

## Wittgenstein on Understanding

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Wittgenstein's treatments in the *Philosophical Investigations* of the cognitive or intentional mental notions are evidently meant to persuade us that, in some sense, understanding, believing, remembering, thinking, and the like are not particular or definite states or processes; or (if this is to say anything different) that there are no particular states or processes that constitute the understanding, remembering, etc. Such a dark point desperately needs clarification, if it is not to deny the undeniable. For surely we may (and Wittgenstein does) speak of a *state* of understanding, or of thought-*processes*; surely when one understands—understands a word, a sentence, or the principle of a series—one is in a particular state, namely, the state of understanding the word, sentence, or principle. Now Wittgenstein sometimes puts the point more specifically, speaking of “a state of a mental apparatus” (§149), or, with respect to understanding, of “a state which is the *source* of the correct use” (§146), as that which he wishes to deny. But clearly these denials, though they sound somewhat less paradoxical, are equally in need of elaboration.

However Wittgenstein's point is clarified, though, there is an objection that will inevitably be made, an objection claimed to arise from a scientific viewpoint. The objection asks: isn't Wittgenstein here usurping the place of empirical inquiry? Is it not possible that empirical science—neurophysiology, in particular—will find specific states and processes that will fill the bill, as far as understanding, believing, remembering, etc. are concerned? And so, whether or not there are definite states or processes of understanding is something that we will discover. That there are such can certainly be entertained as a scientific, empirical hypothesis, and its consequences discussed. To preclude such an outcome *now* is just to claim that we shall never obtain certain sorts of results in future neurophysiology. But then Wittgenstein is simply making a bet on the future course of science or else he is engaged in a priori anti-science, denying

a priori that certain projects could bring results, and hence they ought not even be investigated empirically.

For brevity I shall call this objection, that Wittgenstein is simply ruling out something that science could discover, the “scientific objection.” I mean it to be narrowly based on envisaged possibilities of results in neuroscience and thus *not* to be the charge that Wittgenstein fails to leave room for the discoveries of psychology, or cognitive science, or psycholinguistics, or some as yet unknown science of the mind. The latter charge has been made frequently since the publication of the *Investigations*, but it is not so much an objection to a specific point of Wittgenstein’s as a denial of all of Wittgenstein’s philosophy of mind. Much in the *Investigations* is devoted to exposing the conceptual confusions that would be involved in a “science of the mind”; in any case, any such science would *presuppose* just the picture of mental states or processes and the whole notion of a mental apparatus that Wittgenstein is concerned to undercut. In contrast, the scientific objection as I am imagining it exploits the unarguable status as empirical science of neurophysiology and the independence from psychology of the conceptions of state and process that it employs. Consequently, the objection requires detailed attention to what Wittgenstein is saying or denying about intentional notions, and so can function to elicit clarification of Wittgenstein’s dark point about states or processes.

The scientific objection is, it seems to me, a most natural one, and for that reason powerful. And it puts Wittgenstein in a poor (and stereotypical) light: as a philosopher, making ungrounded empirical claims or, worse yet, a philosopher trying a priori to deny the progress of science, like a late Scholastic refusing to grant the coherence of the Copernican conception or an Idealist “proving” the impossibility of Einsteinian physics. Indeed, the charge that Wittgenstein is ruling out certain empirical possibilities a priori is doubly damaging against a philosopher whose major concern is to fight against a priorism, to demolish pictures of how things must be, to expose “preconceived ideas to which reality must correspond” (§131).

A common view of Wittgenstein takes his response to such an objection to proceed by noting that a physiological state would be “hidden”; it would not reflect central conceptual features of our notion of understanding (or believing, thinking, etc.). No such state would have conceptual links to correct responses and the other criteria of understanding; but the transparency of those links is essential to our concept of understanding. In short, the point is that no physiological state has the “grammar” of understanding. Hence, Wittgenstein is taken to urge, understanding cannot be conceptually constituted by any such state.

