THE GRAMMAR OF PSYCHOLOGY: WITTGENSTEIN'S BEMERKUNGEN OBER DIE PHILOSOPHIE DER PSYCHOLOGIE

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1. Building-stones

During his lifetime Wittgenstein published only one book: the Tractatus. In the last quarter of a century his literary executors have released at first a trickle, and more recently a veritable flood of his literary remains. These posthumous publications reveal Wittgenstein's mature work as concentrated in three main areas: philosophical logic, philosophy of mathematics and philosophy of mind. All three concerns are linked by a common conception of the scope and limits of philosophical inquiry and by a unifying strategy of investigation. The latest pair of volumes, entitled Remarks on the Philosophy of Psychology (Wittgenstein, 1980a, b) are not, and were never intended as, autonomous philosophical works. They are derived from two large typescripts (Nos. 229 and 232 in von Wright's catalogue) which Wittgenstein dictated in 1947-8 from his rough notebooks of 1946-8. These notebooks and typescripts were themselves used in the compilation of what is now known as Philosophical Investigations Part 11 and Zettel. Approximately a third of the material here published has therefore already been printed. What are arguably the best of the thoughts were extracted from the two typescripts by Wittgenstein himself, and are already well-known from these two earlier books. Nevertheless, much that comes fresh to light is of interest, either because of the illumination it sheds upon familiar material, or because it involves detailed treatment of new themes (e.g. of mental imagery),

Given that what is here published are neither books nor drafts of books, but rather raw materials to be quarried for works that were never completed, it would be amiss to try to survey them as unified essays in philosophical psychology. They do, however, invite one to stand back from this relatively inchoate material and reflect upon the overall shape and direction of movement of Wittgenstein's reflections on philosophy of mind. It is immediately visible that his ideas stand in dramatic contrast to much current theorizing in philosophy of mind, empirical psychology, and that curious branch of intellectual activity that treats Chomsky's grammatical theories as established matters of fact about the real machinery of the mind. Juxtaposing his work with that of advanced modern scientific philosophy of psychology induces as deep a shock, and generates as violent responses, as seeing Adolf Loos's architecture in juxtaposition with the decadent convolutions of nineteenth century Viennese baroque. In this essay, we shall try to adumbrate the main contour lines of Wittgenstein's philosophy of mind, focusing, as far as possible, on general principles. Although we shall not be concerned exclusively with these two new volumes, where we can we shall illustrate our points by reference to remarks in them.

2. Principles of construction

Perhaps the most notorious observation Wittgenstein made about psychology is that

the confusion and barrenness of psychology is not to be explained by calling it a "young science"; its state is not comparable with that of physics, for instance, in its beginnings. . . . For in psychology there are experimental methods and conceptual confusion. The existence of the experimental method makes us think we have the means of solving the problems which trouble us; though problem and method pass one another by (Wittgenstein, 1953).[2]

This provocative remark was written in the 1940s. To the space-age psychologist it will doubtless appear to be antediluvian. But it is a moot point whether psychology has, in the last three decades, at last set itself upon 'the true path of a science'. Only by examining the grounds Wittgenstein had for making this seemingly outrageous (or, alternatively, obsolete) remark can we judge its bearing on current intellectual endeavours.

Wittgenstein distinguished sharply between conceptual, philosophical investigations and empirical, scientific ones. Conceptual investigation is logically prior to empirical theory building, and no factual discoveries concerning what is signified by a given concept can have bearing on the philosophical clarification of that concept (just as no empirical measurements can have any bearing on what we mean by our metric terminology). This does not imply that empirical discoveries may not induce us to modify existing concepts (e.g. to abandon, for scientific purposes, the normative role of the Standard Metre in Sevres and to replace it by a certain number of wavelengths of the light in a certain line in the spectrum of cadmium). But clarification of existing concepts is not furthered by substitution of novel ones, and resolution of puzzles generated by existing concepts is not achieved by substitution of different ones. Nor does it imply that our current concepts are sharply bounded (Wittgenstein stressed that criteria and symptoms typically fluctuate in the case of scientific concepts). It does, however, imply that philosophical problems cannot be solved by recourse to science. In the particular case of philosophy of mind, the supposition that psychological experiments can lend support to philosophical analysis is plainly confused. So the fact that some cognitive psychologists foolishly conduct experiments which rest on the assumption that, e.g., propositional attitudes are relations between 'organisms' and 'mental representations' is no reason whatever for supposing that jejune philosophical analyses of 'believe', 'think', 'desire', etc. as signifying such relations are 'probably true' (Fodor, 1981).

The concepts which philosophy of mind must clarify are everyday concepts .[3] "They are not the technical terms of art of an advanced science. When a philosopher attempts to elucidate the concept of mind, of thinking or believing, of wanting or intending, of sensation or emotion, he is in the business of clarifying common-or-garden concepts which we all employ in our daily discourse. It is also noteworthy that the basic concepts in empirical psychology (unlike the fundamental concepts of physics) are the ordinary concepts of daily life. When experimental psychologists investigate thinking or feeling, mental images or emotions, they are not investigating anything different from what the non-psychologist is talking about when he says that he thinks it is time for tea, that he feels ill, that he has a vivid image of Magdalen tower. Hence although psychological investigations into empirical facts about thinking, believing, or remembering can have no direct bearing on philosophy of mind, the conceptual clarifications of the philosopher are, in principle, highly relevant to the psychologist's work. The endemic sin of the

experimental psychologist, the sin which explains and justifies Wittgenstein's remarks that 'problem and method pass one another by', is to neglect the conceptual investigations which are preconditions for fruitful, intelligible experiments. The empirical psychologist is, for example, prone to contend (correctly) that

> "Thinking is an enigmatic process, and we are a long way off from complete understanding of it." And now one starts experimenting. Evidently without realizing what it is that makes thinking enigmatic to us. The experimental method does something; its failure to solve the problem is blamed on its still being in its beginnings. It is as if one were to try to determine what matter and spirit are by chemical experiments."

Unless the experimentalist has first clarified the psychological concepts he employs in conceptualizing the data he wishes to explain or explore, unless he separates out the conceptual puzzles (which are legion) from the empirical questions, his experiments can be guaranteed to multiply confusion. If mental images are unquestioningly taken as pictures or models which differ from physical pictures or models only in being in an `ethereal medium' immediately accessible to their owner alone, then the 'results' of the cognitive psychologist are bound to converge on the absurd.

