anything locked within the cage; but nothing is outside language (linguistically speaking), and if this has the form of a tautology, then of course language is not a cage. Language cannot stop me from saying anything, for anything which cannot be said, cannot be said, and that's an end of it.

The running of one's head against the limits of language according to Wittgenstein, is a symptom of a misunderstanding of the logic of our language. This notion of logic is wider than the study of logical consequence, including the 'logic of what can and cannot be said'. Wittgenstein's early use of the term 'logic' sometimes meant 'theory of meaning' and on occasions is equivalent to 'grammar', 'syntax' and sometimes 'application' or 'use'.

Certainly, in the later writings we find similar remarks - that we have been misled by language, bewitched by language, that our grammar requires Übersichtlichkeit that we are misled by failing to perceive the disanalogies between superficially similar forms of expression and the like. But one aspect of the matter which (necessarily) was lacking in the Tractatus and which is to be found in the Investigations, was that in the later work a conception of language is attacked which Wittgenstein had previously considered to be indisputably correct. The major devil to be exorcised in the Tractatus was Unsinn - trying to say what could only be shown. In the Investigations, although there are vestiges of the saying/showing distinction[2] the object of attack is not Unsinn as such, but a certain misrepresentation of the nature of language, the sort of language which we all speak and use.[3]

1. Übersichtlichkeit, and cognates: various translations used, for example 'perspicuity', 'bird's eye view'. The first occurrence of this word I have found is in WWK p 46 (22/12/1929)

2. The distinction between Unsinn and Sinnlos has disappeared in the Investigations.

3. cf PB p 63 'A wrong conception of the way language functions destroys, of course the whole of logic and everything that goes with it, and doesn't create some merely local disturbance.'

One of the causes of such misrepresentation Wittgenstein was often to attack was our being impressed by one function of language, and thereafter patterning all uses of language on such a model - in particular the concept of assertion (cf PI 113 - 114). There are two strands of thought here; on the one hand, the emphasis on the name relation, and secondly the principle of extensionality (cf PG p 124). In general the attacking of nonsense points in a very different direction from an attack on a false picture of language. Even the private language argument which appears to be concerned with a nonsense - namely the use of terms for which there can exist no criteria of correct application,- is at bottom concerned with the way a language functions, with what a language is.

Nevertheless, it is not at a superficial level that the relations between the Tractatus and the Investigations can be discerned, for the criticism of the Tractatus in the Investigations amounts to little more than a crude caricature of logical atomism. Yet, as has been remarked[1], 'The real criticisms of the Tractatus are to be found less directly, but once found represent a real engagement with the Tractatus at the deepest level'.

3. RECAPITULATION

Although we may regard Wittgenstein's pronouncements about philosophy as unfeigned, we cannot regard them as either historically accurate, or even as a guide to what Wittgenstein actually accomplished. We are thus to regard them as fundamentally autobiographical, and as such can be used to understand him, not to bury him.

1. R.M.White 'Can whether one proposition makes sense depend upon the truth of another ?' in RIPL vol 7, p16.

Although it is undoubtedly wrong to regard Wittgenstein as a system builder (possibly he objected to that notion as a result of reading Kierkegaard's attack upon Hegel), or even as a systematic philosopher, we ought not to disregard the fact (which some have wished to controvert) that he put forward philosophical theses even after 1928. It is for this reason that he remains read and puzzled over.

One facet of Wittgenstein's account of philosophy which we have not mentioned is his likening a philosophical problem to an illness or disease. It is interesting to note to what extent interpreters have taken the word 'wie' ('as' or 'like') as standing for a Fregean relation when it occurs in this metaphorical context. The sentence 'There is not a philosophical method, though there are indeed methods, like different therapies'[1], is ambiguous. This may be brought out by considering another example: 'He used to play the piano like his brother'. This can mean simply that they both played a piano, or it can mean that their style was similar. Similarly, the first quoted sentence could merely mean that just as there are many philosophical methods, so there are many therapies, or it could mean that each philosophical method is to be likened to a form of therapy. I think that Wittgenstein thought both to some extent, although the similarity between a philosophical method and a therapy is relatively superficial. One does not answer a philosophical problem - rather one tries to get the person to understand what it is which is troubling him. (As with all metaphors, we are being asked to consider one object in the light of another, which does not necessarily imply that they have something

1. PI 133. The original German sentence is not ambiguous due to the use of the word 'gleichsam' rather than 'wie'. But compare PI 255: 'Der Philosoph behandelt eine Frage; wie eine Krankheit.' (The semi-colon has incorrectly been removed in the English translation.)

naturally in common.) What is important for psychoanalysis is that the patient should come to see for himself the states of affairs which trouble him; consequently what is required is a spontaneous action. This again indicates the seriousness with which we perhaps ought to take Wittgenstein's disclaimers in the Lectures on the Foundations of Mathematics that he was not trying to persuade anyone of anything. The appendices which follow may serve to render such an attitude more intelligible, but not necessarily more acceptable.[1]

1. A passage in this connection which is worth pointing out is the following; We come up here against a remarkable and characteristic appearance in philosophical investigations: The difficulty - I could say - is not to find the solution, but to recognise something as the solution. (RFM 2nd Edition, pp102 - 102)

APPENDIX 1

The text is from Wittgenstein und der Wiener Kreis, Frankfurt 1967, pp 182 - 184. I have retained the numbered footnotes of the original; the lettered footnotes together with the square brackets are my own. Dr J.Schulte kindly checked the translation.

CONCERNING DOGMATISM

Wednesday, 9th December 1931. (Neuwaldegg)

In the first place it can be objected that a dogmatic presentation is, as it were, arrogant. But that is not the worst thing; much more dangerous is another mistake which runs through my whole book, namely the idea that there could be questions, the answers to which could be found later. We do not possess the results, but think we have the path on which these results may be found. Thus I believed e.g., that the task of logical analysis consisted in finding elementary propositions. I wrote: 'We can provide no information about the form of elementary propositions'[113a], and that was quite right. It was clear to me, at least in this case, that there are no hypotheses, and one cannot proceed with these questions, like Carnap, on the initial assumption that elementary propositions ought to consist of two place relations etc[114; A]. But nevertheless, I did think that elementary propositions could be specified at a later time. Only in recent years have I purged myself from this error. I formerly wrote in

113a TLP 5.55

114 Der Logische Aufbau der Welt is probably meant here.

A. cf WWK p 42: 'It is simply laughable if one believes that we can make do at this point with the ordinary forms of everyday language - with subject predicate forms and with two place relations'.

the manuscript of my book (it is not printed in the Tractatus[115]), the solutions of philosophical problems allow of no surprise. Nothing can be discovered in philosophy[B]. But I didn't understand this clearly enough, and erred in this respect.

The false conception against which I want to turn in this context is this; that we could arrive at something which we do not as yet see; that we should be able to find something quite new. That is an error. In effect we have everything we need right now, and we needn't wait for anything. We are moving in the sphere of ordinary language, and this grammar is already there. Thus we already have everything, and needn't wait until a later time.

As to your Thesen, I once wrote[117] : If there were theses in philosophy they would have to give rise to no discussion. They would be so composed that everyone would say : yes of course, that goes without saying. As long as there is disagreement and difference of opinion about a question, that shows that we have failed to express ourselves clearly enough. If a completely clear formulation is achieved[C] (that final clarity) there can be no more suspicion or opposition, for this always arises from the feeling: now something was asserted, but I do not as yet know whether to agree to it or not.[D]

115 This remark (or remarks, if both which follow are meant) does not occur in the MS of the Tractatus recently discovered by Professor G.H.von Wright [now published as Prototractatus] . At 6.1251 Wittgenstein said 'Hence there can never be surprises in logic' [Darum kann es in der Logik auch nie Überraschungen geben] (cf also 6.1261). The 'auch' (an addition to the MS) can be more clearly understood if we assume that Wittgenstein had the intention of inserting the two expressions quoted above, in the Tractatus.

B. cf WWK p 77 'Nothing can be discovered in grammar; there are no surprises. When we formulate a rule we have the feeling that we have known it for ages.' Also PB p 182 'We cannot make any discoveries in syntax'. cf PLP p 34

117 This remark does not only occur in Wittgenstein's manuscript volumes (to which reference is probably being made here) but also in PhGr § 89 and PI 128. [The PhGr to which McGuinness here refers is the Big Typescript.]

C cf PI 133

D This was copied by Waismann in LSP pp 62 - 63

But if we become clear about the grammar by proceeding in tiny steps, where each single step is made completely obvious, no discussion can arise at all. Disagreement arises, always in virtue of the fact that a particular step has been jumped or unclearly expressed, thus producing the appearance that an assertion has been made about which it is possible to disagree.

I once wrote: The only correct method of doing philosophy would be to say nothing, and to leave it up to the others to make assertions[118]. I now stick to this. What others cannot do is to display the rules gradually, and in the correct order such that all questions resolve themselves.[E]

What I mean by that is the following. When we speak of negation for example, the question is how to specify the rule that '$\sim\sim p = p$'. I assert nothing. I only say that the grammar of '$\sim$' is such that 'p' may take the place of '$\sim\sim p$'. Haven't you used 'not' like that too ? Once that has been admitted there is nothing more to be said.[F] That's just how things are in grammar. We can't do anything other than tabulate rules. If I have for example, established by means of asking questions that someone first acknowledges one rule for a word, and then another, I would say to him: You must distinguish exactly how you use it, and I do not want to say anything else. In my book I was still proceeding dogmatically. Such a procedure is justified only if, in a manner of speaking, it is a matter of determining physiognomical features which can only just be made out, and that is my excuse. I saw something in the distance very indistinctly, and wanted to extract as much as possible. But a second "milking out" of such theses has no more justification.

118 Roughly TLP 6.53

E cf LSP p 63

F cf LSP p 70

APPENDIX 2

The following is one chapter from the so-called 'Big-Typescript', which forms the basis of the Philosophical Grammar. For an account of the editing of the TS see the editor's remarks at the end of PG, and A.Kenny 'From the Big-Typescript to the Philosophical Grammar' in APF 1976. As with much of the Philosophical Grammar, there is much overlap between it and other published works. When Wittgenstein has suggested an alternative, this has usually been indicated by printing the word between two strokes. I have noted where a passage is identical to another occurring elsewhere in the published corpus, and when a similar passage occurs, I have written 'cf' before the reference. I have not done this with parts of § 91, which should be compared with the whole of chapter 5 of the Philosophische Bemerkungen. I have not in general indicated where the published translations differ from those chosen here.

Mr T.H.Aldridge and Mr H.Hoeling were kind enough to help me with one or two passages, and Dr Joachim Schulte checked the whole translation, saving me from many infelicities. I am most grateful to him.

§ 86

The difficulty of philosophy is not an intellectual difficulty of science but the difficulty of conversion. The opposition of the WILL to be overcome

(406) As I have often said, philosophy leads me to no renunciation, since I do not refrain from saying anything, but only give up a certain form of words as senseless. But in another sense, philosophy does demand a resignation but of feeling, not of understanding. And this is possibly what makes it difficult for so many. It can be difficult not to use an expression, just as it is hard to hold back tears, or an outburst of anger // rage //.

Tolstoy: the meaning (significance) of an object lies in its being generally comprehensible. Well, yes and no. What makes the object difficult to understand - if it is significant or important - is not that any special instructions about abstruse things are required to understand it, but is due to the opposition between understanding the object and what most people want to see. Thus the most obvious things can be the most difficult to understand. Not a difficulty of understandfng but an obstacle of the will.

(407) Working on philosophy is - as is often the case working in architecture - really working // the work // on oneself. One's own view; the way we see things (and what we demand of them).

Incidentally, in // according to // the old conception - for instance that of the great western philosophies - there were two kinds of problem in the scientific sense. Essential, great, universal; and inessential quasi-accidental problems. In contrast with that, our view is that there is no great essential problem in the scientific sense.

§ 87

Philosophy points out the misleading analogies in the use of our language

(408) Is grammar, as I use the word, only the description of actual dealings with language(s) ? So that its propositions could really be conceived as propositions of a natural science ?

This could be called the descriptive science of speech as opposed to that of thought.

The rules of chess too, could be conceived as propositions of the natural history of man. (Just as the games of animals are described in natural history books.)

In rectifying a philosophical mistake, saying 'That's how we always imagined things, but they are not really like that', I //must// always point to an analogy which people have followed and show that it does not apply. //...point out an analogy in terms of which we have thought, but without realising that it was an analogy.//

(409) The effect of a false analogy which has become part of our language is as follows:
It means a continual struggle and disturbance (as it were, a continual charm). It is as if a distant object seemed to be a man, because we do not perceive certain things, but when we go up close, we see that it is a tree stump. If we so much as move, the explanations go out of our heads, and so there appears only one shape. If we thereupon look more closely we see another; we now move back again,...etc

(The thrilling character of grammatical unclarity.)

To philosophise is to reject erroneous arguments.

A philosopher aspires to find a liberating word, that is, a word which finally permits us to grasp what has been ungraspable, and had burdened our consciousness.

(It's like having a hair lying on one's tongue; we feel it there, but we cannot catch hold of // grasp // it, and thus cannot get rid of it.)

A philosopher produces the word, which enables me to express the thing, and render it harmless.

(410) (Our choice of words is so important because it is our job to trace the physiognomy of the thing exactly, because only the exactly aimed thought can lead to the right path. A wagon must be put steady on the tracks, accurately to a T in order for it to roll down them properly.)

One of the most important tasks is to express all incorrect trains of reasoning in such a characteristic way that the reader says 'Yes I meant it exactly like that'. To trace the physiognomy of each error.

We could only really convict another of a mistake if he recognises the expression as the (really) correct expression of his feeling.

That is to say, only when he recognises it as such, is it the correct expression. (Psychoanalysis)

What the other person recognises is the analogy which I offer him as the source of his thinking.

§ 88

Where does the feeling that our grammatical investigations are fundamental come from ?

(411) We are concerned with different types of question, for instance, 'What is the specific gravity of this body ?', 'Will it remain fine today ?', 'Who will be the next to come through the door ?' etc. But there are among our questions, those of a special sort. We have here a different experience. These questions appear to be more fundamental than the others, and now I say: when we have this experience, we have arrived at the limits of language.

Where does our investigation get its importance from, since it seems only to destroy everything interesting, that is, all that is great and important ? (As it were, all the buildings, leaving behind merely little bits of stone and rubble.) (PI 118)

Where does the importance of our investigation come from ? Which draws our attention to the fact that we can use a diagram in more than one way, that we can work out one diagram as a guide to using another, that we can conceive of an arrow pointing in the direction of its tail, that I can use (412) a model as a model in various ways.

We trace words back from their metaphysical to their correct // normal // use. (cf PI 116)

(The man who said we couldn't step in the same river twice said something false. One can step into the same river twice.)

And this is what the solution of all philosophical difficulties looks like. If our answers are correct, they must be pedestrian and ordinary // trivial //. But you must look at them in the right spirit, then that doesn't matter.

Where do // did // the old philosophical problems get their significance from ?

The law of identity for example, appeared to have fundamental significance. But the proposition that that 'law' is nonsense has become more significant than it.

I could ask: Why do I feel a grammatical joke to be in a certain sense deep ? (And this is of course philosophical depth.) (PI 111)

Why do we feel an investigation of grammar to be fundamental ?

(The word 'fundamental', where it has any meaning at all cannot mean something meta-logical or philosophical either.)

An investigation of grammar is fundamental in the same sense in which (413) language could be called fundamental - for instance, its own foundation.

Our grammatical investigation differs from that of philology etc. We are interested in, for example, the translation from one language into others which we have invented. We are generally interested in rules to which a philologist pays no attention. Hence we could of course emphasise that difference.

On the other hand, it would be misleading to say that we are concerned with the essence of grammar, he with the accidental.

'Yes, but that is only an external distinction // difference //.' I believe there is no other.

We might rather say that we call something else grammar, just as we simply distinguish classes of words where as far as he is concerned, there is no (present) difference.

The importance of grammar is the importance of language.

We could also call a word like 'red' important, to the extent to which it is often, and for important purposes used, as opposed to a word like 'pipe-lid'. And the grammar of the word 'red' is then important, because it describes the meaning of the word 'red'.

(All philosophy can do is to destroy idols. And that means not creating a new one in the 'absence of idols'.)

§ 89

Method of Philosophy: The perspicuous representation of grammatical // linguistic // facts.

The aim: Transparency of arguments. Justification.

(414) Suppose someone has heard that the anchor of a ship is drawn up by a steam engine. He only thinks of the one which operates the ship (in virtue of which it is called a steam ship) and cannot explain to himself what he has heard (possibly this difficulty only occurs to him later). We now say to him, No, it is not that steam engine, for apart from that one there are a series of others on board, and one of those raises the anchor. - Was his problem a philosophical one ? Would it have been one if he had heard of the existence of another steam engine on board, but only needed to be reminded of the fact ? I believe that his unclarity has two parts: Either; the man who has asked the question could easily have thought of the explanation which he was told, as a possibility, and thus could have put his question precisely, instead of merely professing his unclarity. This part of the doubt he could have resolved himself, but he couldn't enlighten himself as to the facts just by thinking. Or; no way of arranging his concepts could remove the worry which resulted from his being ignorant of the truth.

(415) The other worry and confusion is characterised by the words 'Something seems to be wrong here' and the solution by the words 'I see, you didn't mean the steam engine', or in another case, 'You don't mean by "steam engine" only piston engines'.

The work of a philosopher is an assembling of reminders for a particular purpose. (PI 127)

A philosophical question is rather like a question about the constitution of a particular society. It would be something like this: As if a society came together without clearly written rules, but with a need for such - even with a natural desire for observing //following // certain rules in their meetings. The only thing is, that this is made difficult since nothing has been clearly stated <u>about</u> <u>this</u>, and no arrangement has been made for clarifying the rules. One of them is, in fact, regarded as president, but he doesn't sit at the top of the table, and so, not being marked as being the president, the proceedings are made more difficult. We step in in order to make a clear rule. We sit the president in a conspicuous position and his secretary at a small desk of his own with all the other members sitting in two rows down either side of the table etc etc.

If philosophy is asked the question e.g., '<u>What</u> is substance ?' what is asked for is a rule which holds for the word 'substance' - i.e., according to which I am resolved to play. I want to say: the question 'What is.....?' does not refer to a particular, practical case, but we ask these questions from our armchairs. You only have to remember the law of identity in order to see that uttering new truths about the object of our investigation is not to settle a philosophical difficulty.

(416) The difficulty //now // consists // only // in this; namely to understand how the fixing of a rule helps us. Why it comforts us after we have been so deeply disturbed. What comforts us is that we evidently see a system which systematically excludes those things which have always troubled us, which we did not know how to deal with, but which we believed we had to respect. Isn't the stipulation of such a grammatical rule in this respect like the discovery of an explanation in physics - the Copernican

system for example ? One similarity is evident. The weirdness of a a philosophical worry and its solution might appear as the agony of an ascetic, who with many groans, just stood, supporting a heavy ball, until a man redeemed him by saying 'Let it fall'. We wonder: Look, if these sentences troubled you, and you didn't know how to deal with them, why didn't you drop them sooner ? - What was stopping you ? Now I believe that it was an incorrect system which he believed he had to adapt himself to.

(The special calm which occurs when we find ourselves able to compare one case which we have considered to be unique with other similar cases, arises in our investigation ever and again when we can show that a word has not only one meaning (or, not only two), but is used with five or six different meanings.)

(417) A philosophical problem can be compared with the lock of a safe, which is to be opened by dialling a certain word or number so that no amount of force can open the door until this very word is hit upon; but once it is hit upon, any child could open it.

The concept of a perspicuous representation is of fundamental significance for us. It indicates our form of representation - the way we see things. (A type of Weltanschauung which is apparently typical of our age; Spengler.) (cf PI 122)

Such a perspicuous representation produces just that kind of understanding which consists in 'seeing connections'. Hence the importance of the connecting links // finding connecting links //. (cf PI 122)

A proposition is completely logically analysed if its grammar is made completely clear: no matter what idiom it may be written or expressed in. (PB p 52)

The chief trouble with our grammar is that it lacks perspicuity. (PB p 52)

Philosophy may in no way interfere with the actual use of language; hence in the end it can only describe it.

For it cannot give such use a foundation either.

(418) It leaves everything as it is.
It also leaves mathematics as it (now) is, and no mathematical discovery can advance it.

A 'leading problem of mathematical logic' (Ramsey) is a problem of mathematics like any other. (cf PI 124)

(A simile is part of our construction; but we can draw no conclusions from it either; it does not lead us beyond itself, but must remain a simile. We can draw no conclusions from it. So for example, when we compare a proposition with a picture (where what we understand by 'picture' must be fixed in our minds), or when I compare the application of language with the multiplicative calculus.

(Philosophy simply puts everything before us, and neither explains or deduces anything.) (PI 126)

Since everything lies open to view there is nothing to explain. For what is not clearly revealed // hidden // is of no interest to us. (PI 126)

The real answer to a question asking for an explanation of negation is 'Don't you understand it then ?' Now if you do understand it, what

is there left to explain ? What more can an explanation accomplish ?

We must know what is to be understood by explanation. It is a permanent danger to want to apply this word in logic in a sense which is derived from physics.

If methodology speaks of measurement, it doesn't say anything about the best material for manufacturing a yardstick in order to produce such and such results; although that surely, is part of the method of measurement. Rather, that investigation is interested merely in the conditions under (419) which we say that a length or amperage has been measured. It wishes to tabulate the current methods we already apply, in order to fix the meaning of the words 'length' and 'amperage'.

If one tried to advance theses in philosophy it would never be possible to debate them, because everyone would agree to them. (PI 128)

The study of philosophy is actually a remembrance.
We remember that we really have used words in such and such a way.

The philosophically most important aspect of things // language // are hidden because of their simplicity and familiarity.

(One is unable to notice something because it is always (open) before one's eyes.) (PI 129)

The real foundations of a man's enquiry do not strike him at all. Unless that fact has sometime struck him // come to mind //. (Frazer etc etc.)

And that means; he fails to be struck by what is most striking and powerful. (cf PI 129)

(One of the greatest obstacles in philosophy is to expect new deep // unheard of // information.)

(420) This refers to the fact that I can give no explanations of the variable 'proposition'. It is clear that this logical concept, this variable, must be of the same order as the concepts 'reality' or 'world'.

If someone believed himself to have found a solution to the 'problem of life' and wanted to tell himself 'Now, everything is quite easy', he needs only to remember that there was a time when the 'solution' had not been found in order to refute himself; but even at <u>that</u> time, one must have been able to live, and, as regards that time, the found solution appears to be accidental. It's like that with us in logic. If a 'solution' to a logical (philosophical) problem were given, we need only to hold it against ourselves that it was once not solved (and then too we must have been able to live and think.).....

All considerations could be made much more plainly than previously. And that is why in philosophy, there is no need to apply new words; the old ordinary words of our language suffice.

(Our problem consists only in being just. That means, we only have to point out and solve the injustice of philosophy, not to establish new political parties and draw up confessions of faith.

(It is difficult not to exaggerate in philosophy.)

(The philosopher exaggerates, crying as it were, in his impotence as long as he fails to discover the core of his confusion.)

(421) A philosophical problem is awareness of a disorder in our concepts; the problem is to be solved by ordering them.

A philosophical problem is always of the form 'I simply don't know my way about'. (cf PI 123)

In my way of doing philosophy, its entire task is to express things in such a way that certain worries // problems // disappear. ((Hertz))

If I am right, then philosophical problems can be completely solved, as opposed to all other kinds of problems.

When I say 'We stand at the limits of language' it always appears // sounds // as if resignation were necessary, whilst on the contrary, there comes about complete satisfaction, since no question remains.

A problem is - in the real sense of this word - dissolved, like a lump of sugar in water.

Men who feel no need for transparency in their arguments, make hopeless philosophers.

§ 90

Philosophy

The clarification of Linguistic usage. Traps of language

(422) How does it come about that philosophy is such a complicated structure ? It ought after all, to be completely simple if it were the ultimate thing which is supposed to be independent of all experience, as you present it. Philosophy unties the knots in our thinking; hence its results must be simple. Its activity however, is as complicated as the knots which it unties. (cf PB p 52)

Lichtenberg: 'Our whole philosophy is a rectification of linguistic usage, and thus a rectification of a philosophy - in fact the most general one.'

(Philosophical ability // talent // lies in the ability // susceptibility // to be strongly and lastingly impressed by a fact of grammar.)

(423) Why grammatical problems are so hard and apparently ineradicable is because they are connected with the oldest habits of thought, i.e., with the oldest pictures, which have left their impression on our language. ((Lichtenberg))

Teaching philosophy has the same enormous difficulty which instruction in geography would have if a pupil were to come equipped with a set of false and far too simplistic ideas about the course and continuity of rivers and chains of mountains.

Human beings are deeply enmeshed in philosophical - that is to say - grammatical confusions. And for them to be liberated pre-supposes that they be disentangled from the extremely varied connections in which they are caught. Their whole language must - so to speak - be re-arranged. But this language has come about precisely in this way because men have had - and still have - the tendency to think in this way. Thus, such a disentanglement is effective only for those who live with an instinctive dissatisfaction with language, not with those whose whole instinct is to live according to that herd, which has created this language as its proper means of expression.

Language has the same traps for everyone; the enormous network of well-maintained misleading ways. And so we see people, one after the other going the same way, already knowing where they will turn, and where they will go straight on without noticing the turn etc. Thus I ought to place signposts in all those places where wrong paths branch off, which helps to avoid the dangerous spots.

(424) We constantly hear the remark that philosophy really makes no progress, and that the same philosophical problems which occupied the Greeks continue to occupy us. The people who say that don't understand why it is // has to be // so. The reason is that our language has remained the same and tempts us to ask the same questions over and over again. As long as there is the verb 'to be' which seems to function like 'to eat' and 'to drink', as long as there are adjectives like 'identical', 'true', 'false', 'possible', as long as people speak of the flow of time and the extension of space etc, men will bump into the same enigmatic difficulties and stare at these things which no explanation seems able to remove.

And this, incidentally, quenches a thirst for the supernatural // transcendental //, for in believing that you can see the 'limits of human understanding' you naturally believe that you can see over and beyond it.

I read 'Philosophers are no nearer to the meaning of the word "Reality" than Plato got'. What an odd situation. How remarkable that Plato was able to get so far at all ! Or, that we could not get any further ! Was it because Plato was so very clever ?

The conflict in which we find ourselves again and again in our logical considerations, is like a conflict between two people who have settled a contract with each other. The final formulation, however, is set down in words which are liable to misinterpretation, whereas elucidations of this formulation explain everything in an unmistakeable fashion. Now, one of the two has a short memory, and continually forgets the elucidations, misinterprets the provisions of the contract, and so continually gets into difficulties. The other must always remind him afresh of the elucidations of the contract and remove the difficulties.

(425) Just remember how difficult it is for a child to believe (or to realise) that a word really has //can have// two completely different meanings.

The aim of philosophy is to erect a wall where language ceases in any case.

The results of philosophy are the discovering of one or another piece of plain nonsense, and bumps that the understanding has got by running up against the limits of language //end of language//. These bumps make us understand //see// the value of that discovery. (cf PI 119)

What type of investigation are we engaged in ? Do I investigate the probability or actuality of the cases I cite ? No, I cite only what is possible - thus giving grammatical examples.

Philosophy is not laid down in propositions, but in a language.

As laws gain interest just in case there exists an inclination to violate them, so certain grammatical rules are of no interest until philosophers want to violate them.

(426) Savages have games (or at least that is what we call them), for which they have no written list of rules. Imagine the activity of an explorer who visits the land of such peoples and compiles lists of rules for their games. This is the complete analogue of what the philosopher does. ((Why do I not rather say: the savages have languages (or at least...) but have no written grammar...?))

§ 91

We are not faced with philosophical problems at all in practical life, (as opposed to those of the natural sciences for example) but only when, in constructing our sentences, we don't let ourselves be guided by practical purposes but by certain analogies of the language.

(427) What belongs to the essence of the world cannot be expressed by language. For this reason it cannot say that everything flows. Language can only say those things we could also imagine otherwise. That everything flows must lie in the essence of the connection between language and reality. Or better: that everything flows must lie in the essence of language. And let us remember that in ordinary life it does not strike us - as little as the blurred edges of our visual field do ('because we are so used to it' it will be said). How, and in which circumstances do we believe that we take note of these things ? Isn't it when we want to form a proposition in opposition to the grammar of time ?

When someone says 'everything flows' we feel that we are being hindered from grasping the real thing, reality itself. The process on the screen slips away from us precisely because it is a process. To be sure, we (428) describe something; and is that another process ? The description is obviously connected with the very picture on the screen. A false picture must underlie our feeling of impotence. What we want to be able to describe - that we can describe.

Isn't the false picture one of a filmstrip which marches quickly past us so that we have no time to grasp hold of one picture ?

For in this case, we would be inclined to run after the pictures. But there is nothing analogous to that in the way this process takes place.

It's strange that in ordinary life we never have the feeling that a phenomenon is slipping away from us, never feel the constant flux of appearance, but only when we philosophise. This indicates that what is in question here is an idea suggested by a misapplication of language.

The feeling we have is that the present disappears into the past without our being able to prevent it. And here we are obviously using the picture of a film strip remorselessly moving past us, that we are unable to stop. But of course, it is just as clear that the picture is misapplied; that we cannot say 'time flows' if by 'time' we mean the possibility of change.

The fact that nothing strikes us when we look around ourselves, look around space, feel our own bodies etc shows how natural these things are to us. We do not notice that we see space perspectively or that our visual field is in some sense blurred towards the edges. It doesn't strike us and never can strike us because it's <u>the</u> way we perceive. We never give it a thought, and it's impossible we should, since there is nothing which (429) contrasts with the form of our world.

What I wanted to say is, it's strange that those who ascribe reality only to things and not to ideas move about so unquestioningly in the world of ideas and never long to escape from it.

In other words, how much of a matter of course the given is. It would be the very devil if this - the given - were a tiny picture taken from an oblique angle.

This which we take as a matter of course, life, is supposed to be something accidental, irrelevant; while something which never normally puzzles me, reality !

That is, what we neither can nor want to go beyond would not be the world.

Time and again, the attempt is made to use language to limit the world and to set it in relief - but it can't be done. The self-evidence of the world expresses itself in the very fact that language can and does only refer to it.

For since language only derives the way in which it means from its meaning, from the world, no language is conceivable which does not represent this world.

In the theories and disputes of philosophy we find words whose meanings are well known from everyday life, being applied in an ultra-physical sense.

(430) When philosophers use a word and look for its meaning, one must always ask oneself; is the word ever actually used in that way in the language which has generated it ? (cf PI 116) It will mostly be found not to be so, and that the word is being used in opposition to its normal grammar. ('to know', 'to be', 'thing')

(Philosophers often behave like small children who scribble arbitrarily on paper, and then ask grown ups 'What is that ?'. The story runs: The grown up often drew something for the child and said 'That is a man', 'That is a house' etc. And now the child too draws something and asks 'What is that now ?'. (cf PG p 483)

§ 92

Method in Philosophy

The possibility of steady advances

(431) The real discovery is the one which makes me capable of stopping doing philosophy when I want to.

The one that gives philosophy peace, so that it is no longer tormented by questions which bring itself into question.

Indeed, we now demonstrate a method by examples; and this series of examples can be broken off. (PI 133)

But more correctly that means: Problems are solved (difficulties //disquiétudes// eliminated), not a single problem. (cf PI 133)

Disquiet in philosophy arises from philosophers seeing philosophy wrongly, as if it were divided into (infinite) longitudinal strips instead of into (finite) cross strips. Such a conceptual turn-around produces the greatest difficulties. So they try as it were, to grasp the unlimited strip and complain that it cannot be done piecemeal. To be sure, it cannot, if by a piece one means an infinite longitudinal strip. But it may well be done if one regards a cross piece as a complete //completely (432) defined// piece. - But in that case we never get to the end of our work ! Of course //certainly// not, for it has no end. (cf Z 447)

(Instead of wild conjectures and explanations we want to provide a quiet consideration //exposition// statement// of linguistic facts.) (cf Z 447)

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(Instead of wild conjectures and explanations we want to provide a quiet consideration //exposition// statement// of linguistic facts.) (cf Z 447)

We must plough through the whole of language.

(Most men, when they want to engage in philosophical investigation do so like one who is searching frantically for an object in a drawer. He flings out the papers - for what he is looking for might be under them - he flicks roughly and hastily through the remaining things; puts some back in the drawer, mixing them up with the other ones etc. All that can then be said to him is: Stop, for if you search in this way, I cannot help. You must first begin by investigating one thing after another in a completely calm and methodical manner; for I am then quite prepared to search with you as well, and even to employ the <u>method</u> you want to.)

§ 93

Mythology in the forms of our language. ((Paul Ernst))

(433) In ancient rites we have the use of a very articulate language of gesture.

And when I read Frazer, I want to say at every turn: All these processes, these changes of meaning are still in front of us in our verbal language. When what is concealed in the last sheaf - or the sheaf itself, and the man who binds it - is called the 'corn wolf', we recognise here a well known linguistic process.[1]

The scapegoat upon which a man lays his sins and which then runs away with his sins into the desert - a false picture, similar to that which gives rise to philosophical errors.

I would like to say: Nothing shows our affinity with those savages better than the fact that Frazer, in order to describe the views of those people has words like 'Ghost' and 'Shade' at hand - words very familiar to both him and us.

(434)(But it is surely something different from describing such savages as being under the illusion that if they destroyed an enemy, their heads would fall off. Here our description would not have any superstitious or magical features.)

1. There follows in the MS: Our language is an embodiment of ancient myths. And the rite of ancient myths was a language.

Yes, this peculiarity does not only apply to the expressions 'ghost' and 'shade', and far too little is made of the fact that we count words like 'soul' and 'spirit' as part of our educated vocabulary. On the other hand, it is a trivial matter that we do not believe that our soul eats and drinks.

A complete mythology is laid down in our language.

The exorcism of death or the killing of death; but on the other hand it is represented as a skeleton, hence in a certain sense as dead itself. 'As dead as death'. Nothing is as dead as death; nothing is as beautiful as beauty itself ! The picture in terms of which reality is being here considered is that of beauty, death etc as pure concentrated substances, whereas beauty occurs in a beautiful object as an admixture. And don't I recognise here my own observations on 'object' and 'complex' ? (Plato)

The primitive forms of our language. Substantive, adjective, verb, display a simple picture to whose form they try to reduce everything.

Just as long as the soul is imagined as a <u>thing</u>, a <u>body</u> which is in our head, this hypothesis is <u>not</u> dangerous. Its dangerous nature does not lie in the incompleteness and crudity of our model, but in its unclarity. (435) The danger begins when we notice that our old model is not adequate - don't modify it - but as it were - sublime it. Everything is all right so long as I say that thought is in my head; it becomes dangerous if we say that thought is not in my head, but in my mind.

CHAPTER TWO PRELIMINARY CONSIDERATIONS IN THE TRACTATUS

1 INTRODUCTION

2 THE PICTURE THEORY

CHAPTER TWO PRELIMINARY CONSIDERATIONS IN THE TRACTATUS

1 INTRODUCTION

From 1912 to 1915 Wittgenstein wrote to Russell fairly frequently about his work which was to become the Tractatus. The last letter from Wittgenstein to Russell in 1915 was posted on the 22nd October, and the next contact between them was not until Febuary 1919, in which Wittgenstein says that he had done 'lots of logical work'; in a letter dated 12.6.19 Wittgenstein wrote that he had sent Russell the manuscript of the Tractatus. During the following month Russell read the manuscript and wrote to Wittgenstein requesting elucidation of certain points[1]. In a reply to that letter, Wittgenstein wrote the following:

> Now I'm afraid that you really haven't got hold of my main contention to which the whole business of logical propositions is only a corollary. The main point is the theory of what can be expressed (gesagt) by propositions - i.e., by language - (and, which comes to the same thing, what can be thought) and what cannot be expressed by propositions, but only shown (gezeigt); which I believe is the cardinal problem of philosophy. (RKM p 71, dated 19.8.19)

Later in the same letter, the point is made again; Russell had objected that on Wittgenstein's account it was 'awkward to be unable to speak of Nc'V', and as an answer, Russell is directed to the saying/showing distinction. According to Wittgenstein, what Russell wanted to say by 'there are two things' would be shown by there being two names with different meanings[2].

At first sight, Wittgenstein is going in for a substitutional interpretation of the quantifiers - or at least something very much like it[3] - and in fact his account of the general propositional form demands quantification over propositions.

1. For an account of this interchange see Life of Bertrand Russell, R.W.Clark, pp 364 ff

2. RKM p 72

3. See for example 'Semantic Deviations' H.Leblanc, in Truth, Syntax and Modality (Ed) H.Leblanc, p 2.

This fact would be sufficient for us to reject the system embodied in the Tractatus as being applicable to natural language, and thus for Wittgenstein, would render his whole programme a failure. Ramsey was the first to express doubt concerning Russell's introduction to the Tractatus vis à vis the book being concerned with the conditions for a logically perfect language (TLP p x). It is possible that Ramsey went to the other extreme in arguing that since Wittgenstein was not concerned with any such thing, he must have been concerned with ordinary language. Now, if Wittgenstein is concerned with ordinary language, Ramsey says, then it must make the Tractatus more interesting, but also less plausible. In fact Wittgenstein was concerned about a logically perfect language as much or as little as he was about ordinary language. He was - one might say - concerned with Language.

