Why There Are No People

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Imagine, if you will, a somewhat uncommonly shaped object, one whose shape is not very irregular or bizarre, perhaps, but which is at least sufficiently so that we have no common name or expression for an object with a shape of that sort. Following this instruction, then, you have not imagined a pyramid, or cylindrical object, for those are readily spoken of in available terms. I shall call your imagined object a *nacknick*, which term you are to apply also to such various other objects as you deem suitably similar in shape to the first. In this way, we have invented a new word together: I have given you the form of the inscription, 'nacknick', and some instructions which help to delimit the meaning. But only you have enough of an idea of the word to put it to much use. That is because, according to this little story, you have not revealed your imagined shape to me, or done much else to give me a useful idea of it.

Let us change the story a bit. In this version, you do not first imagine any object. Rather, I now actually place before you an object of the sort which, we have supposed, you imagined in the first version. Pointing to this uncommonly shaped thing, I then say to you, "This object is a nacknick, as are various others that are suitably similar in shape to it." To be emphatic and explicit, in both versions I may go on to add these following words to my instructions: "Don't think that an object must be *exactly* the same as this one in shape to be a nacknick. Rather, while such exact sameness is amply sufficient, any object that differs in shape from a nacknick only minutely will also be a nacknick. There is, then, no particular limit on shapes for nacknicks. At the same time, however, many objects will differ from nacknicks, as regards their shape, substantially and significantly, and these will not be nacknicks. These remarks apply, of course, not only to actual objects, which might be found in reality, but also to such merely possible objects as might be only imagined." I do not think that, in adding these explicit instructions, I would be changing the learning situation in any substantial way. Rather, I would

only be making explicit what would otherwise be learned implicitly. Except for this rather minor matter, and the fact that we set out intentionally to invent a new expression, the word you have just come to understand is of a piece with much that you learned at your mother's knee. The newness and the explicit character of this experience with 'nacknick', however, let us reflect productively on what logical features are common to both the invented terms and the expressions learned in childhood.

1. THE ARGUMENT FROM INVENTED EXPRESSIONS

What reflection reveals, I suggest, is that a common feature of 'nacknick' and so many other terms is that they are all logically inconsistent expressions. On a par with 'perfectly square triangle', the supposition that anything satisfies 'nacknick' implies a logical contradiction. The instructions that served explicitly to introduce 'nacknick', and that now serve to govern the term, were so devised as to ensure this surprising result. Because of this, we can bring out the inconsistency in the term by reflecting on those instructions, with no need for us to enter into lengthy, complex argumentation as to what the word really means.

Our instructions endowed 'nacknick' with such a meaning that it is now governed by at least these two conditions:[1]

(1n) If some (actual or only possible) entity satisfies 'nacknick', then any (actual or only possible) entity that differs *minutely*, in shape, from that putative satisfier *also satisfies* the expression.

(2n) If some (actual or only possible) entity satisfies 'nacknick', then there are some (actual or only possible) entities each of which differs *substantially*, in shape, from that putative satisfier and each of which does *not* satisfy the expression.

As stepwise reasoning shows, because it is governed by these two conditions, 'nacknick' is an inconsistent term.

We may begin by considering some shaped object, if only a possible one, that is *not* a nacknick; for, according to my instructions, and (2n), if there are nacknicks, there must be some such. Having done this, we want now to reason that, according to these same instructions, the considered object *also is* a nacknick. Well, let us now think about an alleged nacknick, perhaps even the object from which, presumably, I taught you the expression. If this is a nacknick, then, according to my instructions, and to (1n), so too is an object only minutely different in shape from it, in particular, one that is minutely more alike in shape to the object that we have agreed is not a nacknick. Now, as this *new*, minutely differing object is also a nacknick, as my instructions have indicated, *so too* is *another* object that differs from *it*, in the same direction, by at least roughly that same minute amount. It is not hard to see, then, that a sequence of reasoning takes us to the step where an object, only minutely more alike in shape to our "paradigm" nacknick than is our

considered non-nacknick, will be declared a nacknick. Then, finally, the object that, we agreed, was not a nacknick will also be a nacknick. According to my instructions, then, there are objects that both are nacknicks and are not. The word 'nacknick', the relevant aspects of which these instructions determine, is an inconsistent expression.