Our psychological concepts, Wittgenstein insisted, are widely ramifying, lacking in unifying employment and not readily surveyable. They are not typically illuminatingly defined by anatomization into necessary and sufficient conditions. Nor can they be explained by private ostensive definition,' for one does not acquire the concept of a headache, of C intending or dreaming, of understanding or depression by having a headache, an intention or dream, by understanding or feeling depressed. To possess a concept is a capacity, and it is neither necessary nor sufficient for acquisition or possession of such a capacity that one have such-and-such experiences, any more than running up debts is necessary or sufficient for having the concept of a negative number. The only way to get a given psychological expression into sharp view is to elaborate in detail its manifold uses, to examine the circumstances of its employment.

It is sometimes thought that one can short-cut the laborious examination of individual cases by generalization, and recourse to categorical expressions. Thus an eminent contemporary philosopher begins an investigation with the stipulation that he will 'use the term "thoughts" to stand for states and occurrences such as thoughts, beliefs, desires, etc.' (Harman, 1981). This tendency Wittgenstein condemned as 'contempt for the individual case' which can lead to nought but confusion. Wanting to become an engine driver is not a state (it is not interrupted when little Tommy watches television, plays hide-and-seek, or goes to sleep) nor an occurrence (although it may have been an occurrence which stimulated the desire). Believing and thinking are likewise neither states nor events, although fragments of their complex use may run parallel to the use of 'state' and 'occurrence'. The generalization is crude and mistaken. The recourse to seemingly `hard' categorical concepts is in vain. When we invoke such concepts as experience, occurrence, process, state, thing, fact, Wittgenstein observed, we think we are standing on the hard bedrock, deeper than any special methods and language-games. But these extremely general terms have an extremely blurred -meaning. They relate in practice to innumerable

special cases, but that does not make them any solider; no rather it makes them more fluid?

The positive task of philosophy of mind is the clarification of psychological concepts and the resolution of philosophical problems about the mind; it is not concerned with constructing theories about the mind which might complement or compete with empirical theories in experimental psychology. Its negative task is the destruction of false or misleading pictures (conceptions) of the mental, pictures which commonly inform experimental psychologists' empirical research (and lead it awry), and which are endemic among philosophers who conceive of themselves as constructing 'theories' of the mind. The correct method in philosophy of mind is the description of the use of mental expressions, of the circumstances in which they are employed, the complex grammatical structures in which they occur (and those in which they cannot significantly occur), of the behavior in different circumstances which provides grounds for their use, and of the purposes and roles of the utterances in which they occur. At first blush this seems irrelevant, since we are inclined to say that we are not interested in words, but in the nature of the mental. It seems redundant, since we are prone to claim that we all know what the ordinary words 'think', 'want', 'fear', etc. mean and that we know what phenomena these words signify and what states of affairs are described by sentences incorporating them. Indeed, since our interest is in the phenomena themselves, in the real nature of thought and emotion, and since the words of our psychological language signify these phenomena, the right method in philosophy of mind is surely the direct experimental study of the phenomena. This approach promises to kill two birds with one stone: a proper science of mental phenomena will both uncover the hidden nature of psychic phenomena and determine definitively what the words of our psychological language really mean. After all, excessive preoccupation with the discourse of the man on the Clapham omnibus may merely glorify the primitive metaphysical theories which he has picked up in the course of his life.

Against these naive responses Wittgenstein wars incessantly. Our philosophical interest in 'the nature of the mental' is a concern for a perspicuous representation of mental concepts, and these are manifest in the ways in which we use psychological expressions. Though we all know how to use them, though we can, indeed, explain our use of these words by examples, paraphrase, exemplification, etc. - we cannot readily survey the manifold uses with their complex articulations in such a way that will resolve philosophical problems. The sense in which we know what phenomena are signified by 'think', 'want', 'fear', etc. is merely that we do think, want and fear things, and can say so, not that we command a clear view of these concepts. Absence of a clear view is manifested in the puzzles and problems we raise and in the confused manner in which we try to resolve them. We wonder how it is possible for a person to understand a sentence he has never heard before. Congratulating ourselves on our profundity, we hasten to construct baroque castles in the air in response to this deep question, rather than probing the dubious presuppositions underlying the question itself. We wonder how one can recognize the use to which a sentence is put by a speaker, and postulate a hidden speech-act operator present in the depth-grammar of every sentence and only eliminated in the surface grammar by a deletion operation. We puzzle how we can recognize the bearer of

a name as the bearer of that name, and postulate 'senses' associated with the proper name which are 'means of recognition'. Little do we pause to wonder whether there must be a 'how' for every 'do'! We speculate upon the role of images in memory and recognition, failing to appreciate that to the extent that there is any problem about the recognition or recollection of an object, there is just as much a problem about 'recognizing' the putative image as an image of it.'

Psychologists tend to construe such questions as calling for a research programme of systematic observation and experiment with respect to the empirical nature of understanding, recognizing, imagining, remembering. But at least some of these apparently deep questions (and some of the huge number of 'basic issues in psychology' which we have not men by experimental investigations of thinking, feeling, imagining, etc. is a misconception rooted in a primitive picture of meaning according to which the meaning of an expression is the 'object' it stands for. This Urbild Wittgenstein denominated 'Augustine's picture of language', and against it and its sophisticated theoretical offspring he argued extensively (and definitively) in the Philosophical Investigations.

One typical reaction to the movement of Wittgenstein's thought he clearly anticipated:

> What is it that is repulsive in the idea that we study the use of a word, point to mistakes in the description of this use and so on? First and foremost one asks oneself: how *could that* be so important to us? It depends on whether what one calls a 'wrong description' is a description that does not accord with established usage—or one which does not accord with the practice of the person giving the description. *Only in the second case does a philosophical conflict arise.* [11]

> Less repulsive is the idea that we form *a wrong picture* for ourselves, say of thinking. For here one says to oneself: at least we have to do with thinking, not with the word 'thinking'.
> So we form a wrong picture of thinking. But of *what* do we forma wrong picture; how do I know, e.g. that you are forming a wrong picture of *that, of* which I too am forming a wrong picture?
> Say, not: "We have formed a wrong picture of thinking"—but: "We don't know our way about in the use of our picture, or of our pictures." And hence we don't know our way about in the use of our word.
> Very well—but this word is surely interesting to us only in so far as it actually possesses for us a quite particular use, and so already relates to a particular phenomenon!—That's true. And that means: our concern is not with improving grammatical conventions. —But what does it mean to say: "We all know what phenomenon the word 'thinking' refers to"? Doesn't it simply mean: we can all play the language-game with the word "think"? Only it produces unclarity to call thinking a 'phenomenon', and further unclarity to say "we form a wrong picture *of* this phenomenon". (One might really rather say "a wrong concept".)[12]

Finally, it must be stressed that though the man on the Clapham omnibus may have various primitive theories to hand, may have vaguely Cartesian pictures of the mind or (what is more probable today) a vague idea that the mind is just the brain and that psychological terms designate neurological processes in a complex biological computer, these primitive theories do not enter into his ordinary uses of psychological language. English contains no theory of the mind; declarations of intent, expressions of fear,

avowals of opinion, reminiscences of childhood, manifestations of grief or remorse, or joy or triumph are not contaminated with seventeenth century philosophy nor with space-age metaphysics, although it may contain a multitude of metaphors, figures of speech, verbal pictures which are readily misinterpreted as so doing. The way we use psychological language shows what concepts we have and it is this which philosophy of mind must investigate.