Now we cannot say that Wittgenstein would have found it acceptable to be told (as Russell suggested in the last page of his introduction): 'Your doctrines do not apply to ordinary language, but that is no great defect,for you nevertheless present some interesting views about certain aspects of logic'. Wittgenstein would have been of the opinion that had his doctrines failed to apply to one language, they would have failed to apply to any language. It seems to me that those who have spoken about the Tractatus as presenting a purely model-theoretic system have missed this punctum saliens[1].

Wittgenstein never explicitly says just why we cannot say that there are (at least) two objects, but his reasoning is clearly connected with the notion of a formal concept, the concept of an object being a case

1. For example; W.Stegmüller 'Eine modelltheoretische Präzisierung der Wittgensteins Bildtheorie' Notre Dame Journal of Formal Logic 1966; J.Hintikka 'Language Games' APF 1976.
I do not say that Wittgenstein was correct in regarding the matter thus; that should have been obvious from my remarks on substitutional quantification, although Kripke has shown that there is nothing formally suspect about such an interpretation of the quantifiers.see Truth and Meaning (Eds) Evans & McDowell.

in point. It is not clear whether the doctrine about formal concepts is logically prior to the supposed inexpressability of pure existential judgements or not, whether or not the notion of a formal concept was introduced in order to support such a lack of expressability. Rather, it seems that they stand or fall together. Wittgenstein clearly thought that the aspects of Frege and Russell's symbolism which led to difficulties (in Frege's case the existence of impredicative totalities, and in Russell's the Theory of Types) followed from an inability to distinguish between concepts proper and formal concepts[1]. We shall return to this notion in the sequel.

Given the prominence which Wittgenstein gave to the distinction between saying and showing, it is remarkable just how little this doctrine is discussed in the literature[2]. There are however good reasons for thinking that in certain respects this doctrine embodies a number of important insights, this being related to Frege's 'On Concept and Object'. This will become clearer later[3].

In the notes dictated to G.E.Moore in April 1914, Wittgenstein draws a distinction between ordinary and logical propositions (NB p 108).

1. This, in another guise, represents Frege's demand that every function be defined for every argument. (e.g., GB p 33)

2. See W.Stegmüller Main Currents in Contemporary German, British and American Philosophy 1972 pp 418 - 423; J.Griffin Wittgenstein's Logical Atomism 1964 pp 18 - 32; R.J.Fogelin Wittgenstein 1976 pp 90 - 92; R-A.Dietrich Sprache und Wirklichkeit in Wittgensteins Tractatus 1973 pp 161 - 169; G.Pitcher The Philosophy of Wittgenstein 1964 pp 153 - 154; D.S.Shwayder Wittgenstein's Tractatus; a Historical and Critical Commentary 1954, chapters 6,7,and 11. For the most part there remain only passing references and many of the works cited above have nothing actually to say about the distinction, or they repeat what others have said. Shwayder devotes more space to the distinction than anyone else (perhaps because his thesis is so huge), yet it does seem to me that it is on certain crucial points surprisingly insubstantial.

3. This judgement (which I made in my B.Phil thesis) is borne out by P.T.Geach 'Saying and Showing in Frege and Wittgenstein' APF 1976

It is rarely easy to determine the precise sense which Wittgenstein associated with his terms of art, since he did on occasions change such sense without an express declaration that he was doing so. We have already noticed that he uses the terms Unsinn and Sinnlos indifferently in the Investigations, and the sense of the term 'logical proposition' varies between the Tractatus and the earlier dictation. An ordinary proposition is a proposition with a sense (ein sinvoller Satz) and consequently has a truth value. They show something, namely their spatial ordering, and although no proposition can say what its own spatial ordering is, this can be said by another proposition (NB p 110), Now it is immediately obvious that the notion of an ordinary proposition is not the same as the notion of a proposition simpliciter in the Tractatus, for in the Tractatus Wittgenstein would have said that it was the propositional sign (Satzzeichen) which showed its spatial ordering. According to both the Tractatus and the Moore Notes, logical propositions show something, but what they show cannot be said by any proposition. This is confused. As far as the Notes are concerned logical propositions should at least show their spatial ordering. Perhaps the way out of this confusion is to speak of the logical properties of propositions, and in effect Wittgenstein does this by speaking in the Tractatus of internal or formal properties of concepts.

Be that as it may, at the time of the Notes (1914) Wittgenstein limited what could be said to the contingent. The notion of a logical proposition is not thought through at all in the Notes, and it is better to go straight to his remarks in the Tractatus. There they are propositions which express tautology or contradiction, whereas in the Notes they are propositions which express the logical properties of propositions.

In the Tractatus, that a proposition expressed a tautology (or contradiction) would be a logical property of that proposition, but

so equally would be the (quasi) fact that numerals stood for numbers be a logical property of numerals. Anyway, as I have indicated, by the time of the Tractatus, Wittgenstein had largely cleared up his misleading use of 'logical proposition', 'ordinary proposition' and 'logical property of propositions'.

It is also clear that Wittgenstein changed his mind about the possibility of one proposition saying what another showed. (This incidentally would flow naturally from the distinction between Satz and Satzzeichen). The argument seems rather fishy, but it is, I think, roughly this:

We are debarred from identifying the proposition aRb with a series of scratches on a piece of paper, for 'aRb' expresses a proposition (if it does) only in virtue of its projective relation to the world. Thus in order to say what the spatial arrangement of these symbols was, we would first have to pick out the proposition as a proposition, and this it is claimed is just what we cannot say, for, since the concept of a proposition is a formal concept, a proposition can only be shown to be one (by its use). If on the other hand this problem is to be overcome by a process of semantic ascent à la Carnap, who tried to translate all sentences in the material mode into the formal mode[1], we will fail, for the identification of a propositional sign as a sign for this proposition will depend upon prior recognition of the proposition which is expressed by that propositional sign, and that again cannot be said.[2]

It is certain that these arguments sound sophistical (perhaps because we do not doubt the legitimacy of using meta-languages), but it is not obvious where we ought to locate the mistake. One argument which I

1. R.Carnap The Logical Syntax of Language e.g., p 238

2. P.T.Geach 'Names and Identity' Mind and Language pp 142 - 43; 148 - 49 and 'Saying and Showing in Frege and Wittgenstein' APF 1976 passim, presents arguments against the informativeness of semantic ascent.

do think valid is that against the informativeness of semantic ascent; thinking that we may circumvent problems by a translation of statements in the material mode into the formal mode[1]. If for example, there is a problem about how a general term latches onto all its instances, then we have merely relocated the problem one stage higher by an appeal to semantic ascent - certainly not solved it - since the problem then appears in the form how a type word relates to all its token words.

There now follows a general account of the picture theory, but this will be brief since the main points are well known. This is in order to elucidate within the Tractatus a notion of saying and showing, and the theory of meaning which underlies it.

The internal complexity of the Tractatus makes it almost impossible to revise in Neurath's sense. No-one can accept the Tractatus as it stands, yet I believe that much can be learned from it. Perhaps Wittgenstein himself is partially responsible for its present day estimation by his crude caricature of logical atomism in the Investigations; but it ought to be read in its own right.

1. There are instances where appeal to language rather than to the objects or states of affairs which the language speaks about can lead to clarification. For example, in modal contexts - Do not say 'You cannot castle in Draughts', but; 'there is no castling in Draughts'. The conventionalist viewpoint in the philosophy of mathematics depends upon such a redirection of attention.

2 THE PICTURE THEORY

Wittgenstein imagines that language depicts reality so that complex propositions represent truth functional possibilities of elementary propositions, which in turn consist of Names in immediate combination (TLP 4.22, 4.221) with no third thing holding them together (TLP 2.03). In order for a proposition to depict reality correctly or incorrectly, its pictorial form must be shared by reality (TLP 2.17), which cannot be depicted by that or any other picture, but must be displayed by it (TLP 2.172).

There are thus different pictorial forms - each relative to the form of the picture (e.g., spatial, coloured, etc) - but if any picture at all is to depict reality, both reality and picture must have the same logical form - the 'form of reality' (TLP 2.18). Thus every picture is at the same time a logical one (TLP 2.182).

Wittgenstein speaks of 'logical form' (e.g.,2.0233, 2.18, 3.315, 4.128), 'logico-pictorial form' (2.2), 'pictorial form' (2.15 - 2.22), and 'representational form' (2.173, 2.174). 'Logical form' is used in a number of contexts - (grammatically) modifying 'object' (2.0233), 'picture' (2.18), 'expressions' (6.23), and it is indirectly claimed that logical form is the form of reality (2.18). Thus logical form also cannot be represented but is rather mirrored in propositions (4.121).

There are three terms which require explanation which were not translated systematically by Ogden. They are (with the Pears-McGuinness translation appended) abbilden ('to depict'), darstellen ('to represent' and occasionally as 'to present') and vertreten ('to be the representative of').[1] To take the last first; vertreten could be translated perspicuously as 'to deputise' or 'to go proxy for', and is paradigmatically the name

1. Stenius, Wittgenstein's Tractatus, pp 98 - 9 confusingly translates abbilden as 'to represent', darstellen as 'to present', and vorstellen as 'to depict'. The last is surely the most confusing of all.

relation. Darstellen is used when speaking of representing a state of affairs, and so representing a number of Objects as being in such and such a configuration. The grammatical object of abbilden is something actual (namely 'reality'[1]). Thus for example, I can represent Frege as clean shaven, but what I depict is Frege[2]. 2.173 (possibly together with 4.016) is an example where Wittgenstein is inconsistent in his usage, and should have used abbilden rather than darstellen. We depict reality correctly or incorrectly; we represent states of affairs, and the propositions we use to do so are either true or false (2.17, 2.22)

At 2.15 - 2.1515, Wittgenstein imagines the pictorial relation (abbildende Beziehung) as being included in the picture, and the representational form, as the rules of projection or method of interpretation of elements would then be the form of this pictorial relation. Thus the logical form of reality (to return to our point of departure) is conceived of as the most general type of form. At first blush, it appears that, at least as far as elementary propositions are concerned, there is an isomorphism between language and reality. This gives rise to three questions:

(i) Does Wittgenstein's account of logical form suffice for the inference to isomorphism ?

(ii) Can the inference be made that (on Wittgenstein's account) the world should be able to picture language ?

(iii) What is the order of priority between language and ontology ? Do we arrive at a conception of the world via an analysis of language, or vice versa ? (if at all).

1. Thus at 2.201 we find 'A picture depicts reality by representing a possibility of existence and non-existence of states of affairs'. This last phrase would be better translated as 'holding or not-holding of relation of things'. See CKO p 28 where Wittgenstein comments on 4.122.

2. Strictly speaking what is depicted are the Objects out of which Frege is composed, but this detail does not affect the main point.

(i) Concerning the notion of pictorial form, we shall be aided by following the order of presentation in the Tractatus, since it is modified after its initial introduction. Pictorial form is the possibility that things are related to one another in the same way as the things in the picture (2.151) and is identical with logical form in the case of a logical picture(2.181). Thus the logical form of a picture is the general possibility that the Objects in the states of affairs are in analogous configuration to the elements in the proposition. This may somewhat loosely be called 'isomorphism'[1] (the word does not occur in the Tractatus). This leads naturally to the second question whether the relation between propositions and the world is symmetrical.

(ii) This would not be surprising (perhaps only in virtue of the popular conception that the Tractatus entails such symmetry) and the problem is exacerbated by Wittgenstein imagining that tables and chairs could constitute a propositional sign. Propositions picture facts, and are themselves facts; so a fact pictures a fact. Given that two facts picture the same logical form, could not either picture the other ? Such criticism is commonplace[2], but the criticism fails completely in the case of complex propositions, for it was Wittgenstein's Grundgedanke that the logical constants do not go proxy[3]. The logical constants do not characterise the sense of the propositions in which they occur - rather they operate upon the pre-existent sense of elementary propositions (and subsequently on complex propositions).

1. Stenius (op cit pp 93 ff) notes that isomorphism is a symmetrical relation and transitive in a qualified sense. When expounding his notion of an 'articulate field' (p 90) he attempts neither to show that isomorphism is not (in any sense) asymmetrical, nor that the world cannot be said to picture language. Hertz, in speaking of isomorphism, explicitly regards it as symmetrical. Principles of Mechanics §§ 175 - 177

2. For example, AT p 67; A.Harrison 'Representation and Conceptual Change' RIPL vol 6; T.de Laguna 'Review of "Tractatus"' in CB p 27

3. It is possible that we should regard Wittgenstein as meaning that his Grundgedanke at this point was that the constants do not go proxy, in virtue of the letter cited to Russell on p49 above.

The case is somewhat different with elementary propositions, but the term 'isomorphism' may nevertheless mislead. An elementary proposition is a truth function of itself, and this being so, the whole machinery of truth functions is brought into operation. Moreover, the distinction between a name and a proposition with respect to negation is important; A Name if nothing corresponds to it, (according to the Tractatus) is meaningless, but not so a proposition, for a proposition and its negation exhaust the possibilities. To every state of affairs there corresponds two propositions, one of which, necessarily, is false, and the other true[1]. A proposition represents the possibility of the existence of a state of affairs (2.201). It makes no sense to speak of negating reality, as we would a proposition; there is thus a limited sense in which there exists an isomorphism between language and reality, even though the final arbiter of the matter is that we use propositions to say how things are, not vice versa.

(iii) Commentators have been misled I think, by the fact that the so-called 'ontology' of the Tractatus in order of presentation is prior to a discussion of language, thus giving some the idea that the book is formed in the 'classical ontological tradition' and the like. It seems to me however that ontology plays a relatively minor role in the Tractatus, and in any case, follows from the doctrines about language. Thus for example, the nature of an Object is determined by the nature of Names, and the nature of these is determined by considerations about the determinateness of sense (cf 3.23). The demand for the existence of elementary propositions likewise stems from a demand for sense determinacy[2], and since the only form of necessity between elementary propositions is truth functionally circumscribed, we find that each Sachverhalt is independent; and so on.

1. Russell acknowledes this point to be Wittgenstein's in 'The Philosophy of Logical Atomism' in Logic and Knowledge p 187

2. Such claims are echoed by Waismann in his Thesen. WWK p 245

This being so I would argue that any purely ontological investigation of the Tractatus will be either fruitless, or result in a mangling of the emphases evident in the book. The comments of Daitz and Evans[1] in e.g.,attempting to count up the elements in the picture and reality as a check on the multiplicity between them, is utterly wrong headed. Such a procedure implies that in the first place, we are able to exhibit the form of an elementary proposition, and secondly that we can characterise a state of affairs independently of language, which is absurd. Even if it were not, we would nevertheless have to exhibit the logical form of elementary propositions by means of ordinary language, a supposition Wittgenstein was later to castigate as 'simply laughable'[2], although he did think that at some time we would be able to give an account of their form.[3]

I am not denying that ontological considerations play a part in the Tractatus; what I am asserting is that any such considerations play a completely subordinate role. As in the Investigations, metaphysics was (in Peter Hacker's phrase) the shadow of grammar; but at the time of the Tractatus Wittgenstein was not aware of the insubstantiality of such shadows. In order to fill out this thesis, we will take as an example Names and Objects.

Names occur in the first instance in elementary propositions; they name simple Objects (2.02) which contain the possibility of all situations in which they can occur (2.014), and are, roughly speaking, colourless (2.0232), unalterable (2.0271), hang in one another like the links of a chain (2.03), and make up the substance of the world (2.021).

1. E.Daitz 'The Picture Theory of Meaning' Mind 1953. Reprinted in CB
E.Evans 'Tractatus 3.1432' Mind 1955. Reprinted in CB.

2. WWK p 42

3. WWK p 182

Indeed, Names can only occur in elementary propositions, since all complex propositions are nothing but truth functions of elementary propositions, a Name only has meaning in the context of a proposition. Wittgenstein has a number of theses about Names;

(i) A set of Names cannot express a sense (3.142).

(ii) Names do not have sense (3.144); here Wittgenstein is punning on 'sense' as 'direction'.

(iii) Objects can only be named.

(iv) A Name cannot be dissected by definition; it is a primitive sign (3.26, cf GB pp 42 - 3).

(v) The meanings of primitive signs can be explained by the illustrative use of examples. Examples are propositions which use primitive signs, i.e., propositions which cannot be understood unless one already knows the meaning of these signs (3.263).[1]

(vi) Only propositions have sense. Only in the context of a proposition does a Name have meaning (Bedeutung) (3.3).[2]

(vii) A Name means an Object; the Object is its meaning (3.203).[3]

Most of the above can be discussed under the rubric of the sense of a Name. Since, according to Wittgenstein, Names do not have sense, how does it come about that the fact that Names in a proposition are so related yields a sense ? It is because a Name occurs as occupying a point in a structure[4] that it has a meaning. Thus negation operates not on the Names but on the structure of the Names.[5] Consequently what fails to exist in the

1. This is the translation from the Wittgenstein Workbook by Coope et al. The reason for this will become apparent in the next chapter.

2. cf FGA p x, §§ 60, 62, 106. Frege speaks of words, Wittgenstein of Names, but there is no fundamental importance to be attached to this distinction.

3. Der Name bedeutet den Gegenstand. Der Gegenstand ist seine Bedeutung.

4. cf CKC p 24 for Wittgenstein comments about Gemisch. cp NB p 41

5. This is why 'holding of relations of Objects' is to be preferred to 'existence of states of affairs'. This was suggested to me by Peter Geach.

case of states of affairs, is the relation which the proposition says holds between the Objects mentioned.

We may even say that the sense of a proposition is its structure. An expression like 'xRy' exhibits a logical form by means of a logical prototype of a dyadic relational expression, but it has no sense; we cannot say using it, 'This is how things stand', for no things are in question. In order to be able to do that we would have to give a structure which has that form, and this involves assigning names to the variables - e.g., aRb. This expression has a sense; thus 'aRb' and 'cRd' have the same form, but a different structure[1].

Wittgenstein does not deny that Names contribute to the sense of sentences in which they occur when he denies that Names have sense (how could he ?). He, like Frege and Russell, construes a proposition as a function of the expressions contained in it (3.318). Previously (3.31), he had characterised an expression as any part of a proposition which characterised its sense. (Thus negation is not an expression - (4.0621).) Since elementary propositions consist of nothing but Names, and Wittgenstein writes elementary propositions as a function of Names (4.24), it is obvious that Names are expressions.

Wittgenstein's account of the principles of symbolism (which is most clear in his discussion of identity) makes it clear that each Object has only one Name, and a Name stands for only one Object. (But an Object might share with another, the property of being named by the same sign - see 3.203.) It thus appears that Frege's motivation for speaking of the sense of a proper name could not interest Wittgenstein. An account of sense in terms of that which determines reference was not open to Wittgenstein,

1. This has already been argued for by McGuinness in 'Pictures and Form in Wittgenstein's Tractatus' CB pp 143-4. It also follows from Ramsey's interpretation of Struktur on the grounds that it can be seen from the structure of a proposition when one follows from the other (5.13). Also 4.1211 says that the structure of two propositions show that they contradict each other. In WWK we read 'The form of a proposition is shown, by abstracting from the meaning of the words, by their transformation into variables' (p 220), and 'The expression of form results if one transforms the constants into variables' (p 224). But cp PLP pp 314 - 6, and Griffin (op cit) pp 72 ff

since the semantic rôle of a Name was just its having a certain reference.[1] The sense of a complex expression (Satz) is therefore construed as a function of the references of its parts, but the proposition is structured by the fact that its parts are related to each other in a determinate way.

Certainly, not all of the above can be gleaned unambiguously from 3.203, for if we were to translate this passage in accordance with Fregean usage we would produce a sentence with which Frege would agree. Namely 'A Name stands for an Object; An Object is its reference' - which is just a grammatical remark. For Frege, any linguistic expression which could occur as the argument in a first level function, was a name. The referent of such an expression was an object, and Frege went as far as to say that, logically speaking, places, instants and stretches of time were objects (GB p 71; cf PB § 115), as well as his well known theses that numbers and truth values are objects. It is such a criterion of name-hood which caused Frege to become enmeshed in the difficulty about the expression 'The concept horse is not a concept', because 'the concept horse' occurs as argument in the first level function '_____is not a concept', with the paradoxical result that on Frege's formal principles, any legitimate argument of this function yields a true proposition, and any legitimate argument of the function '_____is a concept' yields a false one. Dummett complains that if this were true, it would lead to the conclusion that it would be impossible to state by any means whatsoever, for any predicate, which concept it stands for; surely a reductio of Frege's logical doctrines.[2]

In fact the way Dummett extricates Frege, is to explicitly invoke second level quantification in expressions like '.....is what Blake was but Hayley was not', or '....is what all Rumanians seem to be', the gaps to be filled by predicative expressions. Note, Dummett explains the sense

1. This theme is taken up again in the penultimate chapter

2. See'Concept and Object' (GB p 46). For proposed solutions see Dummett, Frege pp 211 ff; V.H.Dudman 'Critical Notice of Frege's Nachgelassene Schriften' in Australasian Journal of Philosophy 1972.

of concept expression by using them as concept expressions; this is an excellent example of what Wittgenstein (and Frege) called 'elucidation', although in 3.263 Wittgenstein limits the account to Names; such a restriction is not necessary.

We do however have an argument from silence to show that the published translations of 3.203 capture the intended sense. Wittgenstein did not object to it (although it is true that he did not object to many mistranslations in the Ogden edition), and, much later, if the criticisms of the Tractatus in the Investigations are to connect, Bedeutung demands 'meaning' as its translation. Waismann in PLP (p 312) criticises Frege on the ground that it is quite out of accord with the ordinary use of 'meaning'[1] to say that Venus is what the words 'Morning Star' mean (the translators of PLP have always used the Ogden translation of the Tractatus). These criticisms, if aimed at Frege, miss the mark, since he, unlike Russell, was not working with an undifferentiated concept of meaning, since he had introduced the Sinn/Bedeutung distinction. Waismann gives an example, not dissimilar from the Excalibur example in the Investigations to show that Frege's view was highly implausible. But Frege was quite at liberty to say that the Bedeutung of 'The Morning Star' had gone out of existence iff the Morning Star had gone out of existence; he would not have been tempted to say that the Sinn of that expression would also have gone out of existence in similar circumstances.

Be that as it may, Frege's use of Bedeutung is idiosyncratic, and has no precedent[2]. But given that we are clear about Frege's use of the term, its departure from ordinary usage will lead to no important philosophical errors.

Wittgenstein's account of the Unveränderlichkeit[3] of Objects follows

1. The word in the German original is Bedeutung
2. I am informed of this by Joachim Schulte
3. For the correct translation of this term see R-A.Dietrich (op cit)pp 35ff.

from a picture of language such that a proposition's having sense just amounts to its being either true or false (4.2); it divides all possible states of affairs into two, those which are relevant to its truth value, and those which are not[1]. Thus a proposition and its negation exhaust the possibilities (this follows inter alia from 4.063). Were this not so, in order for a proposition of the form 'The F is G' to be true or false, the proposition 'There is one and only one F' would have to be antecedently true, thus rendering unclear for Wittgenstein the relation between a proposition being true or false and its having a sense. Thus Wittgenstein writes:

> If the world had no substance [and it is Objects which make up the substance of the world] then whether a proposition had sense would depend upon whether another proposition was true. (TLP 2.021, 2.0211)

Consequently simples are not describable, and complexes not nameable; we cannot die Gegenstände aussprechen (3.221). That Objects are mentioned is shown by the use of Names in propositions (and here 2.0211 stands in contrast to 3.24). When a propositional sign signifies a complex, an indeterminateness is seen in the proposition: but relating to what ? If we read 3.24 in conjunction with 2.0211, such indeterminacy will be seen to pertain to whether the complex exists or not; thus the Objects which are required to exist are simple ones.

The account (such as it is) of logical analysis, demands that we at some point terminate in lexically indefinable elements. These are the primitive signs which in general are Names[2]. Such signs cannot be anatomised by means of definition (obviously), nor can any

1. See R.M.White 'Can Whether one Proposition makes sense depend upon the truth of another ?' in RIPL vol 7. White (rightly) takes the proposition, the truth of which is in question to be internal to the proposition, the sense of which is in question. (cf NB p 116)

2.There are also primitive signs of logic (the 'N' operator and the general propositional form), but the logical constants can be interdefined.

sign which has a meaning independently and on its own (3.261)[1].

Wittgenstein often accuses Russell and Frege of mistaking the logical constants for primitive signs, on the ground that they are interdefinable (5.42). The primitive signs of logic must be independent of one another (5.451). The real primitive signs are not 'p v q' etc but 'the most general form of their combinations' (5.46). Thus the description of the 'most general propositional form is the description of the one and only general primitive sign in logic' (5.472). Since the N operator is a primitive sign, it follows that, since the logical constants do not go proxy, that the N operator has no reference. For this reason Miss Anscombe's translation of Bedeutung as'reference' in 3.263 is highly misleading. How does 3.261 fit in with 3.3 - that a Name has meaning only in the context of a proposition ? In the correlative passage about Objects we find:

> Things are independent in so far as they occur in all possible situations, but this form of independence is a form of connection with states of affairs, a form of dependence. (It is impossible for a word to appear in two different roles; by themselves and in propositions.) (TLP 2.0122)

This may be variously understood when applied to Names.

(a) Names can occur in complex propositons only in virtue of their occurring in elementary propositions.

(b) Things (Names) can occur in any situation (complex proposition). There is no restriction on combination. But concerning any combination of Objects, no other Object (Name) has to come into combination with them. We cannot say here that no Object has to occur in any particular state of affairs, since clearly it must occur in those states of affairs in which it occurs. (The problem here is one of formulation - to distinguish between 'arbitrary' and 'contingent'.)[2] Thus Names (Objects) are not independent tout court;

1. Wittgenstein asked for the translation of 'Kein Zeichen, welches allein.....' to be 'Nor can any sign....' which implies that Names have a meaning independently and on their own. See lower down the page for an explication.

2. See here R.Rhees"'Ontology' and Identity in the Tractatus" Discussions of Wittgenstein pp27 ff.

they may not appear on their own, but only in states of affairs (propositions). An Object is the same Object in any state of affairs it happens to be in; mutatis mutandis with Names.[1]

1. A third possibility which might be thought to obtain is this: A Name may occur in a proposition with no other Names. All that can be said here is that according to Wittgenstein, a Sachverhalt is a combination of Objects.

CHAPTER THREE AN ELUCIDATION OF TRACTATUS 3.263

In the Tractatus, to understand a proposition means to know the situation it represents, to know what is the case, if it is true, and ipso facto, to know what is the case if it is false[1]. Thus the understanding of a proposition and its negation fall together. It is also said that the understanding of general propositions palpably depends upon the understanding of elementary propositions - but here we may construe elementary propositions as atomic sentences, the prefixing of a quantifier to the form of such a sentence yielding a general proposition. That is, nothing is lost from Wittgenstein's assertion if we regard the matter thus, rather than assuming the remark to be false since we can give no example of a genuine elementary proposition.

Propositions are complex - i.e., their sense is a function of their parts, and so when we understand a sign, we can understand a propositional sign, and thus a proposition without having its sense explained to us. Simple signs (signs whose sense is not a function of its parts for it has none), must be explained to us. The meanings of primitive signs must be elucidated. These primitive signs I have argued, are largely, in the context of the Tractatus, Names. How then are they to be understood.? How are they to be elucidated ?[2]

It seems to me that 3.263 is central to an account of the saying / showing distinction, and embodies a genuine insight which is also in accord with much of the Tractatus; it is no exaggeration to say that its interpretation will radically affect the character of the Tractatus. Miss Anscombe translates 3.263 as 'The references of primitive signs can be made clear by elucidations. Elucidations are propositions containing the primitive signs. Thus they can only be understood if one is acquainted with

1. This is implicit in the Tractatus and made explicit in WWK p 86

2. For early discussions on this theme see AT pp 27 ff; Black, Companion pp 114 ff; H.Ishiguro, 'Use and Reference of Names' in Studies in Wittgenstein (Ed) Peter Winch p 28 ff.

the references of these signs'.[1]

That I do not accept this translation, or the interpretation which is thereby manifested, will become clear after an examination of arguments by Peter Hacker[2] to show that 3.263 is 'alluding' to ostensive definition'[3]. I will take the arguments he presents in his book, Insight and Illusion in the order of their presentation.

(a) The passage according to Hacker is a 'deliberate paradox', no other passage in the Tractatus explaining this 'wilful obscurity'. By this, Hacker means more than it has the appearance of a paradox, as his latter remark shows. But if this is the case, we have excellent grounds to seek an interpretation of 3.263 which does connect it up with other parts of the Tractatus - thus freeing the passage from its obscurity. But on examination it will be seen that 3.263 fits very well into its context; it is led up to and away from.

(b) Hacker is unclear how the elucidations are able to explain the meanings of the primitive signs, but it is unclear what sort of explanation Hacker requires. Nor is it obvious that 'to be explained' is the best translation of erklärt werden, suggesting as it does some model of explanation; it could mean simply 'to make clear' which suggests no form of explanation, but has as its goal an understanding of which phenomenon it is we are dealing with,

1. Miss Anscombe suggests that 'acquaintance' is the best rendering of 'kennen' and its cognates in the Tractatus, and draws a parallel with Russell, who had claimed in The Problems of Philosophy that in order to understand a proposition we must be acquainted with every one of its constituents (p 32). cf Russell's TS Theory of Knowledge 'To understand a proposition we must be acquainted with its form' (p 33 cp p 52). Also compare the translation of 3.263 given on p 60.

2. P.M.S.Hacker Insight and Illusion pp 48 - 51

3. This in opposition to the 'received interpretation' (of Black) according to which, an elucidation is a proposition, the use of which serves in a mysterious way to generate an understanding of the expression which is expressed by an arrangement of these signs; this view is also inadequate. The phrase 'arrangement of these signs' is Hacker's, not Black's, who is incorrectly imputing the (incorrect) view to Black that elucidations are elementary propositions which contain nothing but primitive signs.

not an account of it. If as a matter of fact, we come to an understanding of such signs by means of such illustrative examples, in that we come to understand how such signs contribute to the sense of the expressions in which they occur, then what more is there to explaining or making clear the meaning of such signs ? The grasp of the sense of a sentence and the grasp of the meaning of the words which constitute the sentence are not in this case to be distinguished; that is how it is possible to grasp the sense of a sentence which contains a word whose meaning is not initially clear to us. (The case envisaged is importantly different from one in which we are aquainted with the meaning of all the words in a sentence, but the word order is such as to produce only gibberish; nevertheless, understanding the meaning of a sentence is not to be divorced from understanding the meaning of its constituents, although due to differing modes of combination, differing sentences may be produced with the same set of words.)
And we cannot grasp the meaning of a primitive sign apart from its context in a proposition (cf 3.3). Of course, it may be possible to give multiple elucidation, in which case we construe the primitive sign as meaning one thing then another. However, when we acheive a complete understanding of the elucidation we also, at the same time, achieve a complete understanding of the primitive sign.

(c) Hacker first turns to the Notebooks for evidence of ostension; 'Names are necessary for the assertion that this thing possesses that property and so on' (NB p 53). Well, possibly. But it is nowhere suggested that 'this' and 'that' are being used in this sentence in conjunction with ostensive explanation (what exactly would be being ostensively explained ?) nor even ostension although it is true that one typical use of demonstratives is in conjunction with pointing. But it is gratuitous to invoke pointing at this juncture of the Notebooks. One place where pointing is explicitly mentioned and discussed is the following, to which Hacker alludes

> If someone were to drive me into a corner in order to show that I did not know what I meant [by 'The watch is lying on the table'] I should say 'I know what I mean; I mean just THIS', pointing to the appropriate complex with my finger...but all this really means is; the fact can SOMEHOW be portrayed by means of this form too. (NB p 70)

This is adduced to show that ostension binds language to the world (according to its author) but I would say that this passage provides one of the targets for the essay 'Complex and Fact' (PB pp 301 - 303, PG pp 199 - 201). For if 'The watch is on the table' signifies a fact, then the essay could be seen as a criticism of pointing at it; if on the other hand it signifies a complex of objects, then the essay criticises the confusion between fact and complex. In the passage under consideration, Wittgenstein fails to draw this distinction, although some years earlier he had written in the Notes on Logic (NB p 93) that Russell's view, according to which propositions correspond to complexes, was wrong, and especially false was the view that propositions name complexes, for 'facts cannot be named'. But one thing which is clear about the passage quoted above is that Wittgenstein thought that 'THIS' picked out a complex of objects, although 'the watch is lying on the table' signified a fact; they were, however, to be thought of - in a manner of speaking - as of the same extension. Thus Wittgenstein points to a complex, not to an object. The passage is to be seen in these terms, and has nothing to do with ostensive definition. It must be granted that mention of pointing is neither a necessary or sufficient condition for it to be the case that ostension or ostensive definition is being spoken about.

(d) The italicisation of so in 2.1511; Das Bild is so mit der Wirklichkeit verknüft; es reicht bis zu ihr. This is claimed to be a natural way of

1. Waismann (PLP p 291, LSP pp 425 - 6) was later to object to the idea that one could ostensively define a proposition on the ground that 'it rains' when meant as an ostensive definition, when it is not raining, is not false, but falsely formed, ie, uttered in surroundings which divorce it from the use of 'rain' etc. He does not however raise the issues which Wittgenstein discusses in 'Complex and Fact' about pointing to facts, which can only mean 'point out the fact that...'.

indicating ostensive gesture. But this is simply outrageous, for in the context of the Tractatus, 2.1511 is palpably a comment upon 2.151; it reaches right out to reality because reality and it have the same pictorial form - we can see how language reaches right out to reality. That 'so' can be used to indicate ostensive gesture is quite beside the point, and such an observation serves to say nothing about 2.1511.[1]

(e) Hacker then refers to PB § 6. I shall quote it in full:

> If I explain the meaning of a word 'A' to someone by pointing to something and saying 'This is A', then this expression may be meant in two different ways. Either it is itself a proposition already, in which case it can only be understood once the meaning of 'A' is known, i.e. I must now leave it to chance whether he takes it as I meant it or not. Or the sentence is a definition. Suppose I have said to someone 'A is ill', but he doesn't know who I mean by 'A', and I now point at a man, saying 'This is A'. Here the expression is a definition, but this can only be understood if he has already gathered what kind of object it is through his understanding of the grammar of the proposition 'A is ill'. But this means that any kind of explanation of a language presupposes a language already. And in a certain sense, the use of language is something that cannot be taught, i.e. I cannot use language to teach it in the way in which language could be used to teach someone to play the piano. --And that of course is just another way of saying:I cannot use language to get outside language. (cf PG pp 97, 160 - 1)

This passage I happily connect with 3.263, but will refrain from commenting upon its relation to the notion of ostensive definition until I have presented a positive interpretation of 3.263.

(f) Finally, Hacker quotes a passage from the Wiener Kreis notes.

> Logical analysis and ostensive definition (Erklärung) were unclear to me in the Tractatus. I there thought there was a 'hooking of language onto reality'. (pp 209 - 10)[2]

This passage cannot decide between 3.263 or any other passage in the Tractatus for an indirect reference to ostensive definition. Wittgenstein certainly

1. Hacker was subsequently to retract this particular statement, that 2.1511 could be used to support his general thesis. See 'Frege and Wittgenstein on Elucidations' Mind 1975, pp 601 - 609. See below.

2. McGuinness (the editor) has added a footnote; 'For a possible allusion to ostensive definition see TLP 3.263'.

did not say that he provided an incorrect account of ostensive definition in the Tractatus, or indeed that he had alluded to it at all. We may take the point of the remark to be that although ostensive definition seems to provide a Verbindung between language and reality it in fact does not. An instance of such a mistake may be found at TLP 5.526, which assumes everything to be "mapped out", the only thing remaining being the making of the connection between the name variables and names[1]. But this is confused since (i) it assumes that the making of such a correlation is unproblematic, and (ii) as expressed in the Tractatus, Names are required to get quantificational theory off the ground, and so cannot be consequent upon the use of quantifiers, and so of fully generalised propositions.

The ground should now be cleared for a reconstruction. Anscombe's translation is misleading, since the most natural German rendering of 'He knows the meaning of the word' would be 'Er kennt die Bedeutung des Wortes'; Moreover, there are not sufficient grounds in the text of the Tractatus to warrant the translation of 'kennen' as 'to be acquainted'. Consequently we cannot infer that to know the meaning of a word is to be acquainted with the reference (if any) of that word[2]. It is highly unlikely that Wittgenstein thought such a thing in spite of 3.203.