Although there are passages in the *Investigations* that suggest this response, to my mind it fails to capture Wittgenstein’s thought. The response requires a general and sharp distinction between conceptual and empirical, between criterion and result of investigation. Wittgenstein does not have the resources to make this distinction; in fact, the distinction is of a piece with the a priorism that he wishes to attack (see §79, last paragraph). That is, the response requires a form of essentialism which I do not believe Wittgenstein accepts.

Moreover, the response leaves it open that understanding, although not “conceptually” constituted by a neural state, might be “empirically” constituted by one.<sup>1</sup> This underreads Wittgenstein’s conclusion. Thus the suggested response does too little. Yet it is not totally off the mark, for Wittgenstein does think that the identification of any state of understanding would have to bear some conceptual burden. His conclusion will be that, in some sense, “nothing is hidden.” But this is meant to result from detailed considerations of the notion of understanding, not to be assumed more or less as a premise, as an unargued feature of his methodology.

The notion that Wittgenstein dismisses or ignores questions of “empirical” identity also reinforces the view of him as simply anti-scientific. Now we do know that Wittgenstein was distrustful of the claims of science and its role in contemporary culture. He makes this quite explicit when he expresses his opposition to “the spirit of the age” in the Foreword to the *Philosophical Remarks*, and the theme is repeated elsewhere in his work, both early and late. Some have gone on to ascribe to him a hostility to or belittling of projects aimed at scientific explanation, of such proportions as to depict him as simply dogmatic and blinkered. Bernard Williams, for example, complains that Wittgenstein’s general practice and teaching serve to “stun, rather than assist, further and more systematic explanation,” and offers as illustration a story about Wittgenstein used by Georg Kreisel in 1960 as evidence for Wittgenstein’s hostility to legitimate scientific explanation.<sup>2</sup> The story bears repeating. Imagine a child, learning that the earth is round, asking why then people in Australia don’t fall off. I suppose one natural response would be to start to explain about gravity. Wittgenstein, instead, would draw a circle with a stick figure atop it, turn it upside down, and say “Now we fall into space.”

Now I myself do not find the story emblematic of an attitude against science, or of a desire to “stun” further explanation. In fact, I think it shows Wittgenstein being highly insightful. For he is examining the source of the child’s question, in the concepts with which the child is operating. Given those concepts, an appeal to gravity can do nothing but mislead: the child will take it that the antipodal people are upside down, but they have gravity shoes, or glue, or something similar, that keeps them attached to the surface of the earth; as for us, we are right side up, so the problem does not arise. What Wittgenstein’s trick does is precisely to expose the conceptual confusion in the way the child is thinking of up and down (cf. §351). Once the child sees the relativity in the notions of up and down, she may then go on to ask, “Well, why don’t all these objects—us, the Australians, and the earth—go careening around independently?” or perhaps, “Then why do objects fall down rather than up?” At that point, explaining gravity might well be in order; the child is now prepared to appreciate it correctly.

The lesson, of course, is general. It is central to Wittgenstein’s teaching that the conceptual underpinnings to a felt need for explanation must be scrutinized, for what it is, exactly, that wants explanation may only become clear through such an investigation. This does not make him anti-scientific.

It does make him anti-scientistic, against the smug and unexamined assurance that what wants explanation is obvious, and that scientific tools are immediately applicable.

For Wittgenstein, it is characteristic of the notions that figure in philosophical problems—prominently, mental concepts and linguistic concepts like meaning—that a structure is imposed on them, without grounding in the ordinary use of these notions and without being noticed, when they are taken to be amenable to certain explanatory projects. (Much work in the *Investigations*, on my view, is precisely devoted to getting us to notice, to see that there is a place at the start of philosophizing, where this imposition happens.<sup>3</sup>) Hence, only through clarification of what the legitimate questions are can proper sense be made of the applicability of science. A scientistic viewpoint ignores this need for clarification. As a result, for Wittgenstein scientism is just as misguidedly metaphysical as traditional, more transparently a prioristic, approaches.

