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MICHEL TER HARK

UNCERTAINTY, VAGUENESS AND PSYCHOLOGICAL INDETERMINACY

Chamberlain visiting Hitler, 15 September 1938. Hitler hides his war plans from Chamberlain and promises that peace can be preserved if the Czechs will meet his demands. Chamberlain is fooled and tries to convince the Czechs not to mobilize their armies. To his sister he writes: "... in spite of the hardness and ruthlessness I thought I saw in his face, I got the impression that here was a man who could be relied upon when he had given his word ...".¹

Even confronted with a perfect liar like Hitler one can imagine someone, unlike Chamberlain, being capable of detecting facial management. Suppose Churchill had been visiting Hitler too. As some historians have claimed, Churchill would not have been taken in by Hitler's lies and perhaps would have been convinced of his unreliability; perhaps he would even have noticed thinking clues that ultimately betrayed Hitler's lies. Discussing Hitler's reliability afterwards, Churchill and Chamberlain might have disagreed and the former might not have succeeded in convincing the latter of Hitler's unreliability.

These sorts of uncertainty and disagreement often characterize our judgements about other people's thoughts and feelings. In his later writings on the philosophy of psychology Wittgenstein is engaged with just these sorts of what I will call psychological indeterminacy. The core of his approach is to accept and to describe psychological indeterminacy as it is. At the same time he shows that the various indeterminate aspects of the meaning of psychological concepts may tempt philosophers to a false model of the mental as something hidden, possibly in the form of physiological states and processes, behind overt behaviour. This false model leads philosophers to explain psychological indeterminacy away as a shortcoming in the available evidence and to make it look more determinate than it is.

My aim in this article is to argue that by employing the notion of indirect evidence in their account of the meaning and epistemology of psychological judgements, the currently dominant physicalistic tradition in the philosophy of mind has yielded to this temptation. Ironically, physicalistic arguments to the effect that we have only indirect knowledge



of other person's thoughts, feelings and motives have been a reaction against the supposed operationalism and behaviourism of the Wittgensteinian tradition. Therefore, I will argue first that this operationalistic reading of Wittgenstein is deeply mistaken. In particular I will show that Wittgenstein's notorious remark to the effect that 'An "inner process" stands in need of outward criteria' – which has played a crucial role in the operationalistic reception – has to be read along completely different lines.

I will proceed as follows. In Section 1, I outline the reception of Wittgenstein's philosophy of mind by physicalistic philosophers. In Section 2, I will argue that the main mistake of both the operationalistic reading of Wittgenstein and the physicalistic alternative to the meaning and epistemology of psychological concepts is a commitment to referentialism. In Sections 3 and 4, I will show in more detail how the referentialistic view that the meaning of concepts like thinking and remembering is their reference to mental processes gives a completely distorted picture of their meaning. In Section 5, I outline the physicalistic view according to which the uncertainty of psychological judgements in the third person results from our (current) epistemic situation. In Section 6, I will distinguish between psychological indeterminacy and epistemic uncertainty and argue that the latter notion only seems to give an adequate account of psychological judgements because of misleading analogies with other sorts of judgement. In the final section, the indeterminacy of psychological concepts is explained in terms of the notion of patterns of life.

1. THE RECEIVED VIEW OF THE WITTGENSTEINIAN TRADITION

Paul Churchland has recently summarized the currently dominant view concerning the meaning and epistemology of psychological judgements: "The Behaviourist attempt to forge a 'logical' connection between inner states and overt behaviour, and the Argument from Analogy's attempt to forge an inductive connection between them, can both be put aside in favour of the quite different hypothetico-deductive connection implied by Sellar's account. Third-person ascriptions of mental states are typically *singular explanatory hypotheses* from which we can draw, in the context of folk psychology as a whole, consequences concerning the subject's observable behaviour".² Influential propounders of this so-called theory approach to the meaning of psychological concepts, like Armstrong, Fodor and Churchland have put forward their views in response to behaviourism, in particular 'the Wittgensteinian tradition' in the philosophy of mind. Indeed, the attempt to forge an empirical (i.e., theoretical) connection

between overt behaviour and inner states has been viewed as a reversal of Wittgenstein's claim that "An 'inner process' stands in need of outward criteria".³ As Fodor and Chihara put this with respect to the 'pain syndrome': "Here, as elsewhere, an 'outer' process stands in need of an inner process" (Chihara and Fodor 1991, 147).

According to Armstrong's and Churchland's interpretive opinion, "The phrase 'inner process' refers to mental happenings of the sort that, *prima facie*, seem quite different from bodily behaviour: such things as thoughts and sensations".⁴ In saying that thoughts and sensations stand in need of outward criteria "Wittgenstein seems to be saying that there is a logically necessary connection between the former and the latter" (ibid.). Armstrong and Churchland maintain that this is problematic since it requires Wittgenstein to assert a logically necessary connection between 'distinct existences'.⁵ The alternative reading to which Armstrong inclines is that Wittgenstein seeks to make an ontological reduction of inner processes to bodily behaviour, according to which 'inner processes' are not really anything distinct from bodily behaviour. "This interpretation is strengthened if we notice the quotation marks that enclose the phrase 'inner process', marks absent in the case of the phrase 'outward criteria' " (ibid.).

There are several problems with this interpretation of Wittgenstein's notorious remark, but for the moment it is important to note that Wittgenstein explicitly disavows ontological reductionism or eliminativism: "Why should I deny that there is a mental process?".⁶ And in more recently published work he says: "... it is *as if* I wanted to explain (quasi-define) the inner through the outer. And yet it is not so".⁷ And: "'Mental' for me is not a metaphysical, but a logical epithet" (ibid.). Wittgenstein, then, is not taking a stance regarding the ontology of mental states and processes.

Chihara and Fodor seem to recognize this, since they interpret Wittgenstein as a logical behaviourist. Logical behaviourism, as Steven Stich puts it, is a verificationist doctrine which holds that "*all* meaningful empirical terms must be definable in terms of *observables*".⁸ Or as Putnam remarks á propos of Ryle, who belongs to the Wittgensteinian tradition, logical behaviourism is the thesis that "all talk about mental events is translatable into talk about actual or potential overt behavior".⁹ In the same vein Chihara and Fodor compare Wittgenstein's view with the view espoused by the psychologist Hull, according to whom it is a condition upon the coherent employment of mental predicates "that they be severally related to behavioral predicates and that some of these relations be logical ...".¹⁰

There are many passages in Wittgenstein's work, however, that are in direct conflict with logical behaviourism.¹¹ Indeed, the general spirit of Wittgenstein's work is to differentiate psychological concepts from

behavioural concepts rather than likening them in the style of logical behaviourism. As he puts it succinctly: "There are inner *concepts* and outer *concepts*".¹²

At other places in Fodor's work, however, it becomes clear that his worry with logical behaviourism is not so much conceptual as ontological. For instance, in his *The Language of Thought*, Fodor claims that the 'original sin' of the Wittgensteinian tradition is to confuse mentalism with dualism. About one member of this tradition he says: "... Ryle assumes (as most psychologists who take a Realistic view of the designata of mental terms in psychological theories would not) that a mentalist must be a dualist".¹³

On this reading of the Wittgensteinian tradition, its fundamental mistake would be ontological, since this tradition would assume that if psychological terms are construed as referring to inner states and processes, these states and processes necessarily must be Cartesian states and processes. Since, according to behaviourism and other variants of materialism, ontological dualism is false, the only remaining option is to shift the reference of psychological terms from inner states and processes to behavioural states and processes. To which mentalism replies that their reference can be shifted back again to (higher-level) properties of brain states.