As Hacker was later to remark[3], it is not generally known that

1. This was suggested to me by R.M.White.

2. Once more, this is a question of the correct translation of Bedeutung. We cannot assume that it ought to be translated uniformly, even forgetting the distinction between 'meaning' and 'significance'. There are passages in Frege's writings where Bedeutung demands 'meaning' (not 'reference') as its translation. e.g., GGA I§ 33.

3. op cit Mind, p 601. I initially cited Frege's remarks on elucidation as a partial explanation of 3.263 (in my B.Phil thesis). I was consequently amazed to see most of these passages used against what I took to be the correct interpretation of Wittgenstein. As will be clear I am not inclined to alter my judgement of the nature of a Tractatus elucidation by reading Hacker's second thoughts on the matter.

Wittgenstein's notion of an elucidation has its roots in Frege. Frege never tired of saying that not everything could be defined and that when we started on a process of analysis we would finally come to elements which were logically simple[1]. How then are these simple words to be introduced into a language ? In the paper 'Erkenntnisquellen der Mathematik und Naturwissenschaft' Frege writes

> In fact not everything can be defined, but only what is conceptually decomposable - what can be composed once again from the parts obtained in the discomposition. But what is simple cannot be decomposed, and thus cannot be defined. If however, one attempts to do this, the result is nonsense. Even all definitions of function are of this sort. How does a child learn to understand its elders ? Not by already having an understanding of a few words and grammatical constructions, such that all that is then necessary is to explain to the child new things with the aid of the linguistic knowledge which he already has. In reality, all the child brings with himself is a linguistic facility (Anlage). One must be able to reckon on a co-operative understanding (entgegenkommenden Verständnis), just as with animals which are able to reach mutual understanding with humans. It is not even possible to make a logically simple content understandable without a co-operative understanding. The word 'function' provides an example.
> (NS p 290)

In a paper written some ten years before (1914), Frege wrote;

> We come to definitions. Elucidations are to be distinguished from definitions proper. When we begin science we cannot avoid using the words of our language; but for the most part these words are not properly suited for the purposes of science, because they are not sufficiently determinate and vary in their use. Science has need of terms of art, which are completely determinate and have fixed references; in order to come to an understanding about their references, and to prevent possible misunderstanding, one has to give elucidations. Certainly one can only use words of the language again, perhaps indicating similar shortcomings to the ones the elucidations were meant to overcome. So it seems that once again, new elucidations become necessary. Theoretically speaking, one at no time comes to a proper end; nevertheless, in practice they are successful in that an understanding of the references of the words is obtained. Certainly by a meeting of minds (verständnisvolles Entgegenkommen) one ought to be able to guess at what is in mind. All this however preseedes the construction of the system without being part of it. Prior to the actual construction, the law is to be stipulated that words have definite and known (bekannte) references. We can therefore in this case leave out of consideration the elucidations and concentrate on the construction of the system.
> (Logik in der Mathematik' NS p 224; cf p 254.)

1. See E-H.W.Kluge 'Frege's Begriff des Logischeinfachen' in Studien zu Frege, vol II, pp 51 - 66. (Ed) M.Schirn.
For arguments in Frege that not everything can be defined see GGA II p 148; FTA p 96; GLG I p 301; NS p 19; GB p 43.
Although the work cited above is posthumous, I think it not tendentious to suppose that W ittgenstein knew of the ideas therein expressed.

Frege makes this point in a number of other places. I shall give three more examples;

> On the introduction of a name for something logically simple, a definition is not possible; there is nothing for it but to lead the hearer by means of hints (Winke) to understand the words as intended. ('Concept and Object' GB p 43; cf p 45)

> ...There are propositions of yet a third kind [the first two being definitions and axioms] ; the elucidating propositions, which.... I should not like to consider as belonging to mathematics itself... but should relegate to the preamble, to a propaedeutic. (Letter to Hilbert 1899. FBW p 63)[1]

> Since definition is not possible for primitive elements, something else must enter in. I call it elucidation... Elucidations will generally be expressions that contain the expression in question, perhaps even several such expressions. (GLG I p 302)

Now it is hard to see how Black would want to characterise any of the above as 'disturbing' - an epithet he applies to 3.263. Clearly all these passages are consistent with Frege's rejection of piecemeal definition in the Grundgesetze (GGA I § 33; II §§ 56 - 67, 139 47; GB pp 159 - 72), since what is being propounded is the contextual elucidation of signs, not their definition. Their context however is not that of pointing, but of a proposition. Russell also spoke of elucidation (although he actually calls it 'explanation') in Principia (2nd ed; p 91), and in the preface to the Principles of Mathematics declares that the discussion of indefinables

> ...is the endeavour to make others see clearly the entities concerned, in order that the mind may have that kind of acquaintance with them which it has with redness or the taste of a pineapple. (PoM p xv)

It is thus possible that Russell imagined ostension to enter into the procedure somehow, but just how ostension is to enter into pure mathematics is (to say the least) unclear, especially when we also take into account

1. This letter has been published in part in KS pp 407 ff, a translation of which was published in On the Foundations of Geometry and Formal Theories of Arithmetic (Ed & Tr) E-H.W.Kluge, pp 6 ff. The whole letter is to be found in the Briefwechsel, in the context of Frege's other correspondence with Hilbert.

Russell's philosophy of mathematical objects. One thing however is clear, and that is that Frege would not have been tempted to speak of ostension in this connection.[1]

In the article referred to, Hacker lays great stress on the supposition that Frege was presupposing ordinary language by the use of his elucidations, thus attempting to drive a wedge between Frege and Wittgenstein. This is only partially true as the first quote above shows. There Frege showed himself not to be concerned purely with the introduction of primitive terms into a Begriffsschrift, although naturally, that was his main concern. Hacker's objection points to the suggestion that Frege was using a meta-language in which the terms for the indefinables of the object language were used; certainly, if it were a matter of definition, such a view might be made out, but as is clear in both Wittgenstein and Frege, no such procedure is allowed. Frege's grounds for speaking of elucidation were the same as Wittgenstein's - namely, that we cannot define everything (at least not without at some point entering a vicious circle), and so in order to make ourselves understood, we have to stop mentioning words and use them. In this sense of course we presuppose ordinary language, but objecting to this is plainly silly. It is no objection to the use of language to teach language that we have to use some language; what it does mean however, is that the conditions imposed upon such a process are such that in a certain sense I cannot use language to teach language. It is simply false to think that I cannot use language in any sense to teach language.

One point needs to be made concerning Frege's attitude to such elucidatory sentences. There is I feel a gap between the soundness of the principle which Frege invoked, and his characterisation of it; that is, it seems that on occasions Frege would be prepared to countenance the

1. FGA p 115. 'In arithmetic we are not concerned with objects which we come to know as something alien from without through the medium of the senses, but with objects given directly to our reason.' And even more strongly: 'Pure mathematics has nothing to do with experience' 'Rezension:Cohen Infinitesimal-Methode' (1885) KS p 101

possibility of two people never being in a position where they could realise that they attached the same or different senses to one and the same word, whilst admitting that what they had succeeded in doing was to attach sense to such words. (Theoretically, the provision of elucidations may never come to an end). This attitude is unacceptable, since it seems to allow that sense could be something irreducibly subjective. However, the principle may be retained whilst rejecting these frills. That is, we may assert all the more strongly that all there is to there being sense is that words are used in the same way by different people, and this constant usage shows us what having the same sense amounts to.

Frege's principles of definition perhaps led him to consider that every means of introducing a primitive term into a language which was not that of explicit definition, was ipso fact an elucidation, and as such belonged only to the propaedeutic. This could have been a mistake, but one which did not lead Frege into any particular philosophical confusions, except perhaps that it was connected with his doctrine against the acceptability of partial functions. The two of course bear one on the other, but may be distinguished.

At any rate, any problems there might be in the notion of an elucidation are certainly not as Hacker supposes, analogous to the Private Language Argument. If I teach someone the meaning of a word by using it then such a word cannot be part of any private language. I know what I mean by the term because I am already a member of the speech community in which the word in question has its home. Frege does, from time to time suggest that we only use elucidations when we are concerned with communication, but there is a sense in which, considering Frege's preoccupations about a Begriffsschrift, we can be led to agree without thinking that we have been led willy nilly into the snares of a private language. Hacker provides no ground for his supposition that Frege did not know what he meant by the elucidations, or that the words which were being explained could not

be thus explained.

But how does Frege's concept of an elucidation fit in with the Tractatus ? Wittgensteins says at 5.451 that Frege's remarks concerning the introduction of signs by means of definition apply mutatis mutandis to the introduction of primitive signs. (The question is how to read the 'mutatis mutandis'.) That Wittgenstein begins 5.451 by speaking of primitive ideas, and concludes by speaking of primitive signs is not here important, for what Wittgenstein is demanding is not, of course, that primitive signs must be introduced by means of definition (for that possibility was excluded at 3.26) but rather that, what holds for the introduction of concepts in Frege's writings ought to hold for the introduction of the primitive signs of the Tractatus. It is thus not definition or the practice of definition which is all important, but the result of definition, and the motive for which the signs were introduced. Viz, that every sign ought to have a reference, that the same thing not be defined twice, that the sign defined is a simple sign - that is, not composed from any familiar sign or signs which are yet to be defined. These last two injunctions were made in the fear of our not knowing whether definitions we had made were consistent with each other. This latter problem did not arise for Wittgenstein (either in the Tractatus or in the later writings on mathematics - he would have said after the Tractatus that we merely had to make an adjustment) since according to him, we cannot understand a proposition in which two Names occur without knowing whether they signify the same thing or different things; this presumably holds in the case of two propositions, where each includes a different Name (TLP 4.243).

Such contextual elucidation spoken of does not sin against contextual definition, a notion which Frege repudiated in the Grundgesetze (GGA II § 66) and often indirectly in Grundlagen (GLA pp 8,25,41,46,119) where the confusion between a definition and (what is in fact) elucidation is castigated.

It is no objection to elucidations that they may be misunderstood,

for the demand at 5.451 amounts to the demand that when the elucidations are understood, they are understood completely. When we have understood the meanings of the primitive signs, it follows that we will have grasped the rules which specify the legitimate occurrences of such signs in propositions, since any possible proposition is legitimately constructed. Thus the connection between logical form and meaning becomes tighter and clearer; we do not envisage two processes - learning the meaning of a primitive sign and learning in which contexts it can be used, for these stand or fall together. Also, since knowing the logical form of a primitive sign consists in understanding its possible occurrences and connections in propositions, we can return to the notion of knowing an Object, and read of the parallelisms there.

If this presents a paradox, it will be one which is present on the learning of any language, and necessarily present in the learning of a first language, for, in a certain sense, I cannot teach, and so cannot learn, Language. Clearly it is not being said that we must understand sentences before we understand the words in them, and vice versa. Nor does a child who is taught to speak a first language receive training at any important level of creativity, (i.e., later ability depends on training but is not itself the immediate manifestation of such training).

Suppose I give a number of elucidations (or perhaps only one) which includes a primitive sign, whose grammar - that is, logico-syntactic employment - is perspicuous,[1] then the category of the sign to be understood will be understood from its positioning in the sentence (or by some other equivalent means); will be shown by its employment.

1. Naturally we cannot talk about the perspicuity of the grammar of one sentence, but about the grammar of a language, or the grammar of a part of speech, or some other (perhaps semantically determined) groups. One of Wittgenstein's examples of symbolic perspicuity is the prohibition on (say) 'green' occurring both as an adjective and as a proper name. But it is clear that such an example has only minimal application, since a language may be quite free of semantic and categorial homonyms, yet possess a grammar which is lacking in perspicuity. Moreover, the sort of grammatical perspicuity which Wittgenstein is imagining would certainly have systematic benefit in the realm of language teaching.

Wittgenstein's categorial grammar (if we may so call it) is given no formalisation, but his account of perspicuous symbolism demands that it should not be possible to write down nonsense; this amounts to saying that any such nonsense would show itself to be such. This in effect means that an expression of the form 'Fx' has a range of significance, although of course, this is not how Wittgenstein expresses it. It becomes clear that at this point the connection with the Tractatus and Russell's Theory of Types arises. The Theory was designed to say (as any theory is one supposes) that certain combinations of names and predicates did not make sense. Thus Whitehead and Russell in Principia write

> But whatever function ϕ may be, there will be arguments x with which ϕx is meaningless, i.e., with which as arguments ϕ does not have a value...A type is defined as the range of significance of some function.
> (PM 2nd ed, p 161)

Wittgenstein objected to the Theory of Types, because he thought it was trying to say what could only be shown by the use of signs; there could be no Theory of types. The following remark is the last of a long series dealing with the principles of symbolism, which begins about 3.263.

> To stipulate values for a propositional variable is to give the propositions whose common characteristic the variable is... The stipulation will therefore be concerned only with symbols, not with their meaning.
> (TLP 3.317)

In order to avoid confusion between signs (what can be perceived of a symbol) and symbol (which consists in the mode of signification and its rules of application cf 3.326), we must make use of a symbolism[1] which does not use the same sign for distinct symbols, i.e., a symbolism[1] which is governed by logical grammar, by logical syntax (3.325).

> In logical syntax the meaning of a sign should never play a role...only the description of expressions may be presupposed.
> (TLP 3.33)

1. Zeichensprache; Pears and McGuinness translate as 'sign language'. cf CKO p 25.

Russell was therefore criticised, since in order to give an account of the Theory of Types, he had to mention the meaning of the expressions which could or could not be combined. Thus the theory tried to say what could only be shown, for the meaning of the signs would be shown by their logico-syntactic employment, by exhibiting the category of the sign. It is thus clear how the elucidations are meant to function; they are to exhibit the logical form of primitive signs, and the Objects for which they stand. Black's "criticism", that Wittgenstein himself has a Theory of Types, misses the mark[1]. He cites the Philosophische Bemerkungen § 7 ; 'Grammar is a "Theory of logical Types"', but does not continue with the next (telling) remark;

> I do not call a rule of representation a convention if it can be justified in propositions...Any such description [of what is represented] already presupposes the grammatical rules.

That is, the grammar cannot be represented, and what is represented cannot be given by a specification of grammar; any sense there might be will and can only be shown. Thus Wittgenstein remarks:

> The words 'colour', 'sound', 'number' etc could appear in the chapter headings of our grammar...their structure is given in the chapters. (PB § 3)

When we turn to the correlates of Names (primitive signs) - viz Objects, the following remarks should be noted;

> If I am to know an Object, though I need not know its external properties I must know all of its internal properties. (TLP 2.01231)

> If two Objects have the same logical form, the only distinction between them, apart from their external properties are that they are different. (TLP 2.0233)

> We can describe the world completely by means of completely generalised propositions, i.e., without first correlating any Name with any particular Object. (TLP 5.526)[2]

1. Max Black, Companion p 146

2. cf NB p 53: 'One cannot achieve any more by using Names in describing the world than by means of the general description of the world! Could one then manage without Names ? Surely not.' It is arguable that 5.526 is a relic of earlier views about genre pictures, but it could also be a criticism of some of Russell's views about knowledge by acquaintance; it now appears unnecessary to be acquainted with every constituent of a proposition in order to understand it.

Now the internal properties of a Name will be shown by its logico-syntactic employment, not by anything we might ordinarily be said to describe about an object; what we can describe are its external properties. In the elucidation, the logical form of the sign, and thus the Object for which it stands is shown by the logic-syntactic employment of the sign. But in order to exhibit the logical form of a sign we have to use it in a proposition which says something about the Object, namely gives some of its external properties. Thus, quite simply, elucidations are true propositions which say something about an Object and which show something about the type of Object it is. (Cp 'Grammar tells what kind of object anything is.' PI § 373)

I shall now fulfil my promise to give an account of Bemerkungen § 6, whose connection with 3.263 I do not dispute. It seems clear that the elucidations of the Tractatus are the form of words 'This is A' or 'A is ill' (or indeed any proposition) which include the word(s) to be elucidated, when used as a proposition. This distinction could not have been clearer in the Tractatus, and if more evidence were needed (which it is not) the references to Frege should clinch it. If it were to be objected that Wittgenstein failed to make a distinction between a definition which remains within language, and one which aimed to get outside language (namely, on some accounts, ostensive definition), we have no reason at all to lay this charge at the door of 3.263, since this passage gains the sense it has from the assertion that primitive signs cannot be defined. And this remains true in spite of the Wiener Kreis passage about there being a Verbindung between language and reality.

The elucidations are given prior to the effective use of ostensive definition, a point which the Bemerkungen passage drew attention to. The misunderstanding of ostensive definition can arise in one of two ways; either by a misunderstanding of the grammar of the form of words which is used, or by a failure to discern the object or quality being ostensively defined. It is in this sense that an understanding of an elucidation will

obviate the first type of misunderstanding of an ostensive definition.

That the term 'ostensive definition' does not occur in the Tractatus is no surprise, disregarding the fact that the term was not in use at the time of its composition.[1] For it is likely that ostensive definition would have been regarded as a psychological embellishment on a most austere theory of symbolism. (This was a certain confusion of Wittgenstein's, but we do not know if this was the one to which he was drawing attention.) But an elucidation (of the sort described) would not have been regarded as a psychological embellishment, since it is an application of the nature of symbolism to 'show forth' its form (and sense); although Wittgenstein was concerned very little in the Tractatus about understanding (that is clear in his account of Names) he would not, I venture to suggest, have considered the question of understanding a language as completely irrelevant to a philosophical concern.

It is interesting to note that Waismann in his Thesen, when talking of two ways of explaining the meaning of a word, talks of definition and Aufweisung, saying that the latter is to be used in conjunction with pointing (WWK p 246). It might be significant that he did not use the term Erläuterung, which, although a common enough German word, had attained a semi-technical sense in Frege's writings.

Whatever WWK p 209 refers to, more than 'meagre' evidence has been put forward to show that 3.263 is not alluding to ostensive definition, and it is remarkable that Hacker should appeal to PB § 6 in his claim to the opposite, for the one is naturally taken as a comment and amplification of the other; but I find his use of Frege's mention of elucidation baffling.

It is well known that in Wittgenstein's later work he used the term 'grammar' and 'grammatical proposition' a good deal. Although he gives very few examples of grammatical propositions[2], they are clearly related

1. Cf Hacker Insight & Illusion p 49. The term was introduced by Johnson in 1921

2. e.g., PI 248,251,252,295,360,458,574: Z 208,427,491,717: RFM pp 57, 164,182: PB pp 153,302: PG pp 45,128,129,350: LFM pp 248,250:

to elucidations. There is a difficulty in actually saying what Wittgenstein's views about grammatical propositions were. He never really characterises them, and as Moore remembers, in one place called them tautological, but this I think cannot be right; or at least, if it is, Wittgenstein had changed his concept of a tautology radically.

Space forbids an extended investigation on this topic, but it seems that the major problem we have to deal with is that if we say that a grammatical proposition says something (or shows something) about the meaning of the words they contain, it is not clear whether such a criterion effects any contrast at all. What a grammatical proposition seems to be (or at least the place it seems to occupy) is that of half way between a definition and an elucidation. Certain sorts of elucidations which - as it were - express internal properties of the objects concerned. For example, 'A sofa is longer than a chair' (LFM p 250), or 'Every body has extension' (PI 252) are no doubt truths, but they are clearly different in kind from ordinary truths of the form 'This object is longer than that one', or 'The extension of these two bodies is equal'. But sketching just what the difference consists in is not my present concern.

CHAPTER FOUR THE DOCTRINE OF SAYING AND SHOWING

1 SAYING AND SHOWING

2 SELF-EVIDENCE AND SHOWING

1 SAYING AND SHOWING

Although we have seen how, according to the Tractatus, that an Object exists cannot be said, and whether something is a proposition[1] cannot be said but will be shown by its use, we are left with many problems in this context. Not only have we made no sustained criticism of the doctrine of saying and showing[2], but we have as yet to give an account of sense and truth in relation to the distinction. This involves an examination of tautology and contradiction, as well as reference to the Tractatus account of ethics; ethics is said to be 'made manifest' (sich zeigen), for it 'cannot be put into words' (6.42).

In fact the doctrine is made to do an enormous amount of work besides those just mentioned. It is involved in the order of the ancestral relation, in the definition of number, in the rejection of the Axiom of Infinity, in the discussion of the possibility or impossibility of philosophical monism or dualism, the nature of internal and external relations, the nature of causality, questions concerning the possibility of certain types of analysis (e.g., those of subject predicate sentences), and the nature of formal properties and concepts. In nearly all of these cases, Wittgenstein objects that the problems have been misput and misunderstood, with the consequence that the answers given are nonsensical. That is, unless the logic of Language is understood, there will exist a continual striving to say what can only be shown. Naturally this does not mean that we have no idea about the logic of Language. We can communicate, and thus in one clear sense, understand language. But Wittgenstein objects that in so doing, we do not understand the essential thing: that language has limits.

1. It should now be clear that the term 'proposition' in the Tractatus is another technical term, whose extension is (non-contingently) the same as 'that which can be said'.

2. As in the title of this chapter, the word 'doctrine' occurs in the singular; saying and showing are two sides of the same coin.

We might want to say '"2" is a numeral' (perhaps only when doing philosophy) but this is shown in the symbol 2, by the fact that it is used in propositional contexts which confer upon that sign the formal property concerned. (The same goes for '2 is a number'.)

I will try to make this clear by reference to the notions of tautology and contradiction. There are two sections in the Tractatus which deal with tautology; the first, from 4.46 to 4.4661 follows on from the account of truth functions, and the second, from 6.1 to about 6.127 deals with tautologies as the propositions of logic, and with the nature of inference, which leads onto a discussion about the nature of equations in mathematics. Tautology and Contradiction say nothing; they show that they say nothing. Neither are nonsensical, but both are senseless (Sinnlos). The propositions of logic have no content, no subject matter - something which can be recognised from the symbol alone. The truth of tautology is certain - not to be confused with general validity, as did Russell (PLA p 231, Mysticism & Logic p 150). Thus the axioms Russell had to introduce, those of Infinity and Reducibility, were not as far as the Tractatus was concerned propositions of logic, since their truth, although possible, is only possible.

The propositions of logic depend for their significance on the fact that the propositions which they take as arguments have sense. A contradiction is thus the cancelling of sense of the constituent propositions; a tautology directs the sense all one way (cf 6.124). That no comparison with reality is required in order to determine the truth values of logical propositions is claimed by Wittgenstein to show the formal-logical properties of the world (6.12). Wittgenstein does not say what these properties are (had he done so he would have said that it could not be said), but they are I think connected with the notion of a limit. The limits of language are jointly determined by the Objects which comprise the world, and the truth-functions of elementary propositions which make reference to the Objects. But we cannot say what the world must be like; all we may say is what it

is like, and given truth functions, what it could be like. Any attempt to say more is to suppose that the limits of the world are other than they are, which would result in our drawing the 'bounds of sense' from two sides. This is the reason for Wittgenstein aiming to draw the limits to the expression of thought, for an attempt to set the limits of thought itself supposes that we could observe the world sub specie aeternitatis.

If we now return to the domain of ordinary propositions, matters may be less opaque with regard to saying and showing.[1] Including the preface (very much part of the book), the phrase 'cannot say' occurs 6 times; from these passages it appears that 'what can be said' and 'what can be shown' are mutually exclusive and jointly exhaustive[2]. Moreover, what cannot be said cannot be thought either (5.61), which leaves unclear the relation of the thinker to what is shown. 'Thought' is used in a technical way such that it follows, perhaps as a matter of definition that the extension of the concept 'what can be thought' is equivalent to the extension of the concept 'what can be said', and so it has to follow that the propositions of the Tractatus will eventually be regarded as nonsensical; they are on their own saying trying to say what cannot be said. But it is

1. I have chosen to look at the propositions of logic rather than (say) formal concepts, for once the point is made in relation to formal concepts, its immediate force is expended, apart from considerations which are peculiar to them. An incomplete list of such concepts would include 'number', 'Object', 'proposition', 'concept', 'property', 'fact' and also parts of speech like 'Name' and 'relational expression'. cf AT pp 122 ff.

The distinction between zeigen and sich zeigen should be noted; Pears and McGuinness translate these terms as 'to show' and 'to be made manifest' respectively. The difference between them may just be that of reflexive and non-reflexive verb, a distinction which perhaps covers no important point. Although there are contexts where they seem to be used interchangeably, 'zeigen' is used predominantly with respect to symbolism, sense and inference, and 'sich zeigen' is used with reference to empirical reality, solipsism, causal laws, and the mystical.

2. When Wittgenstein says that we cannot say what an illogical world would look like, he is not saying that we could show what it would look like, but is simply denying that there is something (i.e., what an illogical world would look like). Thus he is not saying of it that it can not be described or shown (3.031).

perhaps to be guilty of confusion to argue that such elucidations (the elucidations of 6.54) are nothing but nonsensical scratches on paper. For utter nonsense could hardly be said to elucidate anything; but the elucidations (of 6.54) show themselves to be useful (like the ones of 3.263). This is not a satisfactory conclusion (if any is possible at all) to the penultimate remark in the Tractatus, for Wittgenstein spoke of the thoughts which he thought himself to have communicated as true. Nor is it an adequate defence to say that not all the remarks in the Tractatus are nonsensical, allowing for a few remarks which are either true or false and a number of stipulations, for the vast majority of remarks in the Tractatus have to do with formal concepts - are trying to say what could only be shown. At any rate, it does not follow from the thesis that there are certain things which cannot be said that any formulation of that thesis will be necessarily self-stultifying; it all depends on what is being denied, and on the formulation of the limiting thesis.

In commenting upon the fact that we understand the sense of a propositional sign without its having been explained to us, we are told the following:

> A proposition shows its sense
> A proposition shows how things stand if it is true. And it says that they do so stand. (TLP 4.022)

Later at 4.461:

> Propositions show what they say: tautology and contradiction show that they say nothing.

The final seminal remark is of course 4.1212:

> What can be shown, cannot be said.

Care must be taken to distinguish 'show what' from 'show that', otherwise 4.022 and 4.461 will contradict each other.[1] In the Tractatus, as in the Grundgesetze, the sense of a proposition is given by the conditions under which it would be true; what is shown is then such a configuration of objects, but only as a possibility, for no proposition can show that it is itself true, unless it is a proposition of logic. Thus, when we present a

1. Taken in conjunction with 4.1212

state of affairs as holding, we show which state of affairs it is we present. What is shown is not that they stand, but what it is which is *said* to stand. A proposition cannot say anything about itself, for the question would always arise: *which* proposition am I to compare with *what* in order to come to a decision about its truth ? One instance where such consequences appear not to follow is when we have a proposition of the form 'p is true'. But here, either the 'is true' is superfluous, or it renders the whole sentence nonsense, due to a failure to distinguish between the use and mention of the sentence p.

But what then can it mean to say that a proposition *says* that the Objects mentioned therein do so stand ? If we were to speak like Shwayder[1] and Schwyzer[2], both of whom construe a *Satz* as an assertion - not something which is used in making an assertion - then it appears that we have found a simple solution. For in presenting a state of affairs to be the case, the *assertion* that such and such state of affairs held would be internal to the proposition (and consequently there could be no unasserted propositions)[3] which makes it clear that it is not an accidental property of a *Satz* that it is asserted. But it *is* accidental that 'p' is used to assert what '¬p' might be used to assert, and this certainly ought to create a problem for Schwyzer who says:

> Wittgenstein never speaks of our using *Sätze*, of us holding up pictures. Why not ? (*CB* p 273)

But this is simply false. At 4.062 we find:

> For a proposition is true if we use it to say that things stand in a certain way, and they do: and if by 'p' we mean '¬p' and things stand as we mean they do, then construed in the new way 'p' is true, not false.

1. D.S.Shwayder 'Critical notice of Stenius' *Mind* 1963. Also in *CB*.

2. H.R.G.Schwyzer 'Wittgenstein's Picture Theory of Language' *Inquiry* 1962.

3. This clearly does not accord with Frege. See *Begriffsschrift* § 2: especially the footnotes in the translation in van Heijenoort *From Frege to Gödel; A Source Book in Mathematical Logic*.

This does not mean that the primary use of a Satz is not assertion, but we are debarred from identifying the two[1]. A Satz is better construed as a sentence in the indicative mood, to which different forces may be applied. This is true even though Wittgenstein never speaks of any other mood in the Tractatus other than assertion. In no wise does this controvert the point made by Dummett that the only way truth (and thus sense) obtains purchase on propositions is via assertion; that shows however, that it is an internal property of propositions that they can be asserted, not of each and every proposition.

That such and such is the case cannot be shown by the proposition the use of which says that it is. (Wittgenstein does not speak of the sorts of sentences Austin characterised as 'performatives', limiting as he did the extension of the concept Satz to those sentences which could be used to state facts.) A proposition is found to be true only by a comparison with reality[2].

At least we have a clear example of something which can be said but cannot be shown; in denying that what can be shown can also be said, Wittgenstein must also, I think, be taken to be denying the converse. So, that a proposition is true can be said but not shown. And what states of affairs we present can be shown but not said. But whether what can be shown cannot be said überhaupt is another matter, and it is not at all clear to me how we could set about proving (or even indicating, such a conclusion.

Let us turn to one half of the problem - whether what can be shown cannot be said. In the first place, the phrase 'what is said' is ambiguous; for one may describe what was said without actually using the words (or a strict translation thereof) which were actually employed in the saying.

1. Schwyzer op cit 'A Satz ...is an act of speaking...the Satz is the use of a Satzzeichen. (CB p 282)

2. Wittgenstein does not concern himself with verificationism in the Tractatus; the closest he comes to it is in 4.063, but I think that that is but a superficial impression.

Suppose someone says: 'I shall arrive at 10 o' clock'; I may truly report his utterance (report what he said) by saying 'He said what time he would arrive' without my having to specify the actual time.

In precisely the same way, we can deal with the phrase 'what is shown'. In the first place, we could say what it is which is shown in a way which Wittgenstein thinks impossible, but the other way is to provide a description of the sort of thing which is shown, i.e., provide the concept under which the various things which are shown, fall. We could speak, not of showing objects, but of showing that: so for example, we might say that language shows <u>that</u> there is a common structure between it and the world, but in so saying we have not specified <u>which</u> structure, nor indeed could we do.

Wittgenstein considers in various places in the <u>Notebooks</u> the idea that in order to say what could only be shown - and usually he is here thinking of topics like common structure - the language used in such an attempt would have to be 'illogical', or it would entail an infinite regress. Russell opted for the latter (in his introduction) but did not think the regress vicious. Given the premiss that language and reality <u>must</u> have the same logical form if one is to depict the other, it is difficult to see how Wittgenstein's conclusions could fail to flow. For in order for a picture to depict a <u>form</u>, it must supposedly have something in common with <u>it</u> - thus appearing to lead, either to an infinitude of forms or to the supposition that we always deal with the same form. But in fact all this is not as mysterious as it seems. If we construe the relations between <u>Tractatus</u> objects along the line of a Fregean function, then the supposition that we cannot say what such a common structure would be amounts to the claim that there is an irreducible difference between objects and functions. We depict reality which consists of objects, and it is these objects which determine the form of any picture which depicts them. But concerning the

form which (putatively) holds between a picture and the reality it depicts, we cannot say of 'it' that it is an object, or a fortiori that it is a collection of objects.

But which states of affairs would render any proposition claiming to represent a common structure true or false ? If there just is no saying which form holds between language and reality, then of course the question of the comparison of this sort of proposition with reality cannot (logically) arise. It is for this reason that the sentences of the Tractatus are claimed to be nonsense - possibly a misleading term, since it soon came to mean 'gibberish' or something of that sort, in virtue of this impossibility of determining the truth of any such statement. But we can invoke no such scruples against the Tractatus itself; the impossibility of such a check arose not because of any human failing but because of the logical impossibility of providing sentences, the truth of which would on the one hand confirm the thesis (that there is a common structure) but on the other, show the thesis to be false. A simple reductio.

If we turn to those parts of the Tractatus which deal with das Mystische, we are presented with what seems, to some degree, simply a different book, and possibly a different conception of saying and showing. The synthesis of the Picture Theory and the philosophy of Schopenhauer does not seem obligatory. The Picture Theory does not demand that the 'higher' is made manifest, for it does not entail that there is anything 'higher' to be manifested. Should then the so-called mysticism of the Tractatus be regarded as inimical to the rest of the book ? Certainly not. It is feasible to suppose that much of the Tractatus was aimed, not at justifying ethics, but at redeeming the ethical. In a letter to von Ficker, Wittgenstein was to write:

> The book's point is an ethical one....I meant to write.. 'My work consists of two parts: the one presented here plus all that I have not written. And it is precisely this second

> part that is the important one....I would recommend you to read the preface and the conclusion, because they contain the most direct expression of the point of the book.[1]

Since the propositions of natural science could include nothing of ethical concern - at least in the starkly non-naturalist outlook of the Tractatus - the ethical was considered to be freed from the tutelage of the empirical. Ethics for Wittgenstein was something which was 'higher', something which had no relevance to what, particularly, was the case, but was not on that account devoid of importance. If however, the ethical is to remain important, it does so only by coming into contact (in the ordinary sense) with human beings; Wittgenstein described this as the ethical showing or manifesting itself. We do not have to assume that Wittgenstein was reifying the ethical, or that his language demands that we conceive of the ethical as an actor waiting to come on stage. By the ethical becoming manifest Wittgenstein means nothing more than aspects of the world will strike us which pertain not merely to combinations of objects.

Although then, the notion of saying and showing which we find throughout the book form a single theme, we cannot be right in thinking that the mysticism of the Tractatus is 'the natural and necessary completion of the earlier parts of the book'.[2] Yet they are closely related, in more ways than the obvious fact that much of the language of the later parts of the book was used systematically in the earlier parts in presenting the logical doctrines.

1. This letter is printed in Letters from Ludwig Wittgenstein, with a memoir by Paul Engelmann, p 143. It is not clear just where the self quotation ends, so I have only indicated where it begins. But one must remember that the letter was written in the hope that Ficker would publish or aid the publishing of the Tractatus

2. E.Zemach 'Wittgenstein's Philosophy of the Mystical' Review of Metaphysic 1964, reprinted in CB, p 12

2 SELF EVIDENCE AND SHOWING

There are occasions in the Tractatus where the use of zeigen indicates something akin to self-evidence, but it is my contention that this notion is not, in general, what is meant. Moreover, the notion of self-evidence is not unitary, encompassing a selection of conceptions. The account of self-evidence which Wittgenstein criticised was that which took self-evidence to be the mark of a logical proposition, or a primitive proposition of logic, as for example, when he criticises Frege at 6.1271. Kenny[1] has remarked concerning this passage that Wittgenstein, in the space of a sentence, has changed from a counterfactual to a categorical; Kenny intends us to think Wittgenstein unfair to Frege for so doing, all the more so, since as he points out, Wittgenstein himself uses the notion of self-evidence when criticising Frege.

If we scrutinise not only 6.1271, but also the works of Frege, we see that Wittgenstein is not just basing inferences on what Frege might have said, but is basing his criticism on what he did say. Frege distinguishe self-evidence from intuition; he distinguishes geometry from other areas of mathematics in this respect; and he distinguishes between axioms and rules of inference also. In Grundgesetze (vol I, Einleitung) Frege tells us that in Grundlagen he sought to make it appear probable that arithmetic was a branch of logic, and that it has no need to borrow any ground of proof from experience or intuition (Erfahrung, Anschauung). In Grundlagen Frege criticises those mathematicians who do not enquire into the nature of self-evidence (Einleuchten)to see whether it be logical or intuitive (§ 90), and then explains that the purpose of his Begriffsschrift was to

1. A.Kenny 'The Ghost of the Tractatus' in RIPL vol 7, pp 3-4. Kenny does not draw the distinctions outlined above.

enable the construction of a proof without any premiss creeping in unawares; in this way Frege believed himself to have given proofs of many propositions without 'borrowing any axiom from intuition (FGA § 91).[1] Frege does not completely eschew intuition, for he is happy to introduce it in various discussions of geometry (e.g., FGA § 109; FBW pp 61,63,163; FTA p 95), and rejects it from the domain of arithmetic. For example;

> I regard it as a great service of Kant's to have recognised the theorems (Sätze) of geometry as synthetic judgements, but I cannot say the same about his contribution to arithmetic. The cases are really quite different. The domain of geometry is that of spatial intuition; arithmetic knows no such bounds. (Letter to Marty 1882, FBW p 163)

It goes without saying that axioms, being true, cannot contradict each other, unlike definitions, which assert nothing, but rather stipulate that the reference of an unknown expression is to be the same as one already known. In this connection, Frege speaks of self-evidence, which we must suppose to be different from intuition.

