HOW WORDS MEAN KINDS OF SENSATIONS

1. IT sometimes seems to me that what makes one of my sensations of the kind it is is something that only I who have the sensation can know. Then it seems conceivable that, no matter what evidence I might think I have to the contrary, the kind of sensation that I mean by, for example, the term "itch" is not in the least like the kind that other people mean by that term. Then it seems impossible to find out for certain, really to know, whether or not I and other people do mean anything like the same kind of sensation by that, or any, sensation term. I cannot show another person what it is about my sensation that I mean by calling it "itch" and he cannot show me what he means by calling one of his sensations "itch." Of necessity, we can at best induce each other's meaning from similarity of concomitant "external" facts: behavior and circumstance. We cannot share the direct, certain path to grasping the kind each of us means by the term: that is necessarily solitary and private.

Yet at the same time as I feel drawn to these conclusions I cannot rid myself of a sense that they are radically wrong. The hypothesis that what another person represents himself as feeling when he rubs his nose vigorously and says "I can't seem to get rid of this blasted itch!" is not at all like what I feel that inclines me to do the same sort of thing (but is, say, just like what I call in myself a stomach-ache) is, I cannot help thinking, a hypothesis that cannot be seriously entertained, even as highly improbable.

The way out of this familiar philosophical distress (if there is any way out) is, I believe, to see more clearly what it is that enables a piece of language (a single word or a longer phrase) to mean (or specify) a kind of sensation. It is thereby that we may

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1 I have been greatly aided in bringing this paper to its present version by discussions of earlier versions with members of the philosophy departments at the University of Rochester, the University of Michigan, the University of Massachusetts, and the University of Minnesota, and also by suggestions from the editors of the Philosophical Review.
hope to see through the “decisive move in the conjuring trick.”

2. I can make sufficiently clear what I mean by “terms that mean kinds of sensations” or, as they might also be called, “sensation-specifying terms,” by listing several of them: “itch,” “ache,” “pain,” “toothache,” “headache,” “stomach-ache,” “muscular ache,” “smarting,” “throbbing pain,” “burning sensation,” “dizziness,” “tickle,” “tingling,” “bitter taste,” “nausea,” “swooning sensation,” “flushing feeling,” “ringing in the ears,” “bright afterimage.” One could go on and on. These and many others are familiar and of long standing, but the coining of novel sensation-specifying terms, in order, say, to describe sensations unusual or novel to the speaker, is not uncommon: “feeling as if my head were in a vise,” “feeling as if the whole room were swooping,” “feeling as if I were melting,” “feeling as if the upper half of my body were floating away from the lower half.”

One feature of many sensation-specifying terms is especially noticeable in these longer, relatively novel descriptions. They contain words whose primary use is to specify kinds or features of things other than sensations and whose fitness to serve in the sensation descriptions derives from this other, primary use. It is this feature that enables us to understand such a sensation description—in that we think we could recognize such a sensation should we ever have it—even though we do not know the kind of sensation meant by the description in the sense of having had one of that kind ourselves. There are at least two reasons that terms used primarily to specify other things come to have a secondary use in specifying kinds of sensations. In some cases it is because they just seem to the subject to be appropriate similes. In using such expressions as “feeling as if the two halves of my body were floating apart,” “feeling as if the room were swooping,” “feeling shod with lead, gloved with marble” to describe his sensation, a subject is not (normally) saying literally that it is of the kind that would actually result if the two halves of his body really were floating apart, or the room really were swooping, or he really were shod with lead and gloved with marble. In other cases terms do acquire a secondary, sensation-describing use because their primary use is to describe what would (or what it is supposed would) normally cause, or be portended by, the sensation described—as in, for example, the usual use of “stinging sensation,” “salty taste,” “feeling as if I were going to vomit,” “feeling as if I were going to sneeze.”

Besides the bodily conditions and behaviors that cause or are portended by sensations, there are “external” facts of another sort that get into the game with sensation-specifying terms, but they do so, as we shall see, in an importantly distinctive way—not through having descriptions of them figure in the sensation descriptions. These are the behavioral reactions that the subject makes, or is inclined to make, to many of his sensations (what Wittgenstein means, I believe, by “expressions of sensation”)

Scratching, for example, is the typical reaction to an itch. A certain sort of cry, wince, and attention to the affected part is the typical reaction to a certain kind of sharp, intense pain. An ache tends to give rise to a rather different sort of vocal expression and attention to the affected part (moaning and gentle rubbing).