2. REFERENTIALISM

Fodor's mistake is not so much to think that the Wittgensteinian tradition would assume that 'a mentalist must be a dualist', rather his mistake is to assume that this tradition would adhere to a referentialistic view of the meaning of psychological language to which logical behaviourism, dualism, mentalism and eliminative materialism clearly belong. Indeed, maintaining, as Fodor does, that the meaning of psychological terms is not an inner Cartesian state or process but a mentalistic (or functional) state or process *remains* within the referentialistic view, according to which the primary role of psychological words is to stand for or refer to things, properties and processes. Referentialism is one of the main targets of Wittgenstein's philosophy of psychology. His reason is that referentialism becomes problematic in areas where it does not apply. Especially in psychological areas, words and sentences are treated on the model of words and sentences that do have a rather simple and perspicuous reference ('table', 'rod', 'bodily movement', 'neuronal process', 'internal state', etc.) and in this way are provided with a nonexistent reference. Many of Wittgenstein's remarks which seem to amount to an ontological

denial of mental states and processes are in fact a rejection of an oversimplified treatment of the meaning of psychological concepts inspired by a referentialistic model. As he puts it: "What we deny is that the picture of the inner process gives us the correct idea of the use of the word 'to remember' ".¹⁴

This criticism does not imply that Wittgenstein would impose a ban on the use of the word 'inner process', or 'mental process'. In an ordinary or scientific context (say in a setting in which one's memory capacity is being tested), saying "There has just taken place in me the mental process of remembering ..." means nothing more than: "I have just remembered ...". To deny the mental process would mean to deny the remembering; to deny that anyone ever remembers' (PI, par. 306). In such a case, remembering is not a hidden inner process that has to be inferred from the observation of overt behaviour; rather it is an ability or a complex of abilities of the subject. Even outside such a context the term 'mental process' can have a sense. For instance, if a philosopher says, 'Thinking is a mental process', the expression 'mental process' is intended to distinguish conscious experience from physical processes. Whether this is indeed the philosopher's intention, however, is seriously to be questioned. In philosophical discussions about the mind-body problem, a different 'sense' of the term 'mental process' prevails, one which is described by Wittgenstein as follows: "... the expression 'mental process' suggests that we are concerned with imperfectly understood processes in an inaccessible sphere" ¹⁵ (PG, p. 106). It is in particular this 'use' of the term 'mental process' that Wittgenstein attacks.

A good example of this view of mental processes is provided by the physicalistic tradition in the mind-body problem that was initiated by Armstrong. This is how he introduces the mind-body problem. First he speaks of a traditional picture according to which the body is a thing and the mind is also a thing. "This thing, or arena, may be in one or another of a huge variety of mental states, and a huge variety of mental events and processes go on in it".¹⁶ Subsequently he says that "the picture, or theory as I shall henceforth call it, is somewhat vague about the exact nature of the mind" (ibid.) Mind-body theories, like dualism and physicalism are attempts to make this vague picture more precise.

On a Wittgensteinian view, the attempt to turn the vague picture of inner processes and outer behaviour into a more determinate theory is precisely what leads philosophers astray. The vague picture can be made more determinate only by treating psychological concepts on the model of concepts that have a quite perspicuous reference. This model attributes a certain (grammatical) form to psychological phenomena, but the

actual form is much more complex and entirely different. Therefore, although the attempt to make a certain picture more precise is undertaken in order to explain the meaning of psychological concepts, it in fact makes no connection at all with the phenomena it is intended to illuminate.

It is not just referentialism that is the cause of the trouble, according to Wittgenstein. Instead, referentialism seems to go hand in hand with essentialism. Our use of psychological concepts is diverse. ‘Understanding’, for instance, is not just one sort of process, rather it is a pattern of more or less similar processes in certain circumstances. (Perhaps Armstrong’s use of the predicate ‘vague’ is an expression of this fact). In their search for what is common in all such cases, philosophers and scientists often try to single out a particular form of understanding as paradigmatic, for instance translating one language into another. If one subsequently realises that this supposed paradigmatic use does not fit the diversity of cases after all, the conclusion which forces itself upon one is that the essence of the process of understanding is hidden, something which is not yet discovered, due to the lack of a suitable model or proper instruments for measuring the process. The reasoning behind all this is that since we use in all these different cases one and the same word, i.e., ‘understanding’, there must be something which is the essence of understanding. For why else would we use the same word for all these cases?

Such referentialistic and essentialistic views seem to be the point of the important §308 of the *Philosophical Investigations* in which Wittgenstein asks how the mind-body problem arises in the first place. The hallmark of especially physicalistic theories about mental states and processes is that they “leave their nature undecided” (§308). For instance, after the rejection of the Wittgensteinian tradition Smart, Armstrong and Lewis have defended topic-neutral analyses of mental concepts, according to which talk about ‘pain’, ‘beliefs’ or ‘desires’ is talk about “*whatever* comes sufficiently close to playing a certain causal role describable in physical language, and bears physicalistically or topic-neutrally describable relations to other physicalistically or topic-neutrally describable states”.¹⁷ On Lewis’ theory, these causal roles are even fixed by an underlying common sense theory. For instance, ‘headache’, according to Lewis, is “whatever has the functional role psychological theory assigns headaches”.¹⁸ Next topic-neutrality predicts that neuroscience will discover that the unspecified causal roles will be played by neural states and processes. Hence, mental states and processes are physiological states and processes. Wittgenstein has presaged this sort of argument when he continues §308 thus: “Sometime perhaps we shall know more about them – we think. But that

is just what commits us to a particular way of looking at the matter. For we have a definite concept of what it means to learn to know a process better”.

By speaking of mental states and processes the more precise determination of which is put off, philosophers and scientists treat psychological concepts on the model of physical concepts. In particular, the concept of mental processes is modeled on the concept of physical processes of which we *do* know what it means to understand them better and to determine their nature more exactly. For instance, we know what such physical processes as eating, writing and speaking are and scientific investigations have determined more precisely the exact nature of photosynthesis, digestion or erosion. By assimilating mental processes to such physical processes, philosophers not only think that they understand their own talk of mental processes but also believe to have explained the meaning of ordinary psychological concepts more adequately than theories that eschew any reference to internal states and processes. Wittgenstein’s point is that an expression like ‘I remember that *p*’ is not made meaningful by reference to hidden mental processes. Such ‘explanations’ merely assume the appearance of being meaningful by the (mistaken) analogy with sentences about all sorts of physical processes. Wittgenstein’s aim in his long and detailed treatment of separate psychological concepts is precisely to show why these analogies between mental and physical processes are off the mark.

3. THINKING AND REMEMBERING

In a number of remarks in the *Philosophical Investigations* Wittgenstein discusses the confusions that result when ‘thinking’, or ‘remembering’ are construed on the (physiological) paradigm of as yet unknown processes. Those who appeal to this (physiological) paradigm must use the word ‘mental process’ as it is used in talk about physical processes. With respect to the latter class, there are all sorts of established criteria of identity for the use of ‘physical process’ such that one can determine when such processes start, in which phase they are, which events take place in a certain phase, how one phase causally determines a subsequent phase, when the whole process repeats itself and when and why it is interrupted. For instance, the digestive process starts in the mouth. Our teeth break down the food and mix it with saliva. Once the food is swallowed, it is propelled down to the stomach. The stomach begins to secrete hydrochloric acid and the enzyme pepsin. The former breaks the food into small particles and the latter breaks peptide bonds, thus beginning the process of breaking proteins in the food into their constituent amino acids. The stomach empties

into the duodenum which in its turn communicates with the pancreas in which enzymes break down proteins, lipids, starch and nucleic acids, thus continuing the digestive process.