> One can make out of [a] definition a self-evident proposition which is then to be used like an axiom. (..kann man aus der Definition einen selbstverständlichen Satz machen,..) (Letter to Hilbert, FBW p 62)

> Once a word has been given a reference by means of a definition, we may form self-evident (selbstvertändlichen) propositions from this definition which may then be used in constructing proofs in the same way in which we use principles.(GLG p 320)[2]

1. Even so, Frege's reasons for holding to this attitude are interesting; 'We may borrow no ground of proof from intuition; for it is a canon of scientific parsimony to use no more resources than are necessary'. After the first clause there occurs a footnote; 'But on the other hand, intuition, employed as an aid in the consolidation of ideas (Vorstellungen) is permitted.' ('Booles rechnende Logik und die Begriffsschrift' NS p 36) But note also another of Frege's remarks: 'I would not like the truths of geometry, especially the axioms, to be entrusted to facts of experience; at least, if it would then be said that they are founded on sense perception.' (Letter to Jourdain 1910, FBW p 119)

2.cf. 'Rechnungsmethode' in KS p 54: 'Die zu betrachtendes Methode gründet sich auf den unmittelbar einleuchtenden Satz, dass wenn die Formel...' A 'principle' is a proposition whose sense is an axiom. Thus, although Frege claims that propositions are not true, after they have been introduced they are to be treated like axioms (which are true); the difference between them lies in their respective methods of introduction to the system.

Since Frege demanded that intuition could not enter into arithmetic, it did not follow that he would not allow self-evidence any position. In fact he appealed to self-evidence as a ground of axioms. In the second appendix to Grundgesetze, Frege remarks that he has never disguised from himself the fact that axiom V lacks the self-evidence (Einleuchtens) which must properly be demanded of a logical law. This agrees with what he was later to write in 'Logik in der Mathematik':

> The proof ought to convince, not only of the truth of that which is proven, but ought to uncover the logical interconnections of those truths. For this reason, Euclid proved truths which do not seem to need proof; for they are self-evident without it. (NS p 220)

But later in the same paper he says:

> In mathematics one must not be content with the fact that something is self-evident, or that one has convinced oneself of something, but one must strive for a clear insight into the texture of the inferences which serve as support for that conviction. Only in this way can primitive truths be found, only in this way can a system be constructed. (NS p 221)

Frege is here making a distinction between self-evident rules of inference and self-evident truths (axioms - what in Grundgesetze Frege had called a 'logical law') , rejecting the former as improper, but accepting the latter. (Later in the same article, Frege appeals again to self-evidence, saying that the fact that a complex expression agrees in sense with a simple sign which has been in use for some time is immediately self-evident, not to be accepted by an arbitrary stipulation NS p 226)

Now, as far as I know, Frege nowhere argues for any other criteria for something being an axiom; so Frege would have said that had we 'constructed the logical product of Frege's primitive propositions', that we no longer would have had an immediately self-evident proposition. This is true quite independently of the grounds for such an attitude.

Wittgenstein in the Tractatus was concerned to attack the idea that there was a basis for logic; that it ought to be constructed by choosing a set of axioms and rules of inference, primitive propositions and definitions. The propositions of logic for Wittgenstein (something which

later lost all hint of the controversial) were tautologies, and show themselves to be such by the fact that their truth can be determined independently of a comparison with reality. In understanding a tautology we must also understand that it is a tautology. How then does such a notion of 'showing' differ from that of self-evidence ? And to what extent is Wittgenstein justified in using the notion of self-evidence himself - especially, as Kenny indignantly remarks - in criticising Frege?

To deal with the second point first; Wittgenstein says that it is self-evident that $\vee$, $\supset$, etc are not relations in the sense in which right and left etc. are (TLP 5.42), and at 5.461 he calls $\vee$, and $\supset$ pseudo-relations, on the ground that they (unlike real relations) require brackets.[1] Leaving aside for the moment whether it is true that there are significant distinctions to be drawn between truth functional constants and 'real' relations, it does not follow that because self-evidence may be criticised as a basis for logic, that it can never be used, or appealed to. At one level the appeal to self-evidence may in fact hide the rejection of the appeal for a justification; but it is misleading to talk of self-evidence, or intuition, or appeal to the 'natural light of human reason' or whatever, because it makes it appear that there is a justification which can be given, but must (or minimally, can only) be given in this form. In general no justification is necessary, or where one is possible it will be possible independently of an appeal to such devices. However, I do not dispute the effectiveness of such an appeal in every case; viewed that is, as a suasive argument. The argument behind Wittgenstein's distinction between 'real relations' and 'pseudo-relations of logic' seems to me that the real relations are

1. Russell had written in PoM § 30: 'Mathematics requires, so far as I know, only two other primitive propositions, the one that material implication is a relation, the other that ϵ (the relation of a term to a class to which it belongs) is a relation.'

considered to be in rebus, whereas, it is clear that that is not true of a truth function; Even if we construe facts as real individuals, it is only then an accident that a truth function connects two such individuals, since it would only be an accident that the states of affairs concerned held. In this sense, it is not possible to argue seriously that we have convicted Wittgenstein of intellectual dishonesty, or even of confusion. We must ask what lies behind an appeal to self-evidence in order to come to a conclusion about its legitimacy.

In fact, subsequently Wittgenstein says that the interdefinability of the logical constants show that they are not primitive signs - something which follows from 3.26.

In order to answer the second question, a comparison with Russell is necessary. The self-evidence of which Russell spoke, it is true, differs from that of which Frege spoke. In the Principles of Mathematics Russell objects to the introduction of the Kantian notion of intuition into mathematics (PoM pp 260,399,456)[1], but in The Problems of Philosophy (chapters 11, 13) Russell uses the words 'self-evident' and 'intuitive' interchangeably, speaking of self-evident truths of logic, memory, perception and ethics. Russell's conception of self-evidence is clearly psychologistic; he talks of various degrees of self-evidence, and moots the possibility that one such species is a guarantee of truth. The relation between such a species of self evidence, and lesser degrees of self evidence would however

1. In Introduction to Mathematical Philosophy (p 154), Russell again objects to the introduction of Kantian intuitions, since nothing ought to be needed in mathematics except strict deductive logic after the premisses have been laid down (my emphasis). Russell thus does not draw a distinction between arithmetic and geometry, as Frege had done, something which is shown by Russell citing Kant's axiom of parallels (cf Kant Critique of Pure Reason A 713, B 741; Prolegomena § 7) In a TS called Theory of Knowledge, which consists of the remainder of a book, the first part of which being published in the Monist, Russell considers that acquaintance with the logical form of a proposition may be called 'logical intuition'.

be one of gradation, not one of type.[1] Such an attitude is inimical to Frege's. Wittgenstein's conception, as applied to tautology is an all or nothing affair; a tautology cannot be understood without its being understood as a tautology, and, in the case of contingent propositions, if I present a state of affairs as holding, the proposition I use in so doing cannot be understood unless what is shown by that proposition is understood - namely its sense. But when put like that, the doctrine loses any of its psychologistic overtones, and becomes (in the later jargon), a grammatical proposition. We might call this self-evidence.

This notion of self-evidence is not one of Frege's, although it is difficult to find any place in Frege's writings where he explains what he means by 'self-evidence' (as a Kunstausdruck). One difference between Frege and Wittgenstein which would reflect such a divergence of opinion concerning self-evidence is that on Frege's account there was always a gap between Sinn and Bedeutung, whereas for Wittgenstein, in the case of tautology (and contradiction) no such gap was allowed. A tautology's sense(lessness) consists just in the fact that it is true in all possible circumstances. Thus, for Frege we would always be able to grasp the sense of an arithmetical proposition (or proposition of logic) without necessarily, at the same time, knowing its truth value. Logic for Wittgenstein on the other hand, was quite flat; there were no preëminent propositions of logic, for they all said the same thing,'to wit,nothing'.

1. In the TS mentioned on the preceding page, Russell included a chapter on self-evidence, which he first defines as 'knowledge which we possess independently of inference' (p 120). He later comes to define it as 'a property of judgements, consisting in the fact that, in the same experience with themselves, they are accompanied by acquaintance with their truth' (p 138). Here, the object of self-evidence (or 'self-evident knowledge') is a proposition, but, since Russell's conception was overtly psychologistic (he actually says at one point that a self-evident judgement feels different from others), it follows that, as he was to remark 'Hence it is not in the nature of the proposition concerned that determines whether it is to be self-evident' (p 121). Wittgenstein would certainly have rejected this. His notion of sich zeigen belongs with the proposition, not with the thinking or believing subject. cf NB pp 3 - 4

We might be tempted to feel that Frege had been let down by his appeal to self-evidence; if so we should note two things. Firstly, that being let down by such an appeal is no ground for throwing the notion overboard - no doubt Frege's eyesight let him down from time to time. Secondly, the 'thunderbolt from a clear sky' might have served to convince Frege of the test of self-evidence; for did he not always recognise that axiom V lacked it ? Perhaps thinking thus, Frege continued to appeal to it after 1903. But for Wittgenstein things were completely different. If logic is the study of inference, of what states of affairs are consistent with what others, and which states of affairs exist given that others do, then what could such an experience of regarding a proposition as self-evidently true have to do with such a possibility ? This is the point behind 5.552:

> The 'experience' that we need in order to understand logic is not that something or other is the state of things, but that something is: that, however, is not an experience

It is quite clear to anyone who reads the Tractatus that although human beings as the users of language are rarely mentioned, they are mentioned only really as asserting: Wittgenstein has nothing to say about our everyday practice of making inferences. Thus, as far as the Tractatus is concerned, the logic there espoused (viz classical) has nothing to do with whether we (as speakers of a language who engage in the making of inferences) as it were, obey the classical laws. Thus Wittgenstein was able to say at 5.4731 that self-evidence can become dispensable only because language itself (i.e., by itself, without our help) prevents every logical mistake. ('In a sense we cannot make mistakes in logic' TLP 5.473) It was not until considerably later that Wittgenstein saw through this particular mistake, but, almost as a remark aimed at his earlier self, he says, speaking of the necessity of an agreement in judgements 'This seems to abolish logic, but does not do so.'[1]. But in so saying he was not of course allowing the possibility of a return to self-evidence and other aspects of psychologism.

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CHAPTER FIVE FUNCTIONS

In what does our grasp of the sense of a sentence consist ? Such a question, in virtue of its almost unlimited generality, is susceptible to a wide range of answers, and roughly, constitutes the philosophy of language. The Tractatus account of saying and showing was introduced, at least partially, in order to account for the fact that we understand propositions without their sense having to be explained to us, given that we are already familiar with the meanings of the elements (roughly, words) in such sentences. Wittgenstein remarks;

> 4.012 A proposition is a picture of reality: for if I understand a proposition, I know the situation that it represents. And I understand the proposition without having its sense explained to me.

> 4.022 A proposition shows its sense.
> A proposition shows how things stand if it is true.
> And it says that they do so stand.

The proximity of the two remarks above in the Tractatus manifest the close connection Wittgenstein wished to draw between showing and understanding, apart from the explicit sense of such remarks.

An analogy can be drawn between our understanding of propositions and our understanding of truth functions. Suppose that I am told the following (assuming for the moment, that I have an antecedent grasp of the notion of truth):

A v B is true just in case A is true or B is true

A & B is true just in case A is true and B is true

A → B is true just in case A is not true or B is true

¬A is true just in case A is not true.

I am then in a position to understand compounds of these functions because, given no ambiguity of scope, I can construe a complex truth function as composed out of the primitive truth functions exhibited above. The principle of structuring according to which we identify the particular truth functions is of course, crucial; we understand any situation which

is presented to us in this way providing that we understand the propositions which occur as arguments, and the method of the truth functional composition. (At least that will be generally true, although there will be cases where some of the constituent propositions need not be individually understood since they cancel out.)

In a similar way, our grasp of the validity of an argument depends on our being able to see that all arguments with the same form are valid. If someone agrees to the proposition 'If Bill crosses the finishing line first, then he has won' and to the proposition 'Bill has crossed the finishing line first' but objects to the conclusion that Bill has won, we would wonder at his grasp of the sense of such propositions[1].

If we grant an argument of the form A, $A \rightarrow B$, ergo B validity, then we must grant any argument of the same form validity. The extension from schema to instantiation is quite straightforward, governed only by constraints of substitution; namely that we substitute for the propositional variables only sentences which are semantically and syntactically complete, and that such substitutions are univocal.

1. We might even say that our disputer had not even identified the occurrence of one sentence twice (harmlessly abstracting from the fact that our example involves tense and pronominal back reference).

Looking ahead, it is important to note the difference between the form of an argument and of a proposition. There are instances where an argument has two or more forms, both (or all) of which could be valid - for example various proofs of one and the same mathematical proposition. There is also the case in which an argument appears to have one form (and in fact, in a sense, does) which is invalid, but the argument in question is in fact valid, due to that argument being a true instantiation of a valid argument schema. This may be due to the underlying logic used to portray the inference (which could be partly due to the expressive power of the logic), or could be due to our failure to have unpacked a premiss or predicate occuring therein. (For example, in general the inference from $\Diamond(\exists x)Fx$ to $\Diamond(x)Fx$ is invalid, but we might be able to show that $\Diamond(x)Fx$ follows on an examination of the meaning of 'F'.) A third notion of form is expressed in phrases like 'The logical form of action sentences'. In invoking the notion of structure, there is a clear sense to be attached to saying that a sentence (if univocal) has just one structure - quite simply the way its constituents are put together; this notion requires no theory in which it must reside and from which it receives its content.

In considering understanding a natural language, or, more specifically, previously unencountered sentences of a natural language, matters are of course far more complex than the twin devices of truth functions and argument schema are able to handle. (It is supposed that we know which language the sentence in question is a sentence of, since it is also possible to know that a sentence s is a sentence of German (say), without knowing, specifically, which sentence of German it is.) Even if we extend the formal device to include quantificational logic of higher order, it will be provably the case that there are sentences of natural language which cannot be thus represented. It is thus unclear whether invoking the Tractatus notion of showing effects anything other than a papering over of the cracks in our account at this stage.

Nevertheless, the two examples above of truth functions and argument schemata provide a useful heuristic to see how we can construct complex sentences from simple ones. But such notions do nothing to elucidate the structure of the simple or atomic sentences; that is, how the meaning of an atomic sentence is a function of its parts. Nor may we draw just upon those resources in order to account for quantified sentences, since in ascribing an understanding of a quantified sentence to someone we do not thereby impute an understanding of an infinite conjunction or disjunction of senses, even though, classically speaking, a quantified sentence just is an infinite conjunction of instances of the predicate - i.e., that is how a quantified sentence is explained truth theoretically.

No matter how refined our theory becomes concerning modes of combination of sentences, we are no nearer to giving an account of the structure of those simple sentences themselves. When we take seriously the idea - first properly enunciated by Frege - that the meaning of a sentence is a function of its parts, and appeal to the principle vis a vis complex sentences, then the rules outlined above do suffice to explain how the meaning of a complex sentence is a function of its atomic sentence parts for a large range of cases (excluding intensionality).

In the Begriffsschrift Frege rejected the traditional distinction between subject and predicate (BG 2), and adopted a grammar of a different basis. Thus a sentence which on the old analysis would have been considered as being composed out of the concatenation of two terms, one of which was called the subject, the other the predicate is now on Frege's method considered as composed out of a functional expression with a proper name standing in the functional expression's Argumentstelle(n). This change of conception is absolutely fundamental to the whole of Frege's philosophy of language, and so it is perhaps worth spending a little time on it. The reason for Frege's change is due partly to his insight that it is essential to regard a sentence as composed out of its parts in a series of steps. In this Frege's use of the term 'function', when applied to areas other than mathematics was meant in just the same sense as it is used in that discipline. The simplest such functions are in general arithmetical.

According to Dummett, Frege was 'at no great pains' to draw a distinction between simple and complex predicates (Frege; p 27) and later (p 30) he says that Frege did not draw attention to their difference in role. This represents a change - though not I think a large one - from the view expressed in Dummett's article on Frege in Edwards' Encyclopaedia of Philosophy in 1967. He there draws a distinction between simple and complex predicates, saying that '...for the understanding of sentences not containing quantifiers we do not need the general notion of a predicate at all', although he was later to remark that 'a predicate [NB - not a complex predicate] ...literally cannot be exhibited separately.' Possibly we should say that in the article Dummett was at no great pains to emphasise the difference. In essence the difference Dummett wishes to draw is this: A simple sentence is formed from a simple predicate, which is not incomplete in the sense Frege thought; a simple predicate or relational expression may be 'regarded as a simple unitary expression, as much a linguistic entity capable of standing on its own as ... proper names' (Frege p 28). He then says something which is

not in complete accord with the earlier article, which I shall quote in full;

> Thus a simple predicate or relational expression must be recognised as occurring in any sentence in which it does occur, if we are to understand the sense of that sentence, or even recognise it as well-formed; whereas the notion of a complex predicate has to be invoked only when we have to deal with quantifiers or other expressions of generality. (p 30)

I cannot pretend to understand much of what Dummett says in these passages; they seem to me to be somewhat obscure, but the force of his remarks I think are clear. That is, we must regard a sentence from being built up from a simple predicate and name, and the complex predicate obtained therefrom by a removal of one or more occurences of a proper name. It is a failure to understand this distinction which has led people to question the significance of Frege's function and argument analysis as opposed to that of subject and predicate, since they tend to look at what on Dummett's account must properly be regarded as a degenerate case of a complex predicate, namely simple ones.

Geach in his Wolfson Lecture[1] criticises Dummett at length, and, although Dummett has a point which Geach does not indicate awareness of, I think that some of his remarks are pertinently true. For example, that we cannot understand the use of 'killed' unless we do understand it as indicating the sense of the relation thereby expressed, and that in inflected languages, there will be no string of phonemes as such which could correspond to the simple predicate of which Dummett speaks.

However, I think that the point Dummett was trying to make was one which was indirectly mentioned on the footnote on p 101 above; namely concerning the distinction between the way a sentence is put together - there always being just one way it is put together - and an account we may wish to give of the history of its construction as far as its semantic valuation is concerned. There is a clear sense to be given to the supposition that one sort of predicate is no more incomplete than names are - namely the bit of print on a page - but it is clear that this was not what was meant by Frege when he spoke of predicates (or Begriffswörter).

1. P.T.Geach 'Names and Identity' in Mind and Language pp 147 ff

In any case, nothing I shall say in the sequel will directly bear on such a distinction.

I shall for the most part consider only linguistic functions, i.e., functional expression, and so will not be concerned in general about the question of ascribing Bedeutung to predicative expressions. What then is a function ? This question ought to admit of an easy answer, but doesn't, due perhaps to the various uses the word has had. I shall thus stipulate the following: A functional expression is an expression which is 'incomplete' and cannot stand on its own in the sense that it is not an independently quotable bit of language; it contains at least one empty place. When the argument place of a functional expression is filled by a singular term, the result is a singular term. I shall call a predicate of one argument, an expression which when completed yields a sentence; it may be completed either by a singular term (in which case the predicate is of first level) or by a first level predicate, in which case it is of second level. Where we have functional expressions which contain more than one empty place, they are to be called relational expressions and many-valued predicates respectively. An expression which has more than one empty place, one of which to be filled by a sentence, and the other(s) by a singular term is to be called a relator. Examples of the above type of expression are:

Functional expression: 'The father of ξ '.. 'The capital of ζ '

Predicates: 'δ is large'. 'β is amusing'.

Relational expressions: 'The father of δ and ϵ '. 'Half way between α and β '.

Many-valued predicates: 'ζ is the niece of ξ '. 'δ is the product of α and β '.

Relators: 'α brought it about that P'. 'β fancies that Q'

Often 'function' is used indiscriminately between functions which map objects on to objects (and functional expressions which map names onto names or names on to singular terms) and functions which I have called 'predicates' which map names onto sentences. Indeed, in Frege's presentation, since for him truth values were objects, and sentences stood for such truth values,

predicates were just a special case of functions, mapping objects onto objects.

In his article 'Function and Concept' Frege has a number of dark sayings which however, may be elucidated;

(i) We give the name 'value of a function for an argument' to the result of completing the function with the argument. (GB p 25, KS p 129)

(ii) I call 'the capital of x' the expression of a function. If we take the German Empire as the argument we get Berlin as the value of the function. (GB pp 31-2, KS p 134)

Note that Frege says that we take the German Empire as argument, not that we take 'The German Empire'. Frege was always very careful about use and mention (at least after Begriffsschrift), and about the distinction between a function and a functional expression. In noting this the ambiguity of (i) is resolved between;

(a) What is yielded by the insertion of an argument into a functional expression is a name, sentence, or some sort of linguistic expression, and

(b) What is yielded by the insertion of an argument into a function is an object, as are the arguments themselves.

The difference between (a) and (b) could not be greater. As has been indicated, for Frege, predicates were a special sort of functional expression which stood for functions of a special sort, namely functions whose value was always a truth value (GB p 30, KS p 133). Here, as elsewhere, the obliteration of the distinction between sentences and names reaps quite unacceptable results. Concepts (predicates) were a special sort of function only in that they took as values two particular objects out of many. But it also neglected a fundamental difference between sentences and singular terms viewed as the linguistic values of the completion of incomplete expressions, and that, in the Tractatus, is the difference between an operation and a function; the most important remarks in this connection are:

> We can represent (darstellen) a proposition as the result of an operation that produces it out of other propositions (which are the bases of the operation.) (TLP 5.21)
>
> Truth functions of elementary propositions are the results of operations with elementary propositions as their base. (5.232)
>
> The occurrence of an operation does not characterise the sense of a proposition...(operations and functions must not be confused with each other). (5.25)
>
> A function cannot be its own argument, whereas an operation[1] can take one of its own results as its base. (5.251)

As Dummett has pointed out (Frege p 324), Miss Anscombe in her book on the Tractatus provides an incorrect account of the distinction between an operation and a function, although Dummett does not make it clear whether he thinks that Anscombe has drawn the distinction in the wrong place or whether he thinks there is no real distinction to be drawn.[2]

Dummett takes Wittgenstein's point to be this; that negation was an operation in the Tractatus (indeed it was par excellence), and that as such it does not serve to characterise the sense of any sentence in which it occurs. This can be shown by the construction of a language in which every sentence is the negation of some other, one of the two not explicitly involving the negation sign. This is undeniably true, and indeed Wittgenstein alludes to this point on a number of occasions, but this is more an account of the first clause of 5.25 than the latter. The distinction being drawn between operations and functions is not to be explained thus, but on very

1. This is repeated at WWK p 217; 'Operations and functions are completely different. A function cannot be its own argument, but an operation on the other hand can be applied to its own result.'

2. In his doctoral thesis, Frege uses the terms 'Funktion' and 'Operation' almost interchangeably, but this cannot be taken to mean that either Frege or Wittgenstein were using the terms correctly or misleadingly. E.g., 'If one repeatedly applies an operation f to the result obtained by the repeated application of that operation, one can regard the operation f as a new operation.' (p 51). 'According to the remarks above, it can be understood that we ascribe a magnitude twice or three times as great to the functions $\phi(\phi(x))$, $\phi(\phi(\phi(x)))$ respectively than to the function $\phi(x)$.' (p 52). 'Addition is the simplest operation. It can clearly be seen that the functions of these orders of magnitude have the form $X = na + x$, where 'n' stands for the magnitude.' (p 53). From 'Rechnungsmethoden, die sich auf ein Erweiterung des Grössenbegriffes gründen' KS pp 50-84.

different grounds. It is true that Wittgenstein might have misled Dummett by speaking sloppily of a function being its own argument, rather than being applied to the result of an application, but comparison with the second clause should have made it clear what Wittgenstein was up to. So, although Dummett points out, quite correctly, that if the range of an operation is included in its domain it is just a special kind of function, he fails to draw the conclusion that it is precisely this distinction which was being put into prominence in the Tractatus. There is one sense in which Anscombe is correct, for she stayed very close to the text, but this led her to effect no contrast whatsoever. She says (AT p 117), 'An operation is what has to happen to, i.e., be applied to a proposition in order to turn it into a different one (cf 5.32)' (Her emphasis). To be sure, Wittgenstein puts the matter in a very similar fashion, but the emphasis makes all the difference.

> An operation is the expression of the relation between the structures of its result and of its bases. (5.22)
>
> The operation is what has to be done to one proposition [viz the base] in order to make the other [viz the result] out of it. (5.23)

In Wittgenstein's formulation, the possibility is deliberately left open in virtue of the doctrine that an elementary proposition is a truth function of itself, that the only difference between two propositions is that one is called the 'base' and the other the 'result' of an operation. There was a very good reason for the distinction between functions and operations being drawn, for the notion of a function which Wittgenstein was using was (apart from the truth functions) one which he took from Russell, namely a propositional function. And one of the characteristics of a propositional function is precisely that its range is not included in its domain. We cannot iterate a propositional function (what was called a predicate on p 105 above) without producing nonsense, or at least, without producing a string of words for which we had not previously laid down what their sense was to be.

There are obviously no such restraints for arithmetical functions whose range and domain consists of the natural numbers, or of the truth functions.

But is it true that a propositional function's range is never included in its domain ? There are I think two arguments against such a possibility, but it is not clear whether Frege would have accepted them, since at least one of them turns upon a rejection of one of his (later) theses, namely the identification, or assimilation of sentences to names. If we construct a categorial grammar in which names and sentences are the primitive categories we can define other categories (the defined categories) as being 'what is left' when we remove one or more occurrences of a proper name from a sentence. But in order to do this, we require a criterion for name-hood, and the criterion actually employed by Frege is inadequate; for him, if an expression can occur as the argument of a first level functional expression, it is a name. This clearly involves a vicious circle, if we wish to define a functional expression as what is left after the removal of proper names.[1] Frege, since he took the lamentable step of allowing sentences to count as proper names, was thus forced to specify a sense for the following piece of gibberish;

> The conjunction of the eclipse of the sun with the 1976 USA presidential election is hungry is hungry.

This is not only unacceptable, but tragic.

The second argument arises not with phrases of the form '...is true' (in virtue of the meaning of the truth predicate), but in virtue of much wider considerations about the use of quotation. In any case in which

1. It is well known that Frege considered himself to be unable to define 'object', 'name' or 'function', but was only able to say that any linguistic expression which stands for (bedeutet)an object is to be regarded as a name. He says 'I regard a regular definition as impossible..here I can only say briefly: an object is anything which is not a function, so that an expression for it does not contain an empty place'. (GB p 32, KS p 134): 'Places, instants, stretches of time are, logically considered, objects; hence the linguistic designation of a definite place, a definite instant, or stretch of time is to be regarded as a proper name.' (GB p 71, KS p 155).

we think we can iterate a propositional function salva congruitate, we shall find that, either we have to introduce quotation in the base, or at some later stage, thus rendering the identity of the proposition through its iterations illusory. As an example, take the functional expression (using Roman capitals in place of Greek lower case letters):

(1) X is a German expression

We may choose, as argument, a German word, say 'Anwendung', put it in quotes, and insert in (1) to obtain

(2) 'Anwendung' is a German expression.

If we iterate we produce the perfectly sensible, but false sentence

(3) "'Anwendung' is a German expression" is a German expression

And so on. Now, suppose we take a functional expression whose argument place is not to be filled by a quoted expression. For example

(4) X is difficult for an Englishman to pronounce

We take as our argument the Flemish language (whose name is 'Flemish') and insert as argument of (4) to yield

(5) Flemish is difficult for an Englishman to pronounce

which is not only significant but true. Now, if we try to iterate (5) we produce either

(6) Flemish is difficult for an Englishman to pronounce is difficult for an Englishman to pronounce

which is nonsense, or the acceptable sentence •

(7) 'Flemish is difficult for an Englishman to pronounce' is difficult for an Englishman to pronounce

which will, in general, be false.

There are two points here. In producing (7) we have not produced the Flemish language as argument of the function referred to, for had we done so we should have produced (6). Moreover, if (7) is the correct iteration of (5), then (5) should have been read in the first place as

(5a) 'Flemish' is difficult for an Englishman to pronounce

which is not the same thing at all. There can be no iteration of a propositional function if the word standing in the argument place is used and not mentioned.

So a good deal hangs on whether the range is included in the domain of a function.

These matters were raised in order to discuss what it is to understand a language. Some people may of course doubt that Frege's notion of a function (suitably limited to avoid the unacceptable results mentioned above) provides an adequate basis on which to rest a theory of meaning; nevertheless, Frege's innovation was far in advance of anything else which was available at the time, and continues to provide a basis on which a theory may be erected. Moreover, the questions we have answered are those which must come into play in any theory of meaning whatsoever. That is, the foregoing is concerned with questions of the highest generality. No mention was made of the various points of view which might be brought into a general account of meaning; whether, that is, the general notion of meaning and understanding is to be explained by taking the concept of truth (or the twin concepts of truth and falsity) as central, or whether we should look to the notions of verification and falsification. (It is of course true, that somewhere in an account of Frege's function and argument conception we will have to introduce the notion of how we understand the introduction of the universal quantifier, and that will entail speaking about a predicate being true of any given object: but it is precisely this notion of a 'given object' which is found to cause difficulties for a realist account of our understanding of such sentences. However, this problem should be considered as one concerning the domain of quantification rather than the general explanation of many types of sentence composition resting on the notion of a function and argument.)

It might be thought that an account of sentence composition which involves such a notion of a function is susceptible to the sorts of objections which Chomsky has urged against empirical learning theory - that they put too much weight on the concepts of analogy and generalisation. This might be the case if the notion of a function was one of learning a string of phonemes, but as Frege (and others) have been at pains to point out,

it requires some discernment to discover a common predication. In any case, many such theorists (including Chomsky) speak about 'learning sentences' and 'knowing sentences'. But what can it mean to say that someone knows a sentence ? How many for example do I know ? Have I ever learned any ? Without appealing to linguistic intuitions and the like, the normal use of 'to know' in this connection would be most naturally contrasted with that of 'to forget'. And if we ask how many sentences someone has forgotten, we will be mostly found to be speaking of a text of some sort. The difference between knowing a sentence and knowing a word should (as did Frege and Wittgenstein) be highlighted. Frege's conception of a function does just this.

The introduction of the notion of a function was effected in part, not only that we should see how we may, by the substitution of different words, yield new sentences, but also to provide an elucidation of the dictum that the meaning of a sentence is a function of its parts. Any such account ought to serve to render explicit the structure of a sentence, and in so doing serve to render explicit the relation any sentence has with any other, but specifically those which contain common Begriffswörter. It was this consideration which originally motivated Frege; namely a desire to gain an insight into the 'texture of our inferences', thus yielding the possibility of rigorous proofs. But as soon was to become obvious, Frege acquired an interest in language for its own sake.

CHAPTER SIX FREGE AND WITTGENSTEIN ON LOGICAL FORM

> The concept of the logical form of a sentence has undergone an unfortunate change, that it no longer encompasses everything about the grammar of a sentence which determines the deductive relations it can enter in to (the classical or Fregean notion) but now only includes those aspects of the grammar of a sentence that are features of the logical particles.
> (J.Katz; Semantic Theory p 118)

As far as I know, Frege never used the phrase 'logical form' (at least in the sense we are talking about), but we cannot, for that reason, assume that Frege was not interested in logical form. It is, I think, clear that the passage which Katz thinks himself to be elucidating in his attribution to Frege of his view of logical form is this;[1]

> Everything necessary for a correct inference is expressed in full, but what is not necessary is generally not indicated; nothing is left to guesswork. (BG p 12)

Katz ought to treat this passage far more carefully; time after time, Frege compares a logically perspicuous language (a Begriffsschrift) with natural language, often complaining that he cannot use the latter for his purposes, since its words are not sufficiently determinate and vary in their use.[2] Thus his attempt to construct a formalised language in which all the elements have a fixed meaning, and their meaning is considered as just that which contributes to the truth of any sentence in which they occur. He wrote in Begriffsschrift;

> Since I confined myself for the time being to expressing relations that are independent of the particular characteristic of objects, I was able to use the expression 'formula language for pure thought'. (BG p 6)

1. It is clear because: He says 'The logical form of a sentence is that aspect of its structure that determines the logical relationships into which it enters. Logical form is whatever it is about the sentence that determines the possible consequences that can be deduced from it, or the valid arguments in which it can occur as a conclusion' (Linguistic Philosophy pp5 - 6). Katz writes in a footnote: 'Frege sets forth this conception on page 12 of Begriffsschrift'. He also says that 'Wittgenstein...occupied himself with one of Frege's main concerns, the problem of logical form' (ibid p 5). This last remark is simply false and fails, not only to come to terms with Frege's intentions in the Begriffsschrift but in all his other writings as well.

2. For example, see 'Logik in der Mathematik', NS p 224 (quoted on p 73 above). It is interesting to note that Tarski often alludes to the same idea, and on one occasion uses virtually the same words. See Logic, Semantics, Metamathematics p 409.

It is reasonable to think that Frege here is talking of logical form, but in such a way as to make it clear that he was concerned with formal inference, namely, those inference which are licensed, not in virtue of the meanings of the words which occur in the argument, but in virtue of the way those words are put together.

Frege often speaks of those aspects of a sentence which do not contribute to its sense, namely 'tone' (Beleuchtung, Duft, Stimmung, Färbung) where sense is characterised in terms of truth conditions (cf GGA vol I p50). Frege's account of tone is in fact confused, attributing to it only the propensity to call up Vorstellungen in the mind of the hearer, and was of the opinion that logic could have nothing to do with such psychological ephemera. I need not go into the confusions here (see for example Dummett's Frege; pp 2-3, 83 - 89), but what is important is that whatever reasons Frege had for rejecting tone as an object of investigation, it indicated his general attitude to natural language. It does seem to be true that 'the most general lesson which Frege derived from his discovery of the quantifiers was a certain disrespect for natural language' (Frege; p 19); Frege himself remarks that his account is 'not designed to keep in step with ordinary linguistic usage' ('Gedankengefüge', KS p 338, Essays on Frege p 551). Such a disrespect for those aspects of language which seemed intractable to the quantifier notation goes a long way to render Katz' attribution mistaken; moreover, if Katz were correct, we should be at a loss to explain the scholasticism which crept into Frege's writings post Grundlagen.

A fatal move in Frege's semantics was to demand that every function be defined for every argument (as we have seen in chapter 5), one of whose results was that in the calculus there occurred a failure to differentiate particular names, except by reference to their truth value potential. A word about the notion of a truth value potential, or what Dummett calls

'semantic value' or 'semantic role'. Tugendhat in 'The Meaning of "Bedeutung" in Frege' (Analysis 1970), and in a 'Postskript' of 1975 (in Studien zu Frege III, Logik & Semantik, (Ed) M.Schirn, pp 65-69) has argued that Frege's concept of Bedeutung was just that of a truth value potential, and as the first sentence of his first article shows, he thinks that he must be right (cf 'Postskript' p 68) since clearly the Bedeutung of a predicate is not an object which the predicate stands for. But this appears to be a misreading of Frege. Of course the Bedeutungen of Begriffswörter are not objects; but that does not mean that Begriffswörter do not 'stand for' anything, are not 'about' anything. Frege says, most explicitly (which ought to put an end to any doubt as to whether Frege considered Begriffswörter to have Bedeutungen) that the Bedeutung of a Begriffswort was a Begriff (FBW p 96/7). So the crucial question here is not whether predicates stand for anything, but what it is they are said to stand for. But Tugendhat was concerned with eliciting a smooth reading of 'Bedeutung' when applied to names, predicates and sentences which did not raise any of the (superficial) difficulties about predicates having Bedeutungen.

In the Postskript, Tugendhat tries to show that Dummett's account of semantic role (being the same as his own notion of a 'truth value potential) in fact could be seen to support his (Tugendhat's) view. But this can only be done if we say that the whole account of Bedeutung is in terms of semantic value. Dummett had already pointed out in Frege, before criticising Tugendhat, that the notion of semantic role was used by Frege, as an account of the feature of an expression which determined the truth value of any sentence in which it occurred. But a second, and according to Dummett, necessary part of the notion of Bedeudung consists in invoking the name/bearer relation as a paradigm i.e., that the notion of Bedeutung has to include that of being a relation to something non-linguistic. And this is surely correct. Nevertheless, in the calculus, the account of reference which

Frege gives may be explained in terms of semantic value; but the whole point of doing so appears obscure unless we bear in mind the two ingredients in the concept of Bedeutung.

Wittgenstein's account of Bedeutung in the Tractatus is at first sight very close to that of Tugendhat's. But is, I think, even stronger, in that for Wittgenstein, an account of a Name would be exhaustively given by specifying its bearer (which in the Tractatus equals its Bedeutung). Wittgenstein thus rejected Frege's account of sense and reference, and with it the supposition that in the calculus all that would matter would be purely syntactic constraints, but he did this in a very different way from Whitehead and Russell, who in Principia specified partial functions (types) in a manner which was sketched in chapter 3 above. Initially Wittgenstein was of the opinion that;

> Distrust of grammar is the first requisite of philosophising. Philosophy is the doctrine of the logical form of scientific propositions. (Notes on Logic NB p 93)

This view, expressed in 1913 was soon repudiated. By the time of the Tractatus, he wrote;

> Philosophy is not a body of doctrine, but an activity...philosophy does not consist of 'philosophical propositions', but in the clarification of propositions. (TLP 4.112)

This however, represents a change of view of philosophy, rather than of the nature of logical form. Nevertheless, in the 'Notes on Logic' Wittgenstein did introduce a notion of logical form which was presumably taken from Russell, a notion which was to be investigated in the Tractatus (but returned to in the Wiener Kreis notes; namely, that in order to produce the logical form of a proposition the constants in a proposition should be transformed into variables. Thus a simple proposition like 'Tim loves Sally' has the form 'xRy'. But should we also indicate the form of the relational expression, according for example whether it was transitive or not ? Trying to interpret Russell at this point is like trying to see through mud. At one point ('On Propositions: What they are and how they mean' in Logic

and Knowledge, p 286) he says that facts have the same form when they differ only as regards their constituents, and so we might think that for example, 'Tim loves Sally' and 'Tim is older than Sally' would have a different form, since (on some of Russell's accounts) the relation is not a constituent of a proposition. But in other places he characterises propositions as being merely of the form: di-adic, tri-adic etc.