It might be objected against this reasoning that there are sequences of minute differences that will not take us to our agreed non-nacknick, but rather will approach a limit that is safely within the range where proper nacknicks may be recognized. If this is so, the objection continues, then we cannot draw the conclusion that, as the instructions have it, there are objects that both are and are not nacknicks. But unfortunately for this objection, the existence of such limited sequences will not prevent the inconsistent conclusion from being drawn. For our instructions explicitly stated that there is no particular limit on shape for nacknicks, and so they ensured troublesome sequences to be available for our stepwise reasoning. For example, one available sequence is presented when we consider one billion roughly equal steps of difference spanning the range from our paradigm to our considered non-nacknick. This sequence means a long argument for us, if things are spelled out in detail, but the inconsistent conclusion is forced upon us all the same. It is pretty clear, I suggest, that because of our devised instructions, our invented expression 'nacknick', despite its utility and natural appearance, is indeed a logically inconsistent expression.

I shall employ this observation of inconsistency as a premise in an argument, the Argument from Invented Expressions:[2]

(I) The invented expression 'nacknick' is logically inconsistent.

The conclusion of our argument is to be the proposition that there are no people. To get it from our premise about 'nacknick', we need a good deal more. Most of this remainder will be contained in this second premise:

(II) The expression 'person' is logically on a par with 'nacknick'; if the latter is inconsistent, then so is the former.

A great deal of this essay will be spent in supplying support for this crucial second premise. There will be great resistance, of course, toward its acceptance. For it is quickly quite obvious that, in conjunction with the eminently attractive first premise, it logically yields the startling conclusion:

(A) The expression 'person' is logically inconsistent.

Before a lengthy discussion of the claimed logical parity is entered into, a few brief remarks are in order to motivate (II), so that the lengthier, more analytical discussion may appear worth the effort.

Now, as I have set things up here, the only thing important to an object's being a nacknick is the shape it has, though even this matter, of course, evaporates in inconsistency. So, in this regard, our invented word parallels certain ordinary expressions: for example, 'cubical object', in contrast to 'perfect cube'. Further, while

I have specified only shape as important for nacknicks, I could have easily specified *additional* requirements for our putative objects, for example, that a nacknick be a certain sort of nicknack. Any such additional requirement could not, of course, have rendered the word consistent: given the determinative instructions regarding shape, nothing could have done that. With only shape in the picture, our example has a certain purity and simplicity. But as regards the basic question, that of inconsistency, our invented word might be the same as expressions that cannot be so neatly described.

Again, our learning situation involved just one paradigm nacknick, imagined or presented, and this artifice also gives our examples a certain simplicity and purity, perhaps one not often found in the more ordinary course of things. But we could have made things more ordinary without importantly altering our examples: For example, originally, I could have asked you to imagine several shaped objects, each to have a quite similar unfamiliar shape. In the second story, I could have presented you with several similarly shaped objects. And, then, when things were to be made explicit, I could have altered my instructions, slightly, to suit. So, whether we have a single paradigm or a multiplicity is not crucial to the logic of the expression learned.

At this point, our second premise will have a certain plausibility at least. As our first premise, (I), is so hard to deny, our conclusion from it and (II), that is, the startling (A), will now also be at least plausible. But however surprising it may be, (A) does not directly concern the existence, or nonexistence, of persons. It is, after all, about an expression, 'person', and is not directly about any putative people. To get a conclusion directly to concern our desired subject matter, however, is now quite easy. We need only add to what we have, this final premise:

(III) If the expression 'person' is logically inconsistent, then there are no people.

In conjunction with (III), our other premises validly yield our intended final conclusion:

(B) There are no people.

And, this final premise, (III), really is a logically unobjectionable proposition.

To deny the idea that an inconsistent expression does not apply to anything, one must be involved in a confusion. For what is inconsistent expression? It is an expression for which the supposition that it does apply leads to a contradiction. But, then, that supposition cannot be true. Thus the expression does not apply. But what confusion might be responsible for such an absurd denial?