> For 'naive language', that's to say our naive, normal, way of expressing ourselves, does nor contain any theory of seeing—it shows you, not any theory, but only a concept of seeing.[13]

The proper description of our psychological language is not as easy as it sounds. Though related to, and usefully supported by, a descriptive grammarian's work, it is yet distinct. The grammarian is not concerned with the significance of the fact that first person, present tense, psychological statements differ from third person, present tense, statements in being (typically) groundless (my avowal of intention to go to London tomorrow does not rest on any evidence, either inner—since I do not read my intention off any inner perturbation, nor outer—since I do not discover what I intend from observing what I am doing). The grammarian does not investigate the fact that these first person psychological utterances are such that truthfulness guarantees their truth, that they are not an object of subjective doubt or certainty ('I doubt whether I intend to go' does not mean 'Either I intend to go, or I don't, but I do not know which'). The grammarian need not examine the import of the fact that it makes sense to believe that another believes such-and-such, but not to believe that I believe such-and-such. But it is such features as these which are grist to the philosopher's mill.

It is not merely that sensitivity to language, rich imagination, and painstaking attention to numerous subtly differentiated cases is necessary for such philosophical exercises, but that one must unceasingly struggle against false pictures of the mind that intrude them-selves between the complex linguistic and behavioural phenomena and their correct philosophical description. Wittgenstein adumbrated and analysed some of these with a skill unparalleled since Kant's 'Dialectic'. Cartesian dualism, behaviourism, materialist neurophysiological reductionism are all assailed directly or obliquely, and demolished such modern fads as 'computational functionalism' are not, of course, discussed, Wittgenstein's elaborate anatomy of conceptual muddles about the mental furnishes ample materials for the extirpation of such novel forms of confusion.

Investigation in the philosophy of mind consists in the study of concepts, not of facts and theories about the mind. Numerous pitfalls stand in the way of a sober, systematic description of our use of psychological expressions. We are strongly tempted by the mystique of the mental, the idea that what we are speaking of is singularly elusive, mysterious, intangible. This stems in part from approaching the problem from the wrong angle, as one commonly does in philosophical investigation. When we ask what time it is, announce that it is time for dinner, notice that time is flying and that we must go, time does not appear mysterious, intangible, elusive. Only when we confront the question `What is time' en face does it seem that we are struggling with an impossibly difficult, intractable, question. So too in philosophy of mind. When faced with such questions as

`What is the nature of understanding?', 'What is an intention?', 'What is it to believe that such-and-such?' we feel that we tremble on the brink of the ineffable. We are inclined to think that these expressions are 'indefinable', like 'sweet', 'green', 'C-flat', that one must experience understanding, belief, intending in order to understand the correlative expressions. But 'sweet', 'green', 'C-flat', etc. unlike psychological predicates are explained by ostensive definitions involving samples, samples that can be exhibited to public view. In response to this, philosophers are prone to think that although one cannot exhibit understanding, intending, believing, etc. to public view, they are available to their subject in introspection. Hence it seems that one can discover what intentions are, what mental images are like, what the nature of emotions is, by 'the introspective method'. But, Wittgenstein insists,

> Introspection can never lead to a definition. It can only lead to a psychological statement about the introspector. If, e.g. someone says: "I believe that when I hear a word that I understand I always feel something that I don't feel when I don't understand the word"—that is a statement about his particular experiences. Someone else perhaps feels something quite different; and if both of them make correct use of the word "understand" the essence of understanding lies in this use and not in what they may say about what they experience. [15]

Since there is no such thing as private samples, a fortiori no such thing as private ostensive definition, just as there is no such thing as castling in draughts (but not like: there is no such thing as a six foot domestic cat), psychological concepts cannot be explained by introspection. All introspective reports can provide is a variety of experiences or phenomena accompanying understanding, believing, fearing, wanting. These accompaniments are neither necessary or sufficient for the application of such psychological predicates. Disillusion with the introspective method may lead philosophers and psychologist to `probe deeper'. May it not be that the essence of believing, thinking, etc. is to be found at depths 'far beyond the level of actual or even potential consciousness'? (Chomsky, 1965). A computational functionalist may 'postulate' the existence of unknown mental representations in order to 'explain' what it is to believe something. Someday neurophysiology will tell us, he may think, how these abstract 'functional states' are 'realized'; a materialist may go farther and insist that psychological expressions 'really' signify neurological structures in the brain.

But what is necessary here is not probing deeper. There are no depths here any more than in a mirror; or rather, the only depths are the depths of confusion. The neurophysiologist may uncover neural correlates of experiences (but believing, understanding, thinking, etc. are not experiences) or neural preconditions of the possession of certain capacities. But whatever he discovers are at most correlates of, or structural preconditions for, wanting, feeling, thinking, believing, understanding, etc. If our first quarry is a grasp of what it is to want, feel or believe, to understand, remember or mean something, then we must look around—at our use of psychological language. Wittgenstein warns harshly against the lure of neurophysiological explanations of conceptual puzzles:

> Thinking in terms of physiological processes is extremely dangerous in connection with the clarification of conceptual problems in psychology. Thinking in physiological hypotheses deludes us, sometimes with false

difficulties, sometimes with false solutions. The best prophylactic against this is the thought that I don't know at all whether the people I am acquainted with actually have a nervous system. [17]