Wittgenstein's notion of logical form in the Tractatus is incomparably more sophisticated than Russell's, even though, as I have indicated, soon after he was speaking as Russell would have (e.g., WWK pp 220, 224). Other than speaking of the logical form of Objects, Wittgenstein makes a number of remarks about the logical form of a proposition;

> Logical forms are without number. (TLP 4.128)

> If we turn a constituent of a proposition into a variable, there is a class of propositions, all of which are values of the resulting variable. In general, this class too will be dependent upon the meaning (meinen) that our arbitrary conventions have given to parts of the original proposition. But if all the signs in it that have arbitrarily determined meanings (Bedeutungen) are turned into variables, we shall still get a class of this kind. This one however, is not dependent upon any convention, but solely on the nature of the proposition. It corresponds to a logical form — a logical prototype (Urbild). (TLP 3.315)

> A sign does not determine its logical form unless it is taken together with its logico-syntactic employment. (TLP 3.327)

> Clearly we have some concept of elementary propositions quite apart from their particular logical forms. (TLP 5.555)

In a further paragraph, Wittgenstein does not use the words 'logische Form' but only 'Form', but it is plausible that the uses are related, if distinct.

> ...It is not humanly possible to gather immediately from [everyday language] what the logic of language is. Language disguises thought, so much so that from the outward form of the clothing it is impossible to infer the form of the thought beneath it, because the outward form of the clothing is not designed to reveal the form of the body, but for entirely different purposes. (TLP 4.002)

Both 4.128, and 4.002 are (not explicitly) elucidated in the discredited paper 'Some Remarks on Logical Form' in the following way; Suppose that we have two planes, I and II. On plane I, ellipses and rectangles have

been drawn, which by means of a light are projected onto plane II as circles and squares. This, Wittgenstein thinks is quite analogous to natural language, for

> If the facts of reality are the ellipses and rectangles on plane I, the subject-predicate and relational forms correspond to the circles and squares on plane II. These forms are the norms of our particular language into which we project in ever so many different ways ever so many different logical forms. And for this very reason, we can draw no conclusions - except vague ones - from the use of these norms to the logical form of the phenomena described. (CB p 33. cf PG pp 204 - 205)

Thus for Wittgenstein, logical form (of natural language) is something deep and hidden, and so, a fortiori, not to be confused with grammatical form. Wittgenstein seems to hold both that the transformation of constants into variables yields logical form, and that logical form is something almost unreachably buried. What then can we make of his remark about Russell's Theory of Descriptions (which he considered to be quite correct in essentials cf RKM pp 43 - 4) ?

> It was Russell who performed the service of showing that the apparent logical form of its proposition need not be its real one. (TLP 4.0031)

The apparent logical form in this connection must mean the result of transforming the apparent constants into variables, which in this case, is virtually the same as its grammatical form,[1] for the apparent logical form of the proposition 'The present King of France is bald' is 'Fa'.

It is quite obvious that Wittgenstein is operating with two notions of logical form. One, which is obtained by the transformation of constants into variables (the 'superficial' form) and a second, deeper notion, which is hidden behind an inscrutable method of projection. In speaking of this 'buried' logical form (as I shall call it) Wittgenstein severs, quite explicitly the connection between logical form and understanding.[2]

1. In this sense of 'grammatical form', if a sentence appears to have the grammatical form of a subject predicate statement, then it does have that form, and the question whether it really does is senseless.

2. Cf WWK p 130: 'Naturally, I must be able to understand a proposition without knowing its analysis.'

This Wittgenstein could consistently do, in spite of his speaking of elementary propositions (as at 5.555), for the only thing one might know about elementary propositions was that they occurred as arguments in truth functions. Thus, it is important that the distinction between buried and superficial logical form should be borne in mind.

It is not clear that there exists a way of rendering all of Wittgenstein's pronouncements on logical form consistent, and there would be relatively little point in attempting to do so; nevertheless, it is instructive to see what he has to say.

It has become commonplace to eradicate the distinction made in the Tractatus between form and structure. But there is no simple way in which Wittgenstein's notions map onto concepts in use today. 'Form' in the Tractatus is the possibility of structure, and it was argued above (p 61) that in order to represent a proposition's structure we would have to mention names (or at least symbolic letters - not name variables), ignoring for the present the fact that the ordinary names we would find would, according to the Tractatus, not be real Names, and thus capable of further analysis.

Initially, what is required is a grammar which will transform ordinary sentences into 'Logicians' English' such that by the mere transformation of constants into variables we are presented with the superficial form. So for example, thus conceived, it is the task of grammar to transform

(1) Heinrich von Kleist committed suicide

into

(2) Heinrich von Kleist killed Heinrich von Kleist

Matters are not this simple however, when we deal with quantified sentences, although there are instances where the logicians English is closer to the structure (as exhibited by the method outlined above) than the natural sentence. Take one of Geach's examples:

(3) The one woman whom every true Englishman honours above all others is his mother.

The first transformation

(4) For any Englishman there is one and only one woman whom he honours above all others, and there is one and only one person who is his mother, and the two are identical.

We could of course play around with this a little more to remove the explicit occurrence of the pronouns, but finally it should appear as

(5) $(x)\left\{Ex \rightarrow (\iota y)(Wy \wedge (z)[(Wz \wedge z = y) \rightarrow Lxy] = (\iota y)Myx\right\}$

It is of course possible to reduce such sentences to a form which uses predicate letters and name constants under no interpretation.

It is also possible to reduce (3) further than (5) by helping ourselves to the notion of a truth functional place-holder. Let $*_2$ indicate the place where any two place truth functional connective may stand, and $*_1$ indicate the place where any such one place connective may stand. Our clauses for well-formedness in the resultant propositional logic (P) are then very simple.

(i) Any propositional symbol is a wff of P

(ii) If A is a wff of P, then $*_1A$ is a wff of P

(iii) If A and B are wffs of P, then $A*_2B$ is a wff of P

(iv) Closure condition

The extension to a predicate logic along these lines is made by adding the following two clauses, whose explanation follows immediately.

(v) If F is an n-place predicate symbol and $t_1,\ldots t_n$ are terms then $Ft_1,\ldots t_n$ is a wff of PC

(vi) If A is a wff of PC and u is an individual variable, free in A, and $\hat{Q}$ is a variable binding operator symbol, then $\hat{Q}uA$ is a wff of PC

We require that the following conditions hold: A quantifier operates on an open sentence to yield a (closed) sentence, providing that no variable remains free. But there are a class of variable binding operators (e.g., the description operator) which operate on open sentences to yield singular terms. Thus:

(vii) If A is a symbol for an open sentence, then $(\hat{Q})$A is a closed sentence providing no variable occurs free in A.

(viii) If A is a symbol for an open sentence, then $\{\hat{Q}\}$A is a singular term providing no variable occurs free in A.

A, that is, is an open sentence just as long as there remains some variable free. Call the extended PC above, PS.

In order to transform (5) into PS we produce

(8) $(\hat{Q}x)Ex\ *_2\ R\left[\{\hat{Q}y\}(Wy\ *_2\ (\hat{Q}z)Wy\ *_2\ *_1\ Rzy\ *_2\ Lxyz)\right]\left[\{\hat{Q}y\}\ Myx\right]$

(with 'R' standing for an identity predicate)

Since we ought to account for every possible occurrence of $*_1$, and since it can be iterated indefinitely, we leave it to the clause (ii) to express that. Any possible substitution for $*_1$, $*_2$, $(\hat{Q})$ and $\{\hat{Q}\}$ will produce a wff.[1] Since (5) would normally be called the logical form of (3), we require a means of distinguishing between (8) and (5). Call (5) the 'superficial' form (see p 118 above) of (3) and (8) the deep form of (3), so that we do not confuse (or identify) deep form with buried form.

As I have indicated, in general, Wittgenstein provides a rather simple way of deriving logical form - by a transformation of constants into variables; but at 3.315 he elaborates, and I think that the above could serve as an elucidation of the sort of thing he was after. In one sense the logical constant signs have an arbitrary meaning, but in another they (according to the Tractatus) do not have any Bedeutung, but I think that there is a way of reading 3.315 which renders this difficulty harmless.

Fogelin (Wittgenstein, pp 49 - 51) in discussing this passage applies it to elementary propositions only, and refers to Ramsey (Foundations of

1.The possible substitutions for $*_2$ will of course be limited. But the choice for $(\hat{Q})$ will, on rather trivial grounds be infinite (see L.Tharp; 'Which Logic is the Right Logic ?' Synthese 31, 1975, p 1) Nevertheless it is clear that certain quantifiers stand out as having some interesting properties, other than the ordinary existential and universal quantifiers. Notice that $*_1$ and $*_2$ do not behave like variables or predicate constants since they may go proxy for different connectives in the same sentence.

Mathematics p 8) to explain what is going on, namely the generation of a set of propositional functions. But it seems that we can just as well apply the technique to a truth functionally complex sentence, something which raises no special difficulties about the status of elementary propositions. We can apply Ramsey's account most simply to atomic (not in Wittgenstein's sense of elementary) sentences like

(9) Peggy kicks Robert

We replace 'Peggy' by a variable

(10) x kicks Robert

The class of propositions which are the values of the 'variable proposition' are represented in Russell's notation by

(11) $\hat{x}$ kicks Robert

which gathers all the significant sentences of the form 'a kicks Robert', 'b kicks Robert' etc. As Wittgenstein remarks, this class will in general, be dependent upon the meanings which our arbitrary conventions have given to 'kicks' etc. If we then transform all the constants into variables we obtain a class of propositions

(12) $\hat{x}R\hat{y}$

which is to be considered as denoting the set of ordered pairs possible on the relation R. This Wittgenstein thinks is not dependent on any arbitrary convention, but is something deeply rooted in the essence of the proposition; how so ?

We must note firstly that on Wittgenstein's account these functional expressions do not picture the world, but provide a skeleton which may be filled out in order that we should picture the world - they are Urbilder - and must thus have a certain form if they can ultimately be employed in the construction of propositions which can say anything about the world at all ('for it is impossible to represent anything in language which "contradicts logic"'..TLP 3.032). Naturally we are faced at such a point

with all the problems and misperspectives introduced by such a sublimation of logic. For it would seem natural to take the values of the variable, those falling within a certain range (type), such that the substitutions effected produced only sense. But such a move, Wittgenstein refuses to countenance, as is shown adequately by his attack on Russell's Theory of Types. At 5.4733 Wittgenstein says;

> Frege says: Every legitimately constructed proposition must have a sense; and I say: every possible proposition is legitimately constructed, and if it has no sense, this can only be because we have given no meaning to some of its constituent parts.[1]

Miss Anscombe commenting on this passage (AT p 68) says that the relations which must hold between the elements of a sentence at all, must hold between the elements of a nonsensical sentence, if we could turn the nonsense into sense just by changing the meaning of some or all of the words[2]. Thus, as Wittgenstein asserts, the reason that 'Socrates is identical' is nonsense is that we have given no adjectival meaning to the word 'identical', not because of any intrinsic impossibility of the occurrence of the sign 'Socrates' in any such series of signs. But it is clear than in arguing thus, Wittgenstein has only said that the meaning of a sign is arbitrary; he has yet to show that certain combinations of words do not make sense only in virtue of there not being such conventions. We might for example

1. Frege asserts this on a number of occasions. In GGA vol I p 50, he writes that every proposition of Begriffsschrift expresses a thought, since our 'eight primitive names have reference, and thereby the same holds good for all names correctly compounded out of these. However, not only a reference, but also a name appertains to all names correctly formed from our signs. Every such name of a truth value expresses a sense, a thought...It is now asserted by such a proposition that this name denotes the true. Since at the same time it expresses a thought, we have in every correctly formed proposition of Begriffsschrift (in jedem rechtmässig gebildeten Begriffsschriftsatze) a judgement that a thought is true.' In attacking the formalists (GGA vol II p 101) he writes 'It is necessary...that the arithmetician attach a sense to his formulas;...in order to bridge the gulf between arithmetical formulas and their application, it is necessary that formulas express a sense and that the rules be grounded in the references of the signs. The end must be knowledge, and it must determine everything which happens.'

2. TLP 4.5 supports her interpretation.

have given an adjectival meaning to a word, but nevertheless, when supposedly predicated of an object, the sentence fails to make sense. (Examples are legion.)

However, in arguing thus, Wittgenstein is repudiating a conception of (a perfect) language which was prominent in the seventeenth century, and which has been chronicled in chapter nine of Yolton's Locke and the Compass of Human Understanding. Since it might seem that the Tractatus, if read superficially, was in agreement with such a conception, it is useful to see what such a conception amounted to. I refer to the conception of a universalis characteristica.

Comenius in his Vis Lucias (1688) wrote that not only ought the relations of words to mirror things (ie, states of affairs) but that the words themselves ought to be commensurate with things (i.e., objects; see Yolton p 202). Such a language would by its very sounds express the essential qualities and characters of things. W.Simpson in his Hydrologia Chymica (1699) suggested that a dictionary be compiled in which the 'characters' were to become in effect, 'hieroglyphic' of the things understood by those characters or words.

Now it seems obvious to us, that not only did these men not grasp that the relation between word and object could be nothing other than conventional (and thus arbitrary), but that they also failed to grasp the difference in function between words and sentences. Yet in certain respects, the conditions which Wittgenstein argues must be present in any sentence if it is to make sense, are those conditions which these men of the seventeenth century, without drawing the distinction between words and sentences, were gesturing towards. In this connection we must note Leibniz' essay 'Dialogue on the Connection between Words and Things' (1677) whose similarity to the Tractatus is remarkable. Leibniz aims in the dialogue to argue that although our

choice of which words we use to express which ideas, such a fact does not mean that truth 'depends upon the will of man', for truth is based upon that which is not arbitrary, namely the relationship which words have among themselves to things. We have here, in embryo, the picture theory, but without the machinery of truth functions; we shall see later however, that truth functions cannot be regarded as an appendix to the picture theory.

Can any series of signs be interpreted in such a way as to turn them into sense ? Clearly, the answer must be: yes, since each word has an arbitrarily determined meaning. Such a question is one about surface grammar, but the one Wittgenstein asks is: In virtue of what does any significant string of signs make sense ? Let us put it this way; a proposition is 'possible' when it represents what could be the case. The problem here is that it sounds as if we are able to demarcate a set of propositions which are possible, from a larger set, where the larger set is determined without recourse to their being significant. As Wittgenstein was later to remark, a proposition just is something we call true or false[1]. We would be better to speak of an arbitrary string of signs and ask in virtue of what it is a proposition. As soon as we have made a determination as to the meaning of the individual signs, the resultant propositional sign will be nonsense or not according as that relation of symbols stands in a possible projective relation to the world. But might not any such string of symbols stand in such a relation ? According to Wittgenstein, no; this possibility is not arbitrary, for a picture cannot accidentally picture the world, since every picture is at the same time a logical one, although the truth of such a picture is of course contingent. We can now see the connection betwenn 5.4733 and the notion of an Urbild. A picture is a picture in virtue of it having a form in common with what it pictures, and what a picture pictures is the world; it can do so only in virtue of

1. e.g. PG p 123 ff. This remark ought not to form part of an argument against the possibility of a truth value gap. See Rosser & Turquette, Many valued Logics 1952, p 3.

having the same form as the world. If we were to transform the constants (ordinarily conceived) into variables, the superficial form results, and as Wittgenstein says at 3.24, the notation for generality contains an Urbild. These Urbilder are not arbitrary, for, suppose that the following was an Urbild;

(13) $*_1\ (\hat{Q}x)\ *_2\ *_2\ My\ *_1$

there would be no way in which this could be used to say how things were by a transformation of variables into constants. The signs in (13) have in one sense quite arbitrary meanings. They have the meanings quite simply that we have given them; how then can it appear that (13) can express nothing, whereas

(14) $(\hat{Q}x)(\hat{Q}x)(Rxx\ *_2\ Rxx\ *_2\ Rxx)$

can ? Why is (14) an Urbild ? As Rhees has remarked in his review of Black's Companion

> If the meanings of names are arbitrarily fixed, it does not mean that the sense of a sentence is arbitrarily fixed. What fixes the meaning of a name is a rule. But if someone says 'an arbitrary rule is a contingent proposition' he confuses a rule with a generalisation. (Conversations of Wittgenstein p29)

In other words that a proposition expresses the sense it does express is not arbitrary. To suppose otherwise is to confuse sign with symbol. And, as we have seen, for Wittgenstein the general propositional form expresses the essence of the world.

This serves to shed some light on two aspects of the Tractatus; (a) The difference between name constants and the so-called logical constants in relation to substitution and preservation of significance. (b) The fact that the theory enunciated in the Tractatus is not a synthesis of the picture theory and the theory of truth functions. Miss Anscombe has made this remark (AT p 81), but it seems to me that she has adduced no reason for its truth, whereas our considerations do.

I have not in this chapter explored further possibilities arising from the construction of PS. (Indeed I am not sure whether there are any other than as an excercise.) But I put the suggestion forward, certainly not as an explicit statement of Wittgenstein's intentions, for at some stage he would have objected to such a thing, since he says in the notes dictated to Moore that 'Logical constants cannot be made into variables: because what symbolises is not the same; all symbols for which a variable can be substituted symbolise in the same way' (NB p 113). So I do not pretend that the above is being faithful to Wittgenstein at that point, but I do think that it can be used in order to find something out which is faithful to the Tractatus.

Nor can I do more than register the fact that Wittgenstein wrote many things subsequent to the Tractatus on logical form (in the Philosophical Grammar for instance).But it seems to me that many of those remarks are not as interesting as those in the Tractatus, and also that on occasions he had lost positive insights which he had gained from Frege.

As we all know, the Tractatus finally shipwrecked, partially as a result of Ramsey's observation that in order to determine fully generalised propositions there would have to be more variables than there were names; we then have to admit the possibility of there being names without Bedeutung, and so the whole theory of saying and showing crashes in some of its most essential respects. What, if anything can be salvaged ? When we consider the Tractatus, it is I think a pointless question; it is a system which cannot be tinkered with, although as I have insisted there are positive insights to be gained by its study. This monolithic nature of the work provides one of the reasons I believe why the affinities are so difficult to discern between the later work and the Tractatus. We shall have cause to discuss the Tractatus in the next chapter on identity, after which the thrust of the work will be towards the later approach to language which we find both in Wittgenstein and in others.

CHAPTER SEVEN SOME RECENT PROPOSALS ABOUT LOGICAL FORM

It has been accepted for some time that the notion of a proposition's logical form would occupy a central place in a theory of meaning for a language. Nevertheless, those writers, beginning with Frege, who have concerned themselves with logical form (although, as indicated, he does not use the phrase himself) have used, consciously or otherwise, differing criteria for the acceptability of a theory of logical form.

Some philosophers like Quine have regarded the problem of logical form as essentially a matter of the regimentation of a segment of language (the language of science), and, in general, those who have followed Quine have attempted to represent natural language in the first order predicate calculus[1]. Another stance is taken by philosophers like Ryle,[2] whose concept of logical form is similar in many respects to Wittgenstein's later notion of 'grammar', a notion to which we alluded in chapter one. The third, and for my purposes final position with regard to this question is adopted by Katz and Carnap, who show dissatisfaction with the attempt to regiment language into what they consider to be the impoverished predicate calculus (with identity and function letters). This general notion of logical form is however much closer to Quine's than to Ryle's.[3]

Naturally, any such programme is not limited to the representation of sentences in isolation, but also attempts to account for the logical relations (of deduction) which hold between sentences; that is to say, attempts to represent those factors, knowledge of which would enable someone to grasp why one sentence follows from another. This is related to (and on

1.Quine, although influenced by Frege, restricts his calculus to that of first order, unlike Frege, who was happy with second order quantification.

2. See for example, 'Systematically Misleading Expressions' PAS 1931/2, 'Formal and Informal Logic' in Dilemmas 1954.

3.In placing Katz and Carnap together, I do not show that I think there are no relevant differences between them in this respect. They are put together in virtue of their common antipathy to the restricions outlined above.

some accounts identical with) the notion of a structurally valid inference.

It might be asked: Why is a theory of logical form invoked to do both these tasks ? The connection lies in the concept of truth. We are required to invoke this notion in order to explain the consequence relation (that is, an inference is valid iff it is necessarily truth preserving), and it has (generally) become part of received wisdom that the sense of a sentence is to be identified by identifying its truth conditions. ('Semantics without mention of truth conditions is no semantics at all'.)

In order to introduce a discussion of logical form I wish to consider a dispute between Katz and Harman[1] in order to clarify some of the issues which are presently regarded as central to the notion of logical form.

In LF, Harman proposes that any theory of logical form must do three things:

(i) It must assign a logical form to every interpretation of every sentence.

(ii) It must state rules of logical implication.

(iii) It must provide a finite list of obvious truths or axioms.

Harman subsequently remarks (LF p 39), that ability to account for all 'obvious implications' in the language under consideration forms the minimal condition of adequacy. Harman's formulation can be objected to, both in consideration of clarity and plausibility. Take (ii) for example; what does it amount to, to state a rule of logical implication? And how many such rules must be stated ?

Suppose, initially, that for expository purposes, we take the propositional calculus as a model. Should we then say that (ii) is satisfied iff

1. J.J.Katz Semantic Theory 1972 (ST): 'The Dilemma between Orthodoxy and and Identity' in Language in Focus Essays in memory of Y.Bar-Hillel (Ed) A.Kasher 1976 (D); G.Harman 'Deep Structure and Logical Form' in Semantics of Natural Language (Eds) D.Davidson & G.Harman 1972 (DS): 'Logical Form' in Foundations of Language 1972 (LF).

we state at least the smallest set of rules of logical implication which would enable all tautologies to be derived (or if you prefer, to ensure that there was no tautology such that it could not be derived from a finite number of applications from the rules) ? But it is going to be clear that there are certain considerations about completeness (in a quite ordinary sense) which apply differently to the cases of a natural and formal language.

Perhaps, given certain constraints upon the language to be interpreted, and, given the classical introduction and elimination rules, we could answer yes. What would such rules then look like ? Take the following:

(α) $(A \rightarrow (B \rightarrow A)$

(β) $((A \rightarrow (B \rightarrow C)) \rightarrow ((A \rightarrow B) \rightarrow (A \rightarrow C)))$

(γ) $((\sim B \rightarrow \sim A) \rightarrow ((\sim B \rightarrow A) \rightarrow B))$

Now, if we do take such a calculus for a model, it can be seen that goals (ii) and (iii) are not independent, in that, pretty clearly, (α) to (γ) are all axioms. But in (iii) Harman asks for a list of obvious truths or axioms. But the relation between obvious truths and axioms is not at all clear. Is it identity ? Or are axioms merely one type of obvious truth ? The notion of an axiom is precise and clear, not so the notion of an obvious truth; such a notion is irredeemably vague. Obvious to whom ? On the other hand in speaking of axioms Harman was perhaps speaking of the non-logical axioms (so-called) which would be of the form

Den ("a")=a

or $(x)(\text{Den}(\text{"a"}) = x \equiv \phi x)$

If this is what Harman means by 'axiom' (and also by obvious truth), then alright; but it seems clear that Katz thinks that there ought to be more in the way of such truths than clauses of this sort.

Presumably the theorist should find these axioms obvious, and Harman is of the opinion that in comparing theories of logical form we should keep 'what is obvious' fixed(LF p.41). Even at first sight it is

clear that this will not do, since it ought to be part of a theory of logical form to determine what a valid inference is, as opposed to what we take to be an obvious truth, and thus there can be no agreed way antecedently to the comparison of theories of keeping what is obvious constant. Thus the notion of comparing competing theories on such a basis is quite illusory. There exist two degrees of freedom; 'obvious' as opposed to 'non-obvious' as opposed to 'axiomatic';neither can be held fixed by fiat in the way imagined by Harman. (No further point would be served by enriching our language, e.g., by considering the predicate calculus as a model in the same way as the propositional calculus was taken above; each point would go through in exactly the same way.)

Harman subsequently advances five criteria for the acceptability of any particular theory of logical form. They are:

(1) A theory of logical form must assign forms to sentences in a way which permits a (finite) theory of truth for the language, along the lines proposed by Davidson's reading of Tarski[1].

(2) A theory of logical form should minimize novel rules of logic. Other things being equal, one account is better than another, the closer its logical rules are to those of ordinary (first order) quantificational logic (with function letters and identity). (Harman's italics)

(3) A theory of logical form should minimize axioms.

(4) A theory of logical form should avoid ascribing unnecessary ontological commitment to the sentences [!] of the language.

(5) A theory of logical form must be compatible with syntax, where the logical form is regarded as at least part of the underlying structure assigned sentences by a transformational grammar.

It is clearly possible to disagree with any of these criteria (to differing degrees) without thereby holding that a theory of logical form ought to subscribe to the (internal) negation of any of (1) to (5). It seems to me

1. Harman cites Tarski's Wahrheitsbegriff and Davidson's 'Semantics for Natural Languages' in Linguaggi Nella Società e Nella Technica Milan 1970

that not only in the goals of a theory of logical form but also in these criteria Harman begs certain substantive issues, but we shall leave the aims of theory on one side and concentrate on the criteria enunciated above.

The most tendentious points are (2) and (5), but since a discussion of (5) would not be relevant to the main points of this chapter, and, Harman is criticised by Katz largely on account of (2), I shall remain largely within the area demarcated by that criterion.

Harman nowhere defends his criteria except indirectly; that is to say, it is not coincidental that his adopting these criteria coincides with Harman's own theory of logical form espoused in DS, namely that deep structure is to be identified with logical form. Of course this is what we should expect; my argument is not that his criteria of acceptability ought to render his own theory unacceptable, but rather that Harman has failed to produce additional reasons for the acceptability of his theory by adducing these criteria. He has in fact rather arbitrarily provided reasons, which if valid, would support his own position, but in order for these reasons to carry any weight, to have any suasive force at all, it must be seen that such reasons have a plausibility which is gained without any consideration of whether they happen to support his own (pre-chosen) theory of logical form. The force of my objection is to be seen most clearly by looking at Harman's second criterion, which is examined by Katz in D.

The 'orthodoxy' Katz refers to in the title of his paper is that of Quine's, according to whom logical form has to do exclusively with how "truth functions, quantifiers and variables stack up" Katz, rather than elaborating the arguments which he puts forward in ST, namely that the non-logical vocabulary contributes as much to the validity of implication as logical vocabulary (an argument with which as will appear, I have little sympathy, since it falsifies what logicians think they are doing when they "put a sentence into logical form"), argues instead that

(1) If the orthodox view of logical constant-hood is accepted, then identity is also accepted as a logical constant.

(2) If identity is accepted as a logical constant, then whoever

does so accept it, cannot consistently reject e.g., meaning postulates as doing the job of logical constants.

(3) Any theory which accepts meaning postulates as logical constants (or as equivalent to logical constants) thereby shows itself to be heterodox.

This is a strange argument, the most questionable premiss of which being (2);before picking up that argument Katz (I think successfully) fires a few shots across Harman's bows. Katz is quite correct in arguing that with respect to competing theories, a constraint of adequacy is logically prior to any constraint of economy or parsimony. That is, given two theories , both of which (a) license a(finite) truth theory, (b) specify at least one logical form for each sentence of the language,(and, if the sentence in question is amphibolous[1] specifies at least one logical form for each semantic reading of that sentence) and (c) explains all and only those sentential implications which the other accounts for, then and only then do we find ourselves in a position to apply Occam's razor.

Now since quantification theory is not claimed to formally represent the same class of inferences which is putatively handled either by Carnap's "meaning postulates"[2] or Katz' semantic theory[3], such "deviant"

1. I use 'amphibolous' to characterise a sentence which is ambiguous in respect of its syntactic construction, 'Ambiguous' I reserve to characterise sentences which admit of more than one reading due to the existence of more than one lexical assignment to one or more particular words which occur in the sentence under consideration. It does seem to me that a theory of logical form can be expected to deal with every case of ambiguity, but only in those cases where ambiguity has an amphibolous base - that is - where we involve the notion of a substitution class, and thus regard amphiboly as occuring only when the variant lexical readings are not drawn from the same substitution class. Thus 'The shooting of the students was terrible' is an example of amphiboly, 'Jonson went to the bank' one of ambiguity. Failure to specify the reference of pronouns (other than when the reference of pronouns remains within a sentence or conglomeration of sentences),or to specify the time and place at which an utterance might have been made, and thus apply to, is to be counted as neither.

2. R.Carnap Meaning and Necessity 1956, pp 222 ff

3. J.Katz ST Chapter four.

theories ("deviant" that is, in a purely conventional sence, as opposed to the theories that have been characterised as "orthodox"), cannot be compared with orothodox theories, at least on the grounds of extravagance. For two theories to be comparable they must be commensurate with respect to certain parameters.

Now although Katz is surely right to object to Harman's blatant begging of certain substantive issues, it is not at all obvious to me that Katz succeeds in his overall argument, namely in showing that there is a dilemma, the magnitude of which would lead us into the arms of a Carnapian or Katzian semantics. Katz is of the opinion that orthodoxy stands or falls on the question whether there is a logical/non-logical distinction between the vocabulary of language represented by quantification theory and the rest of language (D pp 167-8), and such an opinion is at best, oddly put.

Let us ask ourselves just what the vocabulary of a language represented (fully) by quantification theory is (for present purposes ignoring modal and other non-standard logics). The answer would presumably be whatever is represented by (referred to, characterised by, or what you will) names, predicates and functions, and the practice of binding variables by quantifiers, and this notion we could extend to include any variable binding operation, as well as the numerical and other quantifiers like 'most', 'many', 'all but n' etc. Now obviously we cannot regard this apparatus as complete in the sense in which we would say that a theory which could characterise any and all sentences in natural language was complete. (Only natural language itself is complete in that sense .) But the point at issue is that there are certain valid inferences which cannot be represented by quantificational theory without certain sizeable extensions to that theory. This fact is taken by Katz to mean an implicit repudiation of the distinction between the logical and non-logical vocabulary upon which, quantification theory was constructed in the first place.

Now, if there are sentences which cannot be represented in PC, perforce there will be implications (at least those between such sentences) which cannot be represented either. But Katz chooses a very odd example to illustrate his point; viz:

(4) All dreams have Freudian significance ergo

(5) All nightmares have Freudian significance.

If this argument is sound (which Katz believes, and believes that Quine would not) then, Harman must surely admit that an acceptable theory of logical form ought to be able to account for the fact one way or another. If quantificational theory cannot account for this, we are debarred from identifying logical form with the structure assigned by PC simpliciter, since to do so would be to suppose that the inference from (4) to (5) could be thus adequately represented, which is contrary to hypothesis.

Why I find Katz' example so strange is that there are far more trenchant problems involved in the regimentation of other fragments of language. For example, attributive predicate modifiers, or propositional attitudes. And also because there appears to me to be such an obvious way in which (4) to (5) can be represented in quantificational theory; but it seems so obvious that I cannot help but think that I have missed something. It is no more difficult than accounting for the validity of

(4a) All men are mortal ergo

(5a) All members of Socrates's family are mortal.

Suppose that we read 'F' for 'is a dream', 'G' for 'has Freudian significance' and 'H' for 'is a nightmare', then we have the following argument, whose validity does not of course depend on any particular interpretation of the predicate letters.

(6) $(x)(Fx \rightarrow Gx)$

(7) $(x)(Hx \rightarrow Fx)$

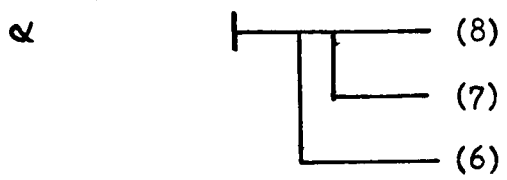
(8) $(x)(Hx \rightarrow Gx)$

Now if Katz thinks that in order to account for the validity of (4) to (5) we have to introduce a meaning postulate of the form

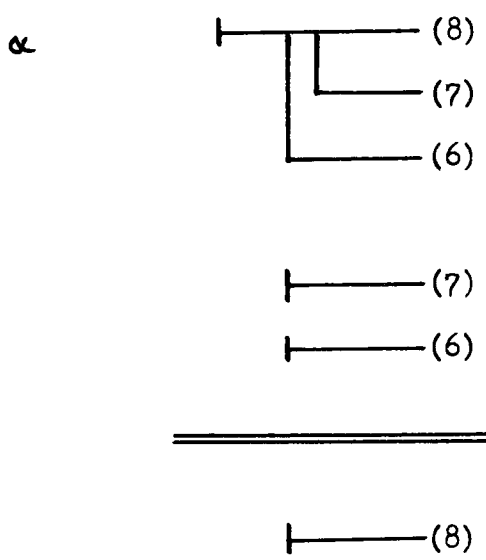
(9) $(x)(N_x \rightarrow D_x)$

(where 'N' is 'is a nightmare' and 'D' is 'is a dream') to - as it were - stand on the same footing as (7), when it occurs in the argument (6) to (8),

he has just made an error, perhaps as a result of a confusion about assertion. If we were to write out (6) to (8) in the notation of Begriffsschrift (particularly useful here since it exhibits the asserted propositions so clearly) we will see where Katz has gone wrong. The argument is:



in which ⊢ (7) and ⊢ (6) do not occur. (8) is asserted only on the condition that (6) and (7) are asserted as true, although α can as a whole be asserted independently of the truth of (6) and (7); (8) can be asserted as the conclusion of the argument only after (6) and (7) have been asserted. The whole argument is then of the form:



Thus, ⊢ (8) follows only if ⊢ (7) and ⊢ (6) occur. The judgement that (9) is a ground for the assertion of (7), not a ground for the validity of α.

Perhaps this is the relentless spelling out of the obvious; but Katz has, I think, made a simple error at this point. How would we then represent the sentences (3) and (4) ? Just like (6) and (8). Perhaps Katz' objection is that, necessarily, if we understand English, we would know that all nightmares are dreams, whereas our understanding of (6) and (8) entail no such thing. The obvious danger here is that Katz is no longer talking about logical form, but wishes any theory (so-called) to give the meaning of the parts of language, and unfortunately the phrase 'logical form' is too useful just to give him (otherwise, the easiest solution). Lewis[1] provides a critique of Katz's approach which I find quite convincing. In calling the language in which Katz and others wish to talk about our language 'Markerese', he says;

> Semantic interpretation by means of [semantic markers] amounts merely to a translation algorithm from the object language to the auxiliary language Markerese...Translation into Markerese is at best a substitute for real semantics, relying either on our tacit competence (at some future date) as speakers of Markerese or on our ability to do real semantics at least for the one language Markerese. (p 169)

In other words, to demand that a theory of logical form should be able to mark every representable distinction in natural language is to throw in the towel before the fight, independently of criticisms of the sort made by Lewis and Vermazen[2].

Although I feel Katz' whole programme to be misconceived, he does raise issues which deserve reflection. In D the problem of identifying the logical constants is made to bear the whole weight of his subsequent argument. That is to say, Katz has a picture of the "orthodoxy" which entails, for the successful formulation (never mind completion) of their programme an absolutely sharp distinction between logical words and non-logical. I think Katz rightly objects to us merely providing a list of

1. D.Lewis 'General Semantics' in Semantics of Natural Language (Eds) D.Davidson and G.Harman, pp 169 - 218.

2. B.Vermazen 'Review of Katz & Postal An Integrated theory of Linguistic Descriptions and Katz Philosophy of Language' Synthese 1967, pp 350 - 365.

of the logical constants; surely we want to be given a rationale for the list. Katz's aim is then to show that the orthodox programme is inconsistent with reference to the question whether to count the sign of identity as a logical constant. There are two separate questions here:
(1) Are there really profound difficulties about identifying the logical constants ? Can we consistently identify identity as a logical constant and withhold constant-hood from certain other expressions ?
(2) Is Tarski (for example) right in claiming that there is no reliable way of distinguishing between logical and non-logical expressions ?[1]

These two questions are of course related, for if we attempt to identify as logical constants those iterative features of language which 'require a recursive clause (not in the base)'[2] it would appear, as Evans[3] has pointed out, that it is possible to treat a great many expressions in this way which are not typically regarded as logical constants in a recursive truth definition[4], and moreover, on the standard semantic treatment, identity turns out not to be a logical constant.

