

AN ANALYSIS OF THE NOTIONS OF 'RULES' AND 'LOGIC' IN
LUDWIG WITTGENSTEIN'S PHILOSOPHICAL INVESTIGATIONS
AND SOME IMPLICATIONS FOR THE PHILOSOPHY OF
EDUCATION

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Michael Lawrence Herriman

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APPROVAL

Name: Michael Lawrence Herriman

Degree: Master of Arts (Education)

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and some implications for the Philosophy of Education.

Examining Committee:

Gordon R. Eastwood, Ph.D.
Senior Supervisor

Anastasios C. Kazepides, Ed. D.
Examining Committee

Frederick J. Brown, Ph.B.
Examining Committee

Date Approved: Jan 5, 1970.

Abstract

This thesis will be concerned with linguistic aspects of inquiry into education. When we use the term "education", we will say that we are referring to; either, a process whereby a person is enriched in some intellectual, moral or practical way; e.g. the activity taking place in the classroom, or we are talking about a product, the body of linguistic formulations that arise from observation, description, explanation and evaluation of the process. In the product sense, education can be seen as a distinct universe of discourse, because its subject matter circumscribes an area which is distinct in the way in which economics or psychology or botany are. But whereas other distinctive disciplines have organized the statements of their discourse in relationships that have enabled them to get a clearer view of what the process might be (i.e. their "reality"), education has lagged behind in such endeavours. One prominent reason why this is so is connected with the long held emphasis on trial-and-error method of inquiry into teaching and what should be taught. Another reason is probably that instinct, rather than logic, has guided theorizing.

Education can rather be treated as a social science and subject to the rigors of its inquiry. By examining Wittgenstein's notions of "rules" and "logic" we hope to elaborate a logic of inquiry that is valid and more plausible for inquiry into education than previous kinds of "logic". To understand the Wittgenstenian philosophy of logic, it is necessary to examine with him, the extent to which our everyday life is governed by rules. These rules are conventions established by users of a certain language -- the most important point being that human practice establishes what these rules are. That is, the meaning of rules is determined by our agreements amongst ourselves. Activity in relation to rules not only refers to physical behaviour, but also includes verbal

behaviour. Hence the distinctions we make in language also are determined by agreements amongst users of the language.

Traditionally, logic has referred to the formal or surface structure of propositions, expressions etc., but formal logic has never been able to completely isolate propositions into elementary forms. Nor have artificial derivatives achieved this. Wittgenstein is suggesting that instead we ought to pay attention to the logic involved in the distinctions in language that we make as matters of following rules. We have allowed our rule-following attitude in language to commit us to seeing things in ways that might not necessarily accord with what we possibly can know. Such conceptual difficulties will be resolved if we look at the expressions in question and see what our language is really committing us to. This logic is derived from an examination of what Wittgenstein calls "depth grammar".

If we grant that education is a science, then we can only theorize successfully if we know the full commitment of the terms we are dealing with. Such logic will also permit us to formulate hypotheses in as rigorous and plausible a manner as possible. It might also be worthwhile to note that education is a paradigm "form of life", and that we might be able to use this notion as a means of generating theories about the discipline. This is because education is so close to the social phenomena of everyday life which in itself is subject to intricate rule-following conventions.

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Introduction

This work is based on an assumption about education; that it is a discipline characterized by the kind of rigorous inquiry and evaluation(or validation) of all the statements and relationships in its corpus, that characterize any scientific pursuit. Because of this methodological commitment and due to the kinds of questions with which it occupies itself, we can justifiably put this discipline into the class of states of affairs that are called "philosophies of". The justification for this assumption and the consequent assertion will be specifically taken up later in this work, but as well, the "spirit" or "tenor" of the whole work will suggest that such an approach is warranted.

Allowing this assumption, we will examine several notions expounded in the later philosophical writings of Ludwig Wittgenstein and in particular his Philosophical Investigations, to see how accepting his ideas will enable us to understand more clearly the activity involved in theorizing in education. Specifically the notions attended to are: rules (and what it is to follow rules, obey rules, have regard for rules, etc.), and logic. The word 'notion', is chosen instead of words like "theory", "thesis", "proposition" etc., to refer to the series of thoughts or ideas associated with Wittgenstein's analysis of the concept in question because this work more accurately reflects the spirit of his inquiry, which he constantly warns is descriptive and not prescriptive. He maintains that he is saying nothing new, but only clarifying what already exists. There is as well a strong anti-generalizing attitude in the later work (an integral part of the ideas he is attacking, i.e. "Essentialism") and this tends to make one reject "theories" etc. as suitable terms.

The notion of "rules" is central to a number of questions in philosophy, but Wittgenstein is more than superficial in this recognition. We might consider how many philosophical questions centre on problems of language (apart from the consideration that all questions are questions in language, i.e. in a linguistic formulation), and realization of the profound questions in one aspect of language alone (e.g. meaning) will indicate its importance. One can suggest that basic to these questions about language is a meta-question about rules. However, even if we forget about specific linguistic questions in philosophical problems, we are likely to encounter questions which involve looking at the concepts of rules in one form or another. There are epistemological differences in the way rules can be regarded and Wittgenstein adopts a position that accords to rules a conventionalist status, but the term 'conventionalist' will be qualified later.

Our contact with rules is particularly emphasized in inquiry into the phenomenon of concern to social science, i.e. social acts. Since certain aspects of every social act are implicitly rule-regarding, we might better comprehend the import of these acts were we to attempt to explicate the rule involved in the act. Much of this is the "stuff" of behavioural science--the significant point is that an inquiry into rules, as well as being empirical, is a logical task.

The concern in this work is with the logical aspects of this kind of rule-regarding or rule-following. However, an attempt will be made to see if the notion of "forms of life" and its commitment to rules, will provide a basis for beginning a theory about certain specific social entities.

A significant feature of education too, is that its data consists of a series of recorded experiences, that purportedly describe social acts (even to the point where one is considering a person who is studying material privately). Now it would seem to be advantageous for theory construction to have a well-generated set of hypotheses, and conjunctions between them. This thesis proposes that attention to the rule regarding aspect of social phenomena will greatly aid in their elaboration and consequently be of major importance to education.

The examination to be undertaken here will be one of concept analysis. The concept of "rule" will be analyzed to determine its logical commitments and particularly to specify its grammatical status-- with attention to the "depth grammar" of the concept. Hence discussion will centre around questions about: the compulsion of a rule; the determinability of a rule; the idea of "privacy"; the objectivity of judgements about rules; the notion of "the same" occurrence, and regularity of occurrence; the supposed priority of rules; the institution of new rules; rules in relation to meaning, "language games" and family resemblances; counter theses to the essentialist notion of rules; "learning to obey rules"; and the social setting of rules.

Then questions of rules and language will be examined more specifically. The starting point for the discussion will be the notion that language belongs to a subset of which the major set is rule-governed activities. The important problems in this relationship concern; the question of whether rules precede language or vice versa, and whether language is a necessary part of rule expression. Once this temporal and logical relationship is established, we can proceed to determining whether the Wittgensteinian notion can provide an epistemological basis for theorizing about experience. More specifically, does it enable us to formulate a linguistic reference system that has a suitably

rigorous foundation for dealing with social science? For example, the question "what is involved in following a definition?" can be answered by looking at the rule following notion involved in, for example an ostensive situation. This of course affects the epistemological assumptions of all discourse, since to begin any discussion entails being able to "point to" and "name" the component features involved, and to agree on names, etc.

Once these features have been established we will look at some more specific questions concerning the analysis of linguistic acts in the light of their being rule-regarding. J.L. Austin suggested the kind of analysis of linguistic performances that might be undertaken,³ and by borrowing and further developing his terminology, William Alston⁴ has attempted to analyze some specific speech acts. He concludes though that each act is subject to such an intricate set of rules and entailments of recognition and intention on the part of participants in the performance, that to give an adequate account of all the possibilities of interpretation in that one act would possibly take volumes of work. Nor would an examination of "language-games" be of much help since Wittgenstein notes that the intricacy and elusiveness of language is in a way responsible for its dynamic. Wittgenstein also attributes many of the so-called problems of logic in language to metaphysics-- in that we fail to release concepts from the world of metaphysics and hence we perpetuate confusions.

We will also attempt to see whether certain typologies of linguistic acts would enable us to concentrate attention in a few specific area (e.g. in the discourse of science). The kind of question posed will be concerned with the advantage or otherwise of proximity to

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experience (whether a scientific calculus will provide a more reliable "type" of language than the language of everyday discourse). We will see that whilst precision is useful heuristically, much of our social intercourse depends on metaphor vagueness, etc. Yet this discourse is just as subject to rules, if not more so, than the exact formulations of, say, physical science.

If we can establish a reliable account of the relationship between language and rules; such an account will entail a certain position in regard to logic. Wittgenstein attacks the "idealist" and "essentialist" notions of logic by indicating the illusion contained in such thinking.⁵ Again his stand can be traced to an origin in the conventionalist notion of rules. The validity of the label of 'conventionalist' as applied to Wittgenstein is tested when the question of logical laws arises. The question treated will be that of whether a logical law is a special kind of rule; this suggests related questions about the validity of inference and the "necessity" involved in various statements of the discourse of science, logic and everyday discourse. It will be shown that everyday discourse has a higher degree of rule following in this regard, than is usually thought to be the case.⁶ The important note that results from this discussion, is that it is not rules themselves that have a priori status, but we who confer this inexorability on them.

The question of compulsion must also be answered although part of the answer has been suggested just now. We might examine our background of conventions to see how compulsion is applied since we tend rather to think of it as deriving from the rule itself.⁷ Such confusion in our thinking causes us to hypostatize the rule, and that with such inflexibility that rules can no longer exist.

To Wittgenstein, the more important questions of logic are those associated with the "deep-grammar" of expressions. He has noted that many of our confusions in philosophy are caused by grammatical points in formulations, that we overlook. This is particularly the case in instances where we are purporting to describe so-called processes, or states, of mind. We will look at the more familiar concepts treated in Philosophical Investigations; those of meaning, thinking, understanding, feeling, intending, learning, etc. since they all have relevance to theories in education. It will be seen that these can be adequately accounted for by behavioural descriptions. Wittgenstein also makes some comments on what we often assume to be the inductive grounds for verifying to ourselves that certain sets of conditions hold in certain cases. He points out however that it is not induction that we resort to for validating such instances; rather we use previous experiences as the cause for our opinions and not the grounds for these opinions. Here Wittgenstein makes one of his most significant remarks:

. . . What people accept as a justification--is shown by how they think and live. (P.I.:325)

With these notions about logic, language and rules it is hoped that we can look at some of the formulations and theories of education and see if they provide the means to a clearer and more consistent methodology in the scientific study of education. Most theorists in education have been aware of the necessity of applying a rigorous logic to their method, but to this day education has been distinguished by its lack of well formulated theories. This problem is manifested at all levels of the structure of education and it seems that the discipline is falling further behind in time while the other sciences are progressing notably. This is not to imply that the most suitable theoretical form-

ulations would be of the calculus type, whose terms were subject to precise definition and "water-tight" construction. There is no reason to suppose on the contrary that education is not as capable of well formulated statements and relationships as is any other social science. Perhaps it covers a wider state of affairs than some of the other disciplines in social science, but if there is any difference, it is one of degree and not of kind. An immediate suggestion then is that education be accepted as a legitimate social science and subject to the same logic as, say, psychology, linguistics or economics.

Logic does not supply theories with new data or knowledge--it merely ensures that the inferences involved in the formulations are legitimately derived within the system. Logic can also direct its attention to the validity of basic ontological positions and we will look at a number of philosophical systems such as "Idealism", Thomism", and "Pragmatism" and see that educational theories based on these beliefs fail because of logical mistakes they make. Much theoretical work in education has been based on the mistaken logical premise that there must be consistency in the application to education of one philosophical position or system. This overlooks the Wittgensteinian view that philosophy is not a body of knowledge, but rather an activity. The consequences of this position are that the Philosophy of education is an activity--a theory building and testing--and perhaps the only tangible results to be expected from such inquiry are in terms of the negating or rejecting of certain statements, propositions and theories, or at least the straightening out of some of our misconceptions.

We will look at the concept of learning and see how an application of some of Wittgenstein's notions of both rules and logic can dispose of some of the traditional problems of philosophy by exposing them as

pseudo-problems and clarify more worthwhile approaches to a theory of learning as part of an overall theory of experience for education. It is significant that whilst several recent commentaries on learning theory purport to be conceptual analyses of the term, they commit the kind of logical errors the avoidance of which must surely be the object of philosophical analysis. In part this is due to piecemeal theorizing without a solid reference to either research or the branch of philosophical psychology, but it is also evidence of a persistent form of "essentialism", the wanting to specify and generalize the necessary and exclusive conditions for "learning". As the antithesis of the ideas in Philosophical Investigations this will be dealt with accordingly.

In the following chapters we will also take the Wittgensteinian notion of "form of life" and analyse what is implied by the expression, particularly to see if it can be used as an epistemological first principle or foundation for theorizing in education. If we follow Wittgenstein's suggestion that speaking a language is part of a "form of life", then we might also say that making a logical distinction is also a "form of life", since our logical distinctions are part of what it is for us to think and act alike. This might also provide a useful starting point for all theorizing about education. Such an elaboration would enable education in this sense to be seen as a sociological "ideal type".

Perhaps the overall point of this work is to demonstrate that by adapting the notions of logic that are found in Wittgenstein's later work, a reliable logical approach to the philosophy of education will result. It will, as well, substantiate the claim of that discipline to a scientific status and this realization will in itself help to clarify the confusions and misconceptions under which the discipline has

laboured. A more appropriate method of approaching this task is to look at "rules" as the basis for dealing with language and logic, because;

. . . The fundamental fact here is that we lay down rules, a technique, for a game, and then when we follow the rules, things do not turn out as we had assumed. That we are therefore as it were tangled in our own rules . . . This entanglement . . . is what we want to understand (i.e. get a clear view of). (P.I.: 125)

Notes To Chapter I

1. See the beginning of Ch. IV.
2. See for example, William P. Alston, The Philosophy of Language (Englewood Cliffs, N.J.; Prentice Hall, 1964), Chapters II and III, where he emphasizes the importance of "rules" in the philosophy of language. Questions in other areas of philosophy are also dependent upon a consideration of rules, as might be readily appreciated.
3. J.L Austin, How to do Things with Words (London, Oxford, 1962), Lecture VIII.
4. William P. Alston, op. cit., Ch. II.
5. See Ch. II, p. 33, of this work for the expansion of the Wittgensteinian attack on these notions.
6. See Ch. III p. 54.
7. See Ch. II, p. 27.
8. For an explication of the term "deep grammar" see Ch. III, p. 59.
9. Refer to Ch. IV, p. 93, for elaboration of the logical mistakes inherent in pragmatism, idealism and general systems theory.
10. B. Paul Komisar and C.B.J. Macmillan (eds.) Psychological Concepts in Education (Chicago; Rand McNally, 1967), articles 11-15.

Rules

Wittgenstein's discussion of rules (the concept of rules, behaviour relating to them and expressions referring to them) in the Philosophical Investigations has not been given the emphasis nor the close examination that it warrants. Apart from the large section specifically devoted to rules, a consideration of rules enters most other areas of the discussion. In so far as the Investigations can be said to be a treatise on what it is possible to do with language (or the limits of language) the notion of rule-following defines the outer limits i.e. any word or expression will have meaning only if it has rules governing its use. These rules need not be explicit and in fact very few words are governed by precise stipulations about how they will be used. The agreements are tacit ones, and are perhaps more accurately termed 'customs' or 'conventions'. The pervasive nature of this thesis is seen where Wittgenstein implies that many of the problems in philosophy will be dissolved when disputants realise what their terminology is committing them to or when they look and see how a word is ordinarily used. It is this continual stress on the conventional foundations of language that has caused Wittgenstein to be labeled as a "conventionalist". This label does not seem to be entirely accurate and modification of this term is needed in Wittgenstein's case. He does emphasize the phenomenal characteristics of everyday language -- for example, in marvelling that given the tenuous nature of the conventions of speech, there is communication at all. He is not interested in the genesis or evolution of the social phenomenon of language, although he does use several examples of "primitive language - games" (such as the one derived from Augustine, which emphasizes the contextual nature of ostension). Wittgenstein's conventionalism is

clearly defensible in so far as it is purely a description of the physical phenomenon of language; at present there is no basis for talking about any other than physical or behavioural aspect of language since no theory has yet proved adequate for describing such phenomena as "mental" events. This does not mean that it is impossible to derive a suitable framework for describing what we call "happenings in the mind". The work being done by Chomsky concerning the "innate hypothesis",¹ and the "theory of language" of Katz² point to the way in which suitable postulations might be made. Wittgenstein does not discount this possibility as some philosophers have maintained, he tries to show only what our existing language commits us to, and that is to a behavioural account of "so-called" mental events.