The chief culprit, I suppose, will be a failure to distinguish between, first, our using an expression to refer to certain objects and, on the other hand, an expression actually applying to, or being true of, those objects. You and I, for example, may agree to use the expression 'perfectly square triangle', even given what it now means, to refer to such tomatoes as are both yellow and sweet. With normal suppositions in force, including the existence of people, there may well be such tomatoes and we may well usefully refer to them with that expression. But we may be confident that

those tomatoes are not perfectly square triangles, even though we refer to them as such, and that there are no such triangles anywhere. We may be just as confident, then, that whatever use we are putting it to, our chosen expression, being inconsistent, is true of no existing entities at all. So much, then, for denials of our final premise.[3]

We have much to discuss, however, as regards our other two premises, in particular, premise (II), where logical parity is claimed for 'person' and 'nacknick'. My support for this idea, which will afford some support to our first premise as well, will come largely in terms of an account of 'person' as a *vague discriminative expression*. On this account, all such expressions, including the invented 'nacknick', are logically inconsistent. Briefly and roughly, we may provide some idea of these expressions: First, in that they are *vague*, these terms contrast with, say, 'inch', which, we may allow, precisely purports to discriminate the inch from all other lengths. Second, in that they are *discriminative*, these terms contrast with the vague expression 'entity', which does not purport to discriminate anything from anything else, supposing that we may allow that anything at all is an entity. And, finally, the vagueness of these terms is essentially *involved in* their purported discriminations. So, they will contrast with 'entity which is less than two', supposing that this expression is about as vague as 'entity', but that this vagueness does not enter into its purported discrimination (of some numbers from others).

I am about to exhibit my account, which, while it is incomplete, should be detailed enough to indicate that its main lines are adequate. Before I do so, let me remark that I am well aware of a flaw that my account of these expressions is bound to have: If the account is right, then, as 'person' is inconsistent, there are none of us, and so no statements, accounts, or arguments that we produce or understand. The account implies a paradoxical situation. But this paradox, I shall argue, does not nullify the account. Rather, it bespeaks its comprehensiveness and that of "an intellectual need to begin anew."

2. AN ACCOUNT OF SOME COMMON VAGUE EXPRESSIONS

The inconsistency of 'nacknick' may be crudely characterized as stemming from the following two rough conditional statements:

> If something differs from a nacknick *minutely*, then it *also* is a nacknick (no matter in what *way* it thus differs).
>
> If something is a nacknick, then there are things that differ from it in *certain ways* by a *lot*, so much so that they are *not* nacknicks.

If someone, not a philosopher, were asked to express that inconsistency without any specific reference to shape, I think he would express it, well enough for his purpose, in these terms or terms similar to them. Now, if we want, as philosophers, to give a general characterization of the inconsistency, we too shall avoid any reference to any specific property. But we shall try to be a bit clearer about the offending differences than the obscure reference to a *way*. Accordingly, the conditions we

should exhibit will not be the sort a typical learner would be likely to articulate. Still, in learning the expression in question, he may learn such underlying conditions.

I shall endeavor, then, to present two conditional statements that characterize 'nacknick', as well as many ordinary vague expressions. The terms I mean to characterize may be regarded as forming an important, but not exhaustive, group among the vague discriminative ones: those that are (purely) qualitative expressions. To indicate these expressions, we may distinguish, well enough for the purpose, between the qualitative or internal properties of an entity and, in contrast, its external properties, or relations. Thus, we shall say that two blue rectangular solids may be the same as regards all their qualitative properties but different as regards certain of their relations, for example, as regards their spatial relations to other objects. Whether an expression is vague or not, we shall say that it is (purely) qualitative just in case it is governed by this following condition: If an entity satisfies the expression, then so too does any entity which shares that satisfier's qualitative properties, that is, which is qualitatively identical with the satisfier. Thus, the expression 'perfect cube', while not vague, is qualitative, as are also the vague expressions 'cubical object' and 'nacknick'.

Among vague discriminative terms, the qualitative ones satisfy this stronger condition: If an entity satisfies the expression, then so does any entity that either (a) is qualitatively identical to that satisfier or else (b) is minutely different from it. It is to be understood, as is most natural, that the minute differences alluded to in (b) are in respect of qualitative properties, rather than relations. As is evident from our previous reasoning, the important problems with these expressions derive from (b); thus, in our subsequent discussion we may in general safely ignore (a), and focus on this problematic aspect.