I am depicting Wittgenstein as thinking that conceptual work must be done before the question of the applicability of science should be raised. Now it is also true that whatever empirical, scientific results may legitimately be foreseen or hypothesized after that work is done are of little interest to Wittgenstein. He seems to believe that what is really at issue in a philosophical question will be answered, or dissolved, by the conceptual work, and not touched by science. That is, science is simply not of use in dealing with the sorts of problems with which he is concerned. But this broad characterization can be misleading. Wittgenstein is not being dismissive; he is not urging a distinction between questions of the mind vs. questions of the heart. Nor is he saying that in doing science we are talking about different things; he would have had little patience with Eddington's "two tables" and with Goodman's different worlds (although the latter claim may be thought controversial). Moreover, as I mentioned above, I do not believe that he wishes to rely on a sharp distinction between conceptual and empirical, that is, a Fregean divide between logic and analysis on the one hand and "mere" psychology and physics on the other. Rather, Wittgenstein operates case-by-case. For each philosophical question we treat, we are to tease out what we are aiming for, or what we think we are aiming for, and then to come to see how our objectives will not be served by a scientific investigation; and we are to recognize how the inclination to look to science for answers elides or ignores so much as to suggest that a philosophical picture is at work.

This point is made in §158, the one explicit appearance in the *Investigations* of something like the scientific objection. Here he suggests that, although the objection says that the scientific investigation may come out either way, that it is only a scientific hypothesis or conjecture that such-and-such a process or state will be found, at bottom the objector is being moved by an a priori demand that things *must* turn out a certain way. The claim of a modest empiricism is mere lip service.

With respect to understanding, the point might be phrased thus. Wittgenstein asks us to look in detail at the range of our practices relevant to an ascription of understanding. We find an enormous variety of considerations that

can enter, a dependence on context that is impossible to describe accurately by any general rules, a lack of uniformity in mental accompaniments. In individual cases we have stories to tell to justify our ascriptions, but there is no uniform feature that pulls the various cases together. It is just this that can drive us to think there must be some final item behind the phenomena that grounds each ascription, that is what the ascription is an ascription *of*; we feel that without this the ascriptions would be arbitrary (cf. §146). If it is at such a juncture that the scientific objection is voiced—if the objector is saying, even though our ascriptive practices now show no uniform features, “that’s only because we have too little acquaintance with what goes on in the brain and the nervous system” (§158)—then the roots of the objection in a priori demands that something unitary and definite must ground the ascription are evident.

If we accept this diagnosis, then the scientific objection is undercut for its attractive empirical stance—its appearance of making only the modest claim that things might turn out either way, we might or we might not discover an appropriate neural state—is seen to be a pretence. The objection thus loses its scientific cachet and, with that, its particularity as an objection. It becomes just a restatement of a picture of what *has* to be there. Wittgenstein’s work is meant first and foremost to free us from such pictures. If this is done, it will also free us from the desire to object in this way.

In sum, Wittgenstein’s first reaction to the scientific objection is to examine when we are inclined to bring it up and for what particular purpose. And then he asks whether we are sincere in our empiricist stance or rather whether we see a “must” creeping into our language. If so, then what is operative at bottom are a priori demands on the mental notions.

Such demands are the focus of Wittgenstein’s investigations of mental concepts. Through his treatment of them we can develop themes concerning the scientific objection that are more general than the reaction or diagnosis just canvassed. If his investigations succeed, we shall lose the idea of the specific particular process or state that is the understanding, along with the idea that we need such a thing. But then the question will arise of what the progress of science was supposed to have provided, according to the objection. That is, Wittgenstein’s investigations are to have the effect of making entirely obscure what could be scientifically discoverable that would *be* the mental state-or-process of understanding—since, if you will, there is nothing for it to be; there is no role for it to play.

In Wittgenstein’s considerations, I see two predominant strands, perhaps separated only at the cost of some distortion. The first concerns how the state is conceived to operate. The idea under scrutiny is that the state of understanding is the source from which flow the manifestations of understanding; Wittgenstein asks whether we have any conception of the “flowing from,” any conception of what we are asking of the state when we take it as issuing in, determining, fixing, what counts as a manifestation of the understanding. The second strand concerns the range of things the particular state or process is supposed to do. Here the strategy involves examining the topography of understanding

and manifestations of understanding in varieties of circumstances; it entails the laying out of particular cases which is part of what Wittgenstein calls a "grammar investigation."