The point is not to decry neurophysiological investigation, nor even its bearing on empirical psychology. It is rather to ensure its elimination from the philosophical clarification of psychological concepts. For our use of psychological expressions is not internally related to any neurophysiological on-goings (about which we are typically wholly ignorant). Our grasp of the use of this segment of language is wholly independent of any knowledge of brain-structures. The rules for the use of these terms make no reference to events in the nervous system. Hence any empirical findings of neurophysiology have no relevance to philosophy of mind save insofar as they throw up fresh conceptual puzzles and confusions. The study of psychological concepts is a descriptive investigation, not a theoretical one. Philosophy of mind is not in the business of constructing hypotheses within a theory of the mind. Hypotheses which may be confirmed or confuted by experimental tests have their home in empirical science, not in philosophy, The study of psychological concepts involves scrutinizing relations of concepts, not of phenomena. Clarification of the concept of perception, for example, will come only from comparing and contrasting the concepts of seeing, hearing, tasting, smelling, feeling; and this by way of examining the use of perceptual verbs and their cognates. A clarification of the concept of a mental image will not come from asking subjects of psychological experiments whether they can speed up the rotation of their mental images, whether they can 'zoom in' on them (Block, 1981; Kosslyn and Pomerantz, 1981), 'increase their size', etc. but by examining the circumstances in which we have recourse to talk of mental images, by contrasting the way we speak about mental imagery and the ways in which we speak about after-images, or about hallucinations, by comparing what we say about seeing public objects and how we speak of images, by distinguishing what may intelligibly be said- of actual pictures from what may be said of images ('The image is not a picture, nor is the visual impression one. Neither "image" nor "impression" is the concept of a picture, although in both cases there is a tie-up with a picture, and a different one in either case').[18] It is not factual associations or concomitants that the philosopher is concerned with, but conceptual articulations, Hence the connection between the concepts of seeing, looking, glancing, noticing, attending, observing all have bearing on a correct delineation of our concept of mental imagery, as do the notions of activity, voluntariness, of mistake and misidentification ('The dagger which Macbeth sees before him is not an imagined dagger. One can't take an image for reality nor things seen for things imagined. But this is not because they are so dissimilar').[19]

The temptation to distort the descriptive investigation by imposing patterns on the conceptual phenomena is very great. We are tempted to 'adjust' what we delineate in our investigation, to impose more order upon the untidy skein of our use of words than is actually there. Wittgenstein warns against this. Our psychological concepts are untidy, disorderly. But if our goal is to clarify the concepts we have (not to invent new ones under the guise of examining current concepts) then we must eschew this path:

Mere description is so difficult because one believes that one needs to fill out the facts in order to understand them. It is as if one saw a screen with scattered

> colour-patches, and said: the way they are here, they are unintelligible; they only make sense when one completes them into a shape.--Whereas I want to say: Here is the whole. (if you complete it, you falsify it.)[20]

A similar error is to jettison correct descriptions of the use of an expression in simple cases as being too simple when one encounters its use in much more complex cases in which the simple description does not fit:

> When one describes simple language-games in illustration, let's say, of what we call the "motive" of an action, then more involved cases keep on being held up before one, in order to show that our theory doesn't yet correspond to the facts. whereas more involved cases are just more involved cases. For if what were in question were a theory, it might indeed be said: It's no use looking at these special cases, they offer no explanation of the most important cases. On the contrary, the simple language-games play a quite different role. They are poles of a description, not the ground-floor of a theory. [21]

The unity of many of our psychological concepts is not forged by a set of necessary and sufficient conditions which bind together a complex array of characteristic marks. And considering that our concepts are the product of the historical evolution of language in response to a multitude of complex, varying pressures and purposes, is it not foolish to suppose that there must be here a tidy, 'geometric', order?

3. Grand strategy: the ground design

Psychological concepts are not typically explained by a sharp definition in terms of necessary and sufficient conditions, nor by private ostensive definition by reference to inner samples of mental expressions or events. Wittgenstein sometimes suggests that many such concepts are family-resemblance concepts, knit together like the fibres of a rope by tenuous, overlapping but discontinuous, strands. They are explained by describing the multifarious circumstances of their use. If the question 'What is the essence of thinking (remembering, intending, understanding)?' is a demand for necessary and sufficient conditions for the use of these expressions, then the answer is that they have no essence-We are inclined to attempt to penetrate beneath the complex network of particular kinds of cases linked together, under the concepts of, for example, thinking, intending, recollecting, to demand what these psychological states, events, etc. consist in. Again, Wittgenstein stops us in our tracks: the very question contains the seeds of confusion. Some cases of thinking may be or involve states or events, others may not. Suddenly understanding what someone meant is a clockable happening, understanding English is not. The categorical terms already mislead us. One can either say that the complex reticulation of elaborated cases are what remembering consists in, or alternatively deny that remembering (thinking, understanding, etc.) consists in anything.

The various forms of mentalism try to explain psychological concepts by reference to `inner' phenomena, introspectively accessible to a subject. Behaviourism tries to explain them by reference to publicly observable behaviour. Wittgenstein repudiates both strategies. The behaviour correlated with instantiation of psychological predicates is not, as the mentalist thinks, merely inductively correlated with, e.g., remembering, fearing,

being in pain. That presupposes non-inductive identification of the 'inner', which in turn presupposes the correctness of the myth of private ostensive definition. Nor is the psychological phenomenon reducible to the behaviour correlated with it, as the behaviourist supposes. One of Wittgenstein's primary innovations in philosophy of mind was to steer the treacherous channel between the rocks of behaviourist reductionism and the whirlpools of mentalism. He did so by a radical reorientation of perspective upon the notorious asymmetry between first- and third-person, present tense, psychological statements.

Statements about other people's experiences, perceptions, desires, emotions, etc. are made on the grounds of their behaviour in context. But I do not say that I am in pain, that I intend to go to London, that I am angry, etc. on the basis of my observation of my behaviour. The mentalist conceives of the first-person utterance as a report, a description of an inner process to which the subject has privileged access. Hence he conceives of the third-person report as derivative, as an inductive hypothesis based upon correlation of behaviour with the 'privileged' first-person reports. The behaviourist conceives of the third-person report as enjoying primacy, since psychological predicates are reducible ('in principle') to behavioural ones. Hence he is forced to view the first-person report as 'mere behaviour' and hence of the words uttered as mere noises which are emitted by the subject of psychological predicates. Wittgenstein argues, against the behaviourist, that behaviour does not entail the instantiation of the given mental predicate. Pain-behaviour may occur without the person being in pain; one may pretend to be afraid without being so. Equally, absence of requisite behaviour does not entail non-instantiation of the psychological predicate: one need not scratch every itch, confess every thought, fulfil every intention. Against the mentalist, he denies that the behaviour in the appropriate context is mere inductive evidence of the mental. The grounds for the application of mental predicates lies in the behaviour in given circumstances; it is this which justifies the judgement that another person is in pain, is thinking, understands, is afraid. The nexus is neither inductive nor entailment, but criterial. A criterion is a presumptive implication, non-inductive evidence supporting a judgment. Pain behaviour, e.g. in the circumstance of an injury is logically, not inductively, good evidence of suffering. We learn to say that some one is in pain in such circumstances. We teach children to say that someone is in pain when they observe such behaviour, we explain what it is to be in pain by reference to pain behaviour in circumstances of an injury. The nexus is conceptual, not empirical. But such criterial evidence is defeasible. It may be defeated by further evidence, either from broadening the context (as when the behaviour occurs in a play) or from subsequent behaviour (as when the person confesses to pretence). Defeasibility does not imply uncertainty; unless the criterial evidence is actually defeated, it confers certainty on the psychological judgment.[22] Since there is no more to the meaning of an expression than its correct use, a description of the grounds justifying the use of a psychological predicate (of the criteria for its application) is an explanation of its meaning.