The particular reactions just mentioned are natural and unlearned. There are also learned, verbal reactions to sensations that, as we shall see, have a similar role in connection with specifying kinds of sensations. These latter include such verbal acts as the subject’s saying that a current sensation is of the same

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2 The difference between a behavioral reaction to a sensation and behavior or a bodily condition portended by a sensation lies in the fact that with respect to the latter we can quite naturally speak of a subject as taking his sensation as evidence that the bodily condition or behavior will be (or is) present: on the basis of his sensation he thinks that he is about to sneeze or vomit or faint, or that he is flushed or feverish or pale. Whereas with the behavioral reaction it would be very odd to speak in that way—to say, e.g., that he takes his itch as evidence that he is about to scratch or his intense pain as evidence that he is crying out.
kind as one he remembers having had on a previous occasion, or his saying what kind of sensation he is currently having. The sort of role that, primarily, such natural and verbal reactions to sensations play in the language practice of specifying sensations is, as I shall claim, that of serving as criteria of the kinds of sensations.

3. We should approach the question of what makes a term mean (or specify) a kind of sensation by first considering what, in general, makes a term mean any kind of thing.

Explaining what it is for a term to mean a kind of thing requires explaining how it is that the term has correct application to (“picks out”) certain particulars and not others. A tautologous answer is tempting here: it is because just those particulars have in common that which the term is appointed to mean. But this is not really what we want to know. What is it for a thing to have (in common with other things) that which the term is appointed to mean, for it to be of the kind that we mean by the term? What does one know when one knows what it is for a thing to be of that kind? It seems obvious that the answer must include this: one knows how to decide whether or not a thing can be correctly said to be of that kind; that is, one knows what are the sorts of procedures that are prescribed for judging the matter. If one understands the kind a term means then one knows what to do with a given thing in order to get relevant evidence as to whether or not the term applies to it. For example, to understand what it is for a thing to be of this or that color one must know that one determines the color of a thing by looking at it in ordinary light and that one can trust the impression of the thing’s color that one gets thereby to reveal the actual color of the thing so long as one has no reason to think that this impression is different from what most people would have under the same conditions. In general, to understand a term of a system of kind-specifications, to know what kind it means, is to know some rules prescribing how to obtain reasons for or against applying it. Rules of this sort define the kind.

It is not necessarily the case, of course, that every procedure that the users of a given term regard as one that obtains evidence relevant to its application can be said to help define the kind that the users mean by that term. For it may be that they use a certain procedure because they believe that its outcome is contingently correlated with the outcome(s) of some other procedure(s) and, further, it may be that this procedure belongs to no set of procedures especially favored by the users of the term in that (a) each member of the set is regarded by them to be as closely bound up with the term’s meaning as any procedure they consider relevant and (b) most members of the set would have to be considered relevant to any term they would regard as meaning the same kind. Thus whether or not a procedure considered relevant to establishing a kind goes to define the kind depends on the users’ reason for using it and on their attitude toward the way in which its use is connected with what they mean by the term. With respect to some procedures considered relevant to establishing kinds, used in complex, changing language practices—such as most of ours are—these can be difficult matters to determine. Still, within the whole set of procedures recognized at a given time as relevant to applying a given kind-specifying term, there must be some that—because their being used in no way depends on beliefs as to what the contingent correlates of their results are, or because they are favored by a special attitude—do go to define the kind.

With respect to a procedure that is among those that define a kind meant by a term, let us say that getting an outcome favorable to the application of the term is obtaining a criterion of that term. Criteria-obtaining procedures can, of course, vary greatly—from elaborate manipulations of a thing to simply observing a thing with certain senses in certain circumstances, or, even more simply, asking oneself (noting, not observing) how one is inclined or prepared to react to something.

It seems to me that the claim that procedures must be prescribed for deciding whether or not to apply a term to instances if that term is to mean a kind of thing implies no controversial position on the problem of universals. Even the Platonic theory recognizes this point and differs from other views only on the question of what must be involved in the procedures for classifying sensible things if the classifications are not to be arbitrary. But if we apply this general point about how terms mean kinds of things to the case of sensation we shall see that when one means a kind of
sensation by a term, knowing what kind one means cannot be a necessarily private and incommunicable matter.

4. What we see is that, if there is to be any procedure at all to determine that a sensation is of a particular kind, then that procedure must involve attention to some “external” facts associated with the sensation, to facts that can be disclosed to persons other than the subject of the sensation.⁴

Let us consider first the matter of determining that a subject’s sensation is of the same kind (never mind what) as a sensation that he had before, and let us consider the special case where there is no bodily condition known that causes or is portended by this kind of sensation and there are no natural behavioral reactions to it. If the criterial procedure by which a subject determines sameness of kind for a pair of his sensations were always something private and usable only by him, then this privacy should be clearest in such a case.