Let me start with the first strand. The definite state of understanding that Wittgenstein wants to deny is meant to be the state that, in and of itself, in some way determines everything that counts as a manifestation of that understanding. Wittgenstein argues that this notion is confused. It is based on a misconstrual of the models we have, in which samples, pictures, formulas, standards, and so on, can issue in or determine or fix the characterizations of items.

In order to pass from "disguised nonsense to . . . patent nonsense" (§464), an example less abstract than understanding might be helpful. I shall present one from cognitive science which illustrates Wittgenstein's point vividly. Several years ago I was intrigued to read a newspaper item with the headline "Mental Tuning Forks Noted in Perfect Pitch."<sup>4</sup> It began:

New evidence has been found that people with perfect pitch, the ability to recognize a note that they hear without having the identifying pitch sounded beforehand, use a special set of mental tuning forks other people lack. The findings suggest that those forks let them distinguish between pitches by recognizing each tone.

I could not tell from this what mental tuning forks were, but that would presumably emerge from the empirical evidence for the claim. The evidence turned out to be as follows. There is a certain brain wave, called P300, which has been claimed to be associated with memory (the researchers also said the P300 was a measure of "brainpower"). Subjects with perfect pitch, when asked to identify the pitches of tones played to them, have a small or absent P300 brain wave, whereas those without perfect pitch had larger P300. The cognitive scientists took this to mean that the latter were reaching into memory "in order to compare what they heard with a remembered standard." The *absence* of P300 in subjects with perfect pitch was the sole evidential basis for the claim of mental tuning forks.

The argument seems to be this. Those who use memory use it for a "remembered standard." Those with perfect pitch do not use memory. Therefore they must have a standard not in memory; thus, mental tuning forks.

Tuning forks! Are they sounding all the time? If so, what a cacophony! How does the subject know which fork's pitch to pick out of the cacophony when confronted with a tone to identify? If they are not always sounding, how does she know which one to sound when confronted with a tone? And if she sounds one, and it is too low, what tells her that it is too low, what gives her instructions as to which fork to sound next? Does she have internal ordered pairs of tuning forks which give her the standards for "higher" and "lower," so that she may compare her tuning forks with the tone she heard? But how does that help since she still has to compare the tone with a member of the ordered pair?

I admit that the expression "mental tuning forks" occurred only in a newspaper article, not in the research report published in the journal *Science*.<sup>5</sup> The latter was more restrained and concluded, "subjects with this skill have access to permanently resident representations of the tones, so they do not need, as the rest of us do, to fetch and compare representations for novel stimuli." "Permanently resident representations" here are the tuning forks of the newspaper article, the standards not in memory. But clearly the same questions arise about such representations, even without the picturesque language.

Real tuning forks give us the means to identify pitches, but they do so because we have the practices and abilities to use them. The internal standard is supposed to give us the means to identify items, but without practices and abilities, for the internal standard is also meant to operate by itself, in a self-sufficient manner. (If it were not, it would be otiose: why not settle for practices and abilities themselves? It hardly adds explanatory value to say, instead of "She can recognize that as middle C," "She has a permanently resident mental tuning fork at middle C and can recognize when a tone is the same as that.") In short, the internal, mental determinant is imagined on the model of external standards, but in the absence of the surroundings that make the standards into standards. This is how the model is misconstrued.

The case of "mental tuning forks," despite its foolishness, is similar to more serious ones. The questions that point out the misconstrual here are congruent to the third-man type arguments Wittgenstein invokes with respect to samples (§74), signposts (§86), mental pictures (§139), and rules (§198). The same move is made in construing understanding: the notion of the self-sufficient state is just the notion of an "internal representation" that legislates all the individual uses. It is just the idea that recognition *must* involve comparison to a standard. Wittgenstein's point is to expose its incoherence.

Here, however, the scientific objector has a retort. Once physical science is in play, causal notions become available. Thus the incoherence can be avoided: what is being imagined as being in principle discoverable is not some confused notion of standard or representation, but a physical state that will *cause* the manifestations of understanding.