Michael Dummett has attempted a justification for counting identity as a logical constant, whilst acknowledging that such a justification is quite different from that for the other logical constants. He continues:

> Let us call a second level condition any condition which for some domain of objects, is defined, as being satisfied or otherwise, by every predicate which is in turn defined over that domain of objects. Among such second level conditions we may call a quantifier condition any which is invariant under each permutation of the domain of objects: i.e., for any predicate 'F(ξ)' and any permutation $\phi(a)$,

1. A.Tarski 'On the Concept of Logical Consequence' in Logic, Semantics, Metamathematics, pp 418 - 19.

2. D.Davidson 'In Defense of Convention T' in Truth, Syntax and Modality (Ed) H.Leblanc, p 81

3. G.Evans 'Semantic Structure and Logical Form' in Truth and Meaning (Eds) Evans and McDowell, p 203.

4. This point is taken up by C.Peacocke in 'What is a Logical Constant ?' in Journal of Philosophy 1976, p 225.

> where '(Fξ)' is true of a. Then we allow as being a constant any expression which, with the help of the existential and universal quantifiers, and the sentential operators, allows us to express a quantifier condition which could not be expressed by means of those two quantifiers and the sentential operators alone. Thus the sign of identity is recognised on this criterion, as a logical constant, since it allows us to express the condition that a predicate applies at most to one object, which cannot be expressed without it. (Frege p22)

Does this justification have any force ?[1] I think that we may ultimately conclude that it does, but we have to make explicit one or two assumptions on Dummett's part. Even so, we must remember that the above is only a justification and not an attempted proof, so there might be reasons for accepting identity as a constant even though it might be shown to be dispensable.

That a predicate '(Fξ)' applies uniquely to an object a would standardly be expressed in the following way

(10) $[(y)\ (x)(Fx \leftrightarrow x = y)\ \&\ Fy]$

which in Russell's Theory of Descriptions is equivalent to

(11) $E!(\iota x{:}Fx)$

That (11) is logically dependent on (10) is shown by the fact that we have to write out a formula similar to (10) in order to disambiguate the description operator under negation. The description operator does not itself enable us to dispence with the sign of identity, although once we have admitted the identity sign as a logical constant, it is entirely natural to extend that privilege to the description operator also.

Suppose that the domain of objects is finite; we could in that case represent the fact that a predicate applies at most to one object by simple enumeration, given that all the objects in the domain can be put in a one to one correlation with the set of names in the language. Thus if our domain contained three objects for example, this would be expressed in this way;

(12) $Fa\ \&\ \sim Fb\ \&\ \sim Fc$

This could not be represented using just the first level quantifiers, since we could not be sure that two of the quantifiers were not picking up variables which stood for the same object. To express this fully we would have to use

1. Remember that Katz holds both the sign for identity and meaning postulates to express rules among predicate constants.

higher level quantification as in

(13) $(\exists x)(\exists y)(\exists z)(\exists G)(\ Fx \ \& \sim Fy \ \& \sim Fz \ \& \sim Gx \ \& \ Gy \ \& \sim Gz)$

This makes sure that $y \neq z$, which is what we want to express without the use of the identity sign. But the problem is, (13) expresses more than what we wanted, since it invokes another predicate constant, which cannot be defined as the complement of F, since that would result in contradiction. Nevertheless, (13) does entail the initial quantifier condition. So, it is clear that one of Dummett's assumptions was that there is no convention governing the possibility of a one to one correlation of names with objects, and was meaning to rule out the higher order quantifiers. It is not sufficient[1] just to know the size of domain without invoking these facts in order to be able to express the quantifier condition exactly, and not merely some truth which has the expression of the quantifier condition as a consequence. But we could produce conventions which did not relate just to the names, but also to the use of quantifiers.

What should we make of the following formula ?

(14) $(\exists x)Fx \ \& \sim (\exists x,y)Fx \ \& \ Fy$

This is Wittgenstein's method of expressing the second level condition that an object uniquely satisfies a predicate, or better, since Wittgenstein in the Tractatus, adopted a theory of quantification which is akin to the substitutional, that there was only one substitution instance of 'x' in the predicate 'Fx' such that 'Fx' expressed a truth. For the more complex sentence

(15) $F(\ x:Gx)$

1. We should not be misled by the fact that although any closed sentence can be expanded into series of truth functions when its variables range over finite domains that this can be done when the variables are defined over all finite domains. For just as 'all dogs' is not a dog, 'all finite domains' is not a finite domain.

the corresponding sentence in Wittgenstein's notation is

(16) $(\exists x)Gx \;\&\; Fx \quad \&\sim (\exists x,y)Gx \;\&\; Gy$

As is well known, the negation of (10) is ambiguous between

(17) $\sim(\exists y)\,[(x)Fx \leftrightarrow x = y \;\&\; Fy]$

and

(18) $(\exists y)\,[(x)Fx \leftrightarrow x = y \;\&\sim Fy]$

Similarly, the negation of (15) is ambiguous between

(19) $\sim\,[(\exists x)((Gx \;\&\; (y)Gx \leftrightarrow x = y) \;\&\; Fx]$

and

(20) $(\exists x)[(Gx \;\&\; (y)Gx \quad x = y) \;\&\sim Fx]$

To these four there corresponds in Wittgenstein's notation

(21) $(\exists x,y)\; Fx \;\&\; Fy$

(22) $\sim(\exists x)Fx$

(23) $\sim(\exists x)Gx \;\&\; (\exists x)(\sim Fx)$

(24) $(\exists x)(Gx \;\&\sim Fx) \;\&\sim(\exists x,y,)(Gx \;\&\; Gy)$

The odd-looking one here is (23), caused by the separation of the quantifiers, which in virtue of it using the same name variable, must be regarded as picking up the same object on both its occurrences. Unless we do this we would produce

(25) $\sim(\exists x)Gx \;\&\sim Fx$

which is plainly equivalent to

(26) $(x)Gx \leftrightarrow Fx$

which is plainly <u>not</u> equivalent to (19)

Thus if we adopt the practice of representing identity, not by the sign of identity but by identity of sign we can say anything which we could have said using the sign of identity. This is the second of Dummett's (inexplicit) assumptions.[1]

1. James Bogen in <u>Wittgenstein's Philosophy of Language</u> p 69, actually remarks that although Wittgenstein agreed with Russell's Theory of Descriptions, he would have difficulty analysing sentences like (15) without running foul of his account of equations. This is not so.

There was more to Wittgenstein's proposal than a change in notation, for it was motivated by philosophical considerations; but I will not go into those here.

To say that we well do without the sign of identity is not as such to render Katz' dilemma innocuous, but it does I suggest, put it in perspective. The sign of identity is doubtless a useful device as a shorthand variant of (in many cases) much longer and less perspicuous formulae. But just because it is definable in terms of the other constants, when theorems of first order PC with identity are reduced to PC without identity (either in the case of finite domains, or when we adopt Wittgenstein's symbolism) model-theoretically valid sentences match. And this surely indicates that the sign of identity stands in an intimate relation to those expressions (the standard quantifiers and the connectives) which have traditionally been regarded as logical constants.

That it is definable in terms of other constants shows that when it is introduced by means of the other constants it is no longer regarded as primitive (or 'primitive idea' in PM), and as such becomes a mere notational device. In just the same way, we could take advantage of the well known equivalence between $(\exists x)Fx$ and $\sim(x)\sim Fx$, as Frege did. Indeed the same may be said of all the classical connectives, except negation, but not of the intuitionistic constants due to their proven independence.

In our discussion of Dummett's criterion above, we concentrated only on certain general remarks which suggested that the sign of identity was necessary in order to express certain second level conditions. No mention has been made of Dummett's phrase 'for any permutation of objects'; this was done in order that we should be able to separate out the conditions under which such a justification became appropriate from the actual justification itself. But this phrase is most important, gesturing

towards the notion of 'topic neutrality' which, although Ryle has argued that it is not a sufficient criterion of what it is to be a logical constant, it remains plausible to suppose that topic neutrality is partially constitutive of the concept in hand.

This is borne out by Peacocke (see p 138 above) whose initial formulation of a criterion of logical constant-hood is as follows:

> α is a logical constant if α is non-complex and, for any expressions $\beta_1,\ldots\ldots\beta_n$ on which α operates to form expressions $\alpha(\beta_1\ldots\ldots\beta_n)$, given knowledge of which sequences satisfy each of $(\beta_1\ldots\ldots\beta_n)$ and of the satisfaction condition of expressions of the form $\alpha(\gamma_1\ldots\ldots\gamma_n)$, one can know a priori which sequences satisfy $\alpha(\beta_1\ldots\ldots\beta_n)$, in particular <u>without knowing the properties and relations of the objects</u> in the sequence. (my emphasis) <u>ibid</u> p 223.

This proposal is subsequently modified (slightly) to suit the various candidates which Peacocke examines (classical connectives and quantifiers, identity, set membership, necessity and the intuitionistic constants). All I want to say about the criterion is that it is crucial that an appeal is made to someone's knowledge (or ignorance) of the properties and relations in the sequence (presumably to the <u>other</u> objects in the sequence).

But appeal to the notion of 'knowing which' raises profound difficulties as Peacocke acknowledges, since it is <u>that</u> stipulation which even if the Hibert-Bernays definition is rejected (the identity of indiscernibles) renders identity not to be a logical constant, since it is <u>not</u> always possible to know a priori whether or not a sequence <u>s</u> satisfies $\ulcorner x_i = x_j \urcorner$, even if one knows that the i'th element of a sequence <u>s</u> is a, and the j'th is b, and any sequence satisfies $\ulcorner x_i = x_j \urcorner$ iff its i'th and j'th members are identical. In fact the conditions which would satisfy such constraints would be pretty minimal - when the sequence contained only one member for example.

We have here raised difficulties, whose mere airing seems to me to render Katz' objections peripheral. We are engaged in certain

problems which run deep. Considerations according to which we can determine identity to be (or not) a logical constant, and it is clear that none of the questions raised seek their rationale in a wish to exclude meaning postulates and the like from a theory of logical form. That is to say, the arguments outlined above (which Katz would probably consider orthodox) have appealed only to formal considerations in the sense that they have not appealed to the meaning of any particular expression, but only to the most general combination of such expressions and the result of the application of certain operations to such expressions.

We must ask, before returning to the concept of validity, what a discussion of logical form has to offer by way of enlightening us as to the understanding of a language.

It appears an all too easy step to make (and perhaps quite a natural one) but one which requires careful scrutiny, to argue that the grasp of logical form is constitutive of the grasp of any sentence which has that form. How is it, moreover, that the dogma countenanced by Russell in the Theory of Knowledge TS, that to understand a proposition is to be acquainted with its form, can take on the appearance, if not of an obvious truth, at least of a transcendentally deduced necessity ? In the Problems of Philosophy Russell introduces a related thesis as a principle of analysis of propositions, which in the first instance, contain definite descriptions. He says

> Every proposition which we can understand must be composed wholly of constituents with which we are acquainted. (p 32, and repeated in Mysticism and Logic p 159.)

Russell then remarks that it must be possible to meet any objection to this principle, and in doing so, seems to regard the conclusion as that of a transcendental deduction. It is important to note that Russell's use of the term 'constituent' at this time was not opposed to the term 'component'; the former is to refer to individuals, the latter to universals.

In PM (2nd ed, p xx, footnote), Russell remarks that he has taken this distinction from Wittgenstein, although we find him using only the word 'constituent' in 'The Philosophy of Logical Atomism' (1918) and 'On Propositions: What they are and how they mean' (1919). So Russell is including 'universals' among the objects of acquaintance, according to the dictum above.

Russell introduced the notion of the form of a proposition in order to distinguish propositions which have the same constituents; a proposition was said to have the same form as another if one could be transformed into the other by simple substitution of names, relations or predicates (Logic and Knowledge p 286). As to Russell's dictum, there is a clear sense in which we may interpret him to be speaking the truth, but the result of so doing fails to yield interesting conclusions. For the way Russell explains 'being acquainted with a constituent' (e.g., Problems of Philosophy p 32) amounts to being acquainted either with a set of abstract objects or a set of physical objects (or a mixture of both) which are the 'meanings' of those constituents. Once Russell's questionable notion of acquaintance is removed, his dictum amounts to no more than the banal demand that in order to understand a proposition we must understand the words occurring therein. (As ever, exegesis of Russell is a matter of probability. In Theory of Knowledge TS, p 33 he writes that in order to understand a proposition we must be acquainted with its form, although in PLA he is concerned to argue that the form of a proposition is not itself a constituent of that proposition; Logic and Knowledge p 239)

Being acquainted with the form of a proposition is not equi-form to being acquainted with an object for the following reason. The notion of the form of a proposition can be elucidated independently of the meaning of the proposition, whereas the relevant account of the phrase 'being acquainted with a constituent' could not be provided independently of an account of the phrase 'knowing the meaning'.

Yet to speak in this way of form is to muddy our path. For it might be thought that it was at least plausible to suggest that we understand a sentence inter alia in respect of its form, and that we understand a sentence in virtue of understanding another which 'has the same form'. (This latter supposition evidently cannot be universally true.) Where we are led into difficulty is supposing that it is the theorist's notion of form which is applicable here. Every sentence (which is not amphibolous) is put together in a quite definite way, in virtue of which it has the sense it has, rather than any other which could be obtained by a use of the same words. Thus, anyone who understands the sentence must also understand the way it is put together. But this notion of form cannot be the one which the theorist uses, since, if that were the case, there could be no difference between knowledge attributed to a speaker of a language (by a theorist) and the knowledge which the theorist invokes in order to deal with the language. And that there is such a difference requires no argument from me.

There is a good sense to be given to the expression: A sentence has the form it has - namely, just the way it is put together. But the theorist's notion of form is not so obvious in its application; it is not something which the sentence has, willy nilly, and is not to be conceived of as something to be discovered, as being there independently of what anyone thought or did (we could imagine it constantly changing). We use the notion to explain the generation of sentences, and to account for the concept of validity. This notion of form has received some attention of late in the writings of Davidson. He writes;

> One trouble with [the] sentences [under consideration] is that we do not know their logical form. And to admit this is to admit that, whatever else we might know about them, we do not know the first thing. ('On Saying That' Synthese 1968/9, p 130)

The insistence that we (as theorists) should know the logical form of a sentence has historically had two motivations. Davidson exhibits

perhaps only one of them, as follows:

(I) A semantic theory ought to account for the way the meaning of a sentence is a function of the meaning of its parts, or, what comes to the same thing, how each element or semantic feature of a sentence contributes to the meaning of the whole. Davidson conceives a theory of meaning for a language as being a theory of truth, taking as his starting point the work on the concept of truth in formalised languages by Tarski, such that for each sentence in the language, the theory yields a theorem of the form 'p' is true iff _____, where what replaces 'p' is a structural description of the sentence in the object language, the blank to be filled by those conditions under which the sentence is to be deemed true according to the theory. One of the constraints on such a theory is that it should not employ infinitely many semantical primitives, thus necessitating (what is obviously true in any case) the recursive specification of the truth conditions of each sentence. To provide an account of logical form,

> We must uncover enough structure to make it possible to state, for an arbitrary sentence, how its meaning depends upon that structure, and we must not attribute more structure than such a theory of meaning can accomodate. (D.Davidson, 'The Logical Form of Action Sentences' in The Logic of Decision and Action, p 82)

Davidson elsewhere[1] connects such constraints with the possibility of any language being learned[2]; a language is unlearnable if we cannot

1. 'Theories of Meaning and Learnable Languages' Logic, Methodology and the Philosophy of Science (Ed) Y.Bar-Hillel, pp 383 - 394

2. In a footnote to 'Radical Interpretation' Dialectica 1974 p 327, Davidson reiterates his point, but says that Kreisel has made him see that it is not obviously true. Robert Cummins ('Truth and Logical Form' Journal of Philosophical Logic 1975, pp 29 - 44) argues that Davidson has merely conflated two arguments, which he calls the "technical" and "psychological" arguments respectively. Namely, '(i) construction of a theory which would explain how learning to use correctly and to understand a finite number of expressions enables a person to use correctly and understand any of an infinity of distinct expressions, and (ii) constructing an adequate theory of truth in the tradition of Tarski, i.e., a theory which would, as far as possible, exhibit the truth conditions for sentences as a function of (referential) structure,' (p 42). To say that Davidson has conflated these arguments is surely an overstatement. He is using one as the criterion for the other.

characterise it by means of a finitely axiomatised truth theory.

Now it is no part of my aim to scrutinise this programme in depth, nor even to render its goals closer to achievement, for the sort of questions which I wish to raise are of a far more general nature; that is to say, relating to questions of principle rather than to questions of detail.

(II) The second motivation for speaking of logical form, apart from a means to characterise validity is that of trying to give an account of understanding in terms of it. I do not wish to impute this view to Davidson, although somewhere in the programme, the connection is going to become mandatory, if the notion of logical form has any part to play in an elucidation of the concept of meaning.

There is no doubt that in a good many cases we are unable to explain our grasp of the consequence relation, except by means of the quantifiers, and the rest of first order logic. But having recourse to such a means of explication shows something, not necessarily about the concept of understanding a language, but about us as philosophers; namely that quantification theory appears to <u>us</u> <u>now</u> as a perspicuous and indeed obvious means of explanation in this context, viz to explain the deductive relations which exist between sentences and as a means to disambiguate amphiboly.

The aspect of the theory which deals with the construction of complex sentences from simple ones, forms a central part of the theory of logical form, and constitutes one of the central rationales for drawing the distinction between logical and non-logical expressions. (cf Dummett's <u>Frege</u> pp 21 - 2.) But in constructing a theory of logical form, it is clearly incumbent on us to provide an account of the composition of simple sentences, viz, to say in what sense <u>they</u> are a function of their parts. This is by no means a secondary task in the construction of such a theory, and it ought if possible to fit smoothly into our account of complex

sentential composition.

In drawing attention to this requirement, Tarski drew on the notion of the 'satisfaction of a given sentential function by given objects'[1], which is a general concept applicable not only to complex sentences (i.e., sentences which are compounds of simple sentences) but to simple ones as well. It is I think evident that any theory of logical form must connect up with the concept of truth, which must in turn account for the nature of validity.

The concept of a logical constant is usable for only one type of inference, and thus to characterise one type of validity. Peacocke has remarked (op cit) that we do not have a conception of the validity of arguments in advance of the selection of logical constants, where they are to be specified, either by list or criterion. This is misleading. If we mean by 'validity' logical validity, then the remark is plausible, yet even so, not quite right. We do not have a criterion for logical validity in advance of a specification of the logical constants, if by logical validity, we mean the validity which results from an argument schema by arbitrary replacements of all non-logical constants. Of course, in this sense, what will count as valid will necessarily depend on which constants we choose. But the notion of logical validity is but one species of validity, even within the domain of deductive arguments (I ignore here the existence of arguments by analogy or induction). It is necessary that we have some conception of validity prior to the specification of the logical constants in order to see them in this special light; and that concept is given by the concept of truth preservation. This notion is familiar to everyone who can speak a language (although not everyone would call it 'truth preservation'), namely the concept of an inference being valid - or to call it 'correct' might be less misleading - just in case the situation in which the antecedent is true and the consequent false

1. Logic, Semantics, Metamathematics p 189.

is ruled out. Peacocke considers the notion of truth preservation, but concludes that it does not give us 'exactly what we want'. He does this by considering the argument

(30) John drank some water ergo

(31) John drank some H_2O

The point of this example is of course, that it is truth preserving (and necessarily truth preserving on some accounts of natural kinds), but does not retain this feature when we substitute some other word for 'water'.

Peacocke in arguing that the set of logical constants delivered by substitution in all contexts, although not liable to the sort of objection raised above, queries the interest in the concept so defined. This question is exceedingly difficult to answer, not because it is hard to say what interest the concept would still have, but because it is not clear why the concept 'logical constant' should have any different interest when its extension is determined in one rather than another of these two ways. The rationale for accepting one particular set is no less a rationale for it being determined via the concept of substitutability than by being determined by a criterion of the sort Peacocke proposes.

I have already had cause to speak about the objection to the mere production of a list (pp137 - 8 above); of course what is important is the way the list is produced, not that it is a list which we have produced. When Quine produces a list of logical constants he does not do so willy nilly, but does so due to a set of considerations. Simplicity for example, what is it he wishes to capture, and the criterion of truth preservation under all substitutions and transformations of non-logical constants. It might be thought that we are involved in a vicious circle here; for has not Quine given us a list of logical constants only in virtue of the notion of a non-logical constant ? This charge

would be incontrovertable if it were the case that we have no conception of validity prior to the specification of the logical constants, but it just is not true (as Peacocke seems to think) that we have no concept of validity in advance of such a specification.

When we consider not only the vast range of grammatical constructions which are regarded as licit by a speaker of the language, but also the vastly more complex range of uses of such sentences, we feel that we do not know where to begin in giving a general account, and thus merely gesture at the complexity of our language.[1] Thus Wittgenstein in the Tractatus remarks that the tacit conventions on which the understanding of everyday language depends are enormously complicated, and that everyday language is no less complicated than the human organism of which it forms a part (TLP 4.002).

In spite of this gesture, Wittgenstein (in the Tractatus, as Frege before him), is to be seen as representing a general tendency to restrict language, in the sense that one sort of sentence - usually indicative- was taken to be the central type of sentence, to the exclusion of all others. Frege's initial choice was determined by considerations to do with the sort of sentences which could occur in mathematical reasoning, although he later became interested in language for its own sake, and spoke of forces other than assertoric.

The extension from the assertoric mood to others is relatively unproblematical if we are able to draw on a certain notion through which an assertoric sentence can be related to its corresponding question, optative or command, and Frege took the twin notions of truth and falsity to form those central concepts. It is at first sight enormously plausible to regard the relation between truth and meaning in Frege's manner, since it then appears that we can explain the significance of a huge number of sentences and uses thereof, by reference to those central concepts. When presented with

1. Cf Frege 'Gedankengefüge', KS p 378 , and 'Logik in der Mathematik' NS p 243

the slogan that to specify the sense of a sentence is to specify its truth conditions, namely those conditions, which, if they obtained would render the sentence in question true, it appears that not only have we been provided with a means to relate sentences to others by considering how each sentence manages to say something about the world - and thus how there are certain truth preserving links between sentences - but also that we have been provided with a means of systematically relating sentences to others by consideration of mood; namely by appeal to the notion of a sentence radical (the assumption of the Investigations) which would be common to a set of sentences, all of which were in a different mood. Ultimately the whole notion of sense (= direction) rests upon the possibility of an equally clear notion of force, namely a theory which would determine or show that (say) assertion aimed at speaking the truth, where this notion of truth is to be given independently of the theory in question. For otherwise there would be no important distinction between p and $\sim$p, other than the fact that p &$\sim$p always expressed a falsehood (cf TLP 4.062).

Now it should not be thought that the only way we can relate sentences by the means of mood depends upon the invocation of the central notion of truth realistically conceived. Were we to take as our central concept that of verification or falsification, we could nevertheless construct a theory of force which would show or determine which conditions relate to an assertion, a command, and so on. Thus in place of the dictum that to understand a command is to know which conditions would satisfy that command, we would be presented with the dictum that to understand a command is to be able to recognise under which conditions the command would have been obeyed.

It is worth remarking at this point that critics of the verification principle have very often failed to perceive just how close its formulation lies to one of realism. It has often been said that the verification principle is incoherent because, surely, any sentence must have a sense before we can know what would count as its verification. Put like that, we can see that this is precisely the anti-realist point, if

the 'before' is construed logically and not temporally. It would be a stupid thing to say if, in arguing against the realist conception we said that we must be able to understand a proposition before knowing which conditions would render it true. In putting forward a truth conditional account, the realist is not saying that the sentence is a vehicle which contingently informs us of the conditions under which it would be true, independently of it having the sense it has that is. The fact that Wittgenstein and Waismann continually stressed that the proposition was not a means, or a vehicle to achieve its verification, but the sense itself, has just as often been ignored.

The programme which consists in the attempt to construct a theory of meaning which takes the notion of truth as the central concept (or the twin notions of truth and falsity) has begged a number of very basic questions. As long as the programme remains at the level of a programme, no harm can come about, since the truth of the theory may, so to speak, be held in abeyance, since it is an essential part of the theory that it may be constructed using that basic notion. And since this is so, it is clear that in begging these questions, the theorists concerned do not lay themselves open to the charge of acting illicitly; nor on that account should any work thus done appear irrelevant or pointless. If for example, it could be shown that there were insoluble problems of detail involved in the actual construction of such a theory, then that would show such a programme to be essentially misconceived; but by the same token, a proof that such a programme could be successfully completed would not at the same time guarantee its truth. In this it is different from mathematics where the proof of the possibility of a proposition is often a proof of its truth. The same might be said about an argument in philosophical theology.

In discussing various theories of truth, meaning and logical

form, these are the considerations which should always be borne in mind.

A. The question as to the learnability of any language which is characterised by the theory in question is clearly important. But in acknowledging its importance, it is not clear to what extent (if any) we become involved in inessential and misleading problems of cognitive and developmental psychology. An investigation of this sort ought not to entail any such thing, for it is irrelevant to my ability to speak and understand a language that I came to learn it in a particular way. For example, it is not part of the meaning of any expression that it was learned by ostension rather than (say) by explicit definition or by elucidation.

According to Wittgenstein in the Blue and Brown Books (and Investigations), meaning is what an explanation of meaning explains. This dictum is not devoid of content, but does require clarification; the point is not that there is some one explanation of the meaning of a word which constitutes the meaning of that word; for to take the dictum in that way would be to suppose that there was a non-contingent connection between the meaning of a word and the particular way it was learned, a supposition which Wittgenstein often repudiates.

Historically various claims have been made according to which learning a language consists in guessing (or estimating) which idea someone else associates with different words, and combinations thereof, thus allowing for the possibility that there could be more meaning to a word than there could be means to explain that meaning (see for example PI 209 ff for a discussion on this theme). As we shall see, this point is crucial in the debate between realists and anti-realists in the theory of meaning. What Wittgenstein's dictum does is to tie the notion of meaning down to the manifestation of the meaning of that word, which on any particular occasion could be construed as an explanation of that word. Thus meaning is to be seen as correlative to explanation, not in the sense of an historical hypothesis, but as that which exhibits understanding

In speaking of the learnability of languages, we might on occasions make hypotheses. (Smith could never learn Arabic - he hasn't even mastered his mother tongue, etc.) Or we might say that since the human brain has a certain structure, and people certain capacities, no-one could learn a language which required a capacity far in excess of that which anyone has; but it is clear that in putting the matter thus we have effected no contrast at all. What we require is a criterion for the learnability of a language; and this might be better expressed not by saying that of a certain language no one could understand it, but by saying that since in order for anyone to learn a language of this sort he would have to learn an infinite number of terms, there is no such thing as the learning of this language. Putting it this way makes it clear that it is not a human failing not to be able to learn the language in question. Yet in fact, Davidson in speaking about this question evaluates this possibility only indirectly; that is, by considering any language which is not capable of being provided with a finite truth definition as ipso facto unlearnable. In so doing he is not of course making any hypothesis about human capability (clearly the best thing to do, since we have no clear conception of how we would set about quantifying such a capacity). I have mentioned above the sort of language which on Davidson's criterion would be unlearnable - namely- one which contains infinitely many semantical primitives. Now there is a sense in which these sorts of considerations deal with a language only in so far as we choose to refer to that language <u>in</u> the language of the theorist. That is to say, all the languages which Davidson describes as unlearnable are languages but ones for which no truth definition is forthcoming.

The above remarks must be sharply separated from the following two considerations which might appear prima facie to be closely linked;

(i) There are certain logical connections between the concepts of learning and understanding, but none between learning and understanding itself.It is quite possible, although not at present physically possible, that someone be brought into a position whereby he speaks a language just as we do; he correctly associates words (names) in the language with the bearers of those names, and correctly applies predicates to the objects which satisfy those predicates at least as often as we do. In short, as regards his linguistic skill, he behaves just as we do, the only difference being that he was never taught the language in a way anything like the way in which we learned it. (It does not matter how it was done.) Once this was brought about we could then teach him new words in precisely the same way in which we would teach new words to anyone who already had a language, and he could explain the meaning of words to others, for although our imagined person never came into contact with what we should regard as the normal method of teaching language, his understanding stems from a capacity which is logically not to be disassociated from his ability to explain that understanding to others, even if that capacity only consists in providing examples of the correct use of the relevant words. In saying this I am not committing myself to the position of saying that anyone who understands a language must be able to say what he means in every case, although there will of course be instances where this would be possible.

We might feel that there are certain sorts of words which must be explained in a certain way, or minimally are in fact always explained in one way. And I do not dispute the possible truth of the lesser condition. But the 'must' in the first phrase is out of place. What would be the criterion for the truth of that statement ? Or, what would count as evidence for the first which was not also evidence for the truth of the second ? What would have to hold for the first to be true over and above that which would render the second true ? The answer to all these queations is I think; nothing. Of course the way we choose (if indeed we choose) to explain the meaning of a word will of course

be related to the sort of word it is - which may, very loosely be called part of its meaning; typically what is taught in the case of ostension is what it is to pick out an object to which the predicate being defined applies, and quite naturally, it is this ability to pick out an object to which the predicate applies which forms for us the central criterion for determining whether someone has understood the word in question. So, in explaining the meaning of a word through the means of ostension, the teacher is excercising his ability to pick out an object of the relevant characteristic, and so of course the way in which the word is taught is not arbitrary, but it is not logically presupposed in the teaching either, for what counts as someone having understood the meaning of an ostensively defined predicate is that he is, in general, able to pick out an object of the relevant type, not whether he learned to do so through ostension. It is the ability which is taught, and of course, in looking at the way in which such a word is explained we will see what it is which is being explained, but the explanation of the meaning of a word is not the same as, or functionally equivalent to, the meaning of that word. The meaning of the word is what the explanation explains, not how its explanation was performed. For all that, someone who was brought into a position in which he was able to understand a language, but in a way very different from our normal way, would not be said to have learned his language. The concept of learning is tied down to our actual practices of teaching in the way that 'meaning' is not.

(ii) The second point arises out of Wittgenstein's attack on the possibility of private ostensive definition (the so-called 'private language argument') in the Investigations. It was remarked in chapter one that we would miss the complexity of Wittgenstein's argument if we regarded it as an argument which was simply valid or invalid. By that what was meant is that it is a special sort of argument, in that, inter alia, its complexity allows us the possibility of gaining insights into the topic of discussion even

if ultimately the conclusions which Wittgenstein thought himself to have won are to be rejected on other grounds. But more importantly, the nature of the argument is such that, if the argument is correct, what it is arguing against cannot be coherently formulated. It is true that many philosophers (Strawson for example) are not convinced by the argument; I for one find it compelling, but my doing so makes it impossible for me to regard it as an argument against an open possibility; for that against which it argues is (certainly on Wittgenstein's view of the matter) simply incoherent. Such arguments must then be of a different sort from those which argue for or against an empirical hypothesis. (Wittgenstein was of the opinion that the nature of all philosophical problems was thus, which is why he thought there could be no sense attached to a philosophical thesis.)

All I wish do do here however, is to contrast sharply the languages which Davidson has described as being unlearnable, and the language 'described' by Wittgenstein. To be sure, if Wittgenstein's attack on private ostensive definition is justified, then a language which is essentially characterised as one which rests upon such a practice will most certainly not be tractable in a Tarskian truth definition. But that provides no reason for thinking it to be unlearnable. The similarity between the two cases arises through a use of the term 'unlearnable'; it appears that the specification of a private language is the specification of a language all right, only it happens to be the sort which no one could learn. And the 'could' in the Davidsonian and Wittgensteinian cases are quite different.

B. Our second consideration relates to the attribution of a logical form to a sentence type, and someone's understanding of such sentences. This is in essence, the importance of drawing a distinction between the theorist and the native speaker. It is essential, as far as possible, not

to impute to speakers of a language assumptions or beliefs which follow only from the particular theoretical perspective of the theorist. This entails not attributing to speakers explicit knowledge which manifestly they do not have, or attributing implicit knowledge of something which he would consider to be an abstract irrelevance or would be unable to understand even if painstakingly explained to him (I think specifically of the notion of satisfaction by an infinite sequence). These considerations do not argue against our using quantification theory to explicate or provide grounds for the justification of an inference which speakers intuitively accept. (Obviously, logical theory exists for more than to codify the inferential intuitions of ordinary speakers.)

Nevertheless, it is absurd to imagine that in grasping an inference as valid, our speaker is doing nothing more than assenting to the truth of the premisses and conclusion. If he really grasps that it is an inference which he accepts, he presumably has grounds of some sort for his belief, even though he may be unable to explain in terms acceptable to the theorist the precise nature of those grounds.

A man's understanding of a language enables him not only to attach a sense to every well formed expression in the language (excluding certain constraints do do with intelligence, knowledge of particular items of vocabulary and length of short term memory span etc) but also to understand that sentences are systematically related to one another. Such a speaker not only understands simple sentences (i.e., atomic ones) but also complex sentences; also simple sentences with involve attributions of colour, weight or length and which form a system. So a theory of meaning ought to account for such relations between sentences as well as for the internal relations of sub-sentential and sentential composition.

The most general question to be asked here is: what constraints operate on a theory which aims to represent the (practical) capacity to speak and understand a language ? When Davidson writes that we do not know the logical form of sentences which introduce direct speech (or any other type of sentence) he speaks as a theorist. Yet, insofar as any of his answers to his questioning do not bear on the concept of understanding it remains obscure what his answers are answers to, and what the point of asking the question is.

In putting the matter thus, I show myself to be of the mind of Dummett, who has long argued that a theory of meaning ought to be a theory of understanding. In saying this, I do not assert (or intend myself to be taken as asserting) that Davidson neglects all such aspects in his theorising. So even if it were found to be the case that Davidson fully agreed with Dummett, that fact would not necessitate my rescinding any of the above.

CHAPTER EIGHT ON THE NATURE OF A THEORY

1 INTRODUCTION

2 THEORIES AND CAPACITIES

1 INTRODUCTION

In every field of scientific endeavour we are concerned to provide an account of certain phenomena in order that sense may be made of them; to characterise them so as to enable us to explain in advance, an event or phenomenon which thus characterised would fall within the chosen area of investigation. In so saying, we are already assuming that there is an activity which can be called 'science'; indeed, any theoretical reflection upon science necessitates a delimitation of the concept of science. Such demarcation may not be made fully consciously or explicitly (for we may turn our attention quite specifically to this problem), nevertheless, the historian of science will show by the form and extent of his researches and by whom he takes into account, what he considers to be scientific.

Be that as it may, it has been argued[1] that an attempt to formulate a principle which would demarcate science once and for all, rests upon a historical misunderstanding of science. It is also clear that if this contention is correct then the concept of a scientific theory will have changed through time, perhaps leading to the view that a scientific theory is just one which has been regarded as such by those who have been regarded (in general) as central figures in the history of their subject.

One of the failures of the social sciences, at least in some stages of its development, has been that some of them have regarded physics as the scientific paradigm against which all scientific endeavour is to be judged.[2] Thus, in the early twentieth century, there was in

1. Stephan Amsterdamski Between Experience and Metaphysics, 1975 pp 28 ff

2. The limitation to such an approach have been lucidly drawn by Davidson whose conclusions in the matter I think, are largely correct. See 'Psychology as Philosophy' in Philosophy of Psychology (Ed) S.C.Brown, pp 41 - 52, 60 - 67. 'The Material Mind' in Logic Methodology and Philosophy of Science IV (Eds) Suppes et al, 1973, pp 709 - 722.

psychology, a rejection of the principle which allows us to take into account what the subject himself knows, believes or experiences, (or at least if it did so it did so faute de mieux). The only relevant aspects were construed as the 'input' and 'output' to and from the 'organism'. The asymmetry between first and third person knowledge was either ignored or repudiated in the quest for the 'objectivity' which was felt to be present in the other natural sciences. Such a state of affairs had come about in a curious way. Initially, psychology was thought of as a study of the human mind, the psychē (with the occasional excursūs into animal and appetitive souls) and not surprisingly was discussed in a psychologistic manner. Much later, the emphasis in psychology was on a romantically conceived 'life of the spirit', something considered to be above the world of natural phenomena. In so far as early experimental psychology did not exhibit such an attitude, it was due to there being many experimenters who were originally physiologists or physicians. But as such, they were not always interested in human behaviour as falling under the concept of the intentional, a feature which Davidson for example takes to be one of the defining criteria of the subject matter of psychology proper.

Such an attitude persisted until Freud, who quite seriously regarded <u>every</u> mental event as having a significant cause, the discovery of which would enable us to find out everything we might want to know about human behaviour. Freud's psychology was underpinned by a host of mechanistic mataphors - for example, the central concept of mental energy - indicating that Freud conceived of the study of human behaviour as analogous to the study of a closed mechanistic system.