What then of the first-person psychological utterance? Wittgenstein views it as a learnt extension of primitive pre-linguistic behaviour. The vast range of our avowable inner life is rendered possible by the grafting of language onto natural ('animal') behaviour. A baby hurts itself and cries; later it learns to replace its cries with 'It hurts', 'I am in pain', 'I have a headache'. A child reaches for a toy beyond its grasp, screams with frustration, jumps

futilely to obtain the object of its desire. Later it learns to say 'I want'. It dreams of lions attacking it, awakes in tears, crying 'Mummy, a lion is chasing me'. Later it learns to say, 'Mummy, I dreamt a lion was chasing me'. And so on. As the linguistic superstructure evolves, the possibility of thought and experience grow and expand. As temporal expressions are mastered, the child becomes capable of wanting not only this toy, here and now, but a toy of such-and-such features next Christmas. But its claim to want a (currently) non-existent object at a future date no more rests on introspective observation of its inner state (let alone of its 'internal representations in the language of thought'!)" than its puny bouncing in its cot in the endeavour to reach a doll rested on such observations- (Although that is not to say that all our desires are spontaneous; frequently they are formed only after reflection and deliberation.) Thought and experience expand: contrary to the traditional pictures of language as a mere vehicle or instrument of thinking and communication, or of experience as something given and then subsumed under concepts, concepts are absorbed into experience. Numerous facets of 'seeing aspects', on which Wittgenstein lavishes extensive attention in the two new volumes of notes, exemplify this feature. Alternatively to see the duck and the rabbit in Janow's figure, to see a triangle as standing now on its base now on its side, are experiences accessible only to language-users, since the experiences themselves are run through, saturated, with concepts.

Wittgenstein calls typical first-person present-tense psychological utterances manifestations (Auberungen)[24] of the mental. They are not uttered on the basis of any grounds, they do not rest on introspective evidence. I do not read off my thoughts from an inner screen nor translate them from 'the language of thought' which, according to some, my mind (or brain?) speaks and then report them out loud (although I may think something and not say so). I do not discover my intentions from introspective observation, I form them—and manifest them in speech or action (or keep silent, or abandon them). But my overt avowals of pain, recollection, intention, understanding, etc. constitute criteria for others to ascribe these psychological predicates to me. Their judgments are justified (non-inductively) by such (linguistic) behaviour in appropriate circumstances. My utterances are not justified by anything (which is not to say that they are mindless mouthings, as the behaviourist must perforce construe them). For they do not rest on evidence of any kind. It is a standard misconception to construe a typical utterance of this type as a description; but the point and purpose of such avowals in *toto mundo* different from that of descriptions and reports (which are themselves heterogeneous): 'What are called descriptions of experience-contents are only a small group of these 'indisputable' Auberungen.'[25] But the fact that so many of our psychological expressions can be used in avowals and occasionally also in reports, and may sometimes fluctuate between these poles is an important datum:

> If 'I tell you "I have been afraid of his arrival all day long"—1 could, after all, go into detail: Immediately upon awakening I thought . . . Then I considered . . . Time and again I looked out of the window, etc., etc, This could be called a report about fear. But if I then said to somebody, "I am afraid ..."—would that be as it were a groan of fear, or an observation about my condition?—it could be either one, or the other: It might simply be a groan of fear; but I might also want to report to someone else how I have been spending the day. And if I were now to say to him: "I have spent the whole day in fear (here details might be added) and now too I am

full of anxiety"—what are we to say about this mixture of report [Bericht] and manifestation[26] [Auberung]? Well, what should we say other than that here we have the use of the word "fear" in front of us? [27]

This emphasis upon the complexity, unruliness, lack of sharp contour lines of typical psychological concepts, upon their similarity in certain contexts to the forms of some other type of philosophically favoured concept (state, or event, or process) together with complete dissimilarity in other contexts, is altogether characteristic of Wittgenstein's philosophy of mind. He strives constantly towards a correct description of our psychological concepts as they are, and struggles to avoid the manifold temptations of forcing them into a favoured mould which gives the appearance of being more readily manageable, which seems to allow us to proceed with the construction of grandiose philosophical theories or revealing psychological experiments. For the price of succumbing to these temptations is distortion of the concepts we wish to bring into focus, construction of pseudo-theories, and elaboration of experiments that give only the illusion of answering our problems.

4. Ground-plans and preliminary elevations

This sketch of the general principles informing Wittgenstein's philosophy of psychology has omitted the numerous qualifications, subtleties and fine detail which run through his incomplete reflections on this subject. But enough has, perhaps, been adumbrated to make clear the great importance of his work not only for philosophy of mind, but also for empirical psychology, not only for philosophy of language, but also for theoretical linguistics. His fragmentary remarks on a host of topics, e.g. on thinking, understanding, belief, knowledge, intention and the will, emotions, imagination, seeing aspects, uniformly bear the hallmark of his highly original vision. Although nothing there is finished, sufficient of the basic design is present for one to glean some idea of how to further the investigation into psychological concepts. In this context, however, it is not possible to examine each of the many topics he discusses in order to describe and evaluate his remarks on them. Instead, we shall attempt to indicate the kinds of factors Wittgenstein thought it appropriate to consider in such investigations." A brief conspectus of what one might call the multiple interlocking logical spaces in which our psychological concepts are located may serve to give the flavour of Wittgenstein's thought as well as to indicate the complexity and unruliness of such concepts.

(i) *First/third person asymmetry*. Typical psychological concepts display such asymmetry. First person present tense utterances are standardly groundless, whereas corresponding third person utterances rest on (are justified by) behavioural evidence. First person utterances are most commonly not reports, but avowals, expressions or manifestations of the psychological feature. As noted above, there are gradations and `mixtures' (also exceptions, e.g. being intelligent, neurotic). This feature requires detailed scrutiny in each individual case.