Now the notion of cause can seem inapposite at this juncture, that is, as that which will *first* give sense to the determination by the understanding of what counts as a manifestation of the understanding. None of its ordinary (scientific) surroundings are in place (cf. §169). The notion of the standard that legislates the uses, one might think, would have to be given first; only then the scientific or scientistically inclined would urge an empirical investigation to see how this works. Wittgenstein's attack is on this prior notion. For this reason, I think, Wittgenstein tends not to take seriously the idea of using causal notions. His interlocutor at §195 says "I don't mean that what I do now (in grasping something) determines the future use *causally* and as a matter of experience, but that in a *queer* way, the use itself is in some sense present," and Wittgenstein agrees that causal notions are not at issue.



Nonetheless, one might want to examine more closely what the imagined causal location is. Any relation between understanding and manifestation has little of the invariability that a straightforwardly causal relation would entail. I do not produce manifestations of my understanding at all times: I may not want to, I may be bored, I may make a mistake, I may have misheard what you said, I may be making a joke or pulling your leg. Thus any causal story has now to bring in other factors, e.g., my "belief that you asked thus-and-so," my attentiveness, my "desire to manifest my understanding correctly," and so on. In order to establish some hint of lawlike regularity, each of these other factors now must be imagined to be scientifically discovered as distinct, definite particular states, presumably *independently* of the state of understanding. Clearly we have little clue as to how such states will be identified. After all, these factors have been specified so far only in circular fashion, via the assessment of the behavior as a manifestation of correct understanding. The point here is to show how much is glossed over in the retort, how little we have a grasp on what we are meant to be imagining.<sup>6</sup>

Yet another reaction to the objector's recourse to causal relations is grounded on what I called the second strand in Wittgenstein's efforts to undermine the notion of a particular state or process as constituting understanding. That strand concerns the range of practices relevant to ascriptions of understanding. I have been talking, simplistically, of "manifestations of understanding," as if all that were involved were correct uses of the understood word. But in fact a major part of Wittgenstein's considerations are to get us to see the enormous variety of features that play a role in our ascriptions of understanding or lack of understanding, and the dependence of these on particularities of the context in which the ascription is made. There is no short repertoire of behavioral manifestations; there is enormous play in what understanding can be said to come to or not in different circumstances; an ascription of understanding can rely on features of the subject far beyond the immediate manifestations. Different performances are required of new learners and old hands; character traits, mental states—of all kinds, intentional, emotional, and perceptual—and personal history of the subject can be relevant. Special circumstances of considerable intricacy can affect an ascription of understanding. (To use Wittgenstein's well-chosen example on p. 59 of the *Investigations*, think of the cases in which it would be legitimate to speak of an interruption of understanding. More generally, one might reflect on the very different ways in which mistakes can affect ascriptions, for example, of the ways we distinguish between errors arising from carelessness and errors arising from misunderstanding.) In short, the differences that can emerge in circumstances are overwhelmingly complex and inhomogeneous; different cases of understanding may have little in common.

Wittgenstein exploits considerations along these lines in many ways in his general attack. The variegation and lack of uniformity make clear how far any unitary state or process is from what we observe in the cases of understanding, and thus emphasizes the leap made in postulating such a "hidden" state or



process. Any of the features that play a role in an ascription of understanding would have to be construed as evidence for this hidden state. But our grasp on the state-evidence model is cast into doubt by the variability of what and when any particular feature functions as evidence. For we lack any conception of how the state is connected to just the particular things that matter in a particular context. If we say that in each particular case there is some particular connection, then all we are saying is that the particular circumstances justify me in my ascription; the *one* state drops out. But what conception can we have of a general connection that issues in such variability? It begins to look as if in each instance the state must include, in some sense of include, something answering to any feature that could possibly arise in any circumstance; this is a notion of internal standard gone wild. It also looks as if the state has to be able to take account of all possible circumstances. But that is not a well-defined totality. In some circumstances, indeed, we might not know how to ascribe understanding; we might just not know what to say.