Thinking, instead, cannot be divided into segments, or composed into elementary units.¹⁹ The point here is not simply that we do not *speak* of thinking as we do of paradigm processes, as if the issue is solely a matter of linguistic usage (and a form of conceptual conservatism). Rather the point is that modeling the concept of thinking and remembering on the scheme of (known or unknown) physiological processes, gives a completely distorted picture of how we *use* the concepts of thinking and remembering in all sorts of language-games (scientific psychological language-games included).²⁰ For instance, while acknowledging that we do speak of ‘the speed of thought’, as if it were a process, Wittgenstein points to some crucial differences between ‘mental processes’ and physical processes, such as speaking or writing. For instance, one can measure the speed of speaking, but there is no comparable sense in which one can measure the speed of thinking. To be sure, a psychologist can measure how long it takes someone to solve a mathematical problem during a test, but this is a measurement of his ability and not of a hidden mental process. Again, if ‘thinking’ is a process comparable to digestion, it is natural to ask whether the same process takes place in a lightning-like thought “only extremely accelerated” (§318). The difference between the normal cases in which we think while we write or speak and the case in which we have a lightning-like thought, however, is not analogous to a clock which runs down “bit by bit, braked by the words” and a clock which “runs down all at once” (ibid.). Rather, a lightning-like thought is to be compared with one’s ability to make a note of a thought in a few words. By contrast, a clock that runs down all at once does not abstract the more important steps from the less important ones. To the extent that a lightning-like thought is not to be conceived as an accelerated version of a slow thought, the analogy between talk about ‘mental processes’ of thinking and physical processes of digestion is off the mark.

Let us consider another example of Wittgenstein in more detail, his discussion of continuing a train of thought after being interrupted (§633ff.). One is sometimes interrupted as one is about to say something. If later asked what one was going to do or say, one can normally remember perfectly clearly. According to Wittgenstein this experience is “like following out a line of thought from brief notes” (§634). It is not a matter of recalling the events, thoughts and experiences that preoccupied us before the interruption. In particular, it is not a matter of interpreting such evidence, for, as he puts it, the evidence may be very fragmentary and ‘scanty’, allowing

many divergent readings. Nonetheless this scanty evidence effectuates that we know how we would have proceeded and we have no doubts about how we would have completed the interrupted train of thought. What is meant by saying that one meant at time t such and such, therefore, is not a report based on the recollection and interpretation of remembered evidence. From this it follows that later judgements about what one meant at time t are not to be explained by referring to states or processes that occurred at t . In particular, what happened at t does not contain – like a seed – the disposition to recount what it is that one were going to say. (Similarly, the brief mnemonic notes do not somehow store up the line of thought). Rather, one's later act of resuming the current of thoughts and experiences which preoccupied one at t is constitutive of the meaning of the earlier thoughts and experiences.

To be sure, one may call this resuming of the current a mental process, but it is clear that the criteria for speaking of this process are very different from the criteria for the occurrence of physical processes. In the case of the digestive process, knowing how the process would have gone on had it not been interrupted, is based on reading this off from the process as it proceeded until time t at which a break occurred. In the case of thoughts, instead, what happens later than t is what constitutes someone's having meant such and such. Of course, in the case of digestion we might also look at what happens later but in that case what happens later is empirical evidence for *something else*: the break at t in a metabolic process. In the case of remembering what one was about to say, the verbal expression, 'I wanted to say that ...', is essential to this practice and not a surrogate we reach after, because we are incapable of tracing certain underlying inner processes. For if this were a case of insufficient evidence it should have to be possible to say *of what* the evidence is insufficient. As we have seen, however, this is precisely what makes no sense to say in this context. In this respect there is again a deep disanalogy between 'inner processes' and (internal) physical processes.

The physicalist may of course shift more and more in the direction of a purely neurophysiological account of mental processes.²¹ But if this shift takes place, the relevant psychological concepts need to be redefined in such a radical way that their new definition probably leads to their elimination. Note also that on the theory of Armstrong and Lewis, psychological concepts are defined in terms of hidden, functional processes with the goal of facilitating the discovery of their neurophysiological 'realizers'. However, if the concept of a mental process is already understood in terms of a neurophysiological process, then its heuristic function becomes empty, since it is no longer understood in advance of such discoveries.²²

4. THE REAL NEED OF CRITERIA

Wittgenstein's notorious use of the term criterion should be seen in this light. Saying that remembering what one was about to say *starts* with the later linguistic act of resuming the thread is to say that this linguistic act is part of what we *mean* by this sort of remembering, that is, it is one of the criteria for using the concept of remembering. The appeal to criteria is merely to mark the *difference* in use of psychological concepts and physical concepts and serves to remind philosophers of the actual use of psychological concepts, a use which is blocked from view when psychological concepts are treated on the model of physical states and processes.

Operationalistic readings of the Wittgensteinian tradition, as espoused by Fodor and Churchland, have precisely overlooked the differences between the use of psychological concepts and physical concepts. According to such readings, Wittgenstein would have developed some canonical procedure the appeal to which would make every statement testable. That is, just as learning the meaning of 'length' is learning to perform the relevant operations and thereby to arrive at the truth or falsity of such statements as 'x is three feet long', learning the meaning of 'pain' or 'dream' is determined by operations or observations.²³ In both cases this procedure must be something that can be appealed to as an independent check, that is, an operation that can be performed by others too. This leads to logical behaviourism, for if we can speak meaningfully only about what others can check, then the meaning of psychological concepts must be describable in terms of overt behaviour.²⁴ Received view, then, has it that criteria would be needed because otherwise mental processes would not be publicly accessible processes. On the operationalistic reading of Wittgenstein, criterial connections between patterns of behaviour and particular kinds of mental states and processes are needed in order to ensure that mental states and processes are present. Against this view the Fodor–Churchland tradition maintains that we do not rely on criterial connections; rather, we rely on an empirical theory that enables us to infer to the presence of such states and processes as the best explanation of overt behaviour.

Operationalistic and mentalistic theories alike, however, assume the very point at issue: that the notion of inner processes in itself is clear enough and that the only problem is how to detect them. The point of Wittgenstein's appeal to criteria, instead, is not to ensure the existence of otherwise unverifiable inner processes, but to remind us of the clash between the actual use of psychological concepts and the model that we have formed of them in theoretical explanations. Philosophical worries

about the nature of mental states and processes are not solved by developing more ingenious methods of verification and investigation but by pointing out that the nature of 'mental states and processes' is completely different from what the over-simplified referentialistic model suggests.

In particular Wittgenstein's treatment of the concept of dreaming is relevant in this context, since it has been a target of criticism in the Fodor-Churchland tradition. Wittgenstein's remarks about this concept are precisely meant to point out the difference between what we call describing a dream and describing the length of a rod. To be sure, dream reports are descriptions of dreams, but unlike descriptions of the length of tables and chairs, *telling* what one has dreamt is the criterion for saying that the description 'agrees' with what is being described. By contrast, no one would say that telling what the length of a table is, is the criterion for saying that the report agrees with the actual length of the table. On the contrary, in the case of the table there is (logically) room for a distinction between the speaker giving a truthful account of what he measures and the account being true. In this linguistic practice there is provided for mistake, error and correction. Therefore, being true amounts to something different in the case of dreams than in the case of physical objects. In the case of dreams their truth is guaranteed by special criteria of truthfulness.²⁵ Insisting upon an independent check in the case of dream telling would amount to disregarding the person's own (sincere) confirmation, and it is not implausible to say that this would amount to a change in the concept of dreaming. To be sure, to the extent that an attitude of trust enters into the meaning of certain psychological concepts, there is room for discrepancies in people's judgements about thoughts, feelings and dreams, since people differ in both how trustworthy and how trustful they are. But then, such discrepancies and disagreements are precisely what differentiates the use of psychological concepts from the use of, say, mathematical or physical concepts. The point of Wittgenstein's remarks are the concept of dreaming, therefore, is just to highlight this difference between indeterminate criteria for inner processes (i.e., the person's own confirmation) and determinate criteria for (internal) physical processes.