It is in the discussion of language and mental operations that rules have a very prominent place. In talking about sensations, the only justification we have for the words we use to describe the sensations is that they conform to accepted usages or rules whose ultimate reference is observable behaviour. This is the case for the events we call 'understanding', just as much as it is for the sensations we call 'pain'. In each case the justification for our use of the appropriate word comes from the fact that it is commonly accepted that we use that word when we judge that our behaviour is, or ought to be, conforming to the kind of behaviour usually associated with that word's use. (It will be seen further on that the only criteria we possess for judging a person's claim about "understanding", is that he behaves in a way that is similar to others when they claim the same thing and subsequently (usually) vindicate one's judgement about them. The circumstances are different for first-person reports). Again, our judgement is based

on external appearances i.e. it is behaviour learnt for the appropriate occasion. As Wittgenstein has noted, this implies a number of important considerations. One is, for example, that the expression of pain, say, "Ouch!", is not a response to the feeling of pain, but is one of the symptoms of pain. It cannot be separated from the pain either as a phenomenon or a meaningful entity. Hence our notion of pain (or any sensation) is confined, in a definitional sense, to common observable characteristics of what we presume is connected with a similar kind of internal happening. This notion does not deny that there may be some kind of internal happening, nor, as already mentioned, does it preclude the possibility of discovering a language to handle the concepts involved. In other words one cannot generalize from his own case concerning what pain or any sensation is. Wittgenstein uses the analogy of the beetle in the box;

... No one can look into anyone else's box, and everyone says he knows what a beetle is by looking at his beetle-- Here it would be quite possible for everyone to have something different in his box. One might even imagine such a thing constantly changing ...

... That is to say: if we construe the grammar of the expression of sensation on the model of 'object and designation' the object drops out of consideration as irrelevant. (P.I.: 293)

The conventional or rule following basis of language has another important consideration for theories of meaning. To deny that the meaning of any word is susceptible to changes of convention is to commit oneself to some form of essentialism e.g. such as treating the symbol or sign of the word as the thing containing the meaning, or a kind of idealism e.g. Platonic idealism where the meaning is an expression of the ideal form of the thing. So far the remarks on rules have been directed towards a general emphasis in the philosophy of language. The same emphasis (or "brand" of philosophy) must apply to all aspects of language consistently, precisely because of the nature of rules. That

is, if one is committed to conventionalism in regard to a certain aspect of language, it is logically necessary to treat any other question in language as being committed to the same thesis.

Wittgenstein is also interested in rules so far as they are connected with all of human behaviour and not just language behaviour. He examines the nature of compulsion in relation to rules i.e. the question of why we follow or obey rules, and what is involved in this process. This further relates rules to questions of logical compulsion and the whole basis of inference in deductive systems (scientific, mathematical, and natural language systems).

In Philosophical Investigations, the question of rules is peripheral to the discussion of other topics, but it also becomes the main point in a section of the work. ³ The initial problem is concerned with how we use rules. In explicating the "conventional" answer, Wittgenstein exposes an important fallacy commonly associated with the notion of rules. It is the false assumption that there is an essential characteristic to any rule which leads us to actually look for the "real essence" of a rule somewhere, particularly where rule-governed activity is involved. Areas where this characteristic is sometimes sought are; in the sign (or manifestation or stipulation) of the rule itself, in the mental behaviour of the person confronted with the rule or perhaps in some kind of referential connection between the sign and the cognition of the observer. Wittgenstein asks;

. . . what has the expression of a rule - say a signpost - got to do with my action? What sort of connexion is there here? - - Well, perhaps this one: I have been trained to react to this sign in a particular way, and now I do so react to it.

But that is only to give a causal connexion; to tell how it has come about that we now go by the sign-post; not what this going-by-the-sign really consists in. On the contrary; I have further indicated that a person goes by a sign-post in so far as there exists a regular use of sign-posts, a custom.

The mistake of course is to look for "what this going-by-the-sign" really consists in, and to imagine that there is some intrinsic meaning or power in any one sign. This should also serve to disabuse anyone of the notion that there is a necessary connexion between the statement of a rule, say a sign, and a mental performance in response to it.

The paragraph following the one quoted above, adds a further note to the conventional idea of rules. What has already been said in paragraph 198, could be restated as "one follows a rule because there are rules". This would seem to beg the question "Well surely there must have been some occasion when someone first obeyed a rule, if only to initiate the concept of rules?" Wittgenstein looks at that problem by asking

"Is what we call "obeying a rule" something that it would be possible for only one man to do, and to do only once in his life? -- This is of course a note on the grammar of the expression "to obey a rule". It is not possible that there should have been only one occasion on which a report was made, an order given or understood; and so on. -- To obey a rule, to make a report, to give an order, to play a game of chess, are customs (uses, institutions). To understand a sentence means to understand a language. To understand a language means to be master of a technique." (P.I.: 199)

The answer appears to be that we perform an action first, and the status of 'rule' is conferred upon it afterwards as a result of its applicability or feasibility, and this status is agreed upon by more than one person (so that for some situation it becomes a convention). The importance of this notion is seen when Wittgenstein asks us, in the next paragraph, to imagine two people playing a game of chess, the moves of which they have translated into a series of yells and stamping of feet -- so it is no longer recognizable to us as chess. He questions whether we are

justified in saying that they were playing a game i.e. following the rules of chess. We would have little to support any denial particularly were the people involved to affirm that they are playing chess. One is tempted also to consider implications of the case of a game of chess translated into the conventional coded moves in the Roman alphabet; and then further to complicate this by translation into, say, the cyrillic alphabetical equivalents, (as is often the case in correspondence chess matches).

Wittgenstein noted in the passage quoted above, that to talk about one man obeying a rule once in his life is to comment on the grammar of the expression "to obey a rule". The first grammatical significance is rather one of logical importance -- it is simply to point out that 'obeying a rule' implies the establishment of that rule in the first place; in other words, it is a comment upon the conventionality notion implicit in any talk about rules. The only means of accepting the idea, that it is impossible to say that one man obeyed a rule on one occasion only, entails committing oneself to a species of conventionalism. Another grammatical note comes from the "depth-grammar" of the expression. Wittgenstein spoke of "deep" or "depth grammar" as that formal quality distinct from "surface" grammar (i.e. the more familiar grammatical categories).

"The problems arising through a misinterpretation of our forms of language have the character of depth. They are deep dis-quietudes; their roots are as deep in us as the forms of our language and their significance is as great as the importance of our language. . ."
(P.I.: 111)

In this respect, the expression "obey a rule" seems to attribute to the rule itself some stipulatory or commanding power. It appears that when we obey, we obey something, at least. But we certainly do

not obey the sign or the expression itself; we instead concur with the general social pattern (within whichever group it exists) which suggests that if we have rules, we ought to agree with them (or some similar utilitarian or selfish rationale). Or, of course, we dissent by not obeying the rule. Wittgenstein returns to this question in paragraph 202 and notes . . . "hence also "obeying a rule" is a practice". This would appear to emphasize the practical nature of rule following i.e. that like other practices, it requires a certain amount of skill (in this case, judgement) and it is something one has to learn about as the general practice of following, or at least having regard for, social customs, institutions, conventions, etc.

Another problem noted in this section of Philosophical Investigations is that it is not always possible to determine when and where a rule is operating. In the case of the chess players who yell and stamp their feet; we cannot say that they are not following the rules of the game. It seems that whenever more than one person is engaged in any activity they are entitled to refer to it as rule-governed or rule-following. This does not mean, as some have assumed, that any action at all can be said to follow a rule. This is to mistake law-like generalizations for rules. For example any human behaviour can be said to conform to a generalization about behaviour provided the generalization is sufficiently wide enough to encompass any possible activity. Wittgenstein might have noted that this property of the calculus of human behaviour has no epistemological value -- it does not reveal anything significant to us or anything which we do not already know. It merely reveals the constraint or force that we have invested in the language. It also brings to light the implicit rules or conventions of our language (which as well have been established by its users).

Although it may not be actually possible to determine when a rule is being followed, it must in principle be possible to discover and acknowledge any rule being applied or followed in any instance. This is just another comment about the conventionality notion of a rule. That is, implicit in a notion of conventionality is the suggestion that such conventions are at least capable of being shared (understood or realized) by others. This has one important implication though as far as it concerns the privacy of rules. Wittgenstein says;

. . . . to think one is obeying a rule is not to obey a rule. Hence it is not possible to obey a rule 'privately': otherwise thinking one way obeying a rule would be the same thing as obeying it. (P.I.: 202)

We tend to talk about private rules sometimes when we refer to regulations of our private lives or perhaps actions we would wish to call habits. Are these really private though? If a person decides to institute a rule to pertain to himself only and he writes this rule down on a piece of paper (let it be for example, "Every evening I must play two sets of tennis."), then it would seem to be a simple matter to obey it privately by following the prescription and personally checking the statement of the rule. This is not adequate however; even though the action of playing the game and perhaps checking off the date afterwards each day would appear to be fairly concrete and open to verification by its being actually seen by the person himself; that person cannot claim his verification to rest on any more than "thinking" he is obeying the rule, no matter how convinced he is that the thought is accurate.

This stipulation is one which we have imposed upon ourselves by our language. Epistemologically, we have decided that we will accept certain methods of verification, and the inner limit happens to be the

one of at least public ascertainment (this decision is ingrained in our language) in one instance. Unless the rule can be checked by more than the individual obeying it, then it still comes under the category of "thinking one is obeying a rule". Further to this is the idea that "obedience" must be a "public" notion -- to have the notion of obedience implies the possibility of disobedience or non-obedience and again the judgement must be a public one. There is no doubt that the notion of privately obeying a rule is held and acted upon by people, but there can be no epistemological stock placed in it. The arguments against privacy of rules rest on the same grounds as the arguments against a private language. Anyone can maintain that the latter is possible, but there is no way of assuring its accuracy; hence, some would say that "it" cannot warrant the title of language (since the notion of language implies the public agreement mentioned before). This still does not prohibit anyone from using the terms "private language" and "private rules", it merely limits their empirical or epistemological validity and hence, one would say, their meaning (or meaning-fulness).

So far the most important question related to rules (i.e. which is inseparable from any consideration of the concept of rule) has yet to be considered. It is a question of their entire epistemological foundation and one that it is habitually easy to overlook. It is this question: "If we know that we are following (obeying) a rule on the basis of its being the application of the same thing on the same occasion, how do we know what occasion is the same unless we have a rule for "the same"? It would appear that any attempt to state this in the form of a law would reduce it to a tautology, because the definiens is contained in the definiendum. Yet unless this difficulty can be overcome

there will be no validity in the concept of rule. Wittgenstein notes that we can only say that some form of communication belongs to language if there is regularity in its use (P.I.: 207) He continues to say:

Then am I defining "order" and "rule" by means of "regularity"? How then do I explain the meaning of "regular", "uniform", "same" to anyone? -- I shall explain these words to someone who, only speaks French by means of the corresponding French words. But if a person has not yet got the concepts, I shall teach him to use the words by means of examples and by practice -- And when I do this I do not communicate less to him than I know myself. (P.I.: 208)

In other words rules are learnt by "examples and practice" since the use of a word is in response to a rule of application. This does not quite answer the problem, nor is Wittgenstein satisfied that he has made the point sufficiently clearly at this stage. He continues on the topic of teaching rules by example (i.e. the understanding of the convention). A very perspicuous note that he adds to paragraph 208 is that teaching which is not meant to apply to anything but the examples given, is different from that which points beyond the rules to the general concept of rule following. This gives a further hint to the solution of the problem of circularity as connected with the notions of "rule and same".

Wittgenstein notes that:

The rule can only seem to me to produce all its consequences in advance if I draw them as a matter of course. As much as it is a matter of course for me to call this colour "blue". (Criteria for the fact that something is a 'matter of course' for me). (P.I.: 238)

It is the "matter of course" that is the basis for taking things to be the "same" (following the same rule). Wittgenstein asks us to consider the "matter of course" involved in the case of a person who draws with compasses, one point of which follows a straight line ("a line that is the rule") and the other which he opens and closes to seemingly varying and random degrees with no discernible pattern resulting. Are we prepared to say this person is following a rule? The answer

is fairly obvious;

. . . "The original seems to intimate to him which way he is to go. But it is not a rule". (P.I. 237)

The criterion needed to establish this kind of activity as rule obeying is that it be susceptible to common interpretation or recognition by the users of a particular language as connected with a "matter of course". So this criterion applies not only to actions that are rule following or rule obeying, but also to use of words i.e. our whole language. Our basis for saying that the same word is being used in the same situation is tantamount to an agreement, not in the structural or formal constitution of language, but rather in the way we have decided to see things.

. . . "So you are saying that human agreement decides what is true and what is false?" -- It is what human beings say that is true and false; and they agree in the language they use. That is not an agreement in opinions but in form of life. (P.I.: 241)

and

. . . If language is to be a means of communication there must be agreement not only in definitions but also (queer as this may sound) in judgements. This seems to abolish logic, but does not do so (P.I.: 242)

and

. . . The word "agreement" and the word "rule" are related to one another, they are cousins. If I teach anyone the use of the one word, he learns the use of the other with it. (P.I.: 224)

The "form of life" which Wittgenstein connects with the use of language is another expression for the convention whereby we have a common system of reference for all the data of experience. Benjamin Whorf would go further and say that our language determines the phenomena and relationships that we actually perceive; our view of reality is determined by our commitment to a grammar that betrays definite conceptual notions that might not, or do not, exist in other languages.

We cut nature up, organize it into concepts and ascribe significances as we do, largely because we are parties to an agreement to organize it in this way - an agreement that holds throughout our speech community and is codified in the patterns of our language.⁴

Wittgenstein would probably not go that far, but I think his notion of "depth grammar" (P.I.: 111) indicates the belief that in certain situations which are inferential, we are persuaded to see things in ways that may not be accurate. This source of philosophical confusion has already been alluded to in reference to mentalistic predicates and it will be looked at more closely later. Significant attention should be focussed on the "form of life" analogy as it pertains to the "speaking of a language". A person who is speaking a language meaningfully (engaging in adequate communication) is partaking of a life-form as significant and important as any other form of life. Part of the aptness of this analogy comes from the complexity that it suggests. That is, any person who is involved in verbal intercourse is thereby subjecting the situation to an intricate interplay of rules and conventions (as will be seen later). The concept of a "form of life" defies clear definition in the way that the concept of life does. But we will attempt to see the way in which the term is used when we talk specifically about it later⁵ In fact it is through its "forms" that life obtains any meaning at all (this is to be taken in a purely pragmatic sense since it is tautologous in a strict sense). That part of language that is responsible for its life-form importance, is its rules: or to put it another way, language is a subject of the kind of activities of which rule-guided behaviour forms the major set. As Erich Heller writes,

. . . to a higher degree than is dreamt of in linguistic philosophy, language has in common with other forms of human expression that it often evades unambiguous "interpretation"; it can be as purely allusive as are dance and gesture, as evanescent in meaning as is music, as ungrammatically extravagant as life itself." ⁶

So far the discussion has concentrated on the epistemological aspects of rules i.e. on how a theory of knowledge can be based on a certain 'conventionalist' theory about rules which has explicit connexions with the whole use of language or language behaviour. That is, that if we accept the conventionalist theory of rules, we can build up a reliable set of knowledge claims based on the linguistic system derived from these rules. This conventionalist theory is intimately bound up with the tacit "agreement" and "matter of course" notions that really represent the workings of rules in a language. It has also been demonstrated that there is nothing of a hidden "mental" quality or of an intuitive nature in the interpreting or following of rules, in so far as our language describes it. Whether there is more than this behaviourist theory of rule interpretation, is not discussed by Wittgenstein and it is important, as mentioned earlier, to keep the possibility open and hence not label Wittgenstein a "physicalist".

More light will be thrown on the use and working of rules if we examine them in the light of Wittgenstein's contribution to the idea of meaning in language which he discusses as "language-games". This will further lead to the important connexion between rules and logic.

The "Philosophical Investigations" begins with an examination of the implications of the Augustinian theory of meaning (and certain contrived elaborations of it). This theory rests on an assumption that the users of any language will understand the notion of ostension (i.e. pointing and naming). Wittgenstein demonstrates that this assumption is not permissible for while in our language it does work when we are labelling objects, such pointing and use of the words "there", "here", "that" etc. is not a necessary quality of any cultural

or linguistic system. For example pointing with the finger might mean something different in other tribes; and recent work in descriptive linguistics has revealed a diverse system of referential and conceptual methods and patterns in different ethnic groups. More important than this however is the fact that ostension is merely one of a large number of linguistic activities, and the primitive language systems that Wittgenstein looks at, cannot begin to account for the variety of these activities (which is precisely his point).

He notes that words are similar to tools and handles, and it is at this broad description that we must stop looking further because different tools have different uses and different handles move different things in different ways. The most we could say about what these implements have in common, would be all we could say about words as well, and that is not very illuminating if we are looking for the ideal form or the essence of language. This is where Wittgenstein claims that we are misled or confused by what he calls the "craving for generalization" (B.B.: p. 17) Instead we should take words as they are, i.e. as they are being used in a particular context, because that is where they are significant. Wittgenstein emphasizes the uniqueness of these contexts when he asks how many kinds of sentences there are;

... There are countless kinds; countless different kinds of use of what we call "symbols", "words", "sentences". And this multiplicity is not something fixed, given once and for all; but new types of language, new language-games as we may say, come into existence and others become obsolete and get forgotten ...