These are ways, more and less subtle, in which the range and variegation of our practices might be exploited at a stage in the argument when it is still open what the relation of a putative state to the manifestations could be; when, that is, we are still talking of the "as yet uncomprehended process in the yet unexplored medium" (§308). If, however, we return to the scientific objection, with its envisaged brain states and processes and its recourse to physical causation as linking state and manifestation, the upshot of that range and variegation is fairly straightforward. They show that we have little grasp of how to identify what is at issue in the brain. For it becomes hard to see how we could even begin to pick out the jobs that the supposed particular brain state was meant to do, that is, to say what causal role qualifies the state to be the state of understanding. If the objector is saying that we could in principle discover that which biochemically causes us to behave in ways that a person who understands does, to this we can now point out that the latter is simply not definite enough: there is no surveyable checklist of such behaviors, and inclusion of any particular behavior will depend on a not circumscribable range of features of the situation and on the person's particular circumstances and history. Again, what we are imagining in talking of a brain state identified as the understanding by its causal location, becomes entirely unclear.

A somewhat different cast can be put on the consideration of our practices as follows: the things which we count as behavior associated with understanding are not grouped together by any scientific unity; we have no grasp on the collection in scientific terms. When we talk about manifestations of understanding, we are seeing, or conceptualizing, the behavior through the concept of understanding; it is only that concept that links them together. Wittgenstein seems to be exploiting this in *Remarks on Philosophy of Psychology I*, §§903–906 (= *Zettel*, §§608–611):

§903. No supposition seems to me more natural than that there is no process in the brain correlated with associating or with thinking; so that

it would be impossible to read off thought processes from brain processes. I mean this: if I talk or write there is I assume, a system of impulses going out from my brain and correlated with my spoken or written thoughts. But why should the *system* continue further in the direction of the center? Why should this order not proceed, so to speak, out of chaos? . . .

§904. It is thus perfectly possible that certain psychological phenomena *cannot* be investigated physiologically, because physiologically nothing corresponds to them.

§906. The prejudice in favor of psychophysical parallelism is a fruit of primitive interpretations of our concepts. . . .

That is, if we look at all of the things that we call manifestations of understanding, we find no physical or physiological regularity in them. Hence there is no reason to expect a physical systematicity in understanding. If you eliminate all the mental notions, what are you left with by way of the data? What you have left to do the science on is very little indeed.

The note Wittgenstein is here sounding has a Quinean ring. In fact, I do see a confluence between the two at this point. If one restricts oneself to the austere language of the physical sciences (which is the rightful home of the notion of cause that the objector is trying to exploit), then the data are very thin: you have people's movements and emissions of noises of various sorts (it would already be illicitly interpreting the data to say there are actions and there are words being spoken). In that, you do not see understanding at all. But then there exists little reason to think there will be a scientifically discoverable state that will group together just the right things under the concept of understanding. This is "merely" a plausibility argument, although I think a rather strong one. But it can serve to undercut the scientific objection in an additional way as well. Part of the force of the objection, part of the reason one might think to look for the brain state that causes manifestations of understanding, is simply a Laplacean view that everything we do is caused. But what is caused, in that sense, is behavior in the most physicalistic sense. If you have applied the Laplacean picture to notions like the understanding, then what you have done has inflated the data. You have a mere metaphysical insistence rather than anything that comes from a scientific worldview.

The point underlines what I have been implicitly suggesting all along: that the inclination to think that science might discover an appropriate state rests on an accession to a picture of the mental apparatus, of definite states and processes of some sort; given those states and processes, questions can then be framed of whether they can be tied down physically. If, on the contrary, the only apparatus assumed is physical, then upon scrutiny it becomes clear how little conception we have of what is supposed to be discovered.