Focusing on (b), we may present our characteristic conditions as follows, with the help of some terms to be clarified later, namely, *dimensions of difference* and *directions* along them, which are here to concern only the internal properties of the entities involved, as opposed to their external relations:[4]

(1) With respect to any qualitative vague discriminative expression, there are dimensions of difference, with directions along them, such that if some (actual or only possible) entity satisfies the expression, then all *minute* differences from the entity with respect to any one of these dimensions will find *other* (actual or only possible) entities that satisfy, and will find no (such) entity that does not satisfy the expression, providing that such a found entity does not differ more than minutely in any other such regard.

(2) With respect to any qualitative vague discriminative expression, if some (actual or only possible) entity satisfies it, then among the dimensions and directions that suffice for satisfaction under (1), there is at least one dimension of difference and at least one direction along it such that, with respect to these, there are (actual or only possible) entities each of which differs *substantially* from that putative satisfier and each of which does *not* satisfy the expression.

The conditions given in these two statements, along with such discussion as clarifies and supports them, form the heart of my account of vague discriminative expressions. Now this account would, of course, be uninteresting should there be many expressions, but none which are qualitative vague discriminative ones. But this is not so. On the contrary, providing that there are any expressions at all, there are a significant number of this sort, including 'bumpy', 'tall man', 'stone', and 'person'.

The second of these conditions, in (2), is to the purported effect that these expressions are to *discriminate* their satisfiers *from* other entities. This condition, which indicates some objects as *falling outside* an expression's range, we shall call the *discriminative* condition. The first condition is to the effect that, supposing any entity does, various ones together are to satisfy the expression, but no definite bound is to be placed on those to be included. Thus, we shall call this condition the *vagueness* condition for the expression in question.

While both of these two conditions are required to generate our noted inconsistency, it is the vagueness condition over which most discussion is likely to arise. Accordingly, let us first try to get an idea of its import. To do so, we may contrast 'bumpy', a qualitative vague discriminative term, with 'flat' (or with 'absolutely flat') and 'not flat', which are relevantly precise. If a surface is bumpy, that is, satisfies 'bumpy', and is not just not flat, then, just as our condition directs, so too is any surface that is no more than minutely different from it, even as regards shape. If a surface is (absolutely) flat, however, there will be minutely differing surfaces, in shape, that will not be (absolutely) flat. They will have only a few tiny bumps on them, in some cases, but not so much as to be bumpy. Likewise, if a surface is not (absolutely) flat, it will not follow that all minutely differing surfaces are also not flat. Consider a nearly flat surface. There will be a (possible) surface whose shape, while minutely different from it, is different in just such a way that it will be flat. Intuitively, I suggest, of these expressions, only 'bumpy' would be regarded as a vague term. The fact that only it is governed by our first condition, then, helps show the intuitive point of that requirement.[5]

To understand both of our conditions, we should explicate our talk of *dimensions of difference*, for that is a somewhat technical expression whose connection with our ordinary vague thinking cannot be evident. We may begin our explication by noting that things do not just differ as such, but always *differ in* one or more *ways* or *respects*. For example, a heavy red stone differs from things that are not red in respect of *color*, and from things that are not heavy in respect of *weight*. Now, with many such respects, we may, to a certain extent at least, speak comparatively of how much things differ. In respect of color, for example, we say that our red stone differs *more* from things that are blue *than* from those that are purple. In respect of weight, it differs more from things, or at least stones, that are very light than from those of a moderate or intermediate weight. Thus, we think of a *dimension* of color, and also a *dimension* of weight, as a *dimension of difference*. All of this is quite ordinary to think. What is less common, but I think still quite available, is the idea that many things vary, too, with regard to stoniness, that is,

with respect to how close they are to being a stone, in the case of a certain stretch, or with respect to how good an example of a stone, in the case of another one. Thus, we may recognize such a more complex, less easily described dimension, according to which a very light, blue pebble differs *more* from a similarly light, similarly colored twig, or piece of cloth, *than* it does from a heavy red stone. And, with regard to this same dimension, of *stoniness*, if you will allow that expression, the pebble may differ less from the stone than it does from a boulder, even if the pebble and boulder are in most other respects quite like each other and quite different from the stone. Accordingly, we may say that along *at least one* dimension of difference a red stone differs more from a blue stone than it does from a red pebble, while along *at least one other* dimension, the differences run differently.