(ii) *Epistemic considerations*. Associated with the first/third person asymmetry are asymmetries with respect to knowledge, doubt, certainty and belief. It makes sense for me to doubt whether you are in pain, but not to doubt whether I am in pain. I may believe

that you believe something, but it makes questionable sense to say that I believe that I believe such and such, for this is arguably a form of words with no use or point. In the case of pain, truthfulness of an avowal guarantees truth, in the case of understanding it does not, even though the sincere exclamation 'Now I understand' is typically a groundless avowal of understanding. For I may be wrong in thinking that I have grasped the point. It makes sense to say 'I think I understand; let's see', but not to say 'I think I intend to go; let's see'.

(iii) *Temporality*. Different psychological predicates display different kinds of relations with respect to time. One can suffer pain for a moment, see a movement in a split second, come to understand something in a flash, but one cannot love someone in a flash or understand a language for a moment. Sensations have genuine duration, often have determinate beginnings and endings, last for a time and then abate; so too do emotional states such as rage, joy, terror. Listening or attending go on for a time, may be interrupted and then resumed. Intending, knowing, understanding do not have genuine duration, cannot be interrupted and resumed (forgetting and later remembering is not an 'interruption' of knowledge or understanding). One may engage in thought for a time, but thinking a particular thought takes no time (there is no such thing as thinking two-thirds of a specific thought any more than there is such a thing as half a proposition).

(iv) *Location*. Sensations have a bodily location in the sense that their owner can non-evidentially point to, or specify, where he has them, even though there is no local characteristic about the sensation itself. (Kinaesthetic 'sensations' so-called are anomalous: knowing the disposition of one's limbs is not a matter of, e.g., having a 'bent knee sensation' in one's knee.) Perceptions, such as seeing or hearing, have no location, but are associated with an organ: one sees with one's eyes, but not in one's eyes, and one's visual impression has no location. A fortiori thinking, intending, enjoying have no location; one no more thinks in one's head that one loves in one's heart. But nor is the brain the organ of thought, as the eye is the organ of sight, even though one's power of thought is typically affected by disruptions to the functioning of the brain (e.g. alcohol) just as one's power of sight may be affected by disruptions to the functioning of the eye (or brain).

(v) *Ordinality*. Sensations have degrees and qualitative mixtures, from the scarcely perceptible to the intense (although in this sense, there are no sensations of location or movement). So do emotions. Perceptions, however, are ordered' by clarity and distinctness, rather than by intensity. Understanding is subject to degrees, since one may understand more or less well, completely or partially. Knowing a given truth, however, does not admit of degrees (unlike knowing how to do something). Intentions are not intense or barely perceptible, nor clear or indistinct (as are perceptions or recollections) but rather firmly held or tentative, clearly or indistinctly formulated. Desires may be strong and intense, or weak and vague.

(vi) *Subjection to the will*. Perceptions and sensations are not subject to the will (except in the sense that one can close one's eyes or avert one's gaze, listen attentively or merely put

up with the noise). Imagining and having images is, at least partly, voluntary. One can typically summon up or banish a mental image, but not a visual impression. Emotions are partly controllable by will, and one can be trained in self-control; but they cannot be summoned up at will. One can decide to think about such and such, but not to understand such and such. One can order someone to imagine something, but not to understand something (save in such utterances as 'Understand this: you must leave before midnight!') One can tell someone to look at something, but not to see something, But one can try to see something, by approaching closer, and one may try to imagine something, by shutting one's eyes; yet one cannot try to mean something, only try to convey what one means.

(vii) *Information about the external world*. Perceptions inform us about the external world, sensations sometimes indicate something about it (e.g. sensations of heat) but more
commonly do not (not all pains indicate a painful object). Mental images (unlike visual impressions) do not tell us anything about the world, and one cannot confuse an image fora reality. Hence the imagined is distinct from the hallucinated (and from `after-images').

(viii) *Behavioural manifestations*. 'Inner processes" stand in need of outward criteria'.Z9 Ascription of psychological predicates to others rests on their behavioural manifestation, which constitutes a criterion for their instantiation. Sorrow is criterially associated with weeping, with a grief-stricken face and demeanour, fear with blanching and trembling, pain with groaning and assuaging the injured limb. Emotions and sensations have characteristics expressions in behaviour; knowing, remembering, understanding do not. The behavioural manifestation of an 'inner state' is circumstance relative. Weeping in one circumstance is a criterion of sorrow, in another of frustration, in yet another of pain. Going red in the face may in one context indicate embarrassment, in another rage. The open circumstance-relativity of the criteria for ascription of psychological predicates is an important aspect of their defeasibility. The multiplicity and diffuseness of the criteria is an important aspect of the irreducibility of psychological concepts to some determinate set of conditions of which they consist. There is no set of necessary and sufficient conditions the satisfaction of which entails their instantiation.

(ix) *Directedness*. Numerous 'psychological phenomena' are directed at an object, which may or may not exist, a feature sometimes picked out by the term `intensionality'. While pain does not have an object, fear does. One must be afraid of something, take pleasure in something, be joyous about something. 'Objectless emotions' such as anxiety or depression gravitate towards moods. The issues involved in the intensionality of the psychological are both familiar and complex. This feature (or its absence) requires careful analysis in each case.

(x) *Causation*. The relations between different psychological concepts (and what they signify) and the category of causation are diverse. It is fashionable at the moment to view causation not only as the cement of the universe but also as the glue of the mind. Wittgenstein wars against this mistaken conception: reasons and motives are no more causes of action than the premises of a syllogism are the causes of its conclusion (nor is

belief in the premises the cause of the belief in the conclusion, but rather its ground). The object of an emotion is not typically its cause; perception has its causes (investigated by physiologists) but it is a debatable point whether the concept of perception has a causal element built into it. Some desires obviously have causes (hunger, thirst) others rest on reasons which are not obviously causes.

(xi) *Dispositions and abilities*. Some psychological concepts approximate to the category of dispositions (character traits), others clearly do not (sensations). Some, however, gravitate now to one pole, now to another. Most emotions are characterized, in appropriate contexts, now as emotional states, now as emotional dispositions. Similarly, some concepts look, in certain of their uses, as if they signify mental events or acts, in others they fluctuate towards the category of ability. Suddenly coming to understand something is a clockable event, understanding something is more akin to an ability. This fluctuation is not a sign of ambiguity, but part of the characteristic contour lines of numerous concepts.