There is an objection to all of these points, though. Surely, it will be said, one can—without acceding to any overblown ideas of the mental—imagine the

discovery of a physical state that a person is in if and only if that person, say, understands a particular word; a state that is merely *coextensive* with understanding, with no further structure presumed. However, this is far less clear than it might seem. For what Wittgenstein emphasizes—the nonuniformity of our criteria for understanding and their intertwining with much else in our physical, social, and mental lives—represents differences from the models we have of states and processes in physical science. The features we rely upon in finding general properties of or structures in, e.g., physical substances, features that lead us to call them natural kinds and that allow us to generalize from one sample to another, are lacking. Thus it becomes unclear how anything we discover in some cases in which we would ascribe understanding could be justifiably generalized to all cases. There are, in a sense, too many singularities.

Perhaps that should be the end of the matter, but one might feel inclined to indulge the objection, and to suppose (for the sake of argument) that we can carve out some class of cases that *is* tractable enough from the standpoint of physical science to support inductions, yet broad enough to be interesting. Now suppose further that we discover a physical state common to all cases within this class that are cases of understanding. Is this a discovery of a state of understanding? There is in Wittgenstein's considerations a suggestion that, even if we can make sense of being able to identify some physical features of the brain somehow linked with cases of understanding, then anything that we could discover would be at best concomitants of understanding and not what the understanding itself is. "For even supposing I had found something that happened in all those cases of understanding,—why should *it* be the understanding?" (§153).<sup>7</sup>

The difficulty here lies in making this point out without returning to the "grammatical" argument I am concerned to avoid, and thereby imputing some form of essentialism to Wittgenstein. Obviously, were we to discover that, in some tractable class of cases, an understanding of the word "eleemosynary" goes along with a disposition to blink upon hearing the word, then we have discovered an accompaniment of understanding, not anything we would identify with the understanding itself. The blinking has no connection to those things that are importantly involved in understanding, e.g., correct usage and the ability to explain the word. Hence the discovered disposition seems extrinsic to understanding, a mere accidental concomitant, rather than anything we would be inclined to call the state of understanding.

Clearly then, any brain state, if it is not to be dismissed as a mere accompaniment of understanding, would have to be suitably connected to the features that we rely upon in our ordinary ascriptions of understanding: it would have to be identified by way of the manifestations and practices. So, in the end, more than a bare coextensiveness claim is needed. But then once again the considerations elicited by Wittgenstein's investigation of the nature of our ascriptive practices come into play; here they serve to show that anything isolable enough and general enough to be usable for the identification of a particular brain state could reflect little of the range of our practices.

Consequently, it can be argued, any state that is so identified would have a tenuous claim to being the state of understanding that the scientific objector claimed to envisage.

To argue this, to elaborate the requirement that the brain state be linked to criteria of understanding, we should look closely at the work the scientific objection was supposed to do. We must evoke or uncover specific characterizations of what the state that is the understanding itself is wanted for, what work the isolation of such a state is meant to do. For example, suppose that one takes the understanding itself to be needed in order that there be a principled distinction between a mistaken usage (given this understanding of the word) and a different understanding, that is, any possible different understanding. That would demand that the state be connected in some way to *all* correct usages, that is, all correct possible uses. For if it had connection to only a subset of them, then the state would be indistinguishable, by itself, from the different understanding which would issue in only the correct uses in that subset. If we continue to think of "connection" here to be causal, we then have the demand that the state causally produce all correct further responses. This is just the demand Kripke puts on such states in his book, and he argues persuasively that it cannot be met.<sup>8</sup>

The demands we would impose for a state's being more than a mere accompaniment of understanding, it now appears, depend on what we expect from the identification of a "state of understanding." This is, I think, corroborated by consideration of an intermediate case. Ignoring numerous difficulties and obscurities, let us suppose we can imagine the discovery of a brain state that is common, within some tractable class of cases, to those who understand the word "table" and that is identified by causal links to correct usages in just a few straightforward cases and links confrontations with paradigmatic tables.<sup>9</sup> In this imagined case, are we to call the state the understanding or merely an accompaniment of understanding? My reaction is to echo Wittgenstein's remark: "Say what you choose, as long as it does not prevent you from seeing the facts" (§79). Whether or not one claims the identification, what is important to note is how little by way of further enterprises are supported. Precisely because the state lacks connection to important features of understanding, it provides no basis for claims about the "structure" of the understanding and little notion of the content of what is understood. It does not even have links to straightforward verdicts about tables and non-tables beyond the paradigmatic few, and thus does not intrinsically rule out other possible different understandings. As a result, the connections between understanding and content that are crucial to any philosophical, cognitive, psychological, or semantic theorizing are absent.