Such physicalistic assumptions were transmuted (either directly, or as more likely, indirectly via those who had influenced Freud himself) into some of the doctrines propounded by the Vienna Circle, whose reductionist programme entailed that all statements which served to

latch immediately onto Elementarerlebnisse were in principle reducible to sets of bearerless Protokolsätze. This aspect of the circle had to some extent been anticipated by Mach, although according to him, all the phenomena of physics were to be reduced to sensation, not the other way round. With Mach, we find the acceptance of the principle of introspection (by for example, Külpe and Titchener) as a principle of science. But this notion of introspection seemed to consist of two parts; on the one hand, a quasi-Cartesian doctrine of privacy, and on the other, the doctrine of stimulus error — namely, the doctrine that in order to report one's sensations correctly, one had to attend carefully to them, in order not to be misled or to misdescribe. Kenny has pointed out that the two doctrines are incompatible, and I need not review the arguments here.[1]

There remains within psychology a by no means total, yet significant adherence to the sort of methodology which was espoused by members of the Vienna Circle, but I do not claim that most of the psychologists who adopt such a position are aware of the provenance of their ideas. The philosophy of science of the Circle consisted of two central tenets[2]. Firstly, that science formed a unity, and secondly that its unity was to be shown by there being a paradigm of science - namely physics. Such an empiricism became known as 'Logical Empiricism' in virtue of its adoption of the relatively new discipline of mathematical logic, itself regarded (surely correctly) as the paradigm of a rigorously constructed system of axioms from which theorems could be proved to flow; this in turn became the ideal model of a physical science.

In virtue of the doctrine of the analytic/synthetic distinction, mathematics and logic were not themselves regarded as science in the strict sense, although some earlier writers (e.g., Frege) and some writing at about that time (e.g., Tarski) exhibited no qualms about using the term

1. A.Kenny Action, Emotion and Will 1963, pp 30 ff.

2. It is also to be noted that philosophy of science was central for the Circle generally.

in that context.

It was to be expected that a conception of science as a unity would have led to the espousal of one scientific method. Yet, in what was to become the creed of the Circle, Neurath[1] writes that Leibniz must have appeared in a strange light to empiricists since he was seeking the system of science (p 16), and later he objects to the notion of there being a super science which would determine the nature of all the sciences constituting its species. It is not clear how seriously to regard Neurath at this point; for earlier in that article he had written of the necessity of a form of empiricism ('testing facts and using observation statements in connexion with all systematized ideas' p 6), and of Leonardo and Galileo, both of whom analysed the rules of empirical procedure and the scientific attitude (p 9, my emphasis). That is to say, the conception according to which there was one method of science may have been repudiated on paper, but it is clear that Neurath himself (and one assumes the co-editors of the Encyclopedia) did have such a conception of science. This method, he admits, was practised before its explicit recognition, yet in regarding the mosaic of empiricism, we see as it were, glimpses of the true way, obscured in places by the temptations of theology and metaphysics, ever ready to lure us into the choking quicksands of unscientific (and one infers, irrational) speculation.

Physics we are told, is queen of the sciences; in recent years it has been accorded even grander status. Quine[2] writes;

> Theory in physics is an ultimate parameter. There is no legitimate first philosophy higher or firmer than physics to which to appeal over physicists' heads.

The relation between philosophy and science was mooted in chapter one, a

1. Otto Neurath 'Unified Science as Encyclopedic Integration' in International Encyclopedia of Unified Science, Vol I, No 1, 1938. But compare Carnap's 'Intellectual Biography', the relevant parts of which are in Neurath's Empiricism and Sociology, 1973, p 43

2. 'Reply to Chomsky' Words and Objections (Eds) D.Davidson & J.Hintikka, 1969, p 303.

problem to which we cannot return. Yet the quote from Quine shows a particular cast of mind which has been dominant in American philosophy of language in recent years, and is perhaps gaining a strong foothold in England.

In this chapter I shall not be concerned with the problem of demarcation,[1] although there are interesting connections between this debate and the search for a principle of significance in language; one of the merits of Popper's account is that the criterion of falsifiability is not proffered as such a criterion.

In so far as we are concerned with the nature of a theory, it is to the extent that these considerations bear upon the theory of meaning for a language. We ought to ask after the relation between a theory of meaning and a theory in the natural sciences. Now it may be objected that putting the matter thus is to assume that there are relevant differences between the natures of such theories; but any such objection would be premature, for we are not at liberty to assume a priori that a theory of meaning for a language would simply be an empirical or 'scientific' theory; even if it were shown to be the case, it could not be assumed without argument that there is a unity in the methods of science which would render all differences between theories nugatory, in the sense that abstracting from their particular subject matter, they were all seen to be of essentially the same form (in virtue of which they are called 'scientific'). In science we require to be able to approach the particular subject matter in a way which is to be determined, not by some canons of scientific method which have been accepted in other disciplines, but as

1. Popper's work is perhaps pre-eminent in the English speaking world. A seminal article and one which has received extensive discussion on the Continent is by Heinrich Scholz; 'Wie ist eine evangelische Theologie als Wissenschaft möglich ?' Zwischen den Zeiten 1931. The attempt to provide criteria for something to be a science does not seem to me to be particularly useful or desirable. If we call something 'unscientific' there must be a point to doing so. And in saying what the point is, we should not invoke the general concept of science, but should point to something within the investigation.

determined by the object of study itself. Free that is, from any prejudices (being mindful of that word's etymology) which one might bring to the discipline from other dissimilar areas of research which would hinder a fruitful investigation.[1]

But might not this just be Neurath's message ? Namely that when we do this, we find that the simplest and most adequate way of doing science is by means of the methods suggested and promulgated by logical empiricists, and that this discovery is perhaps the one which has been the hardest won in the history of science. This claim can be resisted by means of the following considerations.

(a) Can it be empirically determined whether the method proposed by (e.g.,) Neurath is the best nethod ? Obviously not, for we require in advance a criterion of what is to count as the best method, and the appeal to knowledge at this point would be gratuitous (i.e., that the best method is that which produces most truths, or something of that sort.). In other words, what the aim of science is is not itself to be empirically determined; not unless we count asking scientists as a method of empirical determination of the aims of science, but it is clear that that possibility is not the one being ruled out. If we think otherwise it is in virtue of our having invested the word 'science' with a quite particular sense.

(b) The problem to which we drew attention about the unity of science and unity of scientific method can be involved here. In the philosophy of science, philosophers have not always concerned themselves with how science has in fact been carried on, but have also attempted to legislate about the way in which they think it ought to be done.[2] Although this may not be characterised explicitly as an excercise in demarcation, it effectively becomes one, thus tending to determine the form of any future investigation if

1. I do not suggest that any such cross-fertilisation would be harmful.

2. I.Lakatos 'History and its Rational Reconstruction' Boston Studies Vol 8, p 91.

it is to be licit. The only way in which Neurath's strictures are to be rendered consistent with the above is by taking statements about scientific method as purely empirical generalisations themselves, something which perhaps Neurath would not be inclined to accept.

As I have said, we are primarily concerned here with an account of language; yet the boundaries between a purely philosophical account and one which involves reference to at least one of the natural sciences are hard to draw, if possible at all, especially since linguistics has grown into an independent discipline which often makes pronouncements on matters which traditionally have been regarded as falling wholly within philosophy. We find linguistics in its beginning shunning the concept of meaning, and also by and large, the concept of intention. It favoured an approach which emphasised the phonetic, morphological and syntactic (segmental and suprasegmental) aspects of language as its proper domain of study. But to point this out is not to deny that there may have been factors other than the prevailing philosophy of science which influenced the specific form which linguistics was to take . In its infancy (and here we exclude all investigations prior to the nineteenth century) the comparison of languages was regarded as a central task in the study of language, and with the invention of the phonogram and tape recorder, the study of phonemes was to leap ahead. Nevertheless, it is more than plausible to suppose that in this, not only was a virtue made of the new found resources, but it also fitted in with the explicit methodological assumptions which were operative at that time, assumptions which may be regarded as independent of any technological limitation.

Waterman[1] writes of the 'neo-grammarians' who flourished in the last decades of the nineteenth century, and whose influence is yet felt in American universities;

1. J.T.Waterman Perspectives in Linguistics 1970

> The strength of the neo-grammarian approach is its insistence upon methodological rigour and its determination to deal only with the physical phenomena of language. (ibid p 54)

Such a bias was evident in an age when comparative linguistics was in the ascendancy, but soon Saussure created 'structural linguistics', and with it came the distinction between 'parole' and 'langue', and between 'synchronic' and 'diachronic' study techniques. Structural linguistics was to be adopted by amongst other famous linguisticians, Bloomfield, who it was claimed 'turned linguistics into a science'.

It had been (according to Waterman, monotonously) objected that Bloomfield attempted to analyse language without reference to meaning. Bloomfield in his book Language (pp 139 - 40) objects that since there are some words which cannot be defined, the 'statement of meaning is... the weak point in language study'. In fact Bloomfield's definition of meaning, or of 'linguistic form' as the 'situation in which the speaker utters it and the response which it calls forth in the hearer' is radically defective on a number of different counts. In the first place, no distinction is made between a word and a sentence, and secondly, although the situation in which an utterance is made may (and in general will) contribute to the determination of the nature of the utterance, they cannot be identified. Moreover, the respose elicited cannot in general be a non-trivial determinant of what was said. To take an example from Wittgenstein, suppose I say 'Milk me sugar' to someone, who thereupon looks startled; even if that was the result I wished to bring about it is not true to say that 'Milk me sugar' means the same as 'Look startled !'

Such a conception of meaning is not widespread today. But this is in large part due to a resurrection of the logical doctrines of Frege. Russell's appendix in his Principles of Mathematics was a mixed blessing, for although Frege's name became known, his views did not, since Russell failed to give an adequate (or true) account of the distinction between Sinn and Bedeutung. It thus remained for Wittgenstein to eulogise

Frege in the Tractatus in order for philosophers to come to think that they ought to know something about Frege, but it remained many years before there was much interest in Frege's work. When we consider the history of linguistics it is quite extraordinary that a man like Frege should have been ignored by linguisticians (as well as philosophers, logicians and mathematicians) for so long, for he was the first to provide anything resembling a well worked out theory of sense, which, for all the claims to science make Bloomfield's remarks look positively unreflective. I do not claim to know why this should have been so; but I surmise that it was due to an inability to grasp the rejection of psychologism on Frege's part. Not in the sense, that those who ignored him actually disagreed with him (although that was of course true of some) but that many could not see how one could on the one hand reject psychologism (in science) and at the same time acknowledge that there could be an objective semantic theory. If on the other hand, the Tractatus seemed so bizarre (if not completely incomprehensible) to most people, it was as a result of failing to understand Frege. (I do not deny that the Tractatus is bizarre in many respects, but there are insights to be won there.)

If philosophers today reject the notion of meaning, they do so in virtue of a principled objection to countenancing abstract objects (Quine for example), but it is silly to think that a meaning is an abstract object, nor does Frege's view demand it. They may reject the notion, attempting to flee from every type of supposed mentalism (pernicious or otherwise), but not because the notion of meaning (or at least, of meaningfulness) does not deserve scrutiny.

2 THEORIES AND CAPACITIES

If we outline a theory which is to give an account of the phenomena which we now explain by the theory of gravity, we do not even think to deny that a body which (say) falls to earth is aware of, knows or understands that it can, does, or must so fall in order for it to fall.[1] In observing falling bodies we as it were, describe them 'from the outside' fully. If a body falls then we assume that its falling is but one event in a chain of events, which is in principle open to view. Convictions of this sort have often been lacking with respect to a theory of meaning. Why ?

As a first approximation let us try the following. It is often said that a theory of meaning ought to be a theory of understanding; such a theory would not merely provide a truth-theoretic characterisation of sentences in a language by means of recursive devices, for that task would fall to a sub-component of the theory, namely the semantic theory, but should attempt to represent a human capacity. So far so good, but if we say that a theory of human capacity must be different from (say) a theory of gravitation since a theory of a human capacity must take into account epistemological considerations (indeed the theory will involve such a characterisation), whereas a theory of gravitation requires no such thing, we will merely be gesturing at a distinction which we will have failed to draw. The difficulty is of course the concept of a capacity, which covers a multitude of cases[2].

1. This is not mentioned by physicists, but has not escaped the notice of cartoon animators of the Tom and Jerry variety. Tom falls to the ground only when he notices that there is nothing between him and it.

2. Whether we say that 'can' has different senses, or that the various uses of the word are related yet distinct, or choose to say that 'can' always has the same meaning, in the same way as 'same' does is not my present concern. All which has to be admitted as obviously true is that there are some distinctions to be drawn with respect to this word if confusion is not to rule the day.

There can be theories which differ in no essential respect from types of theories which account for gravitation, which account for human capacities; namely those theories which do not appeal to any knowledge or belief on the part of the person who is exercising the relevant capacity. If it were now to be said that any such theory would not properly be a theory of a human capacity, then it would already be admitted that the unitary notion of a capacity lacks sufficient differentiation for us to continue using the term with no further ado.

That there can be ordinary theories (as I shall call them) which deal with human capacities is true, both in the case in which we are asking for an explanation of a particular event - how for example it is possible that Snodgrass is able to lift 200 kilos to a height of 6 feet in 0.3 seconds - and in the general case, namely how it is that the human frame can in general pick up certain weights in certain sorts of ways, and how it becomes disabled if other ways are employed. We might in certain circumstances have to supply different answers to both of these questions; in those circumstances in which something special about Snodgrass needs to be taken into account, or those circumstances which provides the reason for asking for an explanation in the first place. On the other hand, it is necessary that any general account will also contribute to any particular example, so long as the particular event really does fall within the general concept so defined. (Compare 'Eating opium sends people to sleep; Jim is a person who has eaten some opium, and that is why he is asleep' with the trivial form of explanation about 'dormitive properties' and the like.)

It might be thought that if we are dealing with behaviour then we must involve questions pertaining to reasons and not just to causes. That is, we ought to be concerned with feelings, attitudes, perceptions, beliefs, etc, because we are concerned in a plan of making overall sense of someone's behaviour; the constraint of intelligibility in such a

programme is totally lacking in the physical sciences. If someone were to propose this, it would follow I think that he was defining behaviour (as opposed to a change, or movement, or happenings) in terms of such intentional descriptions. This would leave us to produce another term (say 'human activity') to cover the multitude of events which take place within the human organism without any reference to a person's knowledge or belief. (I read Davidson as adopting this viewpoint, cf p 161 above.) In order to clarify our present discussion we should distinguish between a capacity, the exercise of which constitutes an activity, and one whose exercise constitutes an action or piece of behaviour. Thus the examination of the first type of capacity is of a piece with the examination of gravity, since it is irrelevant that the activity concerned is a human activity. The second sort of investigation into those capacities whose exercise constitutes behaviour will not be reducible to the first type, not at least if we are concerned with generalisations.

Someone might be tempted to argue against this as follows; it is not reasonable to suppose that in specifying a capacity we are at the same time picking out a mechanism or structure in the brain (or body), which is functionally separate from other mechanisms, exercise of which is the exercise of other capacities, not logically connected with the first. Thus one cannot think that, in general, by specifying a capacity (and thereby picking out a mechanism or structure) that we have picked out a something which can be neutrally exercised such that what results will either be a piece of behaviour or an activity. Thus such a means to distinguish between activity and behaviour is inadequate.

Such an objection is misplaced. All I am concerned with is the capacity as specified. I am happy to admit that in exercising a capacity a person is exercising some physiological mechanism, yet it need not always be the case that when that mechanism is exercised

the person is thereby exercising a capacity which constitutes an action or exercising a capacity which constitutes an activity, although, ex hypothesi, it will be one or the other.[1] Capacities are not to be thought of as identical with a particular physiological mechanism (under all descriptions) whose exercise is an exercise of that capacity.

If this were the case, it would follow that in doing the philosophy of language we would also be doing neurophysiology. But we are not.

In asking how someone understands a language we are not required to provide an account of the mechanism of the ear, not to provide an account of the larynx to explain what it is someone can do when he can speak a language. Our investigation is into the concept of what it is to speak and to understand a language, and it is clear that we require (and have) a concept of a language antecedently to such an investigation. Otherwise we would not know which capacity it was we were exercising in moving our lips, tongue and larynx etc on any one occasion, since its exercise can constitute the exercise of a different number of capacities.

Just what does the dictum 'A theory of meaning ought to be a theory of understanding' amount to ? In providing an account of language we are involved in providing an account of language use. For, even were it the case that we could exhibit the means whereby every sentence of a language could be generated (forgetting any misgivings we may have about the meaning of 'every' in that phrase), in advance of knowing what counted as an acceptable sentence (semantically speaking) such a task could not even be begun. This highlights one of the differences between a formalised language and a natural language. In the former instance

1. This can be most simply explained in symbols. Ranging over exercisings of mechanisms, we read 'Bx' for 'the exercise of x is a piece of behaviour' and 'Ax' for 'the exercise of x is an activity'. What I am asserting is $(x)(Bx \vee Ax) \ \& \sim((x)Bx \vee (x)Ax)$.

we may recursively specify infinitely many well formed formulae, but there is surely nothing analogous for natural language. Yet, the notion of truth which is used in a formalised language is that same notion which is used to explicate the concept of meaning in natural language. If the parallel were exact between them it might seem that all we would require is a means to determine the semantic contribution which each term made to the sentence in which it occurs. If we wish to characterise meaning wholly in terms of truth without that is, expecting that our characterisation would involve an explication of the notion of truth itself, taking that part of the theory for granted, then there would be no room in the theory for a speakers understanding of those sentences other than as represented by a recursive algorithm for computing the semantic value of sentences. If we demand that a theory of meaning is a theory of understanding then either there is some relevant difference between natural language and a formal calculus which we are assuming can be adequately handled by a semantic theory, which does not address itself to how the formulae are actually to be understood, or at least there would be some residual question of meaning which ought to be answered by a theory of understanding even if meaning and understanding were not exactly correlated.

It is (or ought) to be denied that understanding is correlative with reference, in the sense that it is not necessary for a speaker in understanding a predicate to know exactly what the extension of that predicate is. Putnam's 'The meaning of "Meaning"' shows that clearly enough. But on the other hand, an account of meaning in terms of the extension of terms, of truth composition of sentences etc, in other words, a purely truth-theoretic characterisation of meaning makes no reference to what a person knows when he knows a language. Does it now appear that these two things are quite separate or separable ? It has been held that an appeal to what a speaker actually understands when he understands a language is a regression into the psychologism which Frege

repudiated, but such a judgement is at best incautious, since the distinction between sense and reference was drawn precisely to account for the fact that a speaker of a language cannot determine the sense of a statement merely from its truth value, and in general could not determine the truth value of a sentence except via its sense. (I say 'in general', for although I might find out the 'p' expresses a truth, I cannot find out which truth it expresses unless I know p's sense.)

What follows is not that a truth-theoretical characterisation of meaning and a characterisation which appeals to speaker's knowledge are independent but that we cannot provide an account of what it is to use a language without recourse to what a speaker knows. For presumably, most speakers consider themselves to be making reference to a common world when they make assertions, and will acknowledge what they said to be incorrect if the world turns out not to fit their characterisation of it.

In the first place, some room must be made for the notion of linguistic force, namely that which is ascribed by the relevant part of the theory, in the form of a description of the type of act which is performed in uttering sentences of the language, one of whose constraints is that such ascriptions should be intelligible under the decription which the theory of sense assigns to the content of those utterances. But a semantic theory which does not take into account linguistic force cannot hope to characterise what it is to speak a language. All the theory of sense will be able to specify is what can be said by saying certain things without being able to tell us anything about the significance of what it is to make any of those moves. (We might even say that nothing has been done at all if someone utters a sentence knowing only the conditions under which we would call it 'true' without him being (conceptually) able to distinguish between being true and being false.

Secondly, we cannot say that the specification of a semantic theory is at the same time a theory of meaning, since it tells us nothing

about how we are in fact able to determine a sentence's semantic value. I mean that in the following way; not that we have not been provided with an algorithm for determining the semantic value of a semantically complex expression - for that is precisely what a semantic theory does - but that within such a theory we can make no room for variance within expressions which are not reflected in the semantic valuations of the whole. And this was precisely the reason for Frege's introduction of the Sinn Bedeutung distinction. Another way of putting this is that if we are presented with a truth theory (semantic theory) it can be generalised, appealing to its extensionality to produce extensionally equivalent theories of truth. Clearly, this vitiates it as far as a theory of understanding goes[1].

The observation that a theory of meaning ought to be a theory of understanding is supported by such considerations; but it goes further than this. It stops us looking for theories of meaning, which although satisfied by a speakers behaviour do not represent it. To propose that a theory of meaning is a theory of understanding is at least to present a challenge to someone who wishes to adopt a generalised theory of meaning (ie, one which is not language specific) whose characterisation entails that any language correctly characterised by the theory could not be fully understood by a speaker of that language. This is stronger than the merely banal claim that a theory of meaning be not unintelligible; rather, it says that there is to be no residual meaning which an expression or group of expressions can be said to have which no speaker could ever be said to understand completely, since for example, it might be that such a speaker would have to run through an infinite number of expressions to see of the referents of those expressions had a particular property or not.

Someone who wishes to reject such a point of view, but who

1. This point has been made by a number of writers. See Truth & Meaning (Eds) G.Evans and J.McDowell, 1976, pp xiv - xv.

nevertheless saw that a theory of meaning ought to be a theory of understanding would have to explain how it was possible that we could appeal to a speaker's understanding in order to determine the nature of a theory of meaning, yet at the same time disregard an intrinsic limitation on that speaker's understanding. Alternatively he might try to show that we could account for a speaker's understanding of such apparently diffficult expressions (eg., quantification over infinite or unservayable domains) by an indirect route.

But the appeal to an idealisation here would be quite ineffective. We are not in general interested in what a speaker could do if he were very different from what he is, insofar as we are interested in what he can do at all. This argument cuts both ways. On the one hand we are interested in what it is to use a language - what it is to speak and use a language which can be used for all types of purposes and aims - a language like English. There is a way in which this can be investigated by proposing an idealised form of English; but to propose that we can at the same time disregard certain very general facts about human beings - those human beings who speak English - is to neglect the fact that English is, trivially, what people who speak English speak. Such an observation is not made for the following reasons. It is not made in the belief that 'ordinary language is all right' if that is taken to mean what certain philosophers of the ordinary language school have meant be it. I do not say, I do not even think that there is anything sacrosanct about the English usage which we find everyday. It can be criticised, and at times ought to be. Nor am I denying that there are occasions when the production of an idealisation might not serve useful ends. However, we usually suppose such an idealisation in order to help us remove particular excrescences of the language in order that we may obtain a clear view of how it functions, taking into account understanding only in so far as a speaker psychologically finds difficulty in understanding. This might be the case with embedded

clauses. The essential point is that the conclusions which may be drawn from such an idealisation will not be ones which could not be drawn without such an idealisation (except in the trivial sense that it might have been difficult to do so before the idealisation).

When we have to do with a theory of meaning we cannot appeal to an idealised understander of the language in order to overcome certain anti-realist doubts about the sense of ascribing understanding to someone who could never manifest his understanding fully, since what we are trying to characterise is just the ability he has, not the ability he must have if he were able to understand the language so characterised. Thus on the one hand, the language may be characterised independently of any one person's understanding of it (this is shown by the practice of giving languages names); but on the other hand, we cannot characterise language independently of a general account of what it is to understand a language, and assume that the failure of fit between a speaker and his language so to speak, is to be accounted for by appeal to a general incompetence on behalf of the speaker. (Moreover, I take it is manifestly true - if not a priori - that most speakers are correct about their language in the vast majority of cases.)

Trying to represent a practical capacity is complicated when that practical capacity depends to some degree, and at least in part, on knowledge or belief of him to whom we ascribe the capacity. 'To some degree' because we do not want to over-intellectualise speaking a language. In many cases we speak quite unthinkingly, and only in certain cases can we speak of 'interpretation'. 'At least in part', because there are many actions involved in speaking and understanding a language, quite clearly some of which are not, under normal circumstances under the control of the speaker.

There is no principled objection to representing in language a capacity which cannot itself be verbalised by him who possesses the capacity.

From the fact that a normal speaker of a language cannot tell us how he understands language (or even a sentence of a language), it does not follow that we cannot represent his capacity. Indeed, there is nothing special about giving an account of language; most people would not be able to say how they moved their foot. It is a problem about intentional action generally. But language is perhaps a special case in that it is a highly complex and intention specific activity, which in Humboldt's phrase, makes infinite use of finite means.

The difference between moving one's foot and speaking a language is not however to be found by reference simply to the concept of intention (for both may count as intentional), but by reference to the complexity of the behaviour (or the compexity of the intention). We cannot say that a theory of meaning requires that we refer to what a speaker knows only because speaking a language is something which human beings learn, for it has been argued above (p 154) that how I acquired a language cannot be constitutive of the sense of its elements. If someone were given a language (never mind how) his capacity would stand in as much need of representation as anyone else's. Nevertheless, it is not irrelevant that humans were not born with languages, or indeed with the propensity to start speaking languages (although they of course have propensities to start learning languages). For were it the case that speaking a language was spontaneous in the sense that sucking one's thumb can be spontaneous - i.e., just one of the things which human beings did, it would be unclear why we would have to attribute any knowledge to a speaker at all, least of all, tacit or implicit knowledge.[1]

1. A joke by P.G.Wodehouse illustrates this perfectly. Question: Can you speak Spanish ? Answer: I don't know, I've never tried. (Reference courtesy Michael Dummett) The point of this joke is not only that being able to speak a language might be something which one did not know about, but that one should have to try to speak it to see if one could, like for example, jumping higher than 6 feet. There are contexts in which such an exchange would not be a joke; for example, if someone can read Spanish quite well, but had had no cause to speak it. But the relation between reading and speaking is rather similar to the relation between walking and jumping.

But of course, this is not so. Language behaviour is not to be explained in terms of stimulus and response; if we were to expand the notion of a stimulus so as to encompass all language behaviour we would deprive the term of any content, and be faced with the ludicrous situation of having to invoke as many finely discriminated stimuli as there are finely discriminated senses. Why we need to attribute knowledge (or beliefs) to a speaker is that in order to be able to describe what he is able to do, we have to provide an adequate description of what he does, and that description will make use of that person's beliefs and propositional attitudes. Such propositional attitudes will in general be as complex as the sentences which we understand him to be speaking, entertaining, wishing true, etc.

Perhaps we ought to speak not about what speakers know, but about what, if they knew it, would suffice for their understanding a language. On the one hand we have a debate about implicit versus explicit knowledge, and on the other, a debate about actual knowledge or knowledge which would suffice, if it were known. Dummett argues for actual implicit knowledge. Davidson[1] and McDowell[2] argue for hypothetical explicit knowledge. McDowell goes so far to consider this position of Dummett's to be a betrayal of Frege's attitude towards psychologism, and approvingly cites papers by Nagel and Stitch,[3] the latter of whom wrote that no speaker of a natural language knows anything particular to his being a speaker. What does the move from actual knowledge to hypothetical knowledge accomplish ? In terms of a theory of meaning, very little as far as I can see. It can hardly be argued that to appeal to a speaker's actual knowledge is falling into psychologism without that being true of appealing to hypothetical

1. D.Davidson 'Radical Interpretation' Dialectica 1974 pp 313 -328

2. J.McDowell 'The Sense and Reference of a Proper Name' Mind 1977 pp 159 - 185

3. T.Nagel 'The Boundaries of Inner Space' J.Phil 1969 pp 452 - 458;
S.Stitch 'What every Speaker knows' Phil Rev 1971 pp 476 - 496.

knowledge. Viewed in a certain light I can see the move as being pernicious, as suggestions on p 178 above might indicate. In other ways, it might direct us away from an irrelevant concern with the psychological idiosyncracies of language users, but in so arguing, the obligation to give an account of the language we in fact speak is not removed.

McDowell exhibits I think, a desire to steer between two rocks, either of which would be equally hazardous to his enterprise taken as a whole. On the one hand, the fact that not just any (true) theory of truth could serve as a theory of sense (this is to be satisfied by ensuring that the content specifications make sense as said of their speakers), and on the other, a desire to keep the axioms in the theory as austere as possible[1], thus ensuring no irrelevant psychologistic excrescences in our formulation. Although these two points are connected, I shall deal only with the second.

McDowell claims to see beneath the surface of Frege's writing something which is ultimately inimical to Frege's expressed concern. There are two points here. On the one hand the claim that McDowell has got to the heart of Frege's logic - the claim to have really understood what he (Frege) was really after - even though he saw matters less clearly than he might from time to time[2]. The second point is more important; it is the claim that there exists a tension between the notion of sense as objective, and the variety of ways in which a person may arrive at his understanding of an expression. McDowell is quite correct to point this out in the clear way he has, although the point has not remained

1. For an account of this notion see M.Dummett 'What is a Theory of Meaning ?' in Mind and Language pp 122, 126 ff, plus McDowell op cit. Although much of what I (and McDowell) say relates to proper names, an extension could easily be made to other parts of speech.

2. e.g., 'Frege's own examples undeniably manifest a richer conception of how sense might be represented; but...that might be an...excrescence..rather than something essential.'(p 165) 'The austere conception..would not satisfy those who took the notion of difference in sense (as Frege did) to explain and not merely reflect failures of substitution'. (p 178) To think otherwise is to fall victim to the 'psychologism about sense which Frege (officially) renounced'. (p 178)

unnoticed before.[1]

It is certainly no part of McDowell's intention to represent someone's mastery of a proper name as consisting solely in knowing what the referent of that name is, or at least, knowledge which could be completely thus characterised; the introduction of the sense/reference distinction by Frege can be attributed (inter alia) to the fact that it appeared to him unintelligible that a complete account of the sense of a proper name would not mention the way the referent was presented to he who understood it — the Art des Gegebenseins — and on this point Frege is quite clear, not least in the opening sections of 'Über Sinn und Bedeutung'.

McDowell makes mention of a letter (which had been cited by Dummett) which contained the example of two explorers who discover a mountain, but come to know it by different names. This letter (one to Jourdain in late January 1914) is worthy of study since the particular question Frege is answering is one which asks whether he now regards Sinn as a psychological property in virtue of the fact that 'Russell has shown that propositions can be analysed into a form which only assumes that a name has Bedeutung and not Sinn'. Frege replies

> ....An object can be specified in different ways, and each of these methods of specification can give occasion to a particular name, and in that case these different names have a different sense; for that it is one and the same object which is specified in different ways is not obvious. FBW p 128

Since (at least for Frege) it is quite unintelligible that an object could be specified in no way, it would be equally unintelligible to suppose that a proper name had no sense; and here 'sense' is just what a person understands when he understands a proper name.

1. Dummett; Frege: pp 100 ff, 584 ff.

Now McDowell's view is that we should never consider as belonging to the theory factors, knowledge of which might be dispensable for a correct understanding of a name. So, it is not being denied (how could it be ?) that the means whereby I recognise an object as the referent of a name (be they linguistic or otherwise) does not have any bearing on my understanding that name; rather, any such characterisation would be more than would suffice, since in many cases it provides more than does suffice. McDowell remarks:

> One can have the ability to tell that a seen object is the bearer of a familiar name without having the slightest idea of how one recognises it. (ibid p 165)

But this is surely beside the point. Or at least, the sense in which this remark is true is not one which makes it interesting in the present context. What sort of case might McDowell be envisaging here ? Is it one which might hold all the time ? We could certainly interpret it that way, the answer to be given in terms of neural mechanisms, but McDowell knows that that sort of means is not meant by either Frege or Dummett. For the remark to be interestingly relevant it would have to be the case that either it is true in a large number of cases, or that those cases in which it does obtain are not few and also do not form clear exceptions to the general pattern of linguistic usage. By this last constraint I aim to exclude uses of language (if they can be so-called) which arise solely through conditioning. McDowell cannot I think be taken to mean that it would be a completely normal phenomenon to be presented with someone, who, after having said of some object that it is called 'A' (or is ϕ) could give no grounds for his assertion.[1] He rather explains that since philosophers have said that he could do such a thing, that everything must be quite alright. Would we take him seriously ? I think not.

1. McDowell's use of the word 'familiar' rules out the possibility that the object is being 'baptised'.

There is another important point in this connection which ties in with the contrast between explicit and implicit, and actual and hypothetical. It is all too easy to think that, since concerning any piece of knowledge of an object, it is not necessary for someone to have it in order to be able to use (and understand) a name of that object, that this could hold true of everything concerning it. (This is in effect an invalid argument from $\Diamond(\exists x)\sim Fx$ to $\Diamond(x)\sim Fx$.) The key sentence of McDowell's is the following:

> The idea was that 'Hesperus' stands for Hesperus, would suffice in the context of suitable other knowledge not directly involving the name, for understanding utterances containing 'Hesperus'. (p 164)

What does the 'suitable other knowledge' amount to ? Neither Frege nor Dummett can be taken to be denying the possibility that we can know something about an object, the expression of which knowledge fails to involve the name of that object, and know that the object is the referent of the name. The point is the old one; it is not self evident of any two names whether they stand for the same object or not. Or at least it is not constitutive of someone's understanding of a name that the reference of the name must be known by anyone who understands it under all descriptions.[1]

1.We can make a comparison between Mill and the Tractatus. Mill objected to the notion of names having sense since he thought it intelligible to suppose that a name 'Dartmouth' stood for a town which was not at the mouth of the river Dart. This amounts simply to the claim that the essential role of a name is conventional, and that the convention in accordance with which a name is a name of an object is such that, if it is broken, then the name ceases to be such. This is not generally true if the name looks like a description (on the surface). Such a name might be misleading, but then again, it might not. Compare 'Ice Cream' with 'Hot Dog'; (forgetting the capitals.) Wittgenstein in the Tractatus draws the correct inference from his view that Names lacked sense, in denying that we could understand two Names without knowing whether they signify (bezeichnen) the same or two different things. Such an inference is not required for Mill, and this shows that what Frege asserted and Mill denied was not the same thing. Wittgenstein's attitude is unintelligible considered as an account of the way we actually use and understand names, but perhaps in the context of the Tractatus such views are defensible since we never use (or understand) Names.

We cannot suppose that I can understand a name as applying to an object without either being influenced by that object or by my beliefs. To suppose otherwise is to suppose that I can know what 'A' stands for merely by reference to the austere axioms in the theory, viz, 'A' stands for A. But what is inextricably linked to the sense of a name on the Fregean model are the grounds upon which I may say that an object is called 'A'. The axioms ought to reflect such a practice.

Let us therefore return to the question about the austerity of the axioms. Dummett has argued in a number of places that we must have some particular maens for picking out an object as the referent of a name, that there must be some route from name to referent, or some criterion for a word (name or predicate) being applicable to an object, in virtue of which the association between word and thing is created and sustained (Frege; e.g., pp 93, 102, 232). McDowell controverts this and argues that Dummett's reconstruction of Frege is no reconstruction at all, but a betrayal. Why McDowell thinks to deny what to Dummett is so obvious is that he thinks that in so arguing we have been provided with more than suffices (and what appears to amount to the same thing), that we have thereby allowed our theory to refer to an individual's particular capacity, thus rendering the notion of sense subjective. If this is McDowell's attitude then I think that he is mistaken. It is a principle urged some pages ago that it is irrelevant to the meaning of a word that it was learned in a particular way, although it was admitted that certain sorts of words might be learned most naturally in certain ways. It was there claimed that the view which considered sense as something objective could not be assailed by considering the diversity of ways in which one might come to grasp the sense of a word. As Frege often was to point out, if sense were something irremediably subjective, then science (and logic in particular) would be hopelessly crippled, and no man would ever be in a position to contradict another, since a sentence (free of indexicality) 'p' in one man's mouth

would not be contained in the sentence '¬ p' in anyone else's.[1]

Yet it might appear that a refusal to accept as legitimate an austere formulation of (e.g., name) axioms, leads one into psychologism since if there is no saying what everyone must know of an object in order to pick it out as the bearer of a name (or satisfier of a predicate), since there is no such thing, any attempt to do so must lead one into one form of subjectivism at least. For there are innumerably many ways in which an object may be identified.[2]

We must make a distinction between the following two claims;

(i) There are a large number of different ways in which a person may learn the meaning of a word. A large number of ways in which someone might learn to advance from the word to its reference.

(ii) Concerning any object, there exist potentially infinite ways of making reference to it, either by semantically simple expressions or otherwise.

When we are concerned with the representation of a speaker's capacity to speak and understand a language, we are not interested in (i). Yet we cannot just ignore the truth of (ii). It is clearly conceivable that the same word (considered orthographically) has more than one sense in a speech community, even though that word has just one referent. The crucial question here (to which Frege refers in 'Der Gedanke') is whether

1. Frege also used this argument against the supposition that number was something subjective. See for example 'Le nombre entier' in KS p 77

2. It should be made clear that an austere axiom is not one, knowledge of which would only tell us what the referent of the expression on the left hand side was. McDowell explicitly repudiates the suggestion that one could know only what the referent of a name was, and that was a complete account of understanding the name. McDowell's conception of austerity is as follows; When we present an axiom of the form 'Afla' stands for Afla, it does not (appearances notwithstanding) relate to the reference of 'Afla', but to its sense. This is supported by a rather shaky argument, the jist of which is that it does not make sense to try to state the knowledge of the reference of an expression, since that (properly expressed) would involve the use of kennen. What we have here is knowledge of truths, and the distinction between Sinn and Bedeutungcan, according to McDowell, be clearly represented by a careful use of either wissen or kennen. But in Frege's writing (for just one example), when he speaks of 'knowing the meaning' he uses kennen and Bedeutung. e.g., ..'dass die Wörter bestimmte und bekannte Bedeutungen haben' (NS p 224) and '..dessen Bedeutung man also schon kennen muss..' FBW p 182.

such a conception serves to undermine the objectivity of sense. What would determine the answer to this question ? Are we to say that it is not possible for two people to attach different senses to one and the same word, or to attach different senses to different words which stand for the same object ? (As Wittgenstein once said, say what you like, so long as it doesn't stop you seeing the facts.) Our theory of meaning ought to reflect the objectivity of sense, not guarantee it.