Contrary to what Armstrong and Fodor suppose, therefore, the quotation marks around 'inner processes' (in PI, §580) do not point to the non-existence (or existence) of inner processes, for such ontological claims would be acceptable only if the philosophical use of the picture of inner processes would give us the correct idea of the actual use of psychological concepts. Indeed, denying that 'inner processes' in the philosophical sense exist, would presuppose what Wittgenstein has denied: that we understand the term 'inner process'. We do not understand the 'use' of this term and

we only think to understand it because of the mistaken analogy with physical processes. The point of this remark is remarkably simple, for it merely wishes to remind us that we should not forget that the term 'inner process' is in need of (normal) explanations of its meaning or, what comes to the same, public criteria. As the quotes from Armstrong in Section 3 indicated, the picture of inner processes is so natural and deeply entrenched that philosophers use it in their theories about the mind as if it is in no need of an explanation or criteria at all. But the primitive idea that the mind is a thing in which mental processes take place is already on the wrong track, since it derives its supposed meaning from the mistaken analogy with (internal) physical processes.

5. INDIRECT EVIDENCE AND UNCERTAIN CRITERIA

Arguing that criteria are used to forge a logical connection between inner states and processes on the one hand and overt behaviour on the other, as Paul Churchland maintains, not only assumes that the philosophical model of inner processes is clear, but also turns criteria into determinate and independent operationalistic tests. As we have seen in the last section, criteria are merely called upon in order to remind us of the actual use of psychological concepts. This actual use is overwhelmingly complex and interwoven with our forms of life. Describing criteria for different sorts of psychological concepts, then, is to remind philosophers precisely of the indeterminacy and context-dependency of their use. In his *Last Writings on the philosophy of psychology*, Wittgenstein turns to a detailed description of the many forms of psychological indeterminacy and context-dependency of psychological concepts, in particular in their third person use. Rather than explaining such indeterminacies away, Wittgenstein wishes us to accept them as a constitutive feature of psychological concepts.

Emphasizing an indeterminacy in the application of psychological concepts is not to point to an epistemic shortcoming in the available evidence, rather it is to say that psychological indeterminacy is a constitutive feature of those concepts. In this respect there is a great divide between a Wittgensteinian philosophy of mind and the physicalistic tradition from logical behaviourism to mentalism and eliminativism. In particular, mentalism and eliminativism maintain that the reason the evidence is indeterminate can only be that it is incomplete and that the decisive part of it is hidden. As Paul Churchland has described the problem of determining what another person thinks or feels: 'To infer the (hidden) occurrence of certain kinds of mental states from the occurrence of certain kinds of behavior is to

assume that appropriate general connections hold between them ...²⁶ Since “*all one can observe is one-half of the alledged connection: the creature’s behavior*” (ibid., 68), the question is how one can be justified in believing that the connections are true of the other person/organism. And as I already referred to at the beginning of section, according to Churchland a theoretical inference to underlying inner states and processes is the best way to determine what another person thinks or feels.

According to Wittgenstein, the philosophical appeal to the model of hidden inner states and processes and overt behaviour is an illusion:

It is not the relationship of the inner to the outer that explains the uncertainty of the evidence, but rather the other way around – the relationship is only a picture-like representation of this uncertainty.²⁷

Elsewhere Wittgenstein calls the picture “I cannot know what is going on in him” a very convincing picture (PI II, 223) and it is clear that his goal is not to eliminate this picture but to investigate how it is actually applied. In its non-philosophical use, this picture poses no problems. For instance, if one meaningfully says, ‘Only I know my thoughts’, the circumstances in which one says this are roughly the circumstances in which one might also have said, ‘I will never tell you my secrets’. In these circumstances doubting what another person is thinking clearly makes sense but then the uncertainty is *de facto* and can be removed through appropriate behaviour in certain circumstances.²⁸ This practical employment of the picture of inner processes does not legitimise the philosophical and sceptical extension, according to which inner processes are something that goes on behind words and ways of behaving and which can never be known by other people. Failure to see how this picture is actually applied, however, leads philosophers into drawing misleading analogies which obscure rather than explain the distinguishing features of psychological concepts. In particular it leads them into supposing that the constitutive indeterminacy is an empirical defect due to our insufficient knowledge of the underlying mechanisms of thought and feeling.

To see how entrenched this model is, consider the following passages from David Hume, written at about two hundred years before the rise of brain research. After having emphasized that, “The same motives always produce the same actions: The same events follow the same causes”,²⁹ in all nations and ages, Hume admits that it is possible ‘to find some actions, which seem to have no regular connexion with any known motives ...’ (p. 86). Hume’s reply is important. The vulgar, Hume argues, is inclined to “attribute the uncertainty of events to such an uncertainty in the causes as makes the latter often fail of their usual influence ...” (ibid.). Then he invokes the analogy with a complicated mechanism: “A peasant can

give no better reason for the stopping of any clock or watch than to say that it does not commonly go right: But an artist easily perceives that the same force in the spring or pendulum has always the same influence on the wheels; but fails of its usual effect, perhaps by reason of a grain of dust, which puts a stop to the whole movement. From the observation of several parallel instances, philosophers form a maxim that the connexion between all causes and effects is equally necessary, and that its seeming uncertainty in some instances proceeds from the secret opposition of contrary causes” (p. 87).

Two hundred years later physicalistic philosophers of mind similarly argue that the uncertainty of human behaviour is due to our lack of knowledge of mental processes or brain processes. Consider, for instance, this passage from the first proponent of a theory approach, Feigl: “We do have ‘criteria’ for discriminating between mere pretending and genuine feeling, but these criteria are never stable in the form of necessary and sufficient conditions. They must be regarded as probabilistic indicators very much in the manner in which symptoms in general medicine are regarded as probabilistic indicators of diseases”.³⁰

Feigl seems to accept that ordinary criteria for ascribing feelings to other people are indeterminate, but he immediately goes on to explain this as a lack in the available evidence due to our insufficient knowledge of the underlying causes in the mind/brain.³¹ Like Churchland, then, Feigl explains the uncertainty and disagreement in our ordinary use of psychological concepts as a sign of the hiddenness of thoughts and feelings and, hence, as proof of the insufficiency and unreliability of behavioural indicators. On this view, human behaviour is turned into indirect evidence for underlying inner processes much like symptoms of diseases are (un)reliable indicators of viruses.

I will argue that by this notion of indirect evidence, the theory approach confuses what Wittgenstein would call grammatical or normative propositions with empirical assertions or generalisations about how things (in the mind/brain) are. In particular, by misunderstanding claims about the indeterminacy of psychological concepts on the model of empirical sentences about what we do not (yet) know, psychological indeterminacy gets equated with or reduced to a form of epistemic uncertainty and, hence, is supposed to be simply due to insufficient empirical information. My point is not to deny that there is much we do not know about “the nature and dynamics of mental illness, the faculty of creative imagination, or the ground of intelligence differences between individuals”.³² Rather the point is that our ‘lack of knowledge’, when we do not know what other people are thinking, or when we do not know if they are truthful to us, or when we

do not know what to say at all because their behaviour is ambiguous, is not the same as our lack of empirical knowledge of what goes on in the brain of people who are speaking language or what happens in their stomach when digesting food.

6. PSYCHOLOGICAL INDETERMINACY AND EPISTEMIC UNCERTAINTY

At first sight Feigl's point seems to be correct: we do not dispose of conclusive evidence for discriminating between mere pretending and genuine expressions of feelings. Supposing otherwise is to commit oneself to an untenable behaviourism. The problem, however, is that Feigl offers a (causal) explanation of the absence of conclusive criteria. This explanation is tempting precisely because of the assimilation of psychological concepts to medical ones. In medical (or psycho-physiological) contexts uncertainty is clearly due to our having insufficient knowledge of (viral) causes within the body, and in these contexts the uncertainty can be remedied by scientific research. On this view, psychological uncertainty arises only because of our supposed inadequate ways of telling what another person thinks or feels, and the absence of conclusive criteria for thoughts and feelings of other people appears to be a defect caused by unknown empirical facts.