If the subject’s saying in this sort of case that his sensation is of the same kind as one he had before is to mean anything (to him or anyone) there must be some procedure by which a criterion could be obtained for determining whether the term “of the same kind” does apply to this pair of sensations. Now one might think that if the nature of the case rules out such factors as sameness of natural reaction and bodily cause as criteria, then it rules out “external” facts about the subject altogether. One is tempted to say: “In this sort of case, clearly, no reaction of the subject’s or any other externally ascertainable fact about him can be the criterion of the sensations’ being of the same kind. Rather the sensations themselves must furnish this criterion. They must show the subject their sameness: he simply gets them both before his mind (feeling the current one and remembering the earlier one) and then he sees whether or not they are the same.” And really there is nothing wrong with this last statement except that it is

⁴ I hope it will be obvious that in claiming that reactions (or dispositions to react) to sensations are the primary criteria of their kinds, I am not claiming that sensations are identical with the reaction-criteria of their kinds. A sensation is one state of a subject and his reaction or disposition to react to it is another. Similarly, the fact that a book is red is not identical with the fact I have the impression that it looks red when I view it in ordinary light, but the latter is a criterion of the former.

put in a way that tempts one to draw a false conclusion. For indeed he will “see” it if he both has the sensations before his mind and raises the question whether they are the same—and his impression will be quite reliable. But this, far from showing that the subject’s reactions cannot be involved in the criterion for sameness of these sensations, may rather suggest what I wish to urge, that the subject’s reacting to the sensations by thinking it right to say that they are the same (provided that he understands this and remembers the earlier sensation correctly) is in this case the criterion of their sameness.

Suppose one denied that this reaction of the subject’s is the criterion in this case and insisted that it is logically possible that the sensations in the case we have hypothesized should be different in kind in spite of the subject’s thinking that they are the same when he is contemplating them both. Then one has put the question of whether they are the same beyond the reach of any conceivable criterion to adjudicate. What else could such a criterion be? Our hypothesis already rules out other sorts of “external” facts about the subject. What the general consensus as to the pair’s sameness would be if they were generally experienced in the right sorts of conditions (a criterion modeled on that of sameness of color in physical objects) is, of course, not a possible candidate for a criterion here since there is no such thing as another person’s experiencing this subject’s particular sensations.

Nor can we suppose that the subject’s thinking it right to say that his sensations are of the same kind is based on some tests that, necessarily, only he can apply to his sensations. Given that he now feels a sensation and remembers an earlier one, then all he need do is ask himself whether or not they are the same. Indeed, what else can he do to arrive at a better grounded judgment on the question? Look more closely at them? View them in a better light? Make sure that his organs for perceiving sensations are working properly?

The suggestion I am making, that the subject’s impression in the circumstances described is a criterion of its own truth, may seem odd. For it may seem to mean that the subject must arrive at his impression by inferring it from itself. But my suggestion actually implies no such absurdity. There is a difference between
thinking a thing is so (or being inclined to think it so) and thinking one has a good reason for thinking it so; and something that may properly lead one to the latter belief about the former belief is one's knowledge that the former belief has arisen in a certain way or in certain circumstances. My suggestion regarding the case we have been considering is that, since the subject arrived at his impression in a certain way—as a result of proper training in sensation language and having the sensations before his mind—he not only has the impression but he has a good reason, a criterion, for thinking his impression correct. This is a perfectly intelligible situation, indeed one of a quite common sort. In the learning of kind-specifying terms people reach a stage of mastery where they can, without coaching, apply and withhold them in new clear cases without error and are, therefore, entitled to think that their confident impressions are to be trusted as correct impressions. One has mastered the term "red," for example, when one no longer needs correction in the applications one makes on one's own and no longer is hesitant about the applications one is inclined to make of it to new objects and shades but begins to suppose that if one's own, uncoached impression is that "red" applies to this shade, then that is an excellent reason for thinking that it really does. So there is no paradox in saying that a person is, in certain circumstances, entitled to take the fact that his trained judgment says that something is so as a very good reason, even a criterion, for thinking that his judgment is correct. So there is no real difficulty in my suggestion that, in the sort of case we have been considering, the criterion for the two sensations being of the same kind—even for the subject—is the subject's thinking it right to say so (given evidence that he understands so saying and no evidence that his memory in that sort of case is unreliable). That is a good thing, because reflection discloses nothing else in the situation that might plausibly be taken to be that criterion.

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WORDS FOR SENSATIONS

If we do not take the impression (qualified in the ways mentioned) as a criterion for what it is an impression of, but regard it as merely an impression, then it will need but lack a criterion of its correctness—an impossible situation. Either we must use the impression (suitably qualified) as a criterion of its own correctness or we must give up thinking of it as being either correct or incorrect (as having a criterion) in the situation we hypothesized. We cannot speak of the suitably qualified impression as mere seeming, as if it could be verified by something more conclusive, and continue to talk of its being either right or wrong.