(xii) *Relation to thought and language*. Sensations are typically thought-free, so are elemental ('bodily') desires (hunger, thirst). But numerous desires are 'accessible' only to language users: a dog may want to be taken for a walk here and now, but not next Monday. So too with emotions: a dog may be angry or afraid, but cannot feel remorse. Perceptions typically presuppose only discriminatory capacities in the appropriate perceptual modality, but, as noted, seeing aspects is concept-saturated. Animals have immediate purposes and intentions, but long term goals, projects and intentions are available only to creatures who have forms of expression for such things, viz. a tensed language.

(xiii) *Mode of concept acquisition*. Although the way a concept is acquired is not, as it were, 'contained' in its use, and although it may be considered a contingent fact that we learn language and are not born with an innate ability to speak (but only an innate ability to learn to speak), much can be gleaned about the forms of our concepts from examining the ways in which we teach them to language-learners. The 'language-game' of 'It looks as if . . .' or 'It seems . . .' is necessarily posterior to that of "It is . . .', just as the language-game of doubting is built upon the solid foundations of the language-game of confidently asserting. It is not an inconsequential fact (i.e. it points towards important conceptual articulations) that we typically teach a child the concept of dreaming by teaching it to preface its frightened exclamations on waking from a nightmare by 'I dreamt that . . .' (which is not to say that having dreams is an essential precondition of the acquisition of the concept of dreaming, any more than having headaches is a precondition for acquiring the concept of a headache).

This by no means exhausts the parameters relevant to the analysis of psychological concepts. Their relation to attention (I can attend to the course of my pains, or my emotions, but not to my intentions or understanding), to activity or passivity, to experience of 'undergoing' ('Eriebnis' or 'Erfahrung'), the complex pattern of mix between one psychological phenomenon and others (emotions 'colour' thoughts, sensations characteristically accompany certain emotions, attitudes inform motives) all these, and

much more provide the dimensions of the logical space in which psychological concepts are located. However, our brief sketch suffices to highlight some of the crucial lessons which can be learnt from studying Wittgenstein's observations on philosophical psychology.

Our psychological concepts are exceedingly complex, unlike those of, say, mechanics. Their complexity does not lie in the fact that they constitute a multiple-membered hierarchy of concepts preparatory for sophisticated theory construction (a feature which is true of advanced physics). Nor is it located in the complexity of articulations of a sophisticated calculus, as in branches of higher mathematics. It lies rather in the complex ways in which these concepts are interwoven in our lives. For they are not concepts devised for the description and theoretical explanation of an independently existing reality (as are the concepts of physics), but they inform the reality which they are also (sometimes) used to describe and explain. Consequently a correct logical point of view upon the psychological phenomena demands a proper analysis of our ordinary psychological concepts which essentially articulate many of the phenomena themselves. Hence it is a grievous error amongst psychologists to brush aside contemptuously our common-or-garden psychological concepts in the belief that they can simply emulate the procedures of physicists, and introduce their 'special scientific sense' of salient psychological concepts, which, mirabile dicta, go by the name of 'emotion', 'mental image', 'intention', etc. Examination of the use of these expressions, not only their grammar in a narrow sense, but also the different circumstances justifying their employment, the point and purpose of utterances incorporating them, the appropriate responses to their use in different contexts, is the only way of clarifying our psychological concepts and of revealing the ways in which they are embedded in our form of life.

Another aspect of the complexity of our psychological language is also evident: our concepts do not come pre-packaged into tidy categories. Pleasure, for example, is neither a sensation nor an emotion, not an attitude nor yet a form of activity. Understanding is neither an event, nor a process, nor yet a state, and although it resembles an ability in certain respects, it is not strictly an ability either. The logical space in which our psycho-logical concepts are located is not, as it were, three dimensional, so that given three co-ordinates one can sharply locate a given concept upon a categorial map. It is multi-dimensional, and most concepts appear, so to speak, at many different places at the same time. Little is achieved by declaring that such and such a concept is of a given categorial type, since the categories themselves are typically blurred, and numerous psychological concepts display resemblances to more than one category and do not fall foursquare in any. Even less is to be gained by announcing that for theoretical purposes one will treat such-and-such as belonging to some supposedly clear category.

It may seem, to right-thinking, scientifically minded philosophers, that what we need to make progress in philosophy of mind is simply to construct bolder theories to explain the nature of the mental and to straighten out our primitive concepts. Hence they postulate relations between 'organisms' and `internal representations in the language of thought' to

explain such 'acts' or 'events' as belief and desire, and such 'processes' as understanding or inferring. They may even disarmingly confess that:

> "it's part of the charm of the internal language story that, since practically nothing is known about the details of cognitive processes, we can make the corresponding assumptions about the internal representational system risking no more than gross implausibility at the very worst.[30]"

consoling themselves that these 'assumptions' are, after all, 'empirically refutable.' It may also appear, to hasty experimental psychologists, that the solutions to their problems simply need more daring hypotheses to be tested in ever more subtle experiments. But there is no room in philosophy for constructing theories on the model of empirical sciences, its business is with the clarification of our concepts (which may be those of science, as in the philosophy of physics, or may be non-technical concepts, as are the bulk of those with which philosophy of mind is concerned). It must resolve philosophical problems, not scientific, empirical, ones. It strives for a correct, logical point of view, a surveyable representation of the structure of our concepts, not in the belief that these are uniquely 'correct' or supremely felicitous, but in the belief that our conceptual problems arise from our concepts, not from hitherto unknown ones. Hence they can be resolved only by painstaking examination of these concepts. Introduction of novel concepts is, of course, permissible. But this will not resolve current philosophical problems, only raise new ones.

It has been observed that:

> 'One thing which indicates a weakened sense of reality with respect to his discipline is the philosopher's unconcern about the total absence of stable results in it. Occasionally in its busy history, now covering a period of twenty-five centuries, a philosopher has awakened to the ubiquitous chaos that reigns in his subject, but his return to peaceful slumber has always been prompt.'

For a brief period, in the nineteen fifties and sixties, under the impact of Wittgenstein and Ryle, it appeared as if philosophy of mind had awakened. Now, however, mesmerized by the jargon and methods of science, and true to form, it is lapsing again into dogmatic slumber.

Experimental psychologists, eager to explain what mental processes underlie such-and-such psychological facts (understanding new sentences, recognizing objects, remembering, imagining) are in constant danger of failing correctly to identify the nature of their problems, conceiving of conceptual confusions as empirical mysteries to be fathomed by the experimental method. Then, indeed, 'problem and method pass one another by'. Psychology is no infant science, but unless it shows more awareness of conceptual problems, it is liable to perform a truly scientific miracle of moving from its first infancy to its second without passing through the intervening stages.

NOTES

Henceforth referred to as RPP 1 and RPP, 2.

[2] Cf. RPP I § 1039.