The lesson is that once we reflect on any particular task, philosophical or mentalistic, that the discovery of a state of understanding was to do, the paucity of features that could be built into a specification of a brain state will make such a state look too little like the understanding "itself." Given what we wanted from a definite, particular state of understanding, what we can imagine discovering scientifically will not suffice.

Clearly, though, the success of this line of argument will rest to a considerable extent on Wittgenstein's more basic strategies to show the inaptness of definite state or process characterizations of understanding. That is, one has to undermine a picture of the mental apparatus at the start, and emphasize the intricacy, connectedness, and nonuniformity of our practices of ascription, so as to make clear how different this is from the case of mechanisms in the physical world. The scientific objector always has examples from the physical sciences in mind. We discovered the internal constitution of ammonia, after all; what we discovered was not an "accompaniment" of ammonia, whatever that would mean. To this we ought respond: understanding is not like ammonia. Wittgenstein's investigations are meant to bring us to see how different the cases are. The surroundings that make "What is ammonia" a question, the same question as "What is the structure of ammonia," are absent for "What is the understanding of 'table'," or worse yet, "What is the structure of the understanding of 'table'." Wittgenstein's aim is to get us to reflect on differences that make the latter question so peculiar.

#### Notes

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1. The terminology comes from Paul Horwich, "Critical Notice: Kripke: *Wittgenstein on Rules and Private Language*," *Philosophy of Science* 51 (1984): 168.

2. B. Williams, "Wittgenstein and Idealism," *Understanding Wittgenstein, Royal Institute of Philosophy Lectures*, vol. 7, 1972–73, edited by G. Vesey (London, 1974), 91; G. Kreisel, "Wittgenstein's Theory and Practice of Philosophy," *British Journal for the Philosophy of Science* 11 (1960): 238–52.

3. See my "I Want You to Bring Me a Slab: Remarks on the Opening Sections of the *Philosophical Investigations*," *Synthese* 56 (1983): 265–82.

4. "Mental Tuning Forks Noted in Perfect Pitch," *Los Angeles Times*, March 25, 1984.

5. Mark Klein, Michael G. H. Coles, and Emanuel Donchin, "People with Absolute Pitch Process Tones without Producing a P300," *Science* 223 (March 23, 1984): 1306–09.

6. Here, in talking about the causal efficacy of presumed understanding states, we are in the neighborhood of Saul Kripke's arguments in *Wittgenstein on Rules and Private Language* (Cambridge, Mass., 1982). Kripke emphasizes the infinitude of potential responses and the finitude of those anyone could actually make, given human limitations. In my "Kripke on Wittgenstein on Rules" (*Journal of Philosophy* 82 [1985]: 471–88), I noted that the point could be turned aside, at least at first blush, by one who believed that neural science could discover both competence states and "interfering" states that prevent the competence from being fully exhibited. My point now is meant to show how the latter is a woeful oversimplification; for the problem is not simply a matter of not giving all the responses. The extent of the responses is not the issue. Rather, the giving of responses can be thought of as a causal upshot of states only once a vast variety of other putative states are brought into play, involving many areas of the person's psychic economy. This renders the notion of locating the understanding state (the competence state) much less clear than a simple separation into competence and interference would depict it.

7. It should be noted, however, that in §153 Wittgenstein is discussing *mental* processes that may accompany understanding; it is the picture of a mental apparatus that is at issue.

The considerations he adduces in this and contiguous paragraphs do not, I would think, apply *tout court* to our present question concerning physical states.

8. Kripke, *Wittgenstein on Rules and Private Language*.

9. I suggest this scenario in my "Kripke on Wittgenstein on Rules," 478; I am now far more doubtful that the scenario is coherent. The notion of finding a state that *causes* usage is highly questionable, as I argued above. There are further problems with the identifiability of the state as "the same" in different people.