None of these features of this impression-criterion is necessarily ascertainable only by the subject of the sensations. There are procedures by which others can obtain criterial evidence (1) that the subject thinks it right to say that his sensations are the same, (2) that he understands what this means, and (3) that he correctly remembers the previous sensation. In fact, the ways in which (2) and (3) can be ascertained are the same for both subject and non-subject. The evidence for (3) would have to be facts bearing on the general reliability of the subject's memory,

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5 This suggests an interpretation of Philosophical Investigations, sec. 298, that differs from the received one, originally put forward by Norman Malcolm (in his "Wittgenstein's Philosophical Investigations," Philosophical Review, LXIII [1954], 532-334). Wittgenstein's argument is not, as Malcolm appears to have it, that the memory impression of having privately given a certain name to a certain kind of sensation is in principle uncheckable by anything independent (except, of course, evidence of the general reliability of one's memory), but I do not think Malcolm meant to deny that; therefore, there can be no such private naming of kinds of sensations. One could also argue that, since one's memory of the verbal expression of a thought that one has given only to oneself ("in one's head") is in principle uncheckable by anything independent, there can be no such private expressions of thought! Rather, Wittgenstein's point is that if I suppose the criterion of sameness between present and past sensations to depend on the sensations themselves in such a way as to be independent of any impressions about them I might have or any expressions I might make of them, then I leave myself with no possible criterion of correctness for my present and future claims that the sensations are the same (or different) and, hence, cannot rightfully speak of such claims as right or wrong. My interpretation of Wittgenstein on this point, and my argument in this section, grow very much out of his suggestion (which I find made in sec. 270 and on p. 207 of Philosophical Investigations) that there is no place in the sensation-specifying language game for the hypothesis that one's impression that one's sensation remains the same (or recurs) is always deceptive.
or its reliability concerning sensations in general (unless, of course, the subject overtly reacted to the previous sensation when it occurred). The evidence for (2) would have to do with the correlation in other cases of the subject's use of this expression and sensation-specifying terms with other sorts of criteria of kinds of sensations. Only (1) will have to be ascertained differently by others than by the subject. The subject cannot be ignorant of whether or not (1) holds but others can be, and if they are not to be they must conduct investigations of a sort not needed by the subject himself. But still it is the same criterion that they obtain (or attempt to obtain) and, hence, the same defining rule that they apply. It is just that the nature of this criterion requires that others must employ a different procedure (and more of a procedure) than the subject can employ in order to obtain it. The criterion is also such that the subject can, if he wants, be the only one who does know whether or not the criterion obtains; others ascertain this only with his permission. Thus we can say that this criterion is, necessarily, less easily ascertainable by others than by the subject—they can encounter obstacles that cannot exist for him (for example, his refusal to say anything on the question)—but we cannot say that it is necessarily unascertainable by others.

The temptation to think that, in the sort of case we have considered, there must be a criterion of the sensations' sameness that is more conclusive than the subject's reaction and also inaccessible to others (and, as it must turn out, to the subject himself) can be at least partly explained by a failure to appreciate fully the point that there is no such thing as one person's experiencing another's sensation. We are apt to think of this impossibility as marking a contrast between two sorts of objects, the internal and the external, the private and the public. The latter can have any number of observers, whereas the former can have only one. At the same time we think of objects in general as having a feature that this very contrast implicitly denies of sensations—namely, that the most conclusive criteria of sameness of kind for objects are independent of (can conflict with and show wrong) the single observer's judgment. But this is possible only if the most conclusive criteria reside elsewhere—for example, in the general agreement of most observers. We cannot have it two ways with respect to

the way in which it is determined whether a subject's current sensation is the same as one he remembers having had. We cannot both deny that his judgment on the question is the conclusive criterion (on the ground that the sensations are objects) and also deny that other facts ascertainable by him and others have criterial status (since the sensations are private). If we do, we end up in the absurd position of saying that the kinds that these private objects really are do not depend on any kind-ascertaining procedures that we can actually apply to them. If we have in mind no procedure or criterion that could determine whether "of the same kind" really applies to two sensations, then we do not understand its application to them. The hypothesis that they might really differ, even though any criterion that we can think of would indicate that they are the same, cannot have any meaning.

5. We have reached the conclusion that, in the sort of case we have been considering, the only possible criterion of the sameness of the two sensations is the subject's thinking it right to say that they are the same (given certain conditions on this). Now we should note that this inclination to verbal reaction can be a criterion in this sort of case only if other sorts of external facts associated with sensations are the criteria of sameness in other sorts of cases.