The core of the theory approach, then, can be expressed in terms of the following proposition: 'The fact that you cannot get inside another's mind seems to preclude access to feelings or thoughts which would decisively settle the presence of a certain desire or thought'. 'Cannot', in this proposition, is taken in the sense of a physical impossibility just like 'cannot' in the medical case. On this view, the proposition expresses that it is very unlikely that we can get inside another's mind (or brain). As we can always improve our knowledge, what is unlikely now can become very probably or even certain in the (distant) future.³³ I will argue that the theory approach does not distinguish here between a physical and a logical impossibility.³⁴ The indeterminacy of psychological concepts cannot be explained in terms of what is physically impossible or very unlikely, for this would amount to reducing psychological indeterminacy to epistemic vagueness.

To appreciate clearly the difference between a physical impossibility and a logical impossibility we can go back to the *Tractatus* where it is proposed that a physically impossible state of affairs presents us with a thinkable state of affairs, one we can *picture* to ourselves.³⁵ Thus I can imagine winning from Carl Lewis at the Olympic Games, although I would certainly lose if I were to try. More generally, to conclude that something is physically impossible is to have made an attempt or an (scientific) ex-

periment which has failed to establish what it ought to establish. What follows from this is that the very possibility of making the attempt or the experiment implies that one can *describe* or model what it is that one cannot do or cannot know.

A sentence expressing a logical impossibility, instead, has no descriptive function at all and therefore does not describe what it is that one cannot know or cannot do. In particular, a sentence expressing a logical impossibility does not describe what never in fact happens. Wittgenstein's later comparison between language and games is instructive in this respect. To say that one cannot score a goal in tennis is to express a rule which excludes certain moves from the game of tennis. The modal term 'cannot' in this example does not convey that there is something one is physically prevented from doing in this game, for in that case it would make sense to say that one will make the attempt to score a goal in tennis. And where one person may fail in this attempt another person might succeed. But it is clear that if someone were to try to score a goal in tennis we should object that he was not playing the game, which is tantamount to saying that this is not what we would call 'tennis'.³⁶

The use of the term 'cannot' in the case of tennis is not really misleading, and it is easily seen that the term is normative, i.e., the expression of a rule rather than an empirical claim about what one is causally prevented from doing. 'Cannot' in the philosophical proposition, 'One cannot really know what another person thinks', however, conceals such a rule. Although the proposition does not mention a word, still it expresses a rule or convention about the use of words and imparts no empirical information about our cognitive shortcomings. That physicalistic philosophers have not seen this is not only due to the term 'cannot' but also to the analogies they keep on making with other types of knowledge claims.

The analogies with medical symptoms and hearing noise from a room next have in common that they are all concerned with situations in which we have only *indirect evidence* for our knowledge claims and where we are physically prevented from gaining more direct evidence. Hearing noise coming from an adjacent room is indirect evidence for the belief that there is a party going on there. One could easily gain direct evidence for one's belief by going into the room and seeing what is happening there. Suppose that one does not want to go there, or finds that the door is blocked and that nobody opens when one tries to get in, then this would be a clear example of, respectively, a psychological and physical impossibility. In the case of diseases it is often more difficult to get direct evidence for the presence of certain viruses. Still even in the case of diseases, the viral causes of which are not known, the impossibility of knowing is physical, since scientists

can make models which show what it is that they do not know: certain viral causes. What has to be discovered is whether the model corresponds to the facts.

Although the analogy with the room may illustrate that we (often) do go beyond what is observed, it is in no way a good analogy of the uncertainty of psychological judgements. Indeed, it is a very clear example of why the analogy is mistaken. For the essential point of difference between hearing a noise and observing human behaviour is that in the former case it is possible to describe what it would be like to go into the room and look for the person. This means that one can say what it is that one cannot do or know. The impossibility, therefore, is physical. Put otherwise, in the case of the room there are in fact *two* ways of describing the evidence, indirectly via the noise and directly by going into the room and pointing at or looking after the person. In the case of other people's thoughts and feelings however there is just *one* way of describing the evidence, e.g., by listening to and looking at the person, by conversing with him, by knowing his circumstances, etc. As there is no direct evidence here, it is very misleading to speak of indirect evidence, since the use of this term suggests that the two opposites are significant here.³⁷

Consider the following dialogue from John Updike's novel *Marry Me*. Jerry and Ruth are a couple, and Ruth has a secret relation with Jerry's friend Richard. Ruth finally breaks the relation because Jerry had frightened her by overhearing the tag end of a phone conversation with Richard. To his question:

'Who was that?' she panicked and says 'Some woman from the Sunday School' ...

"Somehow", he said, not looking up, "I don't believe you".

"Why not? What did you hear?"

"Nothing. It was your tone of voice".

"Really? How?" She wanted to giggle.

"It was different", he said. "Warmer. It was a woman's voice".

"I am a woman".

Richard is willing to do anything to experience what Ruth is thinking, but what steps is he to take when he distrusts Ruth? Begging her to tell him

what she is thinking need not help. In such a case there are no means of enquiring analogous to the case of the room.³⁸

To say that there is no direct evidence in the case of thoughts and feelings is not to say that there is something we are causally prevented from knowing or investigating. This is what could be said in the case of human diseases or of Hume's complicated mechanism. Wittgenstein also mentions a complicated mechanism, the output of which is unpredictable due to insufficient knowledge of its inner workings. In contrast to Hume, however, Wittgenstein refers to such a mechanism in order to point out the disanalogy with the unpredictability and uncertainty of human behaviour: "But with a human being, the assumption is that *it is impossible* to gain insight into the mechanism. Thus indeterminacy is postulated".³⁹ The expression 'I can never know what goes on in him' is like 'I can never score a goal in tennis' and unlike 'I can never win of Carl Lewis at the Olympic Games'. The absence of conclusive criteria resides in the (normative) rules or methods for using psychological concepts and is in that respect analogous to the absence of the possibility of scoring a goal in tennis or the absence of a king in draughts; the rules of use of these concepts do not provide for these possibilities. Hence, what looks like an empirical defect in our knowledge, to be remedied by a more sophisticated scientific or epistemological theory, in fact betokens a constitutive difference in language-games.⁴⁰

The point is not that the theory approach is mistaken in claiming that one cannot know conclusively whether another person really feels pain by observing his behaviour or by listening to what he says. Rather the point is that this (philosophical) uncertainty resides in the *concept* of pain and not in some as yet unknown facts within his mind or brain. The theory approach, therefore, has confused what is not provided for by the rules of psychological concepts – a logical impossibility – with hidden facts we are physically prevented from knowing – a physical impossibility. By this confusion they have been unaware of the nature of psychological indeterminacy and have confused it with what might be called *epistemic vagueness*. The vagueness in the analogies cited above is due to there being insufficient information available in order to determine whether a certain term applies or not. In these cases one is merely not yet able to give a definite answer, but one knows reasonably well what kind of observations would lead to a positive or negative answer; it is just that, at present, one is not in a position to make such observations because of insufficient evidence, lack of time or inadequate instruments. If the vagueness is not epistemic, the use of terms like 'imprecise' and 'vague' to (dis)qualify our ordinary judgements is mistaken. These terms only have sense if their antithetical terms can be

used and if the use of the antithetical terms is inconceivable, 'imprecise' and 'vague' lose their meaning.