It is true that when asked the sense of a word we often reply by saying what its reference is. (This might be construed as an example of saying and showing as Dummett has suggested; in saying what the reference is we show what its sense is.) Now might it be McDowell's point that the simplest and most austere treatment of proper names does just this, by using a homophonic axiom scheme ? If so, it seems to me a bad one. The case envisaged is someone asking after the meaning of a word; he would not be answered by citing an axiom of the form which McDowell recommends. He knows that already.[1]

What renders sense objective is not just that everyone associates the same sense with each word. The fundamental problem about objectivity of sense is an epistemological one. Not only 'How do I know what I mean by "red" is what you mean by "red"', but the question what makes proper names in different people's mouths refer to the same individual if they do. It is acknowledged that Frege did not provide a completely satisfactory answer to this problem, although he raised it quite clearly, both in 'Der Gedanke' and in the preface of Grundgesetze. One thing is clear; if sense is objective, then any sense which might be associated with any word by anyone, could be associated with that word by anyone at all.

1. I am not confusing the distinction between knowing that an axiom expresses a truth and knowing which truth it expresses. My point is merely that it is not informative to be given a homophonic axiom, even though it might be the case that the knowledge which our questioner required, which would have made his question otiose, is expressed by the axiom. What we are interested in, is what knowing the truth expressed by the axiom amounts to; and the answer to that question is not to be given by citing a homophonic axiom.

That 'Afla' is different in sense (not merely as object) from 'Ateb' is intelligible to us because we can so easily conceive of the different ways their senses were conferred. Thus to ask the question 'In what does anyone's understanding of the word "Frege" consist ?' does not admit of an answer due to the many different ways in which the reference of 'Frege' could be determined; no doubt Frege's wife used different crieria of identification than a first year philosophy student. For all that, the same word 'Frege' occurs in the sentences 'I am married to Frege' and 'I must write on Frege's distinction between sense and reference'. The desire for an austere treatment of names arises through a failure to see how this can be so; a failure to see how there need not be one feature which is both a necessary and sufficient condition of understanding the word in question.

It is true that Frege did not stress the social nature of language as much as he might have done. That is, the picture I have just given is somewhat unbalanced, because in general, senses are not attached to names in such a solipsistic way. Of course, it may happen, as in the Afla - Ateb example that there is a clear instance of two names having quite different senses conferred on them. However, this picture does not take into account that in our use of language we take ourselves to be responsible to general usage. That is, it is not believed in general that the sense of our names are something private (in the unobjectionable sense) but that they have a common use, which is, in every sense public. What is important is that we allow the possibility of everyone associating the same sense with a word, and secondly that we acknowledge the fact that in general the conditions for the correct use of a word overdetermine the sense of that word. That is because the most common use of language is that of communication, and it is out of that that most of the words we use gain the sense thay have.

To revert to Wittgenstein's account of meaning and understanding in the later work; Not only did Wittgenstein consider sense something objective, but he did so at the same time as repudiating the suggestion that we could specify necessary conditions for the understanding of a word or sentence. Not that he denies that there are conditions which have to be satisfied before it can be said that understanding has been achieved; rather that those conditions are inherently impossible to state since the criteria which we in fact accept for the correct use of a word are not (and cannot be) laid down exhaustively beforehand from time immemorial.

Part of this attitude finds expression in the rejection of the Fregean model of Merkmale and Begriff, which is also a rejection of certain aspects of the Tractatus, namely concerning the introduction of primitive terms into the language, (particularly with reference to Frege's attitude to definition). According to Frege, a concept is defined in terms of its properties. These state the 'marks' (Merkmale) which any object must have if it is to fall under that concept. This appeal to Merkmale shows that Frege was concerned with understanding - namely the way in which we come to determine of a given object whether it falls under the concept in question. Frege, it is true, adopted an extensional attitude towards classes (concepts) but the method of their specification appeals to a notion of sense. How such a specification is to take place is of no concern to logic proper, but belongs to the theory of meaning. One consequence of this Fregean picture is to separate maening and understanding, if only to the extent that the concept of meaning cannot be given wholly in such terms. Since Wittgenstein wished to give an account of meaning wholly within terms of the notion of understanding, there could be for him no place for a concept of meaning which outran the concept of understanding and was not faithfully reflected by it.

It is I believe this aspect of Wittgenstein's thought which accounts for his hostility to theorising. We find at PI § 109 the explicit

'We may advance no kind of theory', and his manuscript he wrote 'The difficulty in renouncing all theory: we must regard as complete something that seems so obviously incomplete' (MS 229 § 1391). A cognate passage is the preface to the Philosophische Bemerkungen. I am not now concerned to argue for and against the justifiability of such objections, but it is clear that Wittgenstein was not opposed to theorising in the natural sciences, only in philosophy.

Wittgenstein (reading between the lines) thought that in attempting to construct a theory of language we would at the same time be forced to ignore or mangle those aspects of language which were important, and without which language would be something very different from what it in fact is. Possibly this is a revolt against the Tractatus picture of defining language once and far all. But in the Investigations and the Grammar, Wittgenstein allows no limit to the multiplicity of language forms and language types. Although the the thought expressed by the slogan that "every type of discourse has its own logic" was once fashionable (but now - thankfully - no more)and is far too crude to have been expressed by Wittgenstein, it is easy to see how Wisdom came to think such a thing, influenced as he was by Wittgenstein. The problem with this dictum is that we do not know what to do with it, and we do not know what 'logic' is supposed to mean here.

What I am concerned to discuss is the effect on the philosophy of language of the rejection of the possibility of a unified theory of language; a systematic theory of meaning. The sort of theory we have in mind is that which has been described in various different ways in the foregoing. Namely one which takes its inpiration from Frege. However the dispute resolves itself as to whether Tarski (and Davidson) represents an advance on Frege, it remains true that Wittgenstein was more influenced by

Frege than by any other philosopher, and continued to read him until his death.[1] It is thus not at all recherché to contrast such a theory with the Wittgensteinian alternative (if alternative it be). All I shall be able to do is to present a short comparison, not of detail, but of principle.

1. Peter Geach once remarked to me, that just before his death Wittgenstein read a little of 'Über Begriff and Gegenstand' and remarked 'How I wish I could have written like that !' (cf Z 712) .
At his death, Frege's Grundlagen was one of the few philosophical works in his possession. (This last piece of information is recorded in G.Hallett, A Companion to Wittgenstein's Investigations, 1977, p 765.

CHAPTER NINE ON THE POSSIBILITY OF A SYSTEMATIC THEORY OF MEANING

In this, the final chapter, I shall be concerned with the question whether a systematic theory of meaning is possible in the sense which the previous chapters have discussed. In discussing Wittgenstein's Philosophical Investigations I shall not be as concerned to present exactly what Wittgenstein thought; not because I do not think that he there expresses any idea clearly, but because, in the nature of the case, it does not present a systematic and well-worked out theory of meaning. Thus, in order to understand one remark in the book, it is not necessary to understand them all, something which being true of the Tractatus to a great extent, rendered it necessary to try to tie Wittgenstein down to what exactly he meant in the early work. Moreover, we find in the Investigations a great many suggestive remarks which we can make use of merely by seeing where they lead us. So the following ought not to be judged as a pure exegesis of the Investigations, but as an exercise in the philosophy of language occasioned by a reading of that book.

We have conceived of a systematic theory of meaning on the follcwing lines: there will be a theory of reference (a semantic theory), around which is to be built a theory of sense which will issue in an account of what it is to understand each type of expression in its sentential contexts. The central notion of such a theory of sense has been considered to be truth, or the twin notions of truth and falsity, but it is possible that these notions could be replaced by the notions of verification and falsification. Such a shift of notion would not by itself constitute a rejection of a systematic theory of meaning as a possibility; for there would remain the syntactic connections, systematically specifiable, between sentences to which have been attached different force. That is, an account of which linguistic acts have been performed by an utterance of a sentence. But the way that the various sentence types would be related semantically would not be via the concepts of truth an falsity but by their verificationist analogues. It is clear that for a large number of uses, the accounts would

not diverge, since the verificationist account still takes truth and falsity to play a special role in the theory of meaning; rather, the extent of application of those concepts will be limited by epistemological considerations.

We have already seen that a simple concept of truth cannot be made sense of without some sort of distinction between sense and force. If we think of sense in the way Wittgenstein did (in the Tractatus, namely as a pun on 'direction') we must acknowledge that it is in virtue of linguistic force that the sense of a sentence is directed in one way rather than the other. That is, until we have been provided with an account of the fact that by saying 'p' someone means to be taken as saying that p and not that ¬p, all we will have effected by a theory of sense is the characterisation of a situation in which the whole account is that two sentences are contradictory. We have not been provided with an account of what 'being true' amounts to, how it coheres with our linguistic practices. We can do this by speaking of assertion, conceived of as a conventional act which aims to say what is true, truth being characterised in turn, not merely as that which people (in general) aim at in their assertions, but by reference to the particular role that concept has in the lives of speakers. Thus the relation between truth and assertion does not fall into vacuity since we will have been provided with an account which does not appeal to the notion of being barely true. The utterance of sentences assertorically is in general more than the utterance of a series of answers to hypothetical questions in a panel game. That is, there is in general a purpose involved which will, inter alia, be manifested in the particular assertions which are made.

To argue in this way is to give a certain prominence to the concept of assertion. It is for this reason that most philosophers who have wished to construct a theory of meaning using one (or two) basic concepts have chosen truth (or falsity) and then extended their account to other linguistic forces. So instead of speaking just of truth conditions they have also spoken of the various conditions of satisfaction which hold between

various types of utterance and the world. In natural language the distinctions of force are usually reflected by an inflection of the verb, but that is clearly not a logical constraint. No doubt a language which employed different words and sentence constructions for each mood would be exceedingly complex and difficult to learn, but would nevertheless be consistent. In imagining such a possibility we are not imagining a situation in which the distinction between sense and force has been eradicated. On the contrary, we are supposing that in each fragment of the total language - each fragment being definable only in terms of which sort of linguistic act could be performed - the distinction between force and sense does not exist, but as a characterisation of the whole language such a distinction would be very clearly shown. Such a supposition raises huge difficulties vis à vis the learning of such a language, but is not open to the charge that it would then be impossible for a sentence to appear asserted, now unasserted. For we may suppose that there is one more fragment of this language which is used for supposition. The difficulty then arises how to identify the sentence which is asserted which is supposed to be the one which is now unasserted, since these two sentences would or could be as typographically distinct as you please. But that I suggest is a problem of fact, not one of logic.

Such a supposition is quite consistent with the view we have outlined according to which a systematic theory of meaning presupposes, or demands, a strict distinction between sense and force. But it is clear that in imagining such a possibility it is not necessary for us to conceive of one particular force as being pre-eminent. That is, on such a conception there would be no particular theoretical weight carried by assertion say, rather than any other; what would be important was that the distinctions between forces was clearly marked, and that we could appeal to a 'force-neutral' description, namely that of 'descriptive content' in Stenius' phrase. This notion of 'descriptive content' is, as Dummett has

remarked, identical with Frege's conception of sense.[1] Actually when Frege talks of force (in 'Die Verneinung' for example, GB p 117 ff) he does talk in this way, but Dummett reports him as saying that the sense of an imperatival sentence differs from its respective indicative in more than its force; indeed, we could not speak of the respective sentence if this were true.[2] If we do pick out assertion as a special linguistic act (and thus pick out assertoric force as a special force) it need not be for reasons related to a consideration of the sense/force distinction. Rather it will have to do with our wishing to take the concepts of truth and falsity as being more primitive or of a greater importance than a general notion of satisfaction conditions which will relate to the correctness or otherwise of the descriptive content of the sentence-radical (in Wittgenstein's phrase).

I should make it plain that I am concerned with matters of principle relating to the possibility of a systematic theory of meaning. That is, I am not going to investigate the possibility of actually carrying out a systematic theory of meaning of the type which has been discussed. For it might well be the case that a systematic theory of meaning is possible which does not take the twin concepts of truth and falsity as basic, but choses some other concept(s) as basic. Moreover, there might be problems which would render the whole notion of producing a systematic theory of meaning impossible whatever basic concepts we adopt, to which I can only allude. The most obvious of these relates to a conception of language behaviour (called by Wright[3] the 'governing view') according to

1. M.Dummett Frege; p 305

2. Reported both in Dummett's article on Frege in Edwards' Encyclopedia under 'assertion' and in Frege p 307. In fact in 'Über Sinn und Bedeutung' Frege says that commands, requests etc are not thoughts, but stand on the same level as thoughts (GB p 68). In 'Logik' (1897) Frege explicitly says that he is not interested in forces other than assertoric (NS p 140).

3. C.Wright 'Language Mastery and the Sorites Paradox' in Truth & Meaning (Eds) G.Evans and J.McDowell, pp 223 - 47. See also 'On the Coherence of Vague Predicates', Synthese 1975, pp 325 - 65.

which the correct use of language is essentially nothing but a use which conforms to a set of instructions or set of semantic rules which we have learned, when taken in conjunction with the existence of irremediably vague predicates. But I am not going to concern myself with particular features of a language like that.

In a number of passages in the Investigations Wittgenstein seems to deny that a distinction between sense and force can be drawn. For example:

> But how many kinds of sentence are there ? Say assertion, question, and command ? - There are countless such kinds: countless different kinds of use of what we call 'symbols', 'words', 'sentences'. And this multiplicity is not something fixed, given once for all; but new types of language, new language-games, as we may say, come into existence, and others become obselete and forgotten. (We can get a rough picture of this from the changes in mathematics.)
>
> Here the term 'language-game' is meant to bring into prominence the fact that the speaking of a language is part of an activity, or a form of life.
>
> Review the multiplicity of language-games in the following examples, and in others:
>
> Giving orders, and obeying them -
> Describing the appearance of an object, or giving its measurements -
> Constructing an object from a description (a drawing) -
> Reporting an event -
> Speculating about an event -
> Forming and testing a hypothesis -
> Presenting the results of an experiment in tables and diagrams -
> Making up a story; and reading it -
> Play-acting -
> Singing catches -
> Guessing riddles -
> Making a joke; telling it -
> Solving a problem in practical arithmetic -
> Translating from one language into another -
> Asking, thanking, cursing, greeting, praying.
>
> - It is interesting to compare the multiplicity of the tools in language and of the ways they are used, the multiplicity of kinds of word and sentence, with what logicians have said about the structure of language. (Including the author of the Tractatus Logico-Philosophicus.) (PI 23)

We might think that what Wittgenstein here means by 'kinds of sentence' is types of uses of sentences, where the use of a sentence will be different from the linguistic force (if any) which is attached to those sentences. But if Wittgenstein did mean that, (and I am not sure that he did) he would feel that the division into forces would effect no real contrast, since for example, we could express every assertoric sentence in the form:

'p ? Yes'. That is, he would regard the force indicators as something superficial which in general do not serve to tell us which linguistic act is being performed by their utterance without a further characterisation. Namely, what the sentences are being used for.

Whether or not Wittgenstein thought that there were countless types of linguistic force, his attitude clearly suggests that there is no important distinction to be drawn between the types of linguistic forces which he initially lists (viz: assertion, question and command) and the multiplicity of uses of sentences which we find in ordinary life. To be sure, we cannot identify linguistic force-indicators with mood; for it is clear that there are far more distinctive linguistic acts than moods to accomodate them. A consideration of just the imperative mood will show this; for example; 'Open the window', 'Please pass the salt', 'Go to hell' (this would be most amusing if construed as a demand)'Out vile jelly!', 'Come and sit down', 'Give us this day our daily bread', the antecedent of 'Do that again and you'll be sorry', 'Don't worry, you'll be alright', 'Watch out!' etc etc. Wittgenstein is casting doubt on the supposition that by means of force-indicators we can determine unambiguously which linguistic act is being performed, and consequently, the meaning of the utterance. But, most importantly for Wittgenstein, since the range of uses (and the range of possible uses) is not and cannot be fixed in advance, for all time, there can be no exhaustive and systematic theory of meaning for a language, since there will be no time at which a language could be called 'complete'; but that is not because it is incomplete. Rather, every language is what it is and not another.

There is a second point and that is that it is not clear that any sentence radical (or 'assumption') can have just any force attached to it. It is reasonable to suppose that the extension of indicatives and questions will be the same, but this is not so with respects to indicatives, commands and optatives. Since of any indicative sentence, we can ask whether it

expresses a truth, that shows that that which can be asserted can also be queried; but we cannot say that we know what to do with every command. That is, the significance of a command will in part be determined by human capacities, and other factors which render to fulfillment of the command either impossible, or automatically guaranteed. The same holds for optatives.

In a number of places, Wittgenstein refers to the point of language activity. For example:

> But it might be asked: Do I understand the word just by describing its application ? Do I understand its point ? Havn't I deluded myself about something important ? (PG p 65)
>
> And if things were quite different from what they actually are — if there was for instance no characteristic expression of pain, of fear, of joy; if rule became exception and exception rule; or if both phenomena of roughly equal frequency — this would make our normal language-games lose their point (Witz). (PI 142)
>
> The paradox disappears if only we make a radical break with the idea that language always functions in one way, always serves the same purpose (Zweck): to convey thought - which may be about horses, pains, good and evil, or anything else you please. (PI 304)
>
> Misleading parallel: the expression of pain is a cry - the expression of a thought, a proposition.
> As if the purpose (Zweck) of the proposition were to convey to one person how it is with another: only, so to speak, in his thinking part and not in his stomach. (PI 317)
>
> Orders are sometimes not obeyed. But what would it be like if orders were never obeyed ? The concept 'order' would have lost its purpose (Zweck). (PI 345)
>
> Speaking of chess The game, one would like to say, has not only rules, but a point (Witz). (PI 564)[1]

What does such an emphasis on the point, on the purpose of language use amount to ? One of the reasons for Wittgenstein's emphasis is to indicate the multiplicity of language uses. The question 'Why do humans use language ?' is as banal as the question 'Why do human beings think ?' In order to be

1. The word 'Zweck' occurs in PI 48 times, the word 'Witz' (in the sense of 'point') only 8. Anscombe translates 'Zweck' as 'purpose' (42 times), as 'aim', 'end', and 'point'. This does not take into account the other words which Wittgenstein uses in this connection. e.g., 'function', 'role' etc.

able to significantly ask the question we must first be provided with a context which will give a point to the question. If we reject the idea that there is always one point to an assertion (or remark), namely to 'express a thought' or 'to tell how it is in one's thinking part', then it might seem that we would have to know the point of the utterance before we can understand the utterance in question; and such a suppostion raises enormous difficulties, one of which being that we would not then have much of an idea how to set about the construction of a systematic theory of meaning.

If we have a theory in which the concepts of sense and force are separated we cannot assimilate the notion of the point of an utterance with the force attaching to the sentences of the language. In his discussion of assertion, Dummett (Frege; pp 295, 298) confuses (or at least fails to draw a distinction between) two distinct notions of point. He observes that the notions of sense and reference do not suffice for a complete account of a language since by themselves they do not serve to inform us of the significance or point of an utterance. What Dummett means by 'point' here is 'force'. The point of uttering an indicative sentence (assertorically) is on this account, to make an assertion, to say that things stand in a certain way. Later (p 297), he remarks that only a context will give a point to an utterance. But this second notion is much wider. We can construe Wittgenstein as separating out these two notions of point, and then subsequently incorporating the first into the second. For him, the point of an utterance is something quite different form assertion, command etc. That is, Wittgenstein thinks that we have not said anything about what assertion is, unless we had previously understood what the point of that practice was, unless we had seen how it fitted into our lives. This we cannot do by appeal to the concept of the consequences of an utterance (this is seen most clearly with respect to command), for there are no typical consequences to an assertion. Rather we would have

to look at the conditions within the language game which warranted assertion.

Dummett must, on his own principles, accept the distinction between the point of an utterance and a force which is attached to it. Since we may ask of any utterance what the point of its utterance was, we may also ask what the point was of making any linguistic act by means of it. That is, we may ask 'What was the point of asserting p?' It is clear that we may ask this question without thereby asking what it is to assert that p, for in this context we can already take that as understood.

It might be thought that this second notion of point amounts to little more than speakers' intention, as opposed to what is actually said. Now such a distinction clearly exists, and Wittgenstein would not controvert the fact. But we should not overlook the fact that the only way in which a distinction of this sort can be made out is by assuming that there already exists a language whose speakers are able to derive what is said from the meaning of the words used and the various modes of sentential composition. Using this knowledge, speakers may then take into account idiomatic or regional usage (as well as grammatical irregularities like double negation) which will only impede communication on occasions.

I should mention that I do not here intend (or pretend) to provide an analysis of everything we might mean by 'the point of an utterance'. The general notion of 'point' is much wider than can be covered here. Rather, I have been speaking about a notion of point which occurs in the Investigations (by and large) and so I would not dispute that there might be a sense of 'point' which is equivalent to speakers' intentions.

Drawing the distinction between 'what "p" means' and 'what A means by "p"' draws heaviliy on psychological notions, and the distinction which Wittgenstein was concerned to draw is not to be explained in terms of complex intentions but in terms of the institution within which a particular use of language has its home, and from which it receives its significance.

The word 'significance' in the last sentence is ambiguous; it means both the fact that a sentence uttered has any significance, due to its occurring in a specific context (language-game) which confers sense upon it, but more specifically, the significance which it has is determined by reference to the specific language-game in which it occurs. Thus in order to give an account of language, we do not in general, have to look at what the speakers meant by their sentences, but at the context in which they were uttered, and at the institutional rules which govern the sort of activity which is being performed. It this fact which renders correct Dummett's observation (in 'Nominalism') that the notion of a type of context plays an important role in Wittgenstein's Investigations.

Indeed, if we could equate 'point' with 'speakers' intention', it would appear that, if it were necessary to understand the point of an utterance before one could properly be said to have understood it, there would be no means whereby we could systematically use a language. (I do not deny there could be cases in which this was reversed, but that could not be the norm.) Although we cannot identify 'what was said' with 'what was meant' we cannot assume that they can be separated willy nilly, which we would suppose in thinking that we can only understand what is said by understanding (or knowing) what the intention of the speaker is. But the notion of 'point' in the Investigations does not raise these questions.

If the type of context determines the significance of utterances made in that context, in order to understand the sentences in question we will have to know which type of context any sentence is spoken in in order to understand it.

According to Frege, the meaning (Sinn) of a word is not to be identified with a mental image, but may be identified by a consideration of the way it systematically contributes to the sense of any sentence in which it occurs. This has come to be known as the 'context principle'. We do

not have to know or be able to think of every sentence in which a word may occur in order for us to be able to understand that word, for to suppose that we did would be to render the principle useless and quite false. What we require in the first place is an account of how the meanings of sentences were built up out of the meanings of their parts. It is useless to be told that what we must know before we can give an account of this is the sense of all the sentences of the language, for it was just that we were wanting an explanation of. The context principle relies upon the supposition that the contribution of certain types of words to the sentences in which they occur happens uniformly. That is why, in the philosophy of language we are not concerned with how a specific word contributes to the sense of a sentence, but it is supposed that there is a level at which a general explanation will tell us everything we want to know about sentential composition. The supposition that a particular word systematically contributes to each sentence in which is occurs is clearly supported by the observation that we do not learn sentences, but the meanings of words and their sentential composition. Thus a word which can occur in one sentence must be supposed to have some particular sense which it contributes to the sense of any sentence in which it occurs, given that that sentence is not ruled out as nonsensical on other grounds.

Now, can we suppose that the relation between a word and a sentence is paralleled between a sentence and its use - i.e., the particular acts which may be performed by using it ? Or, more sharply, between a sentence vis à vis a range of language-games and a word and a range of sentences ? The context principle does not say that a word does not have any meaning except it be in the context of a sentence; rather the meaning it has is to be explained in terms of sentences. Can we say, in the Investigations that utterances have a sense independently of which particular language-game they are used in, or are they language-game specific?

I think that Wittgenstein intended to deny that there was a parity of form here. It is not in fact the case (although there is nothing absurd in supposing otherwise) that there are forms of words which can only be used in certain types of context, but to suppose that no form of words has the same sense when used in different contexts just amounts to the obliteration of the distinction between sense and force; for there will then be no descriptive content common to the use of one sentence in a language-game with the use of that same sentence (whatever that means now) in another. For it appear that in order to understand (the use of) a particular sentence we have to know which type of context it is being used in, i.e., which language-game is being played.

This is counter intuitive, but may come about through our failing to see how closely language-games are connected, failing to perceive the connecting links which Wittgenstein speaks of (cf p 33 above). For if we understand the type of context of utterances, it seems that we thereby are in a position to understand which sentences are being uttered. But in so assuming, are we not smuggling in a notion of descriptive content ?

Possibly Wittgenstein cannot have meant to repudiate the distinction between sense and force in quite the way it has been supposed[1]. Let us suppose, for the sake of argument that Wittgenstein did accept some notion of descriptive force, but at the same time thought that in understanding that, we did not understand anything worth knowing by itself. That is, given the sentence, on its own in no context, and with no force or mood, what he might ask can we have been said to understand ? It might be answered that we understand much. We would know for example, which states of affairs

1. cf Dummett 'What is a Theory of Meaning ? (II)' in Truth & Meaning (Eds) G.Evans and J.McDowell, p 72.

would have to hold for that sentence, when asserted, to express a truth; which states of affairs would have to be brought about in order for that sentence, when used to command, to be obeyed etc. The initial reason for the creation of the distinction between sense and force was that we wished to know, of any sentence, what it was being used for, which linguistic act was being performed by its use. But it is clear that this argument would not be convincing to someone who doubted that one could understand a sentence antecedently to knowing what it was being used for, since an account of linguistic force presupposes one of sense. It is also clear that the conception of force we find represented in Dummett's (and a fortiori, Frege's) writings will not suffice even for the task outlined above. For we cannot derive the whole meaning of a sentence knowing only its sense and mood. We need to know the context of the utterance, as the few examples on page 197 above indicates. Nevertheless, from the viewpoint of a systematic theory of meaning, we have to assume that there is a systematic relation between the uses of the sentences in question (assertions, commands, optatives etc), and the notion of force was introduced in order to account for the demand that two sentences, typographically distinct, may, in Frege's terms, express the same thought. The difference between such sentences cannot be attributed to their sense, otherwise we should despair of ever being able to account for someone's mastery of a language.

Let us look at this point a little more closely. It is assumed that what makes the learning of a language possible is that its words, when combined into sentences are able to yield, systematically, the senses of new expressions, for if such a contribution were not systematic (at least in the majority of cases) it would appear quite mysterious how a language could ever be learned, or how it could ever be understood. To appeal to context to sort this out would I think just be a sign of confusion, for the context cannot indicate the mode of sentential composition, but will

at most relate to whole sentences. But what in the sentences, does it relate to ? We have already ruled out the possibility that it relates to the sense or descriptive content, for that is to be determined completely by the sense of the words and the manner of their combination. Thus, if it does relate, it must do so by means of the force. But how can it on Wittgenstein's account ? For we have to assume that not only can the same form of words be used in different contexts, but, given that we have a notion of 'same sentence', we can do different things with it in different contexts. That is, the context does not and cannot determine which sentence has been uttered, ie which 'move in the language-game' has been made. We then have to assume, that on Wittgenstein's account the context relates to the sentence as a whole, in an undifferentiated manner, which again amounts to the repudiation of the distinction between sense and force. So perhaps we do have to saddle Wittgenstein with such a view.

On Wittgenstein's account of the matter, it ought to follow that we could not say which move had been made unless we knew the significance (equals 'purpose') of it. Consider the game of chess: it is defined both by its rules and the statement of what is to count as winning (in the full sense - ie, not merely which position is to be dubbed 'winning'). We have a neutral description of each possible move (BxB, N-R4 etc) but we ask: can these be understood without knowing which game is being played, ie without knowing which position will count as winning for whom ? In one clear sense : yes. But we have not understood much, and knowing these moves would not help us to understand the activity the players were engaged in unless we knew whether they were playing normal chess or one of its variants. And we understand the moves because we can understand the circumstances in which they would appear fully comprehensible. For without knowing what the players were doing, we could not say whether

they were playing a game or not. Would we have been told anything important if we had been told which moves were made in advance of knowing what those moves were made for ? I think Wittgenstein would say: no..

But it is not clear to me that in supposing (I) the possibility of a systematic theory of meaning, and (II) the existence of the distinction between sense and force, that we would be committed to disagreeing. For, since the notion of descriptive content does not (as has been admitted) suffice for a complete account of language behaviour, there is no point in denigrating the role it is able to play in the context of a wider theory. To suppose otherwise would be to commit an ignoratio. Even supposing we extended the theory to include the point of an utterance (in the sense indicated) of linguistic activities, we would then not have to conclude that the distinction between sense and force was unserviceable; rather we should either conclude that the theory required supplementation by an increased range of forces, or appeal to general principles which would determine which types of linguistic acts were being performed. To be sure, the notion of linguistic force undergoes some modification since it would not now be conceived of as, in conjunction with the theory of sense, providing a total specification of the linguistic acts performed, since that would have to be supplemented by considerations of context.

Perhaps this is a confusion about the role which the theory of force was meant to play. I suppose that someone has at one time held that all we ever had to know about a sentence in order to understand it fully was its sense and force, but such a view is clearly absurd. In some particular circumstances that might be true, but knowing just the sense and force of an utterance could not tell us in which circumstances it would be true, and so knowing that is no weakening of the difficulty.

What is important to note is that if this is accepted there can be no complete systematic theory of meaning for a language. That is, since

we will always have to take into account the context of any particular utterance, viewed as a partial determinant of the nature of which linguistic act was being performed, and since we cannot specify in advance, all possible such contexts, it must be the case that we cannot recursively specify all the sentences of a language, let alone give an account of how their meaning is a function of their parts. Possibly such a conclusion is not absolutely fatal to the conception of a systematic theory of meaning, for, providing that we set our sights on constructing a theory for a language at a particular time, it would seem that the number of language-games, or (what comes to the same thing) forces, would be finite; thus the theory would go ahead in the normal way.

Wittgenstein would have none of this however, since according to him there exists no possibility of surveying all possible contexts. We learn a language as we learn the contexts in which we utter sentences, and the connection with reality is made, not by purely verbal means, but in the context of acting in it and on it. And we cannot divide such activities into discrete chunks - something which would be presupposed in thinking that we could survey all such modes of (inter)action. (See here again the remarks above about there being no typical consequences of an assertion.)

Could we not allow that our theory of meaning accept much of what Wittgenstein says, yet remain respectably systematic ? This is a goal worthy of all consideration, since we do <u>somehow</u> manage to learn languages, and we must assume that we do so in a determinate fashion; that is, there must have been some particular process whereby we learned to construct the meaning of sentences. It is not the job of a theory of meaning to represent <u>that</u> - as an historical hypothesis, but my point is simply that if a language can be learned, then presumably there is a way in which what we have learned can be represented.

If we reject the distinction between sense and force, then it seems

that we must give up talk of truth. Unless we have some means whereby we may isolate a sentence as a device which can be used to assert something, where the 'something' is amenable to a systematic description, it is quite unclear how we can ever be in a position to use the notion of truth at all. For it is in virtue of the practice of assertion that we have a conception of saying that p rather than ¬p. Or better: without the concept of assertion we could not begin to characterise negation either.

This shows up the radical incoherence of Wittgenstein's position (if it really is his position). For his talk of language-games seems to suggest that there could be a language-game of (inter alia) assertion, and one of requesting and in fact countless others of the same type. And this appears in effect as the identification of a language-game with a force, or minimally, the function which was ascribed to the theory of force has now been taken over by the notion of a language-game. But any benefits there might be in this move surely are outweighed by Wittgenstein's insistence that there are uncountably many of them. As he was to say in the Bemerkungen, 'An "infinitely complicated law" means no law at all'.(PB 148)

What then has Wittgenstein's change of perspective effected ? He has shown (if it needed showing) that there are a huge range of language uses which any account of language must take into account if it is to be an account of language. But this change in perspective would only effect a broadening of perspective, and would not in itself constitute a repudiation of the distinction between sense and force. So the basis upon which a theory of meaning is to be built would be much the same. What changes is the number of factors which we should have to take into account. Would this mean that no theory of meaning could be systematic ? Why should it mean that ? I repeat, it is accepted that the rejection of the distinction between sense and force would render the construction of a systematic theory of meaning impossible, since we will then have no means of giving a systematic analysis of the uses of sentences since the

sentences themselves will not be used systematically. That is what the ditinction between sense and force amounts to - that sentences are used systematically with slight variations to indicate which linguistic act is being effected by them.[1] But it is also clear that there are many sentences whose significance is not to be fixed by formal considerations alone; in many cases ambiguity is resolved by context (as we say). This may come about through cadence or register in the case of spoken language, and there might be occasions where we have to struggle to see the ambiguity which has been claimed to exist. Of course, there will be cases in which we are genuinely in doubt as to which linguistic act has been performed. The distinction between a statement of intention and a prediction is a case in point, due somewhat to the fact that the English 'will' and 'shall' are not used in the regular way that they once were. But we do not suppose that the existence of such cases renders the whole notion of sense and force something which may be discarded in favour of a monolithic conception of 'moves in a language-game', because such questions are in principle resolvable. Indeed, the supposition that they are presupposes the existence of such a distinction.

The notion of a point of an utterance which Wittgenstein was principally interested in, did, it is true, extend from time to time beyond the notion of an institutional dependence, but I submit that in those cases where the intention of speakers was introduced it was done, not in order to elucidate the general conception of a language-game, but to explicate a particular game in which the concept of intention had its home. But there are senses of

1. Dummett (Frege; p 303) remarks that Russell in PoM located assertoric force in the indicative mood of the verb. In fact, so did Frege. He writes: 'In Begriffsschrift I had a particular sign for assertoric force: the judgement stroke. In languages known to me, assertoric force is closely connected with the indicative in the principal clause.' From 'Kurze Übersicht meiner logischen Lehren' (NS p 214).

'point' which would relate directly to psychological factors.

I have tried to show the consequences for a theory of meaning which would result if we rejected or played around with the distinction between sense and force. Why should we suppose that a distinction between them does not exist ? Wittgenstein seemed to think that in accepting such a distinction, we would set one type of linguistic act above all the others, by means of which all the others were to be derivatively explained. Even if we could understand why we should not do this, it is not even true, since we may invoke a generalised notion of satisfaction (not in Tarski's sense). Nevertheless, we do require some principle whereby the states of affairs whose existence or non-existence would render one or the other of a proposition and its negation true (or false), can be demarcated, and also a means to indicate which of the two propositions is rendered true (and which false) by the existence or non-existence of those states of affairs.

Wittgenstein's attitude towards a systematic theory clearly connects with his attitude to philosophy. Philosophy becomes necessary only in virtue of there being specific misunderstandings caused by a distortion of the logic of our language. Thus in order to clear up these misunderstandings we must look at language - look at the place where the expressions which lead us astray have their home; to do this we invent a series of cases, each related to some of the others, but the only thing common being a form of words. It is clear that this conception of philosophy demands that there can be no systematic philosophy, since there can be no way of blocking every misunderstanding before it arises; rather, we attempt to minimise such misunderstandings by achieving an Übersicht of our language. But I know of no place in Wittgenstein's work where he says that such is possible, or that it would thereby be excluded, even as a possibility, that misunderstandings occur.

But all this argues against the desirability of a systematic theory of meaning, not against its possibility. Wittgenstein thought himself not to have any need to be watchful of not saying things which would in fact render such a theory impossible. I have not been concerned to discuss whether such a theory is desirable or not; what I have discussed is what would render such a theory impossible.

There could be a systematic theory of meaning which would fail to clear up every problem about meaning, but which did nevertheless provide a basis upon which we could build a theory which would determine, for every expression what its meaning would be, given knowledge of certain other factors, not amenable to inclusion in a formalised theory. This is, I think, how things stand. The concept of a language-game (the details of which I have not investigated closely) is such that there is no saying, in advance of particular exemplifications, what its extension will or could be. We are possessed of a means to say in our language as it stands, (as we stand) anything we can say. But people change, and peoples are different. Thus Wittgenstein's remark about being in a foreign country and not being able to understand the people, and not due to a failure to understand the language (PI p 223). But what we are to understand by 'language' is of course the whole problem.

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