[3] A consideration that applies equally forcefully to philosophy of language. The supposition, e.g. that 'truth' is a 'theoretical notion' in philosophy of language (cf. Dummett, 1981) is no more convincing than the assumption that 'goodness' or 'beauty' are theoretical notions in ethics and aesthetics.

[4] Wittgenstein, RPP 1 § 1093.

[5] E.g, that the time taken to recognize two pictures of a 3-dimensional geometrical object in different orientations as being of the same object is to be explained by the generation of mental images which *are then rotated at constant angular velocity* in 'mental space' (cf, research by Roger Shepard *et al.).* Presumably relative slowness in recognition is to be'explained' by relative air resistance in the mind!

[6] Wittgenstein's extensive arguments against private ostensive definition occur in *Philosophical Investigations* §§ 243 ff. in the famous (and highly controversial) 'private language argument'.

[7] Wittgenstein, RPP 1 §648.

[8] But, curiously, we do not seem so taken with the question of how it is possible to recognize a picture one has never seen before!

[9] And we glibly confuse imagining a rotating object with rotating an imaginary object, imagining an object moving at constant velocity with moving an imagined object at constant velocity!

[11] For a detailed analysis of the Augustinian picture of language and of its sophisticated theoretical offshoots, see Baker and Hacker, 1980.

[11] Our italics. The point is an important one: psychologists will often respond that their use of a term (e.g. 'mental image') is not bound by the .use of the man on the Clapham omnibus, but—like the physicist—only by the exigencies of their sophisticated theories. Wittgenstein certainly did not want to instruct psychologists on what technical terms of art they may or may not introduce. The point is that they wish to have things both ways. They wish to use our ordinary notion of, e.g., mental image when asking their experimental subjects about their mental imagery, and simultaneously to use a different (unexplained and dubiously coherent) notion when 'postulating' unconscious or unnoticed mental imagery (rotating at high speed in mental space) to 'explain' various intellectual abilities. What they fail to do is establish the intelligibility of their 'technical notion' and ensure its coherence with our ordinary one, with which it must, on their own account, cohere. It is here that a 'philosophical conflict' arises,

Nor is this the only confusion, since our ordinary psychological concepts *enter into* the very phenomena the psychologist typically wishes to study. Hence even if he wishes to introduce technical terms of art this does not relieve him of the need to be clear about the ordinary concepts of the mental *(infra),*

[12] Wittgenstein, RP.P 1 §§ 548-50.

[13] Wittgenstein, RPP 1 § 1101; for 'seeing' here one could substitute any other psychological predicate.

[14] Or the even more dangerous question 'what does remembering something *consist in?'* [11] Wittgenstein, RPP 1 §212

[16] This contemporary pseudo-scientific philosophy postdates Wittgenstein. But ample materials are found to demolish it. A first step towards this goal is to be found in Malcolm, 1980, who deploys a battery of Wittgensteinian arguments against various forms of this confused doctrine.

[17] Wittgenstein, RPP 1 § 1063.

[18] Wittgenstein, RPP 2 § 112.

[19] Wittgenstein, RPP 2 § 85.

[20] Wittgenstein, RPP 1§257.

[21] Wittgenstein, RPP I § 633.

[22] The common supposition that we can never really' be certain about the psychological acts, experiences, undergoings, of another person not only involves a confusion about the logical status of behavioural grounds of such judgments (viz. that they provide inductive support for an hypothesis) but also a total misconception (with Cartesian ancestry) of the nature of doubt and certainty. Something is certain, it is thought, only if the grounds supporting it can neither be improved upon *nor* overturned; the mere *possibility* of doubt (viz. that we can imagine circumstances in which ... etc.) is thought of as constituting a ground for doubt; and such doubt, it is immediately conceded, is 'only theoretical'. It is, one might ironically say, like a free-wheeling cog that never engages with the mechanism. Genuine doubt or certainty are themselves something manifest in behaviour, which constitutes a criterion for a person's being doubtful or sure.

[23] See Fodor (1975) for an exotic development of this misconception.

[24] The translators of RPP have misleadingly translated this expression by 'utterance', contrary to the translations of the hitherto published works. It is difficult exactly **to** match Wittgenstein's use of *'Au,8erung,* but ·utterance' is an unhappy compromise.

[25] Wittgenstein, RPP 1 §693—'indisputable' here alludes to the alleged incorrigibility of that to which one is conceived as having 'privileged access'.

[26] The translators have 'statement' here; misleadingly in our view. [27] Wittgenstein, RPP 2 § 156.

[28] See in particular RPP I § 836, 2 §§ 63, 148,

[29] Wittgenstein, *Philosophical Investigations, § 580.*

[30] J. A. Fodor, 'Propositional Attitudes', p. 58.

[31] Although, Fodor hastens to add, latest psychological researches assure us that 'the best accounts of mental processes we have are quite unintelligible unless something like the internal representation story is true'. We would not wish to quarrel with *this* claim—they are indeed quite unintelligible!

[32] See Lazerowitz (1977).

REFERENCES

BAKER, G. P. and HACKER, P. M. S. 1980 *Wittgenstein—Understanding and Meaning, pp.* 33, ff. Blackwell, Oxford.

BLOCK, N. (Ed.) 1981 Introduction. **In** *Readings in the Philosophy of Psychology,* Vol. 2, p. 3. Methuen, London.

CHOMSKY, *N.* 1965 *Aspects of the Theory of Syntax, p. & M.I.T.* Press, Cambridge, MA. DUMMETT,

M. A. E. 1981 *The Interpretation of Frege's Philosophy, p.* 74. Duckworth, London, FODOR. J. 1975

The Language of Thought. Crowell, New York.

FODOR, 1. A. 1981 Propositional attitudes. In N. Block (Ed.), *Readings in Philosophy of Psychology, Vol.* 2, p. *55.* Methuen, London.

HARMAN, G. 1981 Language learning. In N, Block (Ed.), *Readings in the Philosophy of Psychology, Vol, 2,* p. 39. Methuen, London.

KOSSLYN, S. M. and POMERANTZ, J. R. 1981 Imagery, propositions, and the form of internal representations. In N. Block (Ed.), *Readings in the Philosophy of Psychology, pp, 150* ff. Methuen, London.

LAZEROWITZ, M. 1977 *The Language of Philosophy, p.* 202, n. 46. Reidel, Dordrecht.

MALCOLM, N. 1980 Functionalism *in* philosophy of psychology. *Proceedings of the Aristotelian Society,* LXXX 79/80, 211 ff.

WITTGENSTEIN, L. 1953 *Philosophical Investigations,* Part 11, xiv. Blackwell, Oxford.