What we count as a dimension may include other dimensions, but perhaps in no orderly way. Color, which we have taken as a dimension, is often said to include hue, saturation, and brightness. Perhaps where we spoke of our red stone differing from a blue stone as regards the dimension of color, we might have more specifically said that they differ as regards the dimension of hue. But there is no competition here, nor any need for us to think that there are any ultimate dimensions of difference. Our ordinary thinking does not suggest that, but neither do our two conditions of typical vagueness. For our second condition says, not that there is *one* dimension of difference along which a vague expression will not (any longer) be satisfied, but that there is *at least one* such dimension. Now, my talk of dimensions may harbor a whole host of problems. But that is no fault of it here. For we are trying to reflect the features of our common vague expressions, including whatever problems they may harbor.

Our conditions speak, not only of dimensions of difference, but also of *directions* along these dimensions. What are these directions? In regards to any dimension, say, that of color, we can think of small differences *accumulating* until large ones are reached. This thought of accumulation implies a direction in which the accumulation takes place. Without any direction, such as that *from* red *through* purple *to* blue, there would not be the order among colored things which we suppose there to be. Similarly, a stone differs from a boulder in one direction, while it differs from a pebble or grain in another. We do not always have convenient expressions to label these directions, just as with the dimensions along which they are directions. But it must be admitted, I think, that they do have a place in our thinking with vague terms.

We want our expressed conditions to explain the force of arguments that are forceful.[6] To do this, we must notice that certain of our vague terms are meant to discriminate those entities purportedly falling under them from others that lie only in certain directions, and not in others. For example, the expression 'tall man' purports discrimination of its satisfiers from men who lie, with respect to the satisfiers, only in the downward direction of height, and not in the upward direction. How this means inconsistency for the expression is indicated by considering sorites arguments against the existence of tall men.[7]

In respect of height, here the relevant dimension, two men may differ by a foot and we deem the one a tall man and the other not. For example, one may be six feet six, plus or minus a thousandth of an inch, and the other five feet six, plus or minus that. In the *downward direction,* this difference of a foot would be relevantly substantial; in line with our second condition, the man of five feet six would, thus, *not* be a tall man. In the other, upward direction, no discrimination of the satisfier from anything is purported, and so no problems arise. Just as a man of six feet six is tall, so any man of greater height is a tall man, or so we commonly believe. The substantial difference of a foot, then, means nothing in the upward direction: unlike a man of five feet six, a man of seven feet six is (supposed to be) a tall man.

This purported discrimination in the downward direction is enough to provide an argument that turns on the inconsistency of 'tall man'. We choose a man somewhere down there in height, for example, a man of five feet six, who is supposed not to be a tall man. And, we can show, by the condition of (1), that he also *is* a tall man (if any man is). For if the man of six-six is tall, then so is a man minutely less in height, say, a thousandth of an inch less, plus or minus a small fraction of that. And if he too, then also another, whose height is about a thousandth of an inch less. And, so, by steps, if there is any tall man, then our man of five-six is one of these. But, as we have supposed, he is not. And, while we might seek to avoid the contradiction by saying that, contrary to what we supposed, the man of five-six is after all only a tall one, this is no avoidance but only a futile postponement. For according to our second condition, there must be *some* (actual or only possible) man down there who is *not* tall. But, whomever we choose, our first condition then forces us to draw the opposite conclusion about him as well. Thus, the purported discrimination cannot be made; the expression is an inconsistent one.

There is a potential source of ambiguity which, while I do not think I have invited it, can be placed beyond serious question rather quickly. It might be thought that, according to our second condition, so long as the dimension and direction are appropriate, *any* substantial difference from a satisfier will take us to objects, actual or only possible, that do not satisfy. This would be an unfortunate interpretation, as the following example makes clear: If the difference between a six-six man and a five-six one is substantial, then so is that between a man of eight feet and a six-six man. But, while the latter is, then, a substantial difference, and can be taken in the right direction, it does not take us to a man who, by common judgment, is not tall. But our condition does not say that *just any* entity that thus differs from a satisfier will not satisfy the expression in question; rather, it implies only that there must be *at least some* such. In the present case, there is indeed a plenitude of relevant possible cases. For example, all the possible men with heights less than five feet six will differ sufficiently from the eight foot man. Thus, these men, who are not tall, will allow us to derive a contradiction from the assumption that the eight-footer is a tall man.