A subject's thinking it right to say that his current sensation is the same as an earlier one is a criterion of its being so, I have repeatedly said, only if the subject properly understands this that he wants to say. A subject's properly understanding the term "same kind of sensation" must consist in his knowing something more about its use than that its application to his own sensations by a subject who knows its use has criterial status. What could this something more be but the fact that other sorts of criteria are relevant to its application in many cases? And where could these other sorts of criteria be found except among the other sorts of "external" facts associated with sensations that we have noted? The complete test of whether a subject properly understands "same kind of sensation" must involve not only his regarding his sincere applications of the term to his own sensations as unchallengeable (except on evidence that his memory is faulty) but also
his being prepared to acknowledge that there are or have been some sorts of cases where a criterion other than what he wants to say on that question is also appropriate. Suppose that, whenever he scratches his nose vigorously and as if driven to it, he says that he does so because of a strong sensation in it but denies (without intent to deceive) that any two of these sensations are at all of the same kind. Suppose also that he behaves similarly in a variety of other sorts of cases, never acknowledging that any circumstance other than what he thinks it right to say can be relevant to whether or not what he thinks it right to say is right. Then we have a good case for saying that he does not properly understand the term “same (or different) kind of sensation.” It is, of course, possible that in some cases the criterial evidence of what the subject thinks it right to say might outweigh conflicting criterial evidence of another sort. But the totality of his reactions of thinking it right to say that two of his sensations are the same (or different)—to utter words that normally mean that—can have no significance as sensation reports unless some of those reactions accord with what certain other sorts of criteria would dictate.

6. To say that two sensations are of the same kind is a different thing from saying what their kind is. Having shown that the former requires criteria that are in principle ascertainable by persons other than the subject of the sensations, have we shown that such criteria are needed in the latter case? Perhaps, someone might suggest, others can know what the subject means by saying which of his sensations are of the same (and which are of different) kinds, but only he can know what he means by the terms he uses to specify these kinds.

We could dispel this worry by constructing, for the criteria for determining what kind a sensation is, just the same argument as we have developed for the criteria of two sensations’ being of the same kind. Possible criteria of their kinds are no more to be found outside the realm of “external” facts associated with sensations than are criteria of sameness of kind. But we can also meet the difficulty in another, shorter way by utilizing the conclusion we already have.

Given a set of mutually exclusive kinds for classifying the instances of some genus, it is possible to determine, by criterial evidence, that two instances are of the same kind without knowing what that kind is. Nevertheless, the criteria of these two determinations cannot be independent. If they were, then it might turn out that, according to the criteria of the latter determination two instances are both of a given kind, \( A \), but according to the criteria of the former determination they are not of the same kind—or according to the one sort of criteria they are the different kinds, \( A \) and \( B \), but according to the other, they are of the same kind—and this is clearly impossible. In any classification system the determinations given by the criteria of the several mutually exclusive kinds must necessarily tally with the determinations given by the criteria as to which instances are of the same kinds (if the two sorts of criteria are at all distinct). But in the case of sensations, if the criteria of the several kinds were independent of the “external” facts associated with sensations, whereas the criteria of several sensations’ being of the same kind are (as I have argued) always reactions of the subject, then the two sorts of determinations might fail to concur. Hence, the criteria of the several kinds of sensations cannot be independent of associated “external” facts.

7. I said before that the honor of serving as criteria of kinds of sensations belongs primarily to natural and verbal reactions to sensations that their subjects are inclined or prepared to make. What I meant by this was that a sort of external fact—bodily behavior or bodily condition—that is associated with a kind of sensation only through being involved in some way with a reaction criterion of the kind. Let me explain why I think this is so. I shall carry through the explanation only for the case in which a certain bodily condition usually causes a certain kind of sensation. I hope it will be obvious that the same kind of thing could be equally well said for the other sort of case.

Let us suppose that when one’s body is in a certain condition, \( A \), then a certain kind of sensation usually results, and let us further suppose that there is no natural reaction that one is inclined to have to this kind of sensation. One could describe the
sensation as "the sensation one gets when one is A" or "the sensation of feeling as if one were A." (A here might be, for example, having garlic, or something with garlic in it, in one's mouth. This condition usually produces in most of us a distinctive kind of sensation, which we report as "the taste of garlic"—actually the smell of the garlic is an important part of it—but I do not think that many of us make any distinctive kind of natural reaction to that sensation.) This is the sort of case with respect to which it will be most plausible to think that the bodily condition causing the sensation must, without dependence on any reaction of the subject, be the criterion of the kind of sensation: this conclusion seems written right into the term specifying the kind.