7. PSYCHOLOGICAL INDETERMINACY AND PATTERNS OF LIFE

In this final Section, I will show in more detail how psychological concepts are characterized by the indeterminate contours of their use. I will take the concept of deceit as an example. As Feigl observed, the criteria for distinguishing between mere pretence and genuine feeling are never statable in terms of necessary and sufficient conditions. Feigl's conclusion that therefore overt behaviour is only a symptom of underlying and as yet inaccessible states and processes expresses his commitment to determinacy of sense and the attendant denigration of concepts with indeterminate boundaries. Loosely-defined concepts are discounted and possibly replaced by more exact concepts. In particular, the indeterminacy of the ordinary distinction between real and feigned expressions of feelings is taken as a sign of the hiddenness of states and processes that would draw this distinction more sharply.

On a Wittgensteinian view, instead, the indeterminacy of the relevant distinction is an ineliminable feature of the concept of pretence since it is just what we mean by this concept. According to Wittgenstein, "Words have meaning only in the stream of life".⁴¹ And applied to psychological concepts, such as the concepts of moods and intentional attitudes (hope, grief, expecting, intending): 'grief' describes "a pattern which recurs, with different variations, in the weave of our life."⁴² Or about 'lying' and 'pretence': "So we are talking about patterns in the weave of life".⁴³ By introducing his notion of patterns in life Wittgenstein attempts develops an alternative to a referentialistic account of the meaning of psychological concepts. In particular, when Wittgenstein says that, say, 'grief' describes a pattern in our life, he explicitly differentiates ascriptions of grief from, rather than likening them to, sentences describing either bodily behaviour or physiological states and processes. The dependency of psychological concepts upon patterns of life implies that their use is governed by a loose and shifting cluster of descriptions. These clusters may lack a definite or determinate sense. Part of Wittgenstein's attention for the actual functioning of psychological concepts is not to make psychological judgements look more determinate or more predictive than they actually are; rather his point is to get us to accept the indeterminacy and unpredictability of human behaviour as part of their essence.

I will distinguish between the pattern and the 'elements' in which a pattern manifests or expresses itself.⁴⁴ Linguistic utterances, gestures, ac-

tions and looks are the elements that can manifest particular psychological patterns, much like the threads and colours in a woven fabric form the pattern of the weave. The term 'element', however, is misleading since the elements are not just confined to behaviour in the narrow sense, i.e., bodily movements and facial configurations, but include the context of their occurrence. As Wittgenstein puts it by way of analogy: "A smiling mouth *smiles* only in a human face".⁴⁵ Pursuing this comparison further we can say that a smiling face expresses happiness only against the wider background of the person's behaviour, including other people's reactions. The meaning of 'happiness' is not its reference to one or another element apart from a context and in that sense 'element' must not be understood in terms of a referential theory of language. Identifying behaviour as the expression of happiness *is* to identify its surrounding context. The meaning of facial expressions, then, is a contextualized one, in terms of what preceded them, what they are part of and what they are setting the stage for.

There are some important features of psychological patterns that reinforce their indeterminacy and context-dependency. One of them is that psychological patterns are variable and irregular, another one is that patterns are interwoven with many others.⁴⁶ The first feature can best be illustrated by looking again at facial patterns. Facial patterns are varied in a multiplicity of ways. Even in psychological patterns with rather salient elements none of the elements is essential to the pattern; particular elements are replaceable by others or may even lack altogether and yet the particular pattern remain intact. For instance, although smiling is a salient feature of the pattern of happiness it is neither a necessary nor a sufficient condition for being happy. Smiles may be part of the patterns of anger, fear and sorrow and people who are happy need not smile. For short, there is no definite answer to what combination of elements is necessary for types of face patterns and what combination is sufficient. Instead there is a great variety of elements, all of which have something to do with the application of terms like 'angry', 'shy' or 'annoyed', yet we are unable to draw any sharp boundary between those elements that are and are not sufficient and/or necessary.

Recognizing that psychological concepts are characterized by the indeterminate contours of their use is not to take the easy way out and to put a halt to philosophical and psychological investigations; rather it is to indicate which form these investigations will take. Psychological research concerning the feigning of emotions in fact makes clear that the concept of pretence is a family resemblance concept with indeterminate boundaries. As Paul Ekman tells us, if someone is simulating fear he will probably

assume a fear mouth and staring eyes.⁴⁷ The absence of an eyebrow frown, raised eyebrows and raised upper eyelids (in short: the presence of a blank brow/forehead) may be a deception clue. However, it need not be. The absence of these three facial features may also be an indication of the more shocked fear. Moreover, these features may be absent even in a case of real fear; some people don't make these brow movements when they are in fear. The same story could be told with respect to sadness. Some people never show the sad brow/forehead, even when they are genuinely sad. The facial features listed with respect to fear and sadness, then, are not necessary conditions for judging that a person is genuinely sad or afraid. As it is hard to make the fear brow/forehead and the sad brow/forehead voluntarily, when they do occur together with the other features they may provide a sufficient condition for the application of the term in question. But again, some people may be very practised in simulating all these features.

Consideration of the temporal or dynamic context of pretence also reveals that this concept is characterized by indeterminate contours. The role for motion in identifying face patterns is so important and subtle that one could even distinguish conceptually between physiognomic patterns, like the characteristic pattern of an angry expression, and *patterns of movement*. The point is not just the experimental fact that photographic negatives of famous faces are more easily identified if they are shown in motion rather than as individual still images,⁴⁸ but that the very distinction between genuine and posed expressions is (also) made in terms of patterns of movements. In order to judge whether an expression is genuine or posed we must locate the facial display in a dynamic pattern of, for instance, an ongoing dialogue, which includes the topic of conversation, preceding utterances and expressions. Against this dynamic background an insincere smile may reveal itself as being over-quick or too slow in comparison with a genuine smile of pleasure. According to the psychologist Ekman, in order to unmask a liar, timing is essential here: how long does it take for the expression to appear on the face and how long does it take to fade into another expression. And he adds: "There is *no hard and fast* [my italics] general rule to tell you what the onset, duration, and offset are for each of the emotions. We cannot say that anger must take no longer than 1.3 seconds to appear, cannot remain for more than 7 seconds, and abruptly disappear. That obviously would be fallacious".⁴⁹ The crucial notion of timing, then, is indeterminate.

Patterns are also interwoven with other patterns in human life. This means that there are gradual transitions between patterns and, hence, that there is no sharp break between patterns. This point can be illustrated by the case of children learning to lie. Developmental psychological evidence

shows that children ‘phantasize’ until age 5 and start lying by roughly age 7. What happens in between, in the transition period between phantasizing and lying? ‘Folk psychology’ has a special term for this period: between 5 and 7 children neither phantasize nor lie, they fib.⁵⁰ The conceptual difficulty here is that one knows what a child is capable of only if one first has observed a certain *course* of actions. The concept of such a course, however, is indeterminate in the sense that it is not a property of a separate element at a specific time. To speak of a determinate beginning of this course is therefore meaningless. What one can say is that only within a pattern of life children can lie, but exactly when this pattern begins or at which determinate point there is a transition from a preceding pattern to this one are questions that make no sense to ask.

The ascription of many psychological concepts, then, depends upon what people say and do, but whether what they say and do expresses joy, hope, belief, genuine or faked joy, can be judged only by consideration of the wider irregular context of their linguistic and non-linguistic behaviour. The evidence for ascribing moods and intentional attitudes to other people, therefore, does not consist of (internal or external) facts that obtain at the time of the ascription, as both behaviourism and contemporary physicalism assume, but of their irregular surrounding (and temporal) context.