In disarming a potential source of ambiguity, we have entered upon the finer points of our account. In this vein, we may notice the final, or 'providing', clause of

our vagueness condition. Now, that clause may seem to make matters complex, but it is only a way of providing for what would usually be understood anyway. For we are to understand that such a minute difference, by itself, will not make the difference between satisfier and nonsatisfier, not that the presence of one such small difference will ensure a second satisfier, no matter how different from the original that second entity might otherwise be. By the same token, even with this "providing" clause, our vagueness condition can be applied, in stepwise fashion, any number of times. For while various other differences may add up so that they are eventually more than minute ones, even by common-sense reckoning, in any one step no such large difference will ever be encountered.[8]

Because our conditions do not specify or mention any particular dimensions of difference, or directions along them, but only require, for satisfaction, the existence of some, we cannot state our conditions in a mutually independent form. Thus our reference in (2) to what is required in (1). We need this to make sure that the differences added up by repeated applications of (1) are comparable to those for which (2) indicates an opposite claim, so that a contradiction will arise, supposing there is any satisfier. With 'nacknick', shape was specified as relevant; by specifying it once in each, independently specified conditions could be given for the term. A similar situation occurs with the ordinary vague expression 'tall man', where we may mention *height* as the dimension, and specify the *downward* direction along it. But oftentimes, we shall be in no position to provide such specific, independently specifiable conditions.

Our conditions make reference to possible entities that may not be actual. By this device, we may explain, for example, our ready judgment that six-inch men would not be tall men, even supposing there are no actual men of that height. For we are very ready to withhold 'tall man' from such an imaginary case. Now, if such an explanatory reference to possible entities is avoidable, then we may just consider it a convenience here, for brevity. If, on the other hand, an implication of such dubious objects is required, that should mean trouble for these vague expressions. But even if such a problem means, all over again, the worst for these terms, I shall not dwell on the matter now. For the same difficulty, if there is one, would appear quite as damaging to various expressions that are not vague: if something satisfies "is not a perfect cube," then there are objects, actual or only possible, that differ from that satisfier in shape, and that, thus, do *not* satisfy the expression. In other words, such problems are not peculiar to our topic.

Let us turn now to discuss some of the limits of our offered conditions, for they are not meant to cover every conceivable topic. We may begin by noting a vague expression that is not governed by our second, or discriminative, condition, namely, the expression 'part of physical reality'. Now, this term is, of course, a qualitative one; if an entity is part of physical reality, then so too is any other qualitatively just like it. And, second, this expression is a vague one; if anything, it is even *more* vague than 'stone'. At the same time, it is governed by our first, or vagueness, condition: If an entity is a part of physical reality, then so too is any other that, with respect to any dimension of difference, is minutely different from

it. And, third, the expression is, quite obviously, a discriminative one: it is not to apply to such a putative abstract entity as the number three. But, the discriminations it makes do not appear to *involve* its vagueness, at least not in the ordinary way we have been noticing. For it does not seem that there is any dimension, or spectrum, of graded differences, where parts of physical reality are somewhere to leave off and other entities are to be newly encountered. So, our expression 'part of physical reality' does not seem to be of the sort we have called *vague discriminative*. At the same time, it is not governed by our second condition.

Finally, let us look at some limits of our vagueness condition, and try to see what they may, or may not, mean for us. Toward this end, we notice the contrast between two kinds of vague discriminative expression: those that are (purely) qualitative and those that are not. Only the first of these will be governed by our vagueness condition, in (1), for the notion of *dimension of difference* there employed concerned only differences as regards qualities, or internal properties. Thus, for an easy example, two men may be qualitatively the same, but only one may bear the relation to a woman of being married. Thus, only the other of them is a bachelor. The word 'bachelor', then, is not a qualitative term. As such, it is not governed by our vagueness condition: Scratch the married man alone, so that now he is minutely different from the bachelor as regards his internal properties. But though he is minutely different from an entity that satisfies 'bachelor', this married man does not satisfy the word.

A less obvious example is provided by John Tienson.[9] He points to certain expressions for artifacts, for example, 'table top' and 'door'. Consider two qualitatively identical objects, each crafted in different areas by different people, quite independently. The first is meant to serve just as a door, and does so. The second is meant to serve just as a table top, as it does. It seems clear that, supposing there are table tops, only one of these is that. Scratching one, which means a minute difference between them now, as regards internal properties, will, of course, not alter the situation. Upon reflection, then