But in order for us to be able to speak of the kind of sensation produced in subjects by condition A, it must be the case that A is usually accompanied in them by the same kind of sensation. The criterion of this fact must be, in the sort of case we have hypothesized (ruling out similarity of natural reactions when they are in condition A), the subjects' thinking it right to say that they have the same kind of sensation (knowing what this means and making no relevant memory mistakes) on most of the occasions when their bodies are A. It is only when we can correlate their being prepared to react to sensations on several occasions in this way with the presence of A that A becomes a reliable sign of a kind of sensation. And it is only when A is established as a cause and reliable sign of a kind of sensation in this way that it can be a criterion of the presence of that kind of sensation and that the kind can be specified by the phrase "the kind produced by A."

We have reason to think that A produces a characteristic kind of sensation and can take the presence of A as a criterion of this kind of sensation only if we think that very many of the occasions when A is present in subjects are also occasions when they would be prepared to say that they have sensations like those they have had on earlier occasions of A's presence in them.

Accepting, then, that only natural and verbal reactions to sensations can serve as primary criteria of their kinds, it is an interesting question whether both these sorts of reactions must be used as criteria of kinds of sensations. That is: is it true of each sort of reaction that it must be used as a criterion for at least one kind of sensation in any language practice in which kinds of sensations are specified?

I think we can see straightaway that some verbal reactions must be criteria in any such practice. For it is clear that one criterial rule for applying a term that specifies a kind of sensation will always be the following: if one knows that the subject understands the use of the term and that he thinks that the term applies to his sensation, then one has a (very good) reason for thinking that the term does apply to his sensation. Surely there could not be a term meaning a kind of sensation of which this was not true, whether it were a term whose primary use is to specify a kind of sensation or one that does so by means of a simile or metaphor or one that refers to the sensation's usual causing or portended bodily condition (nor, indeed, could there be a term meaning any kind of thing of which a similar rule did not hold). If one understands the words he uses in his sensation-specifying term and the general practice of specifying kinds of sensations, then one's thinking it right to apply the term must count as a criterion of its correct application.

With respect to natural reactions to sensations, however, the matter seems to be different. It does not seem to be necessary that every conceivable language practice in which kinds of sensations are specified must make use of natural reactions as criteria for some of the kinds. In our language practice natural reactions do play a conspicuous part and virtually everyone acquires his first ability to say that he has a certain kind of sensation (usually pain) through training that makes use of his natural reactions to that kind. But these facts might conceivably be otherwise. There could be a society the members of which for one reason or another never produce nonverbal reactions to sensations (perhaps they never have intense pains or itching) but who do talk of their various

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7 In an earlier version of this paper I made the opposite claim, on the ground that attention solely to the language a person uses can never show whether or not he understands words to mean kinds of sensations. I am grateful to Sydney Shoemaker for remarks that led me to see that this (true) premise did not entail that (false) conclusion.

8 Although it is not large; the number of distinct kinds of sensations that we can describe in English is very much greater than the number of significantly different kinds of natural reactions that we make to our sensations.
kinds of sensations. This talk might come about, for example, in the following way. These people have the practice of distinguishing various kinds and qualities of foods by tasting them. For example, they sometimes determine whether white granules are salt or sugar by putting some on their tongues. Further, they speak of the granules as tasting like salt or like sugar, and also of tasting the salt (or the garlic, or the pepper, and so forth) in their food. Given this language practice they might develop an expression meaning the sensation of tasting salt through its happening that one of them who has mastered that practice feels inclined to say that he tastes salt in his mouth when it is clear from other evidence that there is no salt in his mouth. For such cases they might introduce expressions that they use in just the way we use such expressions as “It’s as if I were tasting salt” or “I have a salty taste in my mouth”—that is, as an expression that specifies a kind of gustatory sensation. (In parallel ways there might be introduced expressions meaning kinds of auditory or visual or tactile sensations.) The way in which we have imagined such an expression as “salty taste” to be introduced indicates the way in which it could be determined that a person understands and uses it as an expression specifying a kind of sensation; he must understand how to use “This tastes salty” with respect to external objects and he must not treat an utterance such as “I have a salty taste in my mouth,” in which a speaker reports having the kind of sensation, as committing the speaker to there being any salty substance in his mouth.

Although the reactions that are used initially in our imaginary community as criteria for kinds of gustatory sensations are verbal (and therefore not natural as I have been using that term), they are spontaneous reactions in which the subjects use language they have already learned to use for purposes other than specifying kinds of sensations—namely, for specifying certain kinds they perceive external objects to be. It is the fact that the subjects have mastered this latter use that gives some of their uses of this language the significance of being criteria for kinds of sensations. For the language is used to specify the kind of a sensation through specifying the intentional object of the sensation—that is, a kind of external object such that if one of that kind existed in the right

sort of causal relation to the sensation, then this would constitute the subject’s perceiving that object. So one could say that these reactions are natural relative to the kind of sensation—since they do not arise simply from a convention that they will be used to specify that kind of sensation—though they are not natural absolutely—since their significance does depend on their subjects’ having learned some conventions governing them. I believe that it will not be possible to conceive a sensation-specifying language practice that does not use as criteria for some kinds of sensations reactions that are either natural absolutely or natural relative to those kinds.  