One interesting result of this description is that deceit is *itself* a pattern, hence, discriminable and not, as philosophers have assumed, a phenomenon that disturbs all the outer evidence, so that a philosophical theory seems to be required to retain the distinction between appearance and reality.⁵¹ Concealment and deceit are patterns which make nondeceitful patterns only *more* complicated than they (already) are. Qua patterns, concealment and deceit are inherently indeterminate. To insist, as behaviourism has done, that the evidence must be *either* genuine *or* feigned, is simply to ignore the nature of patterns. To insist, as proponents of a theory approach have done, that the presence of margins of evidence is a sign of an epistemic defect due to our limited access to a person’s mind or brain, is to ignore that indeterminacy is part of the very *meaning* of the concepts of deceit, concealment and lying (and hence to ignore that and the ways in which these concepts are based upon patterns).

A second interesting result is that we can account for disagreements of psychological judgements, such as the fictive disagreement between Chamberlain and Churchill I referred to at the beginning of this article, in terms of the manner of judging the evidence without adopting a behaviouristic perspective. Although those who are personally acquainted with a person can make even the most subtle psychological judgements, this does not mean that they are capable of specifying conclusive criteria for

their judgements. In this respect Wittgenstein speaks of 'imponderable' evidence⁵² Imponderable evidence is evidence which can make us certain about someone's psychological state, without our being able to specify what it is in their behaviour that makes us so sure. Imponderable evidence is, therefore, not the basis of a *proof* that another person is feeling such and such. And if it makes no sense to speak of proving that another person is, say, lying, it is not necessarily the case that one can convince a third person on the basis of the evidence of the insincerity of the person's words. The dependency of psychological concepts upon irregular patterns of life, therefore, opens up a possibility of disagreement and uncertainty, which is characteristic of psychological judgements. As Wittgenstein observes:

Given the same evidence, one person can be completely convinced and another not be. We don't on that account exclude either one from society, as being unaccountable and incapable of judgement.⁵³

Wittgenstein contrasts in this respect judgements about the colour of objects or mathematical propositions with psychological judgements. When disagreements arise about the colour of an object or the length of a rod, people can usually locate the source of disagreement. They will measure the rod again, if necessary with a more refined instrument, or they will have another look at the colour of the object. If they still do not come to terms, they can decide that one of them must be mistaken in his observations or that one of them does mean something different with a certain term. In cases of disagreements about the sincerity of someone's words or expressions the undecidability does neither denote a deficiency in skill or knowledge nor an inadequate command of certain terms. Rather, the indeterminacy is a constitutive feature of those judgements, a feature, that is, that sets them apart from measurements of physical objects or judgements about colour and points to affinities between psychological judgements and aesthetic judgements. Discussions about works of art may also end by admitting that the other person just sees or hears things differently, without thereby implying that he has made a mistake in his observations or was otherwise incompetent to judge. If there is disagreement about the interpretation of a work of art there are no conclusive criteria people can use to settle the dispute. To be sure, there are criteria, but they are (objectively) uncertain, that is, they are not themselves beyond interpretive dispute and appealing to them requires the same degree of insight as making the judgements themselves.

Again, the appeal to criteria serves to remind us of the indeterminacy and context-dependency of psychological ascriptions and thereby to point out the categorical difference between psychological concepts and concepts for the description of all sorts of physical facts. The evidence

provided by patterns involves essentially 'margins of evidence', and hence no sharp boundaries between what we call sufficient evidence for thoughts and feelings and what we call insufficient evidence. They are no less concepts for this fact. Nor are they, by this fact alone, any less serviceable, for we are normally quite capable of making the relevant distinctions.

The sceptical proposition which formed the point of departure of both Feigl's and Churchland's worries about other minds, i.e., 'How can one be sure that another person is not just feigning, since one cannot know what goes on in him' can now be seen to mean something quite different. Although the proposition seems to deal with an experimental or psychophysiological impossibility, inviting the construction of a powerful epistemological method which will disclose that another person is really feeling pain, it is in fact grammatical. The proposition stipulates how to make moves with the concept of feigning in a language-game and is entirely normative.⁵⁴ More in particular, the proposition expresses the grammatical point that the rules for the use of the concept of pretence, or the concept of lying, do not provide for conclusive evidence. The proposition does not say that there is something we cannot do or know, but expresses that it makes no sense to speak of conclusive evidence in this psychological area. As I have attempted to show in this section, this grammatical feature of certain psychological concepts resides in the form of life fact that psychological patterns, upon which psychological judgements are based, are indeterminate.⁵⁵

Pointing out that it does not make sense to say this amounts to drawing categorical distinctions between different sorts of concepts and language-games. These distinctions are obliterated by behaviourists and physicalists alike, for on their view there are merely gradual differences between our normal psychological concepts and, respectively, an advanced behavioural language and a neurophysiological language. In those latter two languages we can say more precisely and more determinately what we can now say only imprecisely and indeterminately. That is, our normal psychological concepts and future ones can be measured on a single scale of precision, with ordinary language-games at the inferior, i.e., least precise end of the scale. The point of describing form of life facts is precisely to show that ordinary psychological concepts and, say, neurolanguage-games, cannot be measured on a single scale of precision. For if certain form of life facts would not be the case the corresponding linguistic practice would not exist, but there would be another – different – practice.⁵⁶ Therefore, by playing a neurolanguage-game we should not be getting precisely what we now get at only imprecisely; rather it would be a different language-game. In

that respect there is no precision that corresponds with or contradicts the indeterminacy of psychological language-games.

NOTES

- ¹ Quoted from Paul Ekman, *Telling Lies*, Norton & Company, New York, 1985, pp. 15–6.
- ² Paul Churchland, 'Folk Psychology', in S. Guttenplan (ed.), *A Companion to the Philosophy of Mind*, Blackwell, Oxford, 1994, p. 309.
- ³ Wittgenstein, *Philosophical Investigations*, Blackwell, Oxford, 1953, §580.
- ⁴ Armstrong, D. M., *A Materialist Theory of the Mind*, Routledge and Kegan Paul, London 1968, p. 55. See also, P. Churchland, *Scientific Realism and the Plasticity of Mind*, Cambridge University Press, 1979, p. 94.
- ⁵ See P. Churchland, 'Folk Psychology and the Explanation of Human Behavior', in J. D. Greenwood (ed.), *The Future of Folk Psychology*, Cambridge University Press, 1991, p. 54.
- ⁶ Wittgenstein, 1953, §306.
- ⁷ Wittgenstein, *Last Writings on the Philosophy of Psychology*, Vol. 2, Blackwell, Oxford, 1992, p. 63.
- ⁸ Stich, S., *From Folk Psychology to Cognitive Science*, MIT Press, Cambridge, MA 1983, pp. 3–4.
- ⁹ Putnam, H., 'Brains and Behavior', in N. Block (ed.), *Readings in the Philosophy of Psychology*, Vol. 1, 1980, p. 25.
- ¹⁰ Chihara and Fodor, 1991, p. 149. In particular, logical behaviourism seeks to translate concepts which are about mental processes into concepts which are really about behavioural processes and dispositions.
- ¹¹ And also in his unpublished writings. See for some unambiguous examples M. R. M. ter Hark, 'The Development of Wittgenstein's Views about the Other Minds Problem', *Synthese* **87**, 227–253, 1991.
- ¹² Wittgenstein, 1992, p. 62.
- ¹³ Fodor, J. A., *The Language of Thought*, 1975, p. 4.
- ¹⁴ Wittgenstein, 1953, §305.
- ¹⁵ Wittgenstein, *Philosophical Grammar*, Blackwell, Oxford, 1974, p. 106.
- ¹⁶ Armstrong, D. M. and N. Malcolm, *Consciousness and Causality*, Blackwell, Oxford, 1984, p. 105.
- ¹⁷ Levin, M. E., *Metaphysics and the Mind-Body Problem*, Clarendon Press, Oxford, 1979, p. 104.
- ¹⁸ Lewis, D. 'Psychophysical and Theoretical Identifications' in N. Block (ed.), 1980, p. 209.
- ¹⁹ See Wittgenstein, *Philosophical Grammar*, p. 39.
- ²⁰ The physicalist, unless he is an eliminativist equally relies on the normal psychological concept. Hence, a distorted grasp of the psychological concept is fatal to the program of the physicalist.
- ²¹ In the growing literature on mental causation such a shift is easily discernibly. The argument developed here might be understood as a denial of mental causation. However, this presupposes that mental causation is a clear concept in first place. From the point of view

developed here the first question to ask is whether mental causation does not itself rely on a misleading referentialistic and essentialistic view of psychological concepts. For instance, claiming that beliefs and desires are token-token identical with brain states and, hence, causally efficacious, requires much sharper criteria for identifying beliefs and desires than our ordinary language-games with these concepts allow.