Here the term language-game is meant to bring into prominence the fact that the speaking of language is part of an activity or of 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 - (P.I.: 23)

Hence if we wish to know the meaning of a word on any occasion we should look to the context or language-game and see how it is usually used there. Most words which have a number of distinct meanings depending on the context, are said to resemble one another in the way that members of a family might. There is also this family resemblance between various contexts of language-games as Wittgenstein takes this idea for his paradigm case of family resemblances. He suggests we look at the word "game" and see if we can find any properties that are both necessary and sufficient in a definitional sense and are disjunctive enough to separate games from other activities. Wittgenstein assumes the task is impossible and only makes a meagre attempt to suggest some leads. It would seem that the most adequate relationships between games tend to be of the nature of family relationships. For example some games are centred around the manipulation of leather, spherical balls and others depend on a skillful use of the hand. Soccer is based on one of these aptitudes and table-tennis on the other. Cricket depends on both to a large extent, but the diversities amongst these games are such that cricket cannot form a link between the other two which have so little in common. Consider also the diversities and family resemblances in games such as poker, wrestling, and chess and the point becomes clearer. Then one could look at differences and similarities between spectator, participant, individualistic, win-oriented, amusement, professional and amateur kinds of games.

The analogy of language-games and the context of various linguistic situations is even more apt when one takes the status of rules into consideration. In both instances the conventionalist thesis appears to not only adequately account for the interpretative side of rule-

following, but it also demonstrates the generative side of rule-consciousness. Thus a rule will not only direct one's play (or in language, one's grasping of the meaning of an expression), but it can also generate refinements or improvisations in a game (as it can develop new language games and particularly creative use of language such as in literature or innovative scientific hypotheses). This is because of what we call the flexibility of the rule, which again is not some quality inherent in the rule so much as the attitude with which people come to rules -- implicit is the understanding that a judgement is involved in the interpretative action in relation to the rule. The simplest manifestations of this judgement are in concurrence or dissent, but more subtle reactions can occur in which rules are modified to appease the trends of changing agreement or convention. Such modifications are common in language (pronunciation, grammar, semantic nuances etc.) and in most other rule obeying activities (e.g. consider the minor alterations each year in various rules of sports which result from a shift in emphasis and represent, say, a consensus amongst players).

One might also consider activities whose rules are so vague that each new confrontation with the rule becomes, through its interpretation, the new rule. These considerations should also serve to justify the appropriateness of the "form of life" analogy. If various separately recognizable behavioural activities can be called "forms of life", then rules are responsible for the structure of these forms: that is, it is chiefly rules that determine our life-style. This seems to lead to the earlier mentioned circularity, but it dissolves when it is realized that no temporal priority exists for rules, nor ever did. To believe

that somehow rules were "there" first is to subscribe to a species of Essentialism or Idealism and it was probably Wittgenstein's desire to rebuke his earlier logical atomism -- and the essentialism implicit in the hypothesis, that in its basic form, language (through its propositions) is reducible to elementary statements which correspond to absolutely simple facts about the observable world -- that prompted him to stress the non-essential character of rule-following and interpretation.

There are further observations about rules and rule-following which can be derived from what has been said so far. Most of these can be stated as counter-theses to what is often suggested by the essentialist interpretation of rules. These counter-theses are not remarks of an empirical nature, as they might seem, for to suppose so is to entirely misinterpret the role of logic in language. They are instead, propositions about the grammar of our language and as such they point out the logical implications of discourse in the realm of rule-guided activity. Most of the comments arise out of statements made by Wittgenstein.

Firstly, a rule does not dictate its own application. It may be very explicit in its stipulation, but this in no way governs the subsequent interpretation. Hence there is no compulsion in a rule itself. Nor is a certain rule harsher in its demands than others; it can be more explicit. It is misleading too, to talk of the demands of a rule. The interpretation of a rule is a social or customary factor. (It is wrong to think of this being a rule for a rule; such talk involves one in an infinite regress and will be looked at subsequently). The compulsion thought to exist in a rule, rather exists in social attitudes (mores, acceptances) if it exists anywhere. The demands of a rule are

rather the demands about behaviour in relation to whatever is stipulated; in this respect rules are neutral. Penalties for non-obedience or disobedience are not bound up with the rule itself but are the encouragements or deterrents of the people partaking of the convention. The degree of explicitness in a rule is usually indicative of its familiarity amongst its users. To look for too thorough a prescription within the statement of a rule would be to mistake the purpose of rules which must retain flexibility of interpretation. This again reflects the "form of life" analogy in that rules constitute the basic organizing and formalizing factor in a society (social group, social contract). They are the means by which people come to terms with or adapt to one another (and this of course covers linguistic conventions); and that is why they are a life form.

Rules do not depend on other rules, which depend on prior rules etc. It seems that we sometimes involve ourselves in this infinite regress which serves only to attenuate the force of a rule. The reason for regarding rules this way is again due to an "essentialist" mistake. We tend to look for the justification for a rule within the rule and when it cannot readily be found we look to a higher general rule and so on till a categorical rule (e.g. God commands or, it is the Natural law ...) is given. This seems a logical stopping point, but for no necessary reason. Perhaps if one were to give as a final rule, "Oh well, we just do it that way!" it would be nearer the point. If justification is sought for any rule it does not need to go any further at that point, because the justification is that "we do it that way" -- it is "a matter of course" in other words. To hypothesize briefly (and unwarrantedly), it is perhaps symptomatic of the fact that we wish to see justice done that we look to the justification for a rule:

this is probably more the case when it refers specifically to ourselves.

The above comment may be too general because there are certain rules that depend on other rules (and particularly some in everyday affairs) for example, the rule that automobiles must overtake on the right hand side is dependent on the rule that they drive on the left hand side of the road, but we should be careful about how we describe this dependency. In logic, a rule of inference is often dependent on a previous rule -- in fact the subsequent rule will be meaningless unless the first rule is given. When we talk of justification here, it is really justification in the sense of validity of inference, which is quite different from the justification referred to in the previous paragraph which is seemingly in the realm of the moral philosopher.

In The Blue and Brown Books Wittgenstein notes that there is a difference between "a process in accordance with a rule" and "a process involving a rule" (B.B.: p.13). He uses the example of squaring the first four natural numbers i.e. writing down 1,2,3,4 and writing below them 1,4,9,16. He says that what is written down "is in accordance with the general rule of squaring, but it obviously is in accordance with any number of other rules and amongst them it is not more in accordance with one than with another." However he says that if he had written down the algebraic expression of squaring i.e.

$$a^2 = n^2 \text{ or } a^2 = (n+1)^2$$

a sense in which no other rule was". This partly explains how it is possible that a person can maintain he is following a rule, and as long as he is following some rule we cannot budge him from his assertion.

This is also related to the position of a rule in relation to

an activity. Wittgenstein says; "A rule, so far as it interests us, does not act at a distance." (B.B.:14). To search for the rule behind the activities we see, also indicates misguidance. The rule is bound up in the activity and if there is an outward sign, it is only a symbol of the rule, e.g. a stop sign - (a person who stops an automobile at a stop-sign is not necessarily obeying the well-known traffic rule, as his stopping could possibly be caused by engine trouble, the likelihood of this is remote of course, but it stands as a comment on what an outside observer might interpret. In this case, were the observer to correlate the activity with the sign, he would be mistaking the location of the rule. Although this could be seen as a normal interpretation on the part of the observer, it is still indicative of the faulty notion surrounding conception of where the rule "is".) A further note on the position of a rule is seen in the remark:

"Teaching as the hypothetical history of our subsequent actions (understanding, obeying, estimating a length, etc.) drops out of considerations. The rule which has been taught and is subsequently applied interests us only so far as it is involved in the application." (B.B.: 14)

Perhaps one more problem should be looked at in this section. This one arises out of the last consideration, to some extent, and it has logical and psychological ramifications. It is the question of how we learn to obey rules. The logical questions involved are grammatical ones and they govern the kinds of expressions and the commitments of expressions involved in the question of learning to obey rules. The psychological questions concern the cognitive element implicated in the notion and they must be considered after the logical questions are asked (or legitimized as questions and not pseudo-question).

Initially a logical distinction must be made between the expression "learning to obey a rule" and "learning to obey rules". The former expression might be taken in two ways, the first referring to a particular rule (e.g. learning to obey the rule "en passant" in chess) and the second referring to rules generally (in the same way that the word "man" can refer to a single individual or the species "homo sapiens"). This distinction is important because the first interpretation of the expression is nonsensical and the second is another form of the expression "learning to obey rules". The first interpretation is nonsensical because "learning to obey a rule" is not a process as the grammatical form suggests; but as already pointed out, it is an activity or practice. One either obeys a rule in practice or does not at all -- it is not a matter of one's gradually learning to obey each rule, but rather gradually learning or becoming aware of the social (or linguistic, or game) conventions which characterize the overall idea of obeying rules. To say one gradually learns to obey a rule (in the first sense or interpretation) is like saying that someone gradually learns how to understand, and hence it (the notion of learning to obey a rule) is a pseudo-notion. As delineated then, the second expression (learning to obey rules) refers to learning conventions, which again, is learning a form of life. These are then manifest in practice, and the practice becomes a "matter of course". This is where the rule "drops out of interest".

There is probably a compulsion to still talk about "learning to obey a rule" in the first interpretation and it might be traced to what occurs, say, in training dogs. If one sets about training the dog to respond to a certain command by sitting down at a particular

spot, then the tendency is to say that the dog is learning to obey the command (thought of as the rule). The example may be very transparent and the answer obvious: that what is being described has no connexion with learning and rules, but is simply a form of stimulus-response conditioning. This leads conveniently to the psychological questions of what is involved in "learning to obey rules". Specifically it might be asked whether there is any cognitive element involved in learning to obey rules (or simply obeying rules). To deny there is, would be to place what we call "obeying a rule" in the same category, and grammatical status as a conditioned response. Clearly we would not wish to use it this way unless for persuasive reasons. The notion of the existence of a cognitive element is an adjunct of the possibility in rule-confronting situations, of always having the choice of obeying the rule (or deliberately interpreting in one particular way) or not. There is no linguistic facility for describing what this cognitive element is (in its "mental" framework), we instead incorporate this idea into our outward or behavioural description of rule obeying -- the evaluating of the prescription against various criteria of convenience, expediency etc. with the presumed end result in view, which is a practice.

This chapter has concentrated on the conventional nature of rules and their involvement in the structures of "forms" of life. An attempt was made to bring to the surface, the "deep grammar" contained in expressions about rule-following since many common notions connected with expressions about rule-following cases are committed to the doctrine of "essentialism". The essentialist's mistake is a logical one and hence it has manifestations in a wide range of philosophical confusions

is carried through by inference from its source. Its source is the belief that there are essential characteristics or qualities in the referents of words and expressions. The example of this belief which is attacked in the Philosophical Investigations is that surrounding the concept of games. This has been seen to be highly pertinent since the notion of rules is related to games and it too is prey to essentialism.

We have just looked at the importance of considering rule-governed behaviour in description and explanation. It was suggested that rules have a special or basic role in language, and it will thus be useful to examine the relationship between rules and language. The Wittgensteinian notion of rules was based on "conventionalism", i.e. that the rules which we have stem from a common agreement or convention (as distinct from a supernatural or innate source) and this applies as much to language as it does to any other kind of rule-following; and perhaps there is a special case here. This is suggested by the proposition that it is not possible to have a rule without there being a linguistic expression accompanying it. Such a proposition also asks whether there is (or was) any rule that was not originally expressed in language. Here we may extend the ordinary concept of language to include what Max Black calls "para-linguistic phenomena",⁷ i.e., gesture, facial expressions, context, etc. We might consider cases like that of a policeman holding up his hand which would seem to indicate a rule about stopping (however it should be remembered that this in itself is not the rule, but a sign associated with it, or the reminder of it); and this is the kind of "para-linguistic phenomena" alluded to. Even granted this possibility though, it would appear to

be a priori (in the synthetic sense) that any rule had had, at some stage, a linguistic expression, since it was agreed upon by a group of people (the latter condition being necessary too as already seen); and such agreement must have been expressed or decided upon linguistically. Reference to the priori in the context of Wittgenstein requires an elaboration of the Wittgensteinian notion of the a priori. To him it is the-given only because we have decided that it will be the-given (in this way it is distinct from the Kantian notion in which it is given independently of our conventions). In reference to the Tractatus, Wittgenstein had said;

Thought is surrounded by a halo. -- Its essence, logic, presents an order, in fact the a priori order of the world: that is, the order of possibilities, which must be common to both world and thought. (P.I.:97)

He repudiates this immediately by denying the notion of a "super-order between - so to speak - super concepts" since every sentence in our language "is in order as it is" (P.I.:98). Perhaps, therefore, it is unnecessary to mention the concept of synthetic a priori, provided the Wittgensteinian notion of the a priori is understood in this context.

The special relationship mentioned above involves the circularity which seems to be contained in the idea that a rule required some form of linguistic expression, yet there need to be agreements (rules about use) before there can be a language. The solution proposed is not that we consider the first rule that instituted language to be a special case; and that thereafter the phenomena of rules and language worked hand in hand. Initially we might say that the first agreement, which constituted a rule of usage, was simultaneously the first language (and we might conjecture that it was a very simple communication). But then there is the problem that the agreement would not have been confirmed till the

next instance. And this confirmation need not have been a consent to the rule, but merely a matter of rule-regarding. However to apply such stringent temporal qualifications is to indicate an unclear perception of how a rule actually works in language -- in these primitive cases it would hardly be possible to indicate where rules and language actually appear or can be separated from primitive communication which was too ill-generated or irregular to be called language. (This tempts questions such as "Is a rule which is not successful still a rule?": at least they will throw light on the kind of answer to the question of the genesis of rules and language).

There are more complicated problems associated with any discussion about the genesis of language and they are not only in the area of paleolinguistics, but are questions of philosophy and logic. An example of the latter would be the question of the cognitive element in the language of the earliest anthropoids; or perhaps the precise point at which we distinguish language, communication and thought. In any case the seeming tautology in the connexion between language and rules dissolves if the "conventionalist" thesis implied in the Philosophical Investigations is maintained. Such theses appear to be consistent with the theories of behavioural psychology, but one could not therefore, term Wittgenstein a behaviourist. At the most he purports to describe the use of our language and maintains that its foundations are behavioural in that our ultimate reference for human experience is human behaviour. Whereas the behaviourist (broadly; the mechanist, S-R school) would lean to the Lockean empiricist view, Wittgenstein would not deny the possibility of innate ideas and all this might imply in the way of language (such as the existence of natural formal categories of grammar

and rules) even to the extent of Rationalism. There are hints in parts of Philosophical Investigations to this effect -- but again this should not obscure for us the overall intent of the work which is to detail what kinds of commitments our language involves us in, and these are behavioural. He stresses that his work is not explanatory, but merely descriptive; and thus he avoids the questions of explanation which might have involved the kinds of discussion undertaken by Kant or Leibniz. As already mentioned, Wittgenstein does not deny that there are mentalistic occurrences or phenomena, he demonstrates only that we have no language to describe them.

Now the temporal and logical relationships between rules and language have been established. A more explicit example is given by Winch when he discusses the epistemological basis of Social Science, i.e., the means by which our language affords contact with "reality", the nature of that contact and questions about the meanings of this experience.⁸ He demonstrates how we are able to construct a referential system from ostensive definitions, asking "what it is to follow a definition", or, "how a definition (is) connected with the subsequent use of the expression defined". If the answer is that: "the definition lays down the meaning, and to use a word in its correct meaning is to use it in the same way as that laid down in the definition", then this still leaves the problem of determining what is the "same". This general tautology was discussed in the previous chapter where the connexion between a "rule" and "the same" was seen. Wittgenstein said: "We say a thing is the same if it follows a rule, and a rule can only seem to me to produce all its consequences in advance if I draw them as a matter of course." (P.I.:238) The notion of practice is very important here and as Winch says;

... given a certain sort of training everybody does, as
as a matter of course, continue to use ... words in the same

way as would everybody else.... 9

Winch develops an elaborate and perhaps unnecessarily complicated explication of this important epistemological problem; however such a basis is necessary for the foundations of any form of scientific inquiry.

Perhaps a brief explanatory point can be added here. When we refer to Wittgenstein's conventionalist ideas about language we are not implying that in a simplistic sense, primitive men got together to establish conventions about how language was to be used, how naming would be established, etc. The conventions apply rather in the way that was detailed earlier in this chapter, i.e., language depends on rules for its justification.

So far we have shown that the conventionalist thesis of rules can adequately account for the genesis and development of language, the epistemological basis of human discourse and scientific inquiry, and a very general notion of meaning. Of course these features are connected in very important ways and it might appear to be understating Wittgenstein's contribution to pass it off so generally. However the Philosophical Investigations gives only an outline and very little has been done to further elaborate the outline. It would seem that before anything further can be achieved in specifying some more detailed features like those stated, far more work must also be done on analysis of specific linguistic acts. This might help to inform us about what we are actually doing when we use language. Such aspects as the cognitive and emotive content of expressions and the performative aspects of a speech act

10

have been analysed by J.L. Austin and his followers, but again this work has only attempted to point in the direction of what might be achieved. Other contributions to the formal features of language have come from the area of descriptive linguistics and some of these have

attempted to construct more appropriate structural and grammatical categories to elucidate what is occurring in language use.

11

William Alston attempts to deal more specifically with linguistic acts ('actions') using Wittgenstein's notion of the meaning (in most cases) being the way a word is used. He takes from J.L. Austin, the categories of action called "locutionary", "illocutionary" and "perlocutionary" acts and attempts to see how the analysis of the "illocutionary act potential" of expressions (words and sentences) aids in explication of meaning, synonymy and related problems. He demonstrates how two words can have the same meaning if they have the same "illocutionary-act potential", but he also admits that this is applicable only at a certain level of generality. He indicates that to get beyond a general level of discussion one must next go to the explicit analysis of a given illocutionary act, and he recognises that this might require volumes of books just for detailing one illocutionary-act. He does attempt to outline the necessary conditions which must hold for the performance of an illocutionary act. These conditions are certain rules, the chief of which is a recognition that what is being performed is governed by "rules requiring that the conditions hold".¹² When a speaker is performing a linguistic act he must take responsibility for a range of states of affairs if he is to expect his intention to be taken sincerely. An example Alston gives, which he appears to have borrowed from R.M. Hare, concerns a request for "closing a door", and it entails certain conditions, the simplest of which is that there be a door in the area of action and that it be not closed. Alternatively if the speaker is not sincere, or if he is trying to deceive the hearer he must take into account other conditions, or requirements.

Certain of the rules applicable to illocutionary acts can be termed logical rules or conditions while others are probably psychological,

but it is difficult to distinguish these elements from one another and it is almost certain that they impinge on one another and interact. Alston cites this as evidence for the rule-governed nature of language and he also talks about other rules which are not so "intimately related to meaning" and mentions moral rules and rules of etiquette to which various kinds of linguistic behaviour are subject.

Alston separates grammatical rules too, from the kinds of rules that he envisages as governing illocutionary acts as far as semantic content is concerned, but here I think one must limit "grammar" to the common categories of syntax because his limitation would not necessarily apply to "grammar" in the wider sense used by Wittgenstein, which tends to link form and content. As will be seen, grammar in the broader sense, i.e., "depth grammar", has important inferential qualities which link it with the whole meaning of an expression. This "deep grammar" therefore has an importance for semantics. We can conclude from Alston's investigations, that failing more adequate methods of analysing the performance involved in linguistic acts, the present diversity distinguishing any single linguistic act from another is such that the whole task is beyond control since new speech acts ("language-games") are being created every moment by users of a language. His findings also give much credence to the notion of the diversity in separate linguistic acts that was noted by Wittgenstein and formed a substantial part of his attack on "essentialism" (the idea that there are common or general properties in linguistic acts and that these are significant enough to be considered essential). This attack depends on a theory about the uniqueness and independence of separate language-games taking into account more than merely the word-content of the expression or expressions involved (the phonetic system). Other considerations are chiefly those of context and

their subtlety and evasiveness invites us to overlook them.

Would a careful examination of the nature of "language-games" aid in the attempt to understand more fully what is involved in linguistic acts and their relation to rules? It would seem that from the concept of rule there is entailed the development of one language-game from another. That is, in most new contexts where there is linguistic activity, the words chosen in the performance will have been used elsewhere prior to that occasion (except where a new word is coined). In addition there is the grammatical structure common to most language-games, as well as the "deep grammar" in certain expressions, which have some role in the development of new language-games. Or to put it another way, any new language-game has some source of reference either in its structure or verbal content to a previous language-game and it is the rules of linguistic usage which form this contiguity. This of course is the only means we have of successfully communicating and adapting description, etc., to new situations. However, it is little help in generalizing or drawing conclusions about attributes of language-games, because the novel nature of new language games (the situation, context, etc.) is the very quality which makes them distinct.

Very little more has been done in the analysis of linguistic performance in natural language systems; the distinction here is intended to exclude artificial language systems on which much has been achieved in the way of formulation and accuracy. The epistemological problems of artificial languages are distinct from those of natural languages, most significantly because of their origin, but also because of the nature (or "reality") of that which they purport to describe. Most scientific and artificial calculi have none of the problems or pseudo-problems that natural languages have inherited from the realm

of metaphysics. After several thousand years of confused and con- 41
tradictory metaphysical discussion, natural language has developed
distinctions, relations and categories that have become so ingrained
that they are taken as valid logical truths or natural properties of
the language (ie they are taken at face-value). "Cartesian dualism"
or Platonic idealism are examples that come to mind. On a broader plane,
the Philosophical Investigations might be considered as a treatise
on these confusions.

We must do away with all explanation, and description
alone must take its place. And this description gets its
light, that is to say its purpose, from the philosophical
problems. These are, of course, not empirical problems;
they are solved, rather by looking into the workings of
our language, and that in such a way as to make us recognize
these workings: in despite of an urge to misunderstand them.
The problems are solved, not by giving new information,
but by arranging what we have always known. (P.I.:109)

When philosophers use a word -- "knowledge", "being",
object", "I", "proposition", "name" -- and try to grasp the
essence of the thing, one must always ask oneself: is the
word ever actually used this way in the language-game that is
its original home? -- What we do is to bring words back from
their metaphysical to their everyday use. (P.I.: 116)

Though Wittgenstein does not mention by name many of the ontological
doctrines that have caused confusions (philosophical problems), he
nonetheless attempts to clarify the concepts of understanding, thinking,
feeling (sensations), expecting, intending, willing and various other
"activities" of the mind. It would be a mistake to assume that Wittgenstein
has begun the work and all that is needed is the kind of minute and
exhaustive analysis of each linguistic act in the way attempted by
Alston. Certainly a lot of clarification will aid in our understanding
what our language is committing us to, but we will never succeed in
making a typology of all linguistic acts. One is tempted to add in a

Wittgensteinian way, that this is not an empirical, but a logical remark. It seems that language is too closely bound up with "forms of life" and has such a pervasive relationship to all social activity, and that to try to isolate and categorize the verbal components would in many cases destroy the original language-game. In scientific discourse it might be very necessary to attain the greatest possible precision through analysis of the language (as this is a mode of discovery in science) but Wittgenstein warns that we should not be pre-occupied with the methods of science which are "... another main source ... of ... our craving for generality". He says that:

"Philosophers constantly see the method of science before their eyes, and are irresistably tempted to ask and answer questions in the way that science does. This tendency is the real source of metaphysics and leads the philosopher into complete darkness. I want to say here that it can never be our job to reduce anything to anything or explain anything. Philosophy really is purely descriptive".

(Blue Book p. 18)

In our language we often deliberately defy the canons of precision and clarity. Consider for example the need for vagueness in so many situations (for many, the boundaries do not exist anyway). Metaphorical language has become very deeply instituted in most everyday forms of communication to the extent that we now overlook most metaphors and are only struck by new ones. How effective would be our communication over a period of time if we omitted all metaphorical content and derivatives? This should not be taken as a less than pertinent question since a theory about language should consider the total social aspect of its subject. A limitation of any kind would be similar to placing a limitation on the meaning of a work in creative literature (e.g. Goethe's Faust) that has some kind of social (ethical etc.) significance

-- it would be a separation of meaning from the total expression.

A further problem in analysis of language is that all words do not have the same level of semantic difficulty and it is in the kinds of endeavors which are of importance to the social scientist and educational philosopher that the greatest semantic difficulties occur. By contrast, in what we might call everyday speech, the referents are more likely to be closer to direct experience, e.g., words like "house", "car", "buy", "where", "go", and in the natural sciences Rudner notes there is a tendency toward fuller formalization of the deductive systems (i.e., the meaning of many of the central concepts are more precise and this might be demonstrated by comparing the terminology of psychology or sociology with atomic physics or bio-chemistry). Proximity to experience however is no criterion of truth value any more than the expression of a contrary notion, that the rules of science make it more precise, quantitative and operationally definable and hence more suited to expressing the "truth". Perhaps the rules of scientific discourse aid in its clarity, but it would be mistaken to assume that ordinary language does not have as many rules (or as "effective" "good" or "precise rules"). Much of the discussion in the Philosophical Investigations implies the highly pervasive nature of rules in ordinary language. It is not as if we could emulate the structure of a "formal system" with its "generateable" qualities and apply this to a natural language. The paradigm might have some heuristic value, but it could not approach the complexity, diversity or semantic richness of a natural language and its use would be limited to that extent. To a degree there is also a difference between the systems in that the mode of procedure in investigating a formal language is synthetic

(in that its elements are generally known to us and we synthesize them in order to generate theories, etc.) whereas with natural language it is generally analytic (in the sense that we start from a product and analyse it to see what we can discover about the components).

What seem to emerge from the discussion of the application of Wittgenstein's "conventionalist" notion of rules to language are the following points: it is unlikely that any adequate (i.e., simply stated and all-embracing) theory of language will account for all the uses of language; to think that any theory could do this would be to misconstrue the complexity and diversity of the activity involved in using language; and that at the most we can devote our investigations to the understanding of what is happening in individual activities involving language ("language-games") and not allow ourselves to be confused by mistaken analogies derived from other language-games.

Some broader categories of language activity can be considered as special, but not unique problems. Questions of meaning, definition or experiential development (description and explanation) can be taken separately (but not isolated) particularly where a distinct discipline is involved (the distinction between disciplines being artificial or descriptive). Yet Alston has shown that no single theory of meaning, for example, can adequately account for the extravagance of activities such as those which perhaps belong to the psychological realm, e.g.,
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 intention, recognition. The problem of description involves as well certain problems of meaning and definition. Nor is explanation independent of major epistemological questions that have to be looked at in other contexts as well.

It would appear that other than logical developments in the question

of rules and language, some clarification might come from linguists working with high speed data processing so that significant features in linguistic structure can be separated. An example might be the discovery of a more reliable grammatical structure, i.e., one that would fit more "naturally" around our verbal behaviour and eliminate the insufficiencies in our present categories. The experimental work needed to test this projected structure would be of such a kind that required high speed collection, storage and recovery of data. If such discoveries were to be made and were found to be more efficient in their description then it would seem to be axiomatic that the result would be the uncovering of the more precise nature of the rules behind language. The other area in which similar discoveries might be made is in linguistic anthropology and its concern with the conceptual basis of thought in a given society and the relationship with language. This would entail a close examination of social conventions and a similar look at the Whorfian thesis. The latter might also be useful in determining some structural characteristics of our major conceptual distinctions which are not provided for by existing grammatical categories.

Another area in which Wittgenstein talks about rules in the conventional sense is in his discussion of logic. It will be very helpful to the present discussion of language and rules to try to explicate the logical notions expounded in the Philosophical Investigations because it would seem that Wittgenstein wishes to say that logic concerns the way in which our rules lead us to treat language and thought; "It is an agreement not only in definition but also in judgement". (P.I.:242)

NOTES TO CHAPTER II

1. Both Noam Chomsky and Jerrold Katz (see note no.2) have put forward claims for the Rationalist philosophy of language in a revised form based on the original analogies of Descartes and strengthened by some of the discoveries in comparative linguistics (in structural and descriptive fields) which they believe give a new tenancy to philosophical grammar. Chomsky postulates the existence of innate organizing traits which enable us to organize speaker/hearer data into logical propositions and hence he is able to explain the singularly human feature of the generative and creative use of language. This is directly opposed to the "stimulus-response" model suggested by Empiricism and advocated by B.F. Skinner in Verbal Behaviour. Chomsky's significant assertion is that the behavioural model cannot account for "normal constructions of human intelligence", such as linguistic competence, as he presumably supposes some empiricists do claim; Wittgenstein makes no such claim, as mentioned at the beginning, he purports only to describe what our language commits us to saying. Chomsky's ideas are found in several contemporary publications; perhaps Language and Mind (New York, Harcourt Brace and World, 1968) is of direct concern here.

2. Jerrold Katz, Philosophy of Language (New York, Harper and Row, 1966). In this work, Katz proposes a "Theory of Language" whose model of linguistic description assumes that underlying our ability to communicate is a highly complex system of rules that are innate, but similar in all users of the language. See especially Ch. 4 and Ch. 5 of the above work.

3. Paragraphs 198 - 242.
4. Benjamin Lee Whorf, "Science and Linguistics", in John B. Carroll, (ed.) Language, Thought and Reality (Cambridge, Mass., M.I.T. Press, 1959), p. 213. This article is part of an attack on "natural logic" in favour of the stated view.
5. See Ch. IV pp. 20 - 21.
6. Erich Heller, Wittgenstein: Unphilosophical Notes, in K.T. Fann, (ed.) Ludwig Wittgenstein: The Man and His Philosophy (New York, Dell Publishing Co. Inc. (A Delta Book), 1967). Reprinted from Encounter 13, No. 3, 1959.
7. Max Black, The Labyrinth of Language, (Englewood Cliffs, N.J., Prentice Hall, 1964).
8. Peter Winch, The Idea of a Social Science (London, Routledge and Kegan Paul, 1958), p. 25 ff.
9. Ibid., p. 31.
10. J.L. Austin, How to do Things with Words; op. cit. which mainly emphasizes the performative nature of many speech acts.
11. William Alston, Philosophy of Language, pp. 33 - 49.
12. Ibid., p. 43.
13. Richard Rudner, Philosophy of Social Science (Englewood Cliffs, N.J. Prentice-Hall, 1966), p. 11.
14. Ibid., p. 12.
15. William Alston, op. cit., pp. 11 - 31.

III

Logic, Rules and Language

To gain a full comprehension of Wittgenstein's consideration of rules, it is important to look at his remarks about logic. This is not only because logic is concerned with the validity of the grounds for a statement and the inference from it (i.e., it tells us about language), but also because his notions of logic are central to the "idealism" and "essentialism" that he is attempting to repudiate in the Philosophical Investigations and Remarks on the Foundations of Mathematics. Perhaps it is first convenient to take his refutation of the "ideal" or "essential" and see how it can lead to a broader picture of what is involved in the conventionalist thesis of rules, and hence the whole picture of language. This will also further clarify the question of where Wittgenstein stands in the conventionalist spectrum; and although this latter problem may not sound important, it needs to be solved in order that the full implications of what he is saying will be evident.

The question of logic is basic to the Philosophical Investigations because the notion of language attacked is that pre-supposed by a "sublime logic". Around paragraphs 80-100 Wittgenstein deals with the tendency to look at language as if it were a crude form of the "ideal" in linguistic formulation. When talking of the comparison of "language games" with calculi or formalized language systems he says:

...But if you say that our languages only approximate to such calculi, you are standing on the very brink of misunderstanding. For then it may look as if what we were talking about were an ideal language..... But here the work "ideal" is liable to mislead, for it sounds as if these languages were better, more perfect than our everyday language; and as if it took the logician to show people at last what a proper sentence looked like. (P.I.: 81)

He continues to repudiate the notion set out in the Tractatus Logico-Philosophicus, i.e., that the essence of thought is logic and that this logic "is the a priori order of the world; that is, the order of possibilities, which must be common to both world and thought". He says:

We are under the illusion that what is peculiar, profound essential in our investigation, resides in its trying to grasp the incomparable essence of language. That is, the order existing between the concepts of proposition, word, proof, truth, experience, and so on. (P.I.: 97)

This illusion is very prevalent when discussion of concepts like "thinking", "meaning", "intending", "feeling", "understanding", etc. is involved. Wittgenstein demonstrates that these and other concepts are taken out of their proper use and endowed with special qualities (such as their being reports of what is "actually going on in the mind") or, as in the case of the theory of atomic propositions, they are reduced to their meaningful truth-propositions. This procedure is misdirected because:

... every sentence in our language "is in order as it is". That is to say, we are not striving after an ideal, as if our ordinary vague sentences had not yet got a quite unexceptionable sense, and a perfect language awaited construction by us. -- On the other hand it seems clear that where there is sense there must be perfect order. -- So there must be perfect order even in the vaguest sentence. (P.I.:98)

He also compares our search for the "ideal" to a "pair of glasses on our nose through which we see whatever we look at". It never occurs to us to take them off. The illusion has a certain mystique; its simplicity attracts us as does its supposed definition and certainty. Perhaps it is even difficult to see why it won't work -- even though Wittgenstein provides a viable alternative with the "language-game" idea. If we look at mathematics the reason for rejection becomes clearer. The counterpart of the Platonic position in mathematics is

the notion that mathematical entities have an existence independent of us and that definite objective relations hold between them such as we discover in adding, say two and three: or what the value 'pi' is a naturally occurring number. The logic implied by these suggestions is similar to that implied by ideal forms in language -- the problem is to account for its position in the first place; or to admit that there are general logical relations floating around in the universe that have existed for all time. Neither position is acceptable; the latter for obvious reasons and the former because no adequate account can be formulated for the necessary or "a priori" status of such a logic. This position would seem to imply as well that the logical relations existed before language and hence it would seem to be too much coincidence that our various languages all happen to reflect these logical relations.

To accept anything but the "idealist" position, that is, to subscribe to one form of "constructivism" or "conventionalism" is to at least free logic from its celestial palace. The varieties of "conventionalism" have been referred to in Chapter II, the difference between them being the degree of autonomy which each accords to individual judgements. At the extreme end from idealism is the variety of conventionalism which holds that every single judgement in every matter is distinct from any other judgement or entailment. Under it, all judgements are completely subjective and no person could maintain that any other person was not making a correct judgement. It does not discount the possibility that many persons might agree on a number of judgements and in effect drive a common ground for social intercourse. Some commentators are tempted to see Wittgenstein in this mould.

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Joseph Cowan is misled by Wittgenstein's explication of rule-obeying

or following and from what appears to be an otherwise valuable analysis of the behaviouristic interpretation of following a rule, he concludes that Wittgenstein "in a sense" says there is "no such thing as a rule".

I believe he overlooks the practice of obeying rules generally.

In Chapter II it was seen that it is difficult to give a logical sense to the expression obeying a rule, but we can refer to the common interpretations and agreements in everyday discourse as evidence of actual following of rules. Even though, as Cowan admits, the rule is not a sign, but its meaning, there can still be the practice of meaning (or interpreting; since it will be more readily seen as a practice or performance). Cowan's judgement on Wittgenstein's conventionalism would also deny that the latter would accept the distinction between what we might call ordinary rules (rules of the "language-game") and logical laws. This seems to be a mis-interpretation. Although Wittgenstein might accept that there is complete arbitrariness in so far as the grounds for making a statement are concerned, this does not then hold for what this statement implies (if an agreement about the initial grounds is accepted). This has already been hinted at in Chapter II where the stress in Wittgenstein's brand of conventionalism was seen to be on the initial agreement or convention whereby language was established. After certain conventions are established, then there are grounds on which Wittgenstein would refute derivations which claim to adhere to the original convention, but deviate in their conclusions. The example from the Blue and Brown Books in which Wittgenstein cites the precise rule for squaring, i.e., $a^2 = n^2$, shows that there cannot be any deviance from the result, not because the numerals involved have some intrinsic or ideal power, or that the formula occurs regardless of existence,

but simply because we have chosen to construct an arithmetic and have given its numerals a certain value and relation to one another. A person who does not accept that the n^{th} term of the above is n multiplied by itself, is not insane, as Frege thought; he is simply ignoring a convention. That we do not have the square root of "minus-one" is a human error; at least, it indicates a lack of thoroughness in the conventions that established the common numerical systems -- but perhaps this is more clearly put by saying that because the above is a human failing, with a more perspicacious system such a problem would be overcome, e.g., by developing a three or four dimensional grid system of numerical values and relations.

A clear idea of the grounds that Wittgenstein will advance for "inferring" and "judging" can be seen in the following paragraph. This indicates where he stands in the conventionalist spectrum and how importantly he will regard the notion of necessity.

The steps (in reasoning) which are not brought in question are logical inferences. But the reason they are not brought in question is not that they "certainly correspond to the truth" -- or something of the sort, -- no, it is just this that is called "thinking", "speaking", "inferring", "arguing". There is not any question at all here of some correspondence between what is said and reality; rather is logic antecedent to any such correspondence; in the same sense, that is, as that in which the establishment of a method of measurement is antecedent to the correctness or incorrectness of a statement of length.

(R.F.M.: 155)

A law of inference is established and can be said to be a priori or antecedent in the same way that a standard of measurement can be said to be antecedent to a measuring of length. A logical law therefore acts like the standard metre in Paris, it may be ignored but such a consistent obstinacy would be abnormal:

It never in fact happens that somebody who has learned to calculate goes on obstinately getting different results, when he does a given multiplication, from what comes in the arithmetic books.

(R.F.M.: 112)

Wittgenstein noted (in the above quotation) that the steps which are not brought in question are logical inferences and he says the reason is that we refer to such inferring as "thinking", "speaking", etc. In other words that we are unable to use the words 'thinking', 'asserting', 'arguing', etc. meaningfully, is a testimony to the fact that we have common rules of inference. This partly answers the large section of the Philosophical Investigations on the concept of thinking, that thinking is not a report of mental processes, but is an affirmation that we are accepting the conventions of language. "Look at the word "to think" as a tool." (P.I.:360) As Levison notes, Wittgenstein says it is part of thinking for everybody to have the same rules of inference whose application results in the same moves by everyone. Levison adds:

The element of convention guarantees uniformity of application of the laws, i.e., that they shall be exceptionless, but it does not supply the laws themselves, which come to us partly through our experience of the world and partly through our projected needs and interests, the ends we have in view. 3

The argument that Wittgenstein subscribes to an extreme form of conventionalism would seem to be discounted so far. There is evidence for the fact that he wishes to accord some necessity to statements derived from other statements, but again there is a variety of possible types of statements of this nature; specifically there would seem to be a difference between those statements derived from the discourse of science or logic and those from everyday discourse. This difference is probably one of degree and not of kind. In scientific discourse the postulates and axioms are of such a degree of precision that the possible kinds of derivations are limited -- it is a relatively easy matter to judge the validity of the inferences. This reflects the fact that it has been the first aim of science to achieve this clarity (the

discoveries of science have only been made through this exact derivability). In logic, laws such as that of the excluded middle or contradiction ("not, both p and not p ") also provide a fairly simple means of testing the derivability of statements. When we refer to these kinds of logical inferences we can call them laws because it is in similar contexts that we usually apply this term.

In less defined language-games however, there is some difficulty in deciding what should be accorded the status of laws. Everyday discourse is not purely descriptive or explanatory in the way in which the above are. Normative, emotive and other 'psychological' factors enter and deny the same degree of derivability that scientific discourse has. In fact there seem to be no rules which hold for "the very general facts of daily existence" that can attain the status of laws. Hence there would not appear to be the "necessity" attached to derivations from one statement to another and we might more accurately refer to any formulations simply as conventions. This only serves to re-iterate the point already made about the conventional nature of everyday communication or language. Even within everyday discourse there are differences in the logical status of rules: certain language-games take place in situations or contexts where formality is demanded (such as a court of law or a church) and participants in such intercourse are aware of these in most cases (intention and recognition becomes important). These kinds of situations differ though from the discourse, say, of a group of people playing cards, particularly when the talk does not pertain to the game itself. Nor would the conversation between a group of people sitting in a bus or train be likely to conform to precise logical laws (and perhaps scarcely, to rules). It would be very useful also to examine the act of teaching from the point of view of rules and logical inference,

because this activity must rank highly amongst those which lack definition. Such examination could concentrate on the various illocutionary performances involved and would probably shed considerable light on the concepts of meaning (in both the "natural" and "non-natural" senses of Grice),⁴ intention, explanation and other features involved in linguistic performance.

All activities, or language-games are rule governed to some extent as was seen in Chapter II; the type latterly described here, are more dependent upon convention for their maintenance because they are not derived from the stricter logical laws of the scientific discourse types. When commentators have referred to Wittgenstein's remarks about the tenuous nature of the conventions which have established language (that "communication is in constant danger of breaking down"), and used that as an argument to label Wittgenstein an "out and out" or "full blooded"⁵ conventionalist, they have overlooked the fact that even the most capricious exchanges depend on a formidable number of rules (as an Alstonian illocutionary examination will bear out) and a complex of given or necessarily-holding conditions. Similar examinations might be made of language-games in ethics and aesthetics, for here too the logical inferences take the form of conventional rules rather than laws and hence there are the familiar problems associated with these activities. Descriptive writing in ethics deals with a complex field of life styles inseparably associated with a multitude of rules and attempting to evaluate both the styles and the rules, whereas the description in science is concerned with objective and hypothetical entities which are not only subject to rigorous laws, but in many cases depend on these laws for their "existence".

Levison indicates that there is a further problem in talking about logical laws in that there seem to be two uses of the expression. He cites as one of them, an assertion which people might offer as the ground or justification for a rule, e.g., the law of detachment. However there is also the logical law "spoken of in contexts where what is meant is the truism corresponding to an application of the law". In the first case the logical law would have a priori status in regard to the rule because the rule would seem to depend on the law as a statement or directive, in contrast with the other sense in which the law would have a derivative status. Levison concludes that there is no clear distinction between a logical law and a rule "beyond the fact that it is more natural to use 'rule' in the context of "following" (i.e., reasoning) and 'law' "in the context of asserting". This leads him to talk of the problem of justifying logical laws; given that there is some priority, there would seem to be in turn a higher law to which the law which determined the rule could appeal. With this notion comes the idea of an infinite regress or vicious circularity in that one must always justify a step by appealing to a higher one. This problem has already been attended to where it was seen that we draw a rule "as a matter of course". It is not the law itself which determines whether an application is in accordance with itself, but we ourselves who do. Our conventions delineate the standard way of interpreting a rule or applying a law; and perhaps what is more pertinent here, they supply the compulsion attendant on rule obeying. We are responsible for the necessity, or inexorability of logical laws or "logical musts". Rules and laws have no a priori status in themselves, but our method of applying them can make them a priori. Because of this as well, a rule cannot guarantee its own application nor by itself will it decide deviant interpretation.

Here Wittgenstein makes his most successful attack on Platonism and essentialism and at the same time establishes a basis for his conventionalism. It is not the extremist form of conventionalism attributed to him by Dummett and others and although it allows that a person is free to take any step in following a rule, it also admits of a "correct" or "right" interpretation (or a "true" interpretation if it is a law) and no paradox or contradiction arises as might be thought.

Again this does not make for absolute clarity in the concepts of rules, logical laws, following rules, etc., because there is misunderstanding about the notion of compulsion as it relates generally to rules and particularly to "following a rule". 'Compulsion' seems to be a psychological concept which has logical ramifications; and like 'understanding' and 'intention' it makes us "pursue chimeras", i.e., search for its essential character or describe its mental qualities. The essentialist's task consists in attempting to isolate the precise phenomenon of compulsion, and the extreme conventionalist denies that such an entity even exists or ought to be referred to in relation to a rule or following one. However we cannot deny that we use the word, and, it seems, in the above context. If compulsion is supplied by our attitude towards certain rules (the activity of having regard for the social importance of whatever the rule might be), then we have removed it from its mental realm and given it a meaningful denotation outside of the rule itself. In fact, common usage will see the term continually used in a way that would imply some connexion between the expression of the rule and the mind of the person having regard for that rule. This misconception perpetuates itself where people behave towards rules as though they were being compelled by them:

"But surely you can see...?" That is just the characteristic expression of someone who is under the compulsion of a rule. (P.I.: 231)

'Compulsion' therefore, is nothing more than a feeling that we ought to proceed in the way that is socially recognized, or dictated by common experience in empirical affairs. It is probably the strength of our experience and the assistance that it has provided in the past that adds the element of inexorability to rules and logical laws: Insofar as the law following activity has to do with the precise disciplines, then previous procedures will strongly influence future steps; but where the affairs are more of the everyday type, there is likely to be less pull or compulsion to obey rules. It is by misunderstanding these things that we have "the idea that the beginning of a series is a visible section of rails invisibly laid to infinity". (P.I.: 231) Because we already have the visible section of the rails (the applications of rules) laid out behind us, we are provided with a sense of "certainty" (which is useful in the sciences and all descriptive discourse); but there is no other reason why we should continue to lay the rails in the same way (or direction). There is a suggested blueprint perhaps, but the rails are not already "invisibly laid to infinity". As mentioned earlier, Cowan assumes that Wittgenstein is saying there is no such thing as a rule, and one can see now further reasons why he is tempted to say this: he does not seem to take into account the fact that decisions or steps in rule regarding activity have an intricate background involvement with past experience ("the very general facts of daily existence") and each reflects this background (the very notion of a rule is contingent upon this recognition).

Logic then is not "sublime"; there is no hidden truth or universal

significance to it. Nor is logic the "essence" of language or of the distinctions we make in our language. Hence in dealing with logic we are not seeking out new facts about our language or the "nature of things". Instead;

...We want to understand something that is already in plain view. For this is what we seem in some sense not to understand. (P.I.:89)

The data is already before us and is embodied in the distinctions and connexions we seem to naturally make in our language. We appear to make these distinctions, again, because of rules (or the convention that we use these expressions in these ways, etc.). Much of Philosophical Investigations is concerned with pointing out how we can be misled by expressions and grammar and that philosophical problems are not really poorly conceived problems, but misconceived logical distinctions forced upon us by grammar. Logic therefore is not something that will aid us in reorganizing experience so that we can express thought and meaning more accurately (as the logical atomists supposed) because "every sentence is in order as it is". There is no "super-order" of facts. Logic may however help us to more accurately describe experience.

It was seen earlier that grammatical problems are not simply those connected with the ordinary grammatical categories of language, but rather that they are often associated with what Wittgenstein calls "depth grammar" or "deep grammar". Because the inference of a word or proposition is intimately related to this deep grammar, any remarks about this grammar will be logical remarks: they will belong to the same category of logic that has been referred to so far in this chapter. Hence when we refer to logic, we include not only the inference derived from the external form of the proposition (such as contained in a common syllogism), but we are also to include less obvious commitments of the

depth grammar. Wittgenstein remarks;

...The philosophy of logic speaks of sentences and words in exactly the sense in which we speak of them in ordinary life when we say, e.g. "Here is a Chinese sentence", or "no, that only looks like writing; it is actually just an ornament" and so on. (P.I.: 108)

At this point it will be useful to look at some examples to indicate what Wittgenstein means by "depth-grammar"

In the use of words one might distinguish "surface grammar" from "depth grammar". What immediately impresses itself upon us about the use of a word is the way it is used in the construction of the sentence, the part of its use -- one might say -- that can be taken in by the ear. -- And now compare the depth grammar, say of the work "to mean", with what its surface grammar would lead us to suspect. (P.I.:664)

The surface-grammar of the expression 'to mean' seems to suggest that meaning is a kind of accompanying of an exclamation, remarks, etc., with a special mental performance. Because meaning appears to add a special sort of intention to what we are doing or saying, we think its origin must be in some kind of mental act, experience or process. However we now involve another expression which has a significant depth aspect, i.e. 'intention'. The deep grammar of 'to mean' and 'to intend' is hidden by the illusion provided by the surface grammar. It is a comfortable illusion too -- at least it has become so ingrained in our language that we fail to see how it can possibly be otherwise. Added to the problem is the fact that within our language we have no means of justifying our use of such words as reports of mental states. The only possible criterion we could have would be one for ascertaining that each time we used such words as reports of mental states or performances we could check it against a previous performance, but there is no method of recording any performance at all. Wittgenstein expounds this idea particularly clearly in reference to reports of sensations and again with 'understanding'. Perhaps it is clearer in the context of sensations,

where he shows that the only objective reference we have to verify reports of sensations is our reference to the common behaviour of mankind. Hence reports of pain, e.g., "I feel toothache", cannot be thought of as reports about mental events because "I" have no criterion for the correctness of my judgement about my behaviour. No doubt, feelings of pain have certain mental correlates; Wittgenstein does not deny this, but merely points out that we have no means and hence no language for recording and describing such. Reports about pain therefore become pain-behaviour itself.

Now a similar explanation can be given for 'intending' and 'meaning'. 'Intending' becomes a way of emphasizing a point by behaving in a certain way. It is a performance, certainly, but an external performance. In a way similar to that with 'feeling', 'sensing', 'meaning', it makes sense to say of someone else that "he feels" (senses, means, intends) and to base the validity or correctness of this remark on his external behaviour. We, of course, go a step further at times and assume that we are supporting our assertion by referring to our own feelings when we manifest similar behaviour. This begs the question, "Where, or from whence, did we learn to make such assertions in the first place?" The answer is fairly clear: "It was the "feelings" that we originally learnt to associate with behaviour". Behaviour hence has priority; if we consider the case carefully we will recognise that it was only through a consistency in behaviour that we were able to learn the language we speak (St. Augustine's remarks on how he was taught the language of his elders will bear this out; had no consistency been maintained by his elders in their behaviour, Augustine would never have had inductive grounds for his coming to learn and know the names of things correctly. This is also a comment on the conventional status of language, i.e., Augustine came to use the same word for the same things,

he learnt the rules of his community of speakers). A full recognition of the behavioural commitment of expressions such as 'to mean', 'intend', 'feel', etc., would certainly help solve ("dissolve") many of the philosophical problems which plague us, particularly in the philosophy of mind and metaphysics. The behavioural commitments of these mentalistic terms or predicates will also clarify many logical problems in psychology.

Neglecting the depth grammar in other areas will also cause confusion. When we make a report such as "I feel the rough edge of the wood", we appear to be saying something not very dissimilar to "I feel the anxiety of his disappearance", because the surface grammar or superficial form of the reports are basically similar. In the first instance we are able to locate the sensation of feeling in, say, the tips of our fingers or our feet (if we stand barefoot on the wood) even though the "location" of the cognition is different; hence it would seem that we have to look for a "place" for the the "feeling" of anxiety. Now we know that we "do our thinking with our head" and that seems to be the "location" of the "mind";, therefore we feel anxiety "in our minds". However, attention to deep grammar would show that many of our deductions are based on misconstruction of the expressions, i.e., we are misled into thinking that because there is a place where we experience physical sensations, there must be also a place for experiencing other kinds of sensations: furthermore, this place should have similar spatial co-ordinates to those of the body. "If we have a feeling, it must be somewhere." No only do we hypostatize "mind", but we place it in the same category as "body", (as Ryle noted) and then use this as a premise for further hypothesizing or philosophizing.

Other concepts which have a significant depth grammar content are: 'expecting', thinking' and 'understanding'. The confusion

about 'expecting' is that we tend to equate it with some kind of process occurring in the "mind", but we again have no criterion for correctly verifying the mental occurrence and hence the notion of a private description of expectation language is epistemologically unsound. 'Expecting' can only have sensible dimensions if we regard it as a form of behaviour. We can only reasonably refer to someone as "expecting x to happen", if we judge that he is behaving in a way similar to, on most occasions, other people when they are "expecting" such and such. Wittgenstein says that expecting or expectation is grammatically like a state, but in order to understand the grammar of these states it is necessary to ask, "What counts as a criterion for anyone's being in such a state?"⁷ He continues, asking:

...What, in particular cases, do we regard as criteria for someone's being of such and such an opinion? When do we say: he reached this opinion at that time? When: he has altered his opinion? And so on. The picture which the answers to these questions gives us shows what gets treated grammatically as a state here. (P.I.:573)

Too much emphasis can not be put on the last sentence. Wittgenstein also demonstrates how problems can arise from inadequate grammatical distinctions in our language:

We say "I am expecting him", when we believe that he will come, though his coming does not occupy our thoughts.... But we also say "I am expecting him" when it is supposed to mean: I am eagerly awaiting him. We could imagine a language in which different verbs were consistently used in these cases. And similarly more than one verb where we speak of "believing", "hoping", and so on. Perhaps the concepts of such a language would be more suitable for understanding psychology than the concepts of our language. (P.I.: 577)

Expectation is an example of "an inner process (which) stands in need of outward criteria." 'Thinking' and 'thought' also have grammatical implications that are more than just superficial. On the surface,

the use of these words predicatively indicates some kind of process occurring somewhere. Furthermore it might seem that this process is, in some way, antecedent to the linguistic report or performance concerning it. These pictures seem clear and readily understandable, and they tempt us to look no further, but logically (and epistemologically) they are highly misleading. Firstly, thought has no priority over language because we have no criteria for separating the thought from the language. We can therefore only speak of 'thought' or 'thinking' as being a form of linguistic action;

When I think in language there aren't meanings going through my mind in addition to the verbal expressions: the language is itself the vehicle of thought. (P.I." 329)

This could be seen as a slight understatement since the analogy of the vehicle might mislead us into believing that the vehicle carries the thought, whereas we have seen that the thought and the language are inseparable. Another tendency is to look for the essence of thought, as if there were one recognisable element that could be isolated as the necessary and sufficient component of any thought.

Thoughts can be associated with a multitude of different performances -- action, writing, gestures, speaking, etc., in certain contexts and circumstances. Again we must ask what criteria we use for ascribing thoughts to things. It appears that the only valid criteria (and a hypothetical one at that) is that we ascribe thoughts to things which maintain a degree of regularity in the whole of their behaviour. If we judge that a thing exhibits a regular tendency towards the conventions which we have established, then we ascribe to it such notions as recognition, intention, thought, etc. To qualify for such ascription it is necessary that the things have regard for the rules which we constantly use in social situations, and perhaps the chief

method we have of determining whether anything is following our rules, is its use of language in a sensible way. Now this would seem to preclude all but humans from the class of thinking things -- and this is a grammatical note on our ascription of the term "thinking" and not an empirical observation.

Jonathan Bennett has provided a pertinent consideration of the notion of 'thinking' where he refers to the fact that we only like to say that something thinks when we are willing to credit it with a certain degree of intelligence -- consisting of responsiveness and flexibility. He then demonstrates that although we might ascribe thought to some animals for behaviour they are exhibiting, no animals have the linguistic capacity to express "thoughts in general" and "thoughts about the past" as both these are interdependent.⁸ It would seem that before we can talk about rules and acknowledge that they obtain in a social situation, we ought to be able to express "general thoughts" and "thoughts about the past" -- the latter are a necessary condition for rule-following behaviour unless we entertain the possibility of a non-human animal fulfilling a social role with all its intricacies merely by random chance. Human persons are the only animals whose social behaviour fits the required complexity -- this is judged against the whole of behaviour, but perhaps this is not really necessary since a fairly accurate judgement can be made on the basis of one or two individual social acts. (This latter point does not rule out very anthropometric robots or even clever apes such as the chimpanzee, both of which possibly could perform social acts which conform to all the broader social conventions. In the case of a robot, the possibility of speech further complicates the judgement; in fact we might imagine a situation in which outright confusion arises over whether an anthropomorphous being is human or not. If an observer were told that the being in question was human he would probably ascribe

rationality to its behaviour, but consider his ascription if he were then told "Well, actually that's only a robot". This at least serves to emphasize the behavioural basis of our judgement about thinking, and rationality generally).

Wittgenstein would accede to the suggestion that there are probably psychic events or accompaniments associated with the kinds of concepts we have dealt with so far (i.e. 'intending', 'thinking', 'meaning', etc.). However apart from the earlier-mentioned problem of our having no language (objective or private) to describe what they might be, there are additional yet related problems, namely that we have no criterion for determining whether anyone has the same kinds of psychic events as any other person. Nor is this lack of criterion due to a limited empirical inquiry -- the question is a logical one and no amount of neurological investigation would provide a pervasive account within our present language. However attention to the depth-grammar or a deeper look at the logical implications of what we say, will help eliminate the conceptual difficulties and philosophical problems inherent in our way of saying things.

Another concept which has a significant logical depth is 'understanding'. This is particularly relevant to the present work since the notion of understanding is central to the discourse of Education and particularly the teaching act. 'Understanding' cannot be taken as a report that a certain process of cognition has occurred (even though there may well be cognition involved) because like the other so-called "mentalistic predicates" there is no criterion for justifying the accuracy and hence the linguistic validity of such a report, i.e., if it is a report about a mental state. However this is the way we are

tempted to take remarks such as "I understand x" or "Now I understand", particularly since they seem to be so incorrigible in our own cases. This is just the trap though, for if we acknowledge that with other concepts like 'meaning', 'intending', 'feeling', etc. we do have outward criteria for talking about understanding, i.e., we judge understanding by a person's behaviour in a given situation, then we tend to believe that the same situation obtains for our own case. However this is not the case and one must distinguish first-person reports from third-person reports of understanding. But firstly consider some of Wittgenstein's remarks about "understanding". He makes an observation on the logic of the term;

The grammar of the word "knows" is evidently closely related to that of "can", "is able to". But also closely related to that of "understands". ('Mastery' of a technique).
P.I.: 150

He then investigates whether expressions such as "I understand the principle", mean the same as "The formula occurs to me"; deciding that it does not since it is possible that a formula might occur to me without my understanding it. Therefore "I understand" or "he understands" must have more to it than just the notion of the formula occurring to one. If there is more to it, where is this more? Is it some hidden mental state or process since there appears to be nothing else that is particularly external or obvious?

We are trying to get hold of the mental process of understanding which seems to be hidden behind those coarser and therefore more readily visible accompaniments. But we do not succeed; or rather, it does not get as far as a real attempt. For even if supposing I had found something that happened in all those cases of understanding -- why should it be the understanding? And how can the process of understanding have been hidden, when I said "Now I understand" because I understood?! And if I say it is hidden -- then how do I know what I have to look for? I am in a muddle. (P.I.: 153)

There is another alternative though:

.... -- does it follow ... that I employ the sentence "Now I understand ..." or "Now I can go on" as a description of a process occurring behind or side by side with that of saying the formula?

If there has to be anything "behind the utterance of the formula" it is particular circumstances, which justify me in saying I can go on -- when the formula occurs to me.

(P.I.: 154)

Wittgenstein suggests then that we should not think of understanding as a mental process, even though when we use the expression, we might recognize mental processes going on (such as we recognize with "a pain's growing more and less"). Instead we should look for the circumstances surrounding the act of someone's saying that he understands something, particularly where he sees this as a special experience. We are not interested in this experience (since it is private and linguistically incapable of valid expression), but our criteria for agreeing with him are what we see of the circumstances and against these we justify his claim, or deny it. The circumstances vary greatly with individual cases, but a look at one of Wittgenstein's more familiar examples of a person working out an algebraic function would help to give some idea. If a person is asked to derive the expression for a series of numerals and we observe him at the task, he might suddenly say -- "Ah, I understand", or, "I know it now", or such. If he were someone we knew personally and we realized that he was quite capable of solving similar problems then we would probably consider his report as circumstantially adequate; there are similar more obvious circumstances such as a person making relevant and sequential jottings of the derivation and even looking as if he were making a convincing attempt to solve it (physical gestures, etc.). These circumstances Wittgenstein refers to as signals and they too are probably more relevant to rule-guided behaviour than is often supposed. And then of course there are circumstances where we would

be loathe to ascribe "understanding" to similar situations.

Wittgenstein warns that:

The criteria which we accept for "fitting"; being able to", "understanding", are much more complicated than might appear at first sight. That is, the game with these words, their employment in the linguistic intercourse that is carried on by their means, is more involved -- the role of these words in our language other -- than we are tempted to think.
(P.I.: 182)

A thorough analysis of the circumstances surrounding any single kind of situation in which the expression "Now I understand", or such is needed, but it would be very lengthy and fraught with perplexing counter possibilities. For example we might not wish to attribute validity to the expressed understanding of a very complicated mathematical formula by a ten-year-old person, yet the possibility always exists that his "understanding" claim is perfectly legitimate. Wittgenstein complicates situations when he refers to people who probably legitimately claim understanding, say, of a principle, but who subsequently do not know how to go on with the expression. Again this emphasizes the tenuous grounds on which we base so much of our justificatory criteria (our rules about circumstances, the conditions which permit us to conclude that such and such ... etc.). Wittgenstein says that we should not be misled into thinking that there is some totality of conditions which must correspond to each case before we can legitimately judge that case (i.e., that all conditions must be fulfilled). On the contrary it would seem that our totality of experience is brought to bear on every new situation which becomes, in a sense, unique (as a new language-game is in the same sense).

"Understanding" when reported in the third person form can be taken as a signal that someone can proceed in certain circumstances, which are simultaneous with the expression and an integral part of the

expression. The circumstances are what would normally be termed behavioural and hence such reports are similar to reports of sensations. A problem mentioned earlier was that different criteria must apply in the case of first-person predicative reports, e.g. "I understand x" and "I feel numbness", etc. The difference stems from our having no means of judging our own behaviour in the kind of social situation in which we judge that of others. Added to this is our association of some kind of feeling with our verbalization of the event. In fact we tend to neglect the behavioural side of the event and concentrate on the "mental" feeling. One reason for this is that the sensation or the understanding often seems to come "in a flash".

The question then becomes one of finding the criteria we ought to apply to ourselves, but it seems that there is really none. This becomes more obvious if we consider the problem as a special instance of the negation of privacy in language and sensation. We simply have no means of checking on the state of understanding and hence Wittgenstein thinks that we should consider such first-person reports as exclamations or signals. He says:

The question what the expression (of understanding)
means is not answered by such a description (of the sudden
process).... (P.I.: 322)

But rather;

'Now I know how to go on!' is our exclamation; it
corresponds to an instinctive sound, a glad start. Of
course it does not follow from my feeling that I shall not
find I am stuck when I do try to go on. -- Here are cases
in which I should say: 'When I said I knew how to go on, I
did know'. One will say that if, for example, an unforeseen
interruption occurs.... (P.I.: 323)

This would seem to provide flimsy grounds for making such assertions, in fact it appears to be the bare bones of a behavioural description, but Wittgenstein does explore the question further and makes some points which again serve to emphasize the rule-following or conventional foundations of meaningful intercourse. His problem is to decide what grounds we do have for continuing or holding that we can "go on";

Would it be correct to say that it is a matter of induction, and that I am as certain that I shall be able to continue the series, as I am that this book will drop to the ground when I let it go; and that I should be no less astonished if I suddenly and for no obvious reason got stuck in working out series, than I should be if the book remained hanging in the air instead of falling? -- To that I will reply that we don't need any grounds for this certainty either. What would justify the certainty better than success? (P.I.: 324)

The grounds for these kinds of assertions are not based on induction and to make the point more obviously, Wittgenstein asks us to consider an analogy; whether,

...'The certainty that the fire will burn me is based on induction.' Does that mean that I argue to myself: 'Fire has always burned me, so it will happen now too!...' (P.I.: 325)

Clearly this is not the grounds for making such a claim even though in the final analysis it could be resorted to. Ask rather;

.... is the previous experience the cause of my certainty, not its ground?..... (P.I.: 325)

The answer is;

.... Whether the earlier experience is the cause of the certainty depends on the system of hypotheses, of natural laws, in which we are considering the phenomenon of certainty. Is our confidence justified? -- What people accept as a justification -- is shown by how they think and live. (P.I.: 325)

It is at this point that Wittgenstein brilliantly fuses together his argument about the connexion between logic and language. By beginning with the deep grammar contained in the concept of understanding, he has demonstrated that this term has a significant logical commitment,

i.e., one not based on induction (as is often thought to be the case with examples such as the three given above), but rather on the way in which our experience is assembled, and our confidence in justifying this experience. The way we "think and live", (our "forms of life" in other words) permits us to formulate criteria or lay down conditions, and such distinctions have become embodied in language as the conventions we tend to overlook or credit to other properties in language or logic (e.g., as with induction).

It can be seen that when we talk of logic, we are referring to both the traditional, in the sense of formal, notion of direct inference arising out of the form of the language (the grammatical expression), and the notion of "deep grammar" which examines the commitments of separate words or expressions. Yet there is no real distinction between these notions; their boundaries are not clearly recognisable, but overlap. Perhaps there has been more emphasis on the traditional notion, particularly since it has been so bound up with the interests of the logical positivists (and most Anglo-American philosophy of the past fifty years). The logic of "depth grammar" is, of its nature, subtle and less open to rigorous exegesis and explication. We have seen that it does play a large part in all discourse though -- so much so, that it reflects the intricate conventions that we apply through all language. Wittgenstein believes that where we have philosophical problems, we are not paying sufficient attention to this depth grammar -- a simple but accurate account of the precise commitment of the words and expressions involved, would eliminate the dilemmas of language. Fairly clearly, one would have to subscribe to the particular conventionalism of Wittgenstein and his "forms of life" idea to accept this, but it is difficult to refute, and all but impossible to do so within the frame-

work of hypothetical inquiry pursued in Philosophical Investigation.

This chapter has attempted to emphasize the intimate connection between logic, rules and language. Human conventions decide what is a priori; it is "the way we think and live" that justifies our making the kinds of distinctions which we refer to as "logical"; and the fact that we can continue to communicate despite the constant possibility of language breaking down, is testimony to the efficacy of our rules. That we think and judge alike reflects the agreement in "forms of life", which is the basis for linguistic communication. The chapter has also indicated the difficulty attendant on an analysis of linguistic acts; the unique nature and the complex social background to each act makes all but the most general typology impossible. Even considering individual acts one has to deal with a performance which involves so many possible conditions of recognition (on the part of all parties to the performance) and intention (e.g. that the hearers recognize the speaker's intention and he recognizes whether they recognize, etc.) that any general remark about the verbal part of the act will be almost meaningless without the background. To obtain some idea about the background then, one must recognize the interplay of rules and conventions in all intercourse: and one way to achieve this is to look at the "deep-grammar" in language.

NOTES TO CHAPTER III

1. Joseph L. Cowan, "Wittgenstein's Philosophy of Logic", in K.T. Fann (Ed.), Ludwig Wittgenstein: The Man and His Philosophy (New York, Dell, 1967), pp. 284-296.
2. Arnold Levison, "Wittgenstein and Logical Laws", in K.T. Fann, op. cit., p. 309.
3. Ibid.
4. H.P. Grice, "Meaning", in P.F. Strawson (Ed.), Philosophical Logic (London, Oxford, 1968) p. 39.
5. As Michael Dummett does in his article, "Wittgenstein's Philosophy of Mathematics", in George Pitcher (Ed.), Wittgenstein (New York, Anchor Books [Doubleday], 1966), p. 425.
6. Arnold Levison, op. cit., p. 301.
7. Ibid.
8. Jonathan Bennett, "Man'- Rational Animal", in The Listener (October, 1964).

IV

A LOGIC OF EDUCATION

Using Wittgenstein's notions of "following a rule" and rule governed behaviour, and applying the logical and linguistic consequences to the corpus of propositions, theories, prescriptions, judgements, etc., in education, it may be possible to develop a unified and systematic methodology of inquiry into the field. What we have in mind is the kind of inquiry characterized by most of the sciences. Initially one would look for a means of inquiry which would provide comprehensiveness, openness (for the sake of discovery) and rigor in its methods. Then we should consider whether the field of education is susceptible to this kind of inquiry. To do this we have to ask what constitutes education. Part of the answer is suggested above, i.e. a set of propositions, theories, prescriptions, etc., in fact one might go as far as to say "all of the propositions, judgements, etc. that have ever been made in its name". There might be an objection here, that education is what is happening at present in classrooms, or in the minds of people reading. This however introduces a systematic ambiguity that characterizes not only education, but science in general as well as other human activities. Such ambiguity has been recognized by Max Black and he called the problem¹ "the process-product ambiguity."

Rudner believes he can solve the problem by adopting a convention that he applies to science, in which the term 'science' (as a product) refer to the linguistic entities (propositions, equations etc.) only,² and 'science' (as a process) refers to extra-linguistic phenomena. We will adopt this convention for education since Rudner notes too,³ that 'education' has the same ambiguity attendant on its use.

Hence when we refer to education here, it will be in reference to the linguistic entities which have already been referred to above as "the corpus of propositions --- etc". Whenever we say something about education then, the activity of education, an evaluation of the product, we are moving in the realm of the linguistic aspects of it. And the point of this work is the logical inquiry into the linguistic aspects of education. Such a methodology will also demonstrate the logical fallacy of other methods of inquiry as will be seen later in this chapter.

The most important consideration now is whether the linguistic aspect of education qualifies for treatment in the way that that aspect of science does. Furthermore, can education be considered a branch of the social sciences? The distinction between a science and a social science is not clearly recognized. Nor is the importance of such a discussion agreed upon by many who dispute the claims of others. However so much has been written on the topic that one can generalize by saying that at the extremes are those who maintain that the social sciences are the paradigm of scientific inquiry, and those who would not classify the supposed endeavors as scientific at all. The argument presented here should be close to the former case, and evidence for this view will develop in this chapter. Rudner finds no significant difference between the procedure (methodology) of natural science and social science and the variation in techniques he takes to be not pertinent to the argument anyhow. He does note a tendency on the part of the philosopher of social science to deal with "smaller and less general portions of the methodological cake".⁴ whereas the philosopher of science will usually take a problem more applicable to science as a whole, e.g. a theory of probability.

The philosopher of social science is then concerned with problems such as the logical validity of theoretical constructs in social sciences or with the justification of methodological steps or assumptions. He works at the meta-level of the disciplines in constructive as well as heuristic work. Rudner points to a problem that is shared by all sciences in regard to the above; he notes that whilst we have a well developed logic of validation, we are not as fortunate with a logic of discovery.⁵ He contends that no one has yet shown that it is even possible to construct a logic of discovery. This again may be logical rather than a factual remark since to formulate an adequate logic of discovery would seem to necessitate a knowledge of the "true reality" of the universe. Modern scientific and philosophical thought would deny the possibility of this in any case. At the best we can hope to evolve a system which enables us to measure as best we can the physical and social universe.

Certain discoveries are made within the context of validation, but they are discoveries about the theory itself - this can be most readily seen in mathematics or logic, although it applies to all the sciences. This kind of discovery is equivalent to the mode of procedure in the development of hypotheses and theories; hence we can say that axioms have a strongly developed (or validated) logic of discovery in that sense.

We could ask whether it is necessary to even have a social science i.e. whether purely descriptive discourse about societies would not suffice. The question to be considered is, "suffice for what?" Few people would dispute the claim that it would be useful to not only "understand" social events in relation to human behaviour, but also to

develop methods of prediction, determining causality etc. The question would rather seem to be one of whether we can develop a methodology valid enough to warrant the effort of inquiry. The way of ascertaining this validity will be a logical one - of justifying the epistemological grounds for the inquiry. In other words we want to develop theories that will enable us to come as close as possible to describing "social reality". Our means of contact with this latter entity is that of our means of contact with all experiences; our language. The result of any social act is only available to us in some kind of linguistic formulation, and therefore the most efficient description of a social act will be that which is the best linguistic formulation. Logic will enable us not so much to say which is the best formulation, but certainly which is not suitable as an expression. Hence the notion of logical validation becomes very crucial to social science. One can immediately see an important contribution of Philosophical Investigations here, that being the emphasis which Wittgenstein places on understanding the notions to which our language commits us: (the deep grammar of language). In behavioural studies for example, we must realise the proper value of so-called "mentalistic" predicates i.e. that they do not refer to some process of activity in a "mind".

There is no other logical reason why a social science should not be formulated i.e. there are no qualities in social phenomena that preclude the logical possibility of establishing some system of hypotheses to better account for what we consider to be social facts. Can education be regarded as a significant enough discipline in its own right to be labelled as a social science? Education is certainly a social activity; no matter how abstract an academic branch of it might be (e.g. learning classical Greek or the syntactical properties

of Romantic poetry) it still has some social relevance.

Are the linguistic entities which comprise the product of education, to be considered as the raw materials of those disciplines within social science? Are the statements in, and about education, sufficiently self-contained to warrant their treatment as a special discipline though? These questions are often posed by persons suggesting the discipline is not distinct enough to separate it from contiguous disciplines such as psychology, sociology, political science, economics etc. One way to answer this objection is to note that none of the disciplines mentioned is anymore distinct from any one or more of the others. The problem should not be taken too seriously however - this kind of overlap will be recognized as occurring in all branches of science and it would be a more serious mis-understanding to assume that the compartments of the sciences are "water-tight".

If we consider statements about learning, teaching and subject matter as comprising a distinct set of problems, then we have some idea of the ground covered by the philosophy of education. These general areas contain a sufficient number of problems of a logical kind to warrant their inclusion with other disciplines under the general form of inquiry suggested by the term "philosophy of" In fact education has seen a pronounced lack of sufficiently scientific investigation and part of this can be attributed to the logical conceptions that have characterized schools of educational thought for hundreds of years - these logical conceptions can be demonstrated to be lacking or poorly conceived in the first place. The other part is simply due to a refusal to consider the value of scientific inquiry, in favour of an intuitive "hit-or-miss" approach.

There is no need to detail the kinds of questions posed by philosophers in education. They are similar in form to those which might be asked by philosophers in any branch of social science and they chiefly concern the methodological problems mentioned earlier (logical justification or validity of theoretical constructs). Such questions are not solely in the province of the philosopher of education either, they might as capably be answered by anyone, let alone any philosopher. In the same way the philosopher of law might have no more to say about the inquiry in that subject than the philosopher in ethics. One might suspect though, that a person who devoted his attention to one branch of the sciences would be more familiar with the kinds of formulations, hypotheses and even jargon of that discipline. The point is that by talking about "philosophies of" different disciplines we are not suggesting that the "philosophy" part is distinct for each - the mode of inquiry is the same, the statements that comprise the discipline might be peculiar to that discipline.

Now we should look at the means whereby Wittgenstein's notion of following a rule in its logical implications can form the basis for inquiry in social science (keeping before our attention the idea that what is said about social science generally will apply to education). Generally it will be realised that if there is any value in Wittgenstein's analysis, it will also be helpful for social science -- i.e. if all social activity can be seen in terms of rule following then it only remains for us to acutely analyse the rule-following potential of all acts. This is broadly the stance taken by Peter Winch. He argues that the methods of science are irrelevant to social science since if all social acts are meaningful acts then one only has to find the meaning of each act, which is a logical endeavor, to adequately describe and theorize about it. Hence we need only examine the rule - following nature of a

social act to find its meaningfulness -- this then is a philosophical task. Thus he takes social science out of the context of scientific inquiry to the point where it becomes a branch of philosophy. This appears to be a very attractive methodology and at least one based on reliable epistemology. However we cannot accept it since Winch's interpretation of Wittgenstein take a crucial wrong turning where he begins to abstract from Philosophical Investigations. Rudner refutes his claim on methodological grounds, (which amount to a similar kind of criticism) but ones which are not based on the notions of Wittgenstein though they might well be.

Let us first meet Winch on Wittgenstein's grounds. Winch maintains that because all social activity is rule-following or rule-governed, it is thereby meaningful. We should stress that if Winch means to use "meaningful" in the semantic sense (i.e. in the "non-evaluational" sense of Rudner or the "natural" sense of Grice) ⁷ as Rudner assumes he does, then he is maintaining that every social phenomenon occurs within a deliberate, consciously and carefully planned setting. This entails that the persons or group involved in the act or phenomenon are all aware of the full significance (meaning) and of all the rules pertaining to what they are doing. Such an explanation is simply not tenable. Nor does Wittgenstein say this. I think Winch errs in interpreting the Wittgensteinian notion; all that Wittgenstein holds about a rule, is that it at least be capable of recognition by someone as a rule, not that it will always be recognized as such. Similarly with "making a mistake", there must always be the possibility of the action being recognisable (by someone) as a mistake. How would this "someone" be capable of recognising an action as a mistake or a non-following of a rule? It would seem that the "common behaviour of mankind" criterion is important here --

this, I think, is the point of the Wittgensteinian example mentioned in Chapter II of this work: where the person moves one point of a pair of compasses along "a line that is a rule" and simultaneously opens and closes the other point to varying degrees. Wittgenstein says;

"... Here perhaps one really would say: 'The original line seems to intimate to him which way he is to go. But it is not a rule'."
(P.I.:237)

The significant point is that Winch cannot say how it is possible that the rule in every action is always determinable. Perhaps in theory it is, but we have seen that there are situations where one plainly cannot determine it with the certainty that is required to hold for the sense in which Winch talks of meaning. Winch also thinks that all actions are rule-following, which is a mis-interpretation of Wittgenstein.

On this presumption, how are we to account for completely new acts (new "language-games")? Rather, one should say, all acts are rule-regarding i.e. they might be shown to have some connexion with rules or a series of references to various rules -- now this makes the ascertainment of meaning a difficult task.

On the other hand if Winch wanted to use "meaningful" in the conventional (evaluational or "non-natural") sense; the relationship with rule-following becomes even more attenuated. In this sense, which is a legitimate sense for regarding many social acts, meaning is far less ascertainable. I think that Winch probably intended his meaningfulness remark to be taken in either one of the senses; but we would certainly have difficulty in saying what kind of meaning is intended in some cases (as Grice remarked). In this case we could point out that at no point does Wittgenstein maintain, that since all activity has reference to rules, it must consequently be capable of full understanding.

Winch again misinterprets Wittgenstein on a critical point by maintaining that:

It is possible within a human society as we know it, with its established language and institutions, for an individual to adhere to a private rule of conduct. 8

This cannot be the case however. It sounds plausible of course because Wittgenstein says it must only be possible in principle for people to grasp a rule and judge whether it is being correctly followed. I have already indicated that people speak of obeying rules privately; but in refuting the notion we must consider that when we use the word "meaningful" in the sense in which Winch invites us to, we can only be referring to the term in a public context (and Winch would agree). Surely then we can only use the term "rule" in a public context. Consider it another way: if we were approached by a friend who revealed to us that he had privately followed a rule (his own) to smoke only ten cigarettes a day, we would probably take his word as a guarantee of the truth (if we even wanted to go that far). However there is no possible means whereby that prescription could have been considered a rule (while he was following it): to see this we only need to ask how it would have been capable in principle of ascertainment. Even the most contrived circumstances would not create such a context for someone coming to know the rule. A "private definition" is an example of a private rule; of this Wittgenstein said;

It might be said: if you have given yourself a private definition of a word, then you must inwardly undertake to use the word in such-and-such a way. And how do you undertake that? Is it to be assumed that you invent the technique of using the word; or that you found it readymade? (P.I.:262)

This can only be seen as a manifestation of the fact that Winch mis-

applies Wittgenstein's notion of following a rule -- this mis-application then also applies to the earlier-mentioned argument about meaningfulness of rule-following.

Rudner attacks Winch for committing "a subtle form of the reproductive fallacy". He allows that it might be possible to make every social phenomenon meaningful, but refutes the statement that "a meaningful phenomenon is not intelligible or understandable unless its meaning can be understood", on the grounds that it equivocates on the notion of understanding. Rudner says that Winch is using the term in the sense that one understands only by having a direct experience of the subject matter being understood. He says:

The claim that the only understanding appropriate to social science is one that consists of a reproduction of the conditions or states of affairs being studied, is logically the same as the claim that the only understanding appropriate to the investigation of tornadoes is that gained in the direct experience of tornados.⁹

However this is not the sense in which social science or science generally uses the word. In most cases we say we "understand phenomena" in social science if we develop an adequate linguistic formulation of it i.e. if we can account for its occurrence and pertinent features within the context of the whole body of the discipline to which it belongs. Winch noted that in natural science a causal explanation of the type of event being investigated will suffice as acquisition of understanding.¹⁰

Perhaps the most important question to ask is that of whether the notions of logic and rule following can aid in formulation of an appropriate theory of experience for social science and its particular concern with education. We noted that any scientific discipline is comprised of a series of statements derived from experience and out of these are derived (or formulated) further statements (many of which concern hypothetical entities) and logical relationships. The significant

point though is that our contact with experience is only achieved through linguistic means: hence the most valuable linguistic formulation will be the one which enables us to describe experience most effectively. This does not imply that a new theory altogether will be elaborated -- it merely suggests that when we apply any theory, we ought to be fully aware of the logical commitments of the terminology and the relationships dealt with in that theory. Wittgenstein's later work is particularly important for the philosophy of social science because of the elaboration of what is involved in rule-guided activity. The mistake Winch makes is due to his taking this notion too far. When he attempts to look for the meaningful part of every distinct social act we noted that this implies that the precise rule in every act is determinable. To allow this, the theory has to develop a reliable means of describing phenomena like "intention" and "recognition" in acts. This could be achieved in terms of the behavioural counterparts to these terms; i.e. we could elaborate a behavioural calculus to describe the phenomenon we call "intention", but the resultant accuracy of the statements of the theory might leave much to be desired. For example some descriptions of rule-following acts would necessarily be so general as to be worthless. Then we would suspect that much of the raw data of any social science is so complex (i.e. composed of such a large number of individual social acts) that it is simply not possible to distinguish the more relevant and pertinent parts from the more decorous and even irrelevant acts that are contained within the complex. As an example, we could consider a piece of data that might be of interest to a sociologist; say, an act of overt racial discrimination by a person or group. According to Winch we should be

able to gauge the exact (semantic) meaning of this act by finding out the rules involved and followed in the activity that becomes the manifestation of prejudice here.

This assumes our being able to follow the individual instances of rule-following, firstly, so that we can devise an adequate linguistic description of each one, and then our judging each in this interplay with others after we feel that we have satisfactory descriptions of the basic rule-governed act. Now, in a way, this is the method of inquiry used by the social scientist, except that his concern is not so much at the micro-level as that which the above activity with its intricacies is. The difference is that Winch is prepared to accept judgements of the above kind as fully meaningful (i.e. semantically) whereas the philosopher of social science would treat them as hypothetical and hence meaningful in a "conventional" way only. So the examination of the rule-following aspect of social phenomena can be useful provided that it is attempted within the appropriate context, which is the normal context and mode of empirical inquiry.

All the statements which comprise the discipline of education are co-extensive with the subset of all the statements which form the product of social science, which might suggest that attention to rule-following in the data of education is important. We can approach this the other way by saying that since so much of the process of education is intricately bound up with social activity and hence rule-following, then to adequately formulate linguistic descriptions and further theorize about these, we need to apply the methods of social science inquiry.

Perhaps more important to education is the fact that much of

its data is associated with the concepts we dealt with earlier and which are thought to belong to the psychological realm (so-called "mentalistic predicates"). Wittgenstein points out though that it is a mistake to think that because physics deals with things in the physical realm, psychology deals with things in the realm of the psyche. We have seen that the kinds of phenomena referred to here are dealt with in the external or behavioural sphere. This will reveal nothing new to the educational researcher or philosopher though, as behavioural psychology is based on such external descriptions, and theories of learning are important educational derivations of behaviourism. However this suggests that behaviourist theories will be less than adequate unless they take into account the corresponding logical implications of the "deep-grammar" contained in many of their key concepts. It is the task of the philosopher to point out these facts.

This gives the impression that psychology has been put to much use in detailing efficient learning theory and hence teaching methods -- however this is not the case. Nor is this to suggest that there has been no empirical evidence used to support various theories; but it would seem that what evidence has been applied to theories has been gathered in questionable scientific ways. This refers not only to the evidence teachers present to support claims for various techniques such as demanding rote learning of pages of science or history notes; but also it applies to "high level" research. For example Jean Piaget's famous conservation experiments are based on a non-necessary presumption about the simple-complex "relationship" that he takes to be an a priori truth. Wittgenstein would reject such a claim:

To the philosophical question: "Is the visual image of this tree composite and what are its component parts?" the correct answer is: "That depends on what you understand by "composite". (And that is not an answer but a rejection of the question).
(P.I.: 47)

In recent literature of the philosophy of education one is likely to find questions such as; "How many kinds of learning are there?" or "How do we learn to obey a rule?" which in fact are pseudo-questions, being logical misconceptions of the kinds of concepts alluded to. The second question is fairly easily dismissed since it is based on a more patently obvious logical misconception. It suggests that obedience to a rule is a separate state from learning the rule itself i.e. that it is as if each rule has a part to learn and a part which talks about obedience to itself. Thomas Green occupies himself with this problem as one of major significance for learning theory and education generally. The answer to the problem really takes two forms. If one is looking for some means of classifying the "mental" or cognitive processes we would assume to be associated with the phenomenon of "learning to obey", then no method of philosophical analysis will reveal those processes (which is a comment on the "deep-grammar" of the concept of learning). If, instead, one is searching for evidence (of the behavioural type) to indicate where and how learning takes place in regard to each rule, then this enterprise will also fail. A logical examination of the concept of rule-following will show that obedience to a rule is behaviour of a general nature in that one voluntarily adapts his behaviour to the general conventions of the society we live in. Perhaps we can say that we learn to obey rules, but there is still a questionable side to the notion of "learning" particularly since this process often involves techniques we would rather call "conditioning" or the like. I think the question is also logically akin to the question "How do we learn to remember?", particularly if we consider the kinds of criteria we use to verify reports of remembering.

There have been a number of papers dealing with the first question in one or another manifestations. It is presumed that if one

is able to detail the different ways in which learning takes place (i.e. the cognitive act), then one will be able to base some kind of teaching on the results of the theory attained. To the general question, "How many kinds of learning are there?", one is tempted to reply; "There are as many kinds as there are language games in which the concepts is used." This indeed is a significant answer since it indicates that there are so many different contexts in which we use the term. However the suggestion that we can classify different kinds of learning is a pseudo notion. To indicate why this is so we might ask a related question, "How many kinds of understanding are there?". It would seem then that we either learn something or we do not, or we understand something or we do not. We sometimes like to refer to notions of "partly understanding" or "half-learning" or similar cases, where these refer to ourselves i.e. our own experiences, but we must remember also that our justification in these instances is very limited; that in the case of first person reports we use expressions such as "I understand" as signals that we can "go on" and we only rely on our previous experience in similar situations for the confidence to make such reports. With third person reports, the criteria for justification is the outward behaviour of the person making the assertion (and the verbal assertion itself is not the least bit a part of the behaviour, but is central and in many cases the most important part).

The significance of these comments is to point out what I believe is a grammatical commitment of the concept of learning. Even though we talk of "learning that" as distinct from "learning how", and "rote-learning", "part learning" etc., we are not talking ipso facto about any kind of mental performance. The qualificatory adjuncts of learning refer instead

to the material which is the object of the activity, or an evaluation of the behaviour of the person about whom the assessment is made. Hence it might seem that our grounds for making such assertions in either the first or third person cases are insubstantial, since we cannot talk about what "really" happens. It will be recognised that this is not a serious objection though since no social science purports to describe what "really" happens, but has to content itself with developing an as-valid-as-possible framework in which to build up a theory to describe phenomena. For absolute logical clarity we should add that nothing "happens" until there is a suitable linguistic description of it -- so the term, 'really', drops out of consideration.

Now we can proceed with a learning theory based on behavioural circumstances and evidence, but to hope that it will be useful will entail painstakingly reappraising and checking the statements and relationships of the theory. It must be approached in a fastidiously logical manner and must be as carefully articulated as any scientific system. This again is where the notions of logic and rules expounded in Philosophical Investigations will aid in the establishment of a reliable system of inquiry for education.

Generally then, the considerations in the later philosophy of Wittgenstein are relevant to social science and education in that they reinforce or modify a methodological standpoint. Wittgenstein consistently maintained that his investigations set out to clarify and describe the way we are committed to employing language, and in taking this approach to social science theories we are engaging in a logical procedure. It would be mis-interpreting the Philosophical Investigations to assume that their content will add to the factual knowledge of the world; it certainly does add to the epistemological basis of the social sciences though. This contribution comes from the explicit sections on rules

and rule-governed behaviour, and the section on "forms of life" about which further will be said at the end of this chapter.

The logical contributions to the philosophy of education also aid in straightening out some misconceptions and invalid theorizing in the subject. For example it points out that there is no such entity as "a philosophy of education" if by that term is implied the kind of entity referred to as a "philosophy of life". Nor can we accept that a philosophy of education can be built by taking a major philosophical system (e.g. Thomism or Existentialism) and elaborating its logical implications for every phase of education. This attempt in itself commits a logical mistake by assuming that there is a logical connexion between the various phases in education, i.e. that it is necessary to be consistent in applying the same logical derivative to a prescription for curriculum as it is for a prescription for kinds of testing. An example of this could be found in the majority of textbooks on the philosophy of education -- such a position would hold that if one is a "Platonist" in terms of specifying what subjects ought to be taught then he ought to apply the same philosophy to any other phase of education. This is logical nonsense. Similar logical mistakes have been made in most current theories of education: i.e. many theories seem to be validly articulated from a logical point of view are based on a very questionable ontological premise. Hence, although it might be very difficult to point out the methodological faults within, say "pragmatism", or "general systems theory" (as they apply to education or indeed as they stand in toto), we can question their initial assumptions or ontological bases. For example, both depend on a view of reality that is structured to suit their own systems of logic. "General systems theory" assumes, in a manner similar to

idealism; that there is a definite order existing in relationships between objects in the phenomenal world. Thus a pre-arranged order is already forced on the world without there being any initial questioning of this ontological presumption. Pragmatism makes a similar tautological error by its derived logic to prove its initial assumptions.

Philosophy of education is rather the logical analysis of the body of statements and their relationships that we can call the product of education (a distinction elaborated earlier). Just as Wittgenstein talks about "doing philosophy" to straighten out some of the confusions our language runs us up against; so we might similarly regard the philosophy of education i.e. it straightens out confusions in the particular realm. More exactly it attempts to clarify the logic of the linguistic formulations which comprise the discipline of education.

Perhaps it is worthwhile now to reconsider the notion of "forms of life" to see if it can aid in our theorizing about social science and education. Wittgenstein did not specify very clearly what he meant by this notion, but he did regard it as important enough to imply that it was something like the shared institutions upon which our existence as social beings depend. We might say that it is central to our overall notion of "life" itself to recognize that it has these pervasive "forms" as attributes -- they might be considered second-order forms after those of a more biological inheritance (e.g. the instinct of self-preservation, or that of progeneration). The suggestion is that the "form of life" idea is so central to any articulation of social phenomena that it could be elaborated as the starting point for theorizing in social science. It would seem to provide a more factual (in terms of linguistic description) foundation than some of the present starting points; the so-called "ideal types", or "ideal-typical constructs". This begs the question, "what

is "more factual"?"; and perhaps the best answer we can give is that we mean more "primitive" or "elemental". We could then say that we see a "form of life" (say, language) as having a more objective referent than an "ideal type" (say, 'class consciousness'). Again the advantage is illusive -- even if the "forms of life" idea is more objective as a starting point for theorizing, does that in turn effect the end result (the validity or accuracy of the system)? Because "molecule" has a more clearly specified referent than "psi-meson particle", does that enable the former to attain any greater accuracy in a scientific formulation?

I would suggest then that the "form of life" idea has no immediate practical value in theorizing, but if we were to consider it in another way related to education it might prove useful. The argument is this; since education can be regarded as a "Form of life", the social side of it can be strongly emphasized and systematized. Further to this, such a notion provides us with a valid framework for evaluating questions with normative dimensions (such as "What should the purpose of education be?" or "Who has the right to educate whom?" etc.). Now some theories already provide within their framework answers to such questions (for example "General Systems Theory" or Platonic "Idealism") but it has been seen that these theories cannot be accepted at their foundations. In other words such an articulation will enable us to look at pertinent moral questions without violating the ethical neutrality of education as a social science. We can concern ourselves with the content of value-judgements in education and not merely their basis (the "form of life"). The philosopher of education need not therefore abstract values from their matrix (the social act or social phenomena). In its broadest sense, education is also the learning of "forms of life", though much of the knowledge involved tends to being thought of as academic knowledge. It might be suggested that we were more aware of

significance of our forms of life (i.e. their role in all intercourse to the point where we might say that they organize our lives; both as individuals and group members) we could possibly structure our school curriculum to better advantage. This would imply stressing socio-cultural factors more than is customary; or at least integrating and humanizing the curriculum to a greater extent.

I am therefore suggesting that careful attention to the "forms of life" idea in social science might well provide us with a logic of discovery -- a feature that we noted earlier when Rudner indicated that we have no such logic. In other words, perhaps it is not necessary to have a "true knowledge of reality" before we can isolate the basis of any scientific inquiry. We should perhaps add that the adequacy of such a logic of discovery would only be borne out by the success it theoretically should provide in its subsequent validation.

This chapter has indicated the way in which the logical notions in the later philosophy of Wittgenstein can be used to clarify the important problems in the philosophy of education. This logic also gives the philosophy of education the grounds for its claim to be a social science, because its statements can be seen to be derived from a description of states of affairs that are "social". Wittgenstein's elaboration of "following a rule" and its logical entailments also provides an epistemological basis for theorizing in social science and, ipso facto, education. Education was seen to have close ties with many of the more commonly denoted social science subjects, yet its corpus of linguistic formulations are distinct enough for it to be considered in its own right; indeed they demand this treatment. Perhaps one should also add that Wittgenstein's philosophy of language is just as important a consideration, epistemologically, as the notion of "following rules" and this importance is seen

rather in Chapter III. The reason is that experience is available to us only once it has a linguistic formulation, and to attain the accurate account of experience needed for theorizing and hypothesizing we need to know exactly what our language is committing us to, or as Wittgenstein says, we need to "see things as they are." This can only be accomplished within the order of "facts" and language we already have -- the real task then is to analyse and clarify the concepts we have, to attempt to understand the limits of our language.

NOTES TO CHAPTER IV

1. Max Black, Critical Thinking 2nd.edn. (Englewood Cliffs, N.J., Prentice Hall, 1952). Quoted in Richard Rudner, op.cit. p.8.
2. Richard Rudner, op.cit. p.7
3. Ibid. p.8
4. Ibid. p.3
5. Ibid. p.6
6. Peter Winch, op.cit.
7. H.P. Grice, op.cit., p.41
8. Peter Winch, op.cit. pp. 32 - 33
9. Richard Rudner, op.cit., p.83.
10. Referred to by Richard Rudner, op.cit. p.82.
11. Thomas F. Green, "Teaching, Acting Behaving", in B. Paul Komisar and C.B.J. Macmillan (Eds.) Psychological Concepts in Education (Chicago, Rand McNally, 1967,) pp. 193 - 210.
12. See the above work, articles numbered 11 - 15, which deal with various accounts of "Learning".

SOME CONCLUDING REMARKS

It can be seen that the Wittgenstenian notion of the logic involved in following a rule is not only important to the understanding of behavioural theories, but can be used as a basis for the process of theorizing in any of the social sciences. In particular, an analysis of rule-following indicates that there is a scientific procedure involved in the study of education. This does not apply only to certain areas, such as learning theory (where behavioural theories will replace guess-work), but embraces inquiry into all the statements of the product of education, to the point where it characterizes these statements as belonging to a distinct area of concern. The mode, or form of inquiry, is governed by the logic applied to the statements and this in turn is determined by our interpretation of the idea of following rules: however this latter interpretation is contingent upon a rejection of any idea of universal logic, or natural logic, or any of the other logical concomitants of "Idealism". So we might say that whenever we talk about logic, we are committing ourselves to a certain interpretation of "rules"; our logic is witness to the fact that we think (infer, measure, etc.) alike. It has no connexion with the ethereal, but rather a connexion with the fact that we organize experience similarly to one another; "it is an agreement . . . in forms of life".

Finally, several points should be made by means of clarification. Firstly, there could be a tendency to regard the kinds of suggestions made here as somewhat antithetical to the spirit of Philosophical Investigations where Wittgenstein takes pains to emphasize that many of

our philosophical confusions are due to our "craving" to generalize, classify, etc. in the method of science, and he insists that his work is descriptive rather than explanatory. Whereas, here we have been trying to build a logic of inquiry, to apply a scientific approach to the subject of education. These approaches however are not incompatible even if we allow as most commentators do, that Wittgenstein was perhaps excessive in his demand for description only. What we would rather say is that if Wittgenstein is hostile towards any idea, it is the doctrine of "scientism" and its related species in philosophy (e.g. "essentialism"), This is the belief, culled from misinterpreting the methods of science, that science will answer all questions, i.e. will classify and explain all "reality". In a similar sense we should beware of mistaking the methods of science for the philosophy of science. The methods of science can be interpretative and hence explanatory, but the philosophy remains neutral in this respect, commenting rather on the logical validity of the methodology (which in turn does the interpretation).

In philosophical analysis, one is involved in description, but interpretation comes in as well. In this sense however it is semantic interpretation; it talks about the meaning of words, for example, in what we have called the "natural sense". Hence when doing philosophy we might never find "the answer", if that means we might never find a clear, precise, non-exceptionable definition or meaning to every expression we are dealing with.

Logic therefore, by looking at our commitment in the terminology etc. that we use, will hopefully be able to clarify our methodology, which is a philosophical task. To use the distinction suggested by Wesley Salmon, which he has derived from N.R. Hanson, we might allow that logic will clarify our plausibility arguments in relation to hypotheses as well.¹ But we could not go as far as Hanson suggests and use the

philosophy of logic as a logic of discovery i.e. treat logic as capable of generating conjectures that are plausible enough to be treated as hypotheses (this process being distinct enough to count as non-psychological although a psychological element does enter the formulation of all hypotheses). Wittgenstein would tend to argue for a strong psychological basis to plausibility arguments as would be indicated by his remarks on "induction".

Stress on logic should not make it seem that method is all important as an end in itself. The substance (organized experience) is equally as important, but without adequate scientific forms of inquiry (method) a suitable characterization of the new experience will not be obtained. In education, much effort is needed to break the substance from the erroneous hold of false and inaccurate doctrines; logical analysis, within a scientific framework only, will achieve this; and that in the manner outlined in this work.

Ultimately the question will be asked; "How are we to test and justify the theory of logic we propose?" One can test it in application in a way that has already been shown, i.e. it will clarify or refute certain theories and hypotheses. Of this work, the latter (falsification or refutation) is probably the most important. Karl Popper's stress on the possibility of falsifiability (as against the logical possibility of verifiability -- in that no number of favourable instances can achieve what one instance of falsifiability can, i.e. a certain statement of truth-value) as a "hallmark of empirical science", accords well with the Wittgensteinian emphasis on logical analysis as an attempt to diagnose an illness or as a therapeutic task. A standard example of this kind of treatment is conceptual analysis of a term like "understanding", where attention to the full grammatical commitment reveals that which we cannot

say about the concept (it refutes certain accepted doctrines and notions).

Clarificatory application of logic is usually seen within deductive systems and here again the Wittgensteinian notions are harmonious with prevailing scientific thought. Although Wittgenstein's philosophy of logic emphasizes the non-necessary character of logical laws, it also (as opposed to the extreme conventionalist view) recognizes that this logic arises out of language and hence they are derived from our "facts of everyday life", such facts being that we think alike, measure alike, judge alike, etc. A logical law will therefore have at least this much stability behind it -- and anyone who is not prepared to accept this kind of reason for consistency within any system, is only going as far as saying that he cannot accept foundations for any agreement. This contention must then be measured against the fact that we do have a large measure of agreement in myriad affairs.

Perhaps then this is the only justification we can offer for our theory, or better, "notion" of logic. Or is it a justification to say that most communication "works" despite its tenuous foundations? Such a claim involves one in normative and psychological considerations, as well as those of empirical testability, etc.

In the discipline of education the ultimate measure of success will of course be seen in practice, but at least such practice will be guided by theories that have been subjected to rigorous analysis in the way that those of any other science normally are.

A logic of education then, derived from Wittgenstein's notions of "rules", "rule-following" and "logic", will enable us to make a legitimate claim for regarding education as a social science and it will further provide the means of clarifying and validating the theories built out of the corpus of statements which constitute this branch of social science.

NOTES TO CHAPTER V

1. Wesley Salmon, The Foundations of Scientific Inference, (Pitt Paperback; University of Pittsburgh, 1966), pp. 111-114. In this work, Salmon refers to the Logic of Discovery propounded by N.R. Hanson in an article "Is there a Logic of Discovery?", Current Issues in the Philosophy of Science.
2. Ibid. Salmon is referring to the well-known position of Karl Popper, found particularly in The Logic of Scientific Discovery, (New York: Basic Books, 1959).

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