8. Having reached the conclusion that the rules defining kinds of sensations must specify criteria that lie among the subject’s natural and verbal reactions to his sensations, have I resolved the problem with which I began? Will one who has followed me this far no longer feel tempted to suppose that only the subject really knows what kind of sensation he means by a sensation—

9 Since several different sorts of criteria, verbal and nonverbal, may be used for the same kind of sensation, it is easy to conceive of cases of conflict among our present criteria that our present convictions about their relative importance would be at a loss to decide. For example, suppose that a number of adult people begin to report, with complete sincerity as far as all available evidence indicates, that they have very intense pains to which they have no inclination whatsoever to react by crying out or wincing or complaining or seeking to rid themselves of the sensations, as they used to have with the same kind of pain. And suppose that these people have hitherto seemed to be as much masters of sensation-specifying language as anyone. Their reports would puzzle us. We would wonder what sort of thing could lead them to talk in that way. How to deal with such talk, fit it into a language practice? we could understand, would call for difficult decisions. Should we say that these people do have intense pain (relying on our established verbal criterion for the presence of such a sensation) but without the usual dispositions to nonverbal reactions (dismissing the weight of an established nonverbal criterion for the absence of intense pain)? Or should we say that they have a curious new kind of sensation that prompts this curious new kind of verbal reaction? Or perhaps that their reports are nonsensical ravings? Or something else? We would have to make up our minds: our language practice has not already prescribed for such a case. Of course, there could be facts that would be strong reasons in favor of one or another option. For example, it might be discovered that these puzzling, unpained avowals of intense pain were correlated with the presence of a certain sort of brain state that is found in all and only those who have the usual reaction to intense pain and those who make these strange avowals.
specifying term that he uses? Not necessarily, I am afraid. For there remains a very interesting way to hold onto the difficulty.

One might accept my argument that there is no term meaning a kind of sensation without a criterion consisting of some reaction the subject is inclined to make to the sensation but then reason as follows. Might not this reaction be simply the subject's wanting to say, "It is of a kind that I have chosen to designate by the arbitrary symbol S"? That is, might not an arbitrary sign specify a kind of sensation and might not the only criterion for applying the sign be that, upon having a sensation, the subject is inclined to say that it is of a kind that he has noted and has chosen to designate by that sign? Would not this case meet all the requirements of an "external" criterion laid down by my argument so far and yet exhibit a term of which it would be true to say that, in spite of the fact that others can obtain the same criterion as the subject uses, only the subject, who can define the arbitrary sign ostensively for himself by attending to his sensation, really knows what kind it means?

Imagine a person who one day has a peculiar, novel kind of sensation the cause of which he does not know, which seems to portend no particular bodily condition, and to which he is disposed to have no particular sort of natural reaction. Suppose that he decides to keep a record of the times that he has this peculiar sensation, says, "I'll call it S_1" and puts down in his diary, "Peculiar sensation—call it S_1," opposite a notation of the time. When he has the sensation again he puts down "Sensation S again" opposite a notation of the time, and so on for a number of times. One is tempted to say the following about this case: since this record tells its maker not only that he has had the same kind of sensation at each of the times noted—something it might tell anyone—but also what kind of sensation he has had (so long as he remembers the kind of sensation he had on at least one of these occasions)—something it could not tell anyone else—therefore for him but not for anyone else "sensation S" means a certain kind of sensation.

To see that this inference is unwarranted, we need to bring in a different sort of consideration from those about criteria on which we have concentrated so far. We must ask: of what use can this expression "sensation S" and this record employing it be to its maker, or anyone else, as long as there is no nonarbitrary criterion of the kind of sensation to which it refers? The answer is that it can be of no other use than would be the expression "peculiar sensation that I had at t_1." Since the latter expression does not mean or specify a kind of sensation, neither does the former.

("Sensation S" will not be able to mean even as much as "same peculiar sensation as I had at t_1" unless the subject understands the notion of a kind of sensation. His understanding this, I have already claimed, means his being prepared to classify at least several kinds of sensations in accordance with criteria that are nonarbitrary natural or verbal reactions. If we cut all such dispositions out of our subject, then his making the mark "sensation S" when he has a sensation will be in no way a notion as to the kind of sensation he is having. It will be merely accompanying behavior. For he cannot create the whole notion of a sensation's being of a kind—of classifying sensations according to their kinds—merely by concentrating his attention on a particular sensation while making a mark, or by any other single mental act.)

What can our subject here do with his expression "sensation S_1" that he could not just as well do with that other phrase, "peculiar sensation that I had at t_1"? What possible utility does the record employing the first expression have for him that would not be a feature of a record that read: "t_1: Peculiar novel sensation. t_2: Same peculiar sensation as at t_1," and so forth? In this latter record we have no term that means or specifies a kind of sensation, but rather only a term that refers to a kind of sensation via references to a particular person and a particular time. The difference between a term that means or specifies a kind and a term that merely refers to a kind is this: if a term means a kind, then anyone who understands the term must know what kind it means; whereas, if a term merely refers to a kind then one can understand the term without knowing what kind it refers to. For example, I cannot understand "blue" or "chair" or "itch" without knowing what kind of color or article of furniture or sensation that term means; but I can understand "the color of my true love's hair" or "the kind of article of furniture that I bought this morning"
or “the kind of sensation I just had” without having the least idea to what kind of color or article of furniture or sensation that phrase is being used by a particular speaker on a particular occasion to refer.

Given the manner in which the expression “sensation S” was introduced in our hypothetical case, it cannot do any job that could not be done by this other sort of phrase that merely refers to a kind of sensation. Its only utility is in the fact that a record employing it, like the one described, could serve to inform its maker as to the kind of sensation he has had at the times noted in the record. But so also could the record that read: “t4: Peculiar sensation. t5: Same peculiar sensation as at t4,” and so forth. The means by which either record would accomplish the job of informing its maker about his past sensations would have to be the same. The maker of the latter sort of record can use any of its notations as a basis for inferring the kind of sensation he had at the times noted only if he thinks he remembers what kind of sensation he was having and referring to in making his notation at least one of the occasions noted in the record. If he does not think that he remembers at all the kind of sensation he had at any of the times noted in the record, then, obviously, he cannot hope to learn from this record what kind of sensation he was having at the times noted in it (though he can, of course, learn that he had the same kind, whatever it was, at all those times). Precisely the same things are true of one who utilizes the “S” notation to record the recurrence of a peculiar kind of sensation. The informative utility of his record is tied in just the same way to his remembering something about his sensation on some of the occasions the record refers to. He can infer what his sensations were like at the times noted only if he thinks he remembers what kind of sensation he was having and noting with “sensation S” on at least one of the occasions noted. Otherwise, if he thinks he remembers nothing of the sort at all about any of those times, the record might as well have been made by another person: he can learn nothing more from it than that he had the same kind of sensation at all the times noted. I conclude that “sensation S” in our hypothetical case can do no job that is distinctive of a term that means, and does not merely refer to, a kind of sensation and, hence, that it is not such a term.

Now, suppose that our subject learns that whenever he has this peculiar sensation, the recurrence of which he has been using “S” to record, his blood pressure rises. Then he may alter his understanding of “sensation S” (without changing its reference): then he may regard it as short for “the sensation I get when my blood pressure rises.” Then it will be a term meaning a kind of sensation. The same kind of transition has been made as occurs in the following story. Upon first feeling nauseated a child says, rather un informatively, “I have a funny feeling,” and then he vomits. The next time he has that sensation he says, “I have that funny feeling, as if I’m going to throw up,” and you know how he feels. In this second verbal reaction he specifies his sensation, says what kind it is, whereas in the first he did not but indicated only that it was strange in his experience.

If “sensation S” is understood as equivalent to “the sensation of feeling as if my blood pressure were rising,” it will be capable of doing the kinds of jobs that are distinctive of terms that mean or specify kinds of sensations. For example, it could, addressed to those who understand it, be used to call for a particular sort of attention to the subject’s body or to explain a particular sort of behavior of his—in a way in which “same peculiar sensation as I had at “t4” does not call for anything in particular or explain any particular sort of behavior. And, perhaps most important, it can let others know whether and when they have the same kind of sensation.

None of what I have said denies the possibility of a person’s having a sensation of a quite specific kind that he cannot describe or in any way inform others of.¹⁰ Nor does it deny that the subject

¹⁰I do not mean here that a person might have a sensation about the nature of which it would be impossible to say anything other than that it is a sensation. Every sensation must fall into one or another of the categories: visual, auditory, tactile, gustatory, olfactory, or bodily. And sensations of the last category must have some sort of specifiable bodily location (even if it is only “very diffuse”). I mean rather that the quite specific kind to which the sensation belongs and which the subject can recognize when it recurs might be one to which he has no particular reaction, natural or verbal, which could furnish others with a criterion for determining when they have that same kind.
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himself in such a case would know the kind of sensation he has in a sense in which no one else could know it: he will be in a position to know when another sensation of his is of that same kind, but others will not be in a position to know when any of their sensations are of that same kind. What is here being denied is that this possibility creates the possibility of a term that means a kind of sensation whose meaning can be understood by the subject alone.

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