²² See for an argument along these lines B. Wilson, *Wittgenstein's Philosophical Investigations*, Edinburgh University Press, 1998.

²³ Chihara and Fodor base their operationalistic reading of Wittgenstein's philosophy of psychology explicitly on a generalization of Wittgenstein's remarks about the concept of 'length'. See especially, pp. 138–9.

²⁴ See for such a reading of Wittgenstein, Paul Churchland, *Matter and Consciousness*, MIT Press, Cambridge, MA 1984, pp. 54–5.

²⁵ It is significant that Chihara and Fodor do not mention this aspect of truthfulness in their account of Wittgenstein's discussion of dreams, but speak of truth.

²⁶ Paul Churchland 1984, p. 67.

²⁷ Wittgenstein 1992, p. 68.

²⁸ Or by looking into the person's diary. There is a parallel in this respect with scepticism about the external world. Doubting whether a tree exists can make sense depending upon the circumstances, for instance, if it is too dark outside.

²⁹ Hume, *Enquiries Concerning Human Understanding and Concerning the Principles of Morals*, Clarendon Press, Oxford, 1975, p. 83.

³⁰ H. Feigl, 'Other Minds and the Egocentric Predicament' *Journal of Philosophy*, 1958, p. 352. And as Carnap puts it: the evidence '... is accepted only as probabilistic evidence, hence at best as a reliable indicator, i.e., one yielding a high probability for the state'. The methodological character of theoretical concepts, in H. Feigl and M. Scriven (eds.), *The Foundations of Science and the Concepts of Psychology and Psychoanalysis*, Minnesota Studies in the Philosophy of Science, Minneapolis, 1956, p. 71.

³¹ Other analogies that dominate in the literature are of the same sort. For instance, in a textbook in the philosophy of mind it is claimed that postulating underlying mental states and processes is no problem for: 'We might explain a noise next door in terms of a party we are not at. A doctor diagnoses cancer in terms of outward signs Electrons were posited as the best explanations of cloud tracks in Wilson cloud chambers'. See Braddon-Mitchell, D. and F. Jackson, *Philosophy of Mind and Cognition*, Blackwell, Oxford, 1996, p. 35.

³² Paul Churchland, 'Eliminative Materialism and the Propositional Attitudes', repr. in W. G. Lycan (ed.), *Mind and Cognition*, Blackwell, Oxford, 1990, p. 210.

³³ This is indeed the consequence that physicalists draw. 'If we had completely adequate and detailed knowledge of the neural processes in human brains, and the knowledge of the one-one, or at least one-many psy-phy correlation laws, then a description of a neural state would be completely reliable evidence (or a genuine criterion) for the occurrence of the corresponding mental state' Feigl, *The 'Mental' and the 'Physical'*, University of Minnesota Press, Minneapolis, 1958, p. 63; and this is how Dennett describes Fodor's intentional realism: 'If we knew more about physiological psychology, we could in principle determine the facts about your brain state and thereby determine whether or not you believe there is milk in the fridge, even if you were determined to be silent or disingenuous on the topic' Dennett, *The Intentional Stance*, MIT Press, Cambridge, MA 1987, p. 14.

³⁴ This distinction is made by Wittgenstein at several places in his discussions about psychology. See for instance *Remarks on the Philosophy of Psychology*, Vol. 1. Blackwell, Oxford, 1980, par. 581–2.

³⁵ Wittgenstein, *Tractatus-logico-philosophicus*, 3.001.

³⁶ See Aloce Ambrose (ed.), *Wittgenstein's Lectures, Cambridge 1932–1935*, Blackwell, Oxford 1979, pp. 165–166.

³⁷ The point, therefore, is not about two views of indirect evidence, one in terms of logical impossibility and the other in terms of physical impossibility, as a referent has suggested. Rather the notion of indirect evidence itself is misleading.

³⁸ Even checking who she has telephoned with need not help in coming to know how Ruth feels. Moreover, the uncertainty in the psychological case would be mistakenly described by saying that it is due to our ignorance of what goes on in the person's brain. Although Richard could have said 'I do not know what's running through your mind', and have meant what we said, he would not have meant that one or another unknown physiological process is running through Ruth's brain. After all, people have been using this sentence for more than two thousand years.

³⁹ Wittgenstein, *Remarks on the Philosophy of Psychology*, Vol. 2, Blackwell, Oxford, 1980, §666.

⁴⁰ See PI II, p. 225.

⁴¹ Wittgenstein, *Last Writings on the Philosophy of Psychology*, Vol. 1, Blackwell, Oxford, 1982, SS913.

⁴² Wittgenstein 1953, p. 174.

⁴³ Wittgenstein 1992, p. 42.

⁴⁴ I am much indebted to Eike von Savigny's (exegetical) account of patterns in his *Der Mensch als Mitmensch. Wittgenstein's Philosophische Untersuchungen*, Deutscher Taschenbuch Verlag, 1996, Chap. 9.

⁴⁵ Wittgenstein 1953, §583.

⁴⁶ See Wittgenstein 1980, Vol. 2, §§672–673.

⁴⁷ The following description is taken from P. Ekman and W. V. Friesen, *Unmasking the Face*, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1975, Chap. 11.

⁴⁸ See Knight, B. and A. Johnston, 1997, 'The Role of Movement in Face Perception', *Visual Cognition* 4, 265–74.

⁴⁹ P. Ekman 1975, *Op. cit.* p. 150

⁵⁰ I owe this observation to B. Levering and M. van Manen in their *Klein geheim*, De Tijdstroom Utrecht, 1997, pp. 148–9. This is a translation from their *Childhood Secrets*, Teacher College Press, New York, 1996.

⁵¹ See Wittgenstein, *Remarks on the Philosophy of Psychology*, Vol. 2, §672, Blackwell, Oxford 1980.

⁵² Wittgenstein 1953, p. 228; Wittgenstein 1992, pp. 65–6.

⁵³ Wittgenstein 1980, Vol. 2, §685.

⁵⁴ See for an extended and illuminating discussion on grammatical propositions, P. M. S. Hacker, *Wittgenstein, Meaning and Will*, Blackwell, 1996, Chap. 3.

⁵⁵ It is important to note that this is, as one might put it, a remark about the rules of the language-game and not about particular applications of these rules. The uncertainty in the rules for using the concept of 'deceit' does not turn our actual applications of this term into uncertain applications. And conversely, when we are completely certain in a particular case, this fact does not turn the rules of the psychological language-game into rules that every person who has learned them applies with certainty and without disagreeing with other people's judgements. See Wittgenstein, *Remarks on the Philosophy of Psychology*, Vol. 2, Blackwell, Oxford, 1980, par. 682.

⁵⁶ The point is not that there can be no conceptual changes in language-games. Rather the point is that most changes will leave essential features of our concepts intact. For instance, even if people through the development of instruments would more frequently guess each other's thoughts correctly, the criterion for this correctness remains that we ask each other to confirm our guesses. If this feature would also disappear it would not be unplausible to speak of a change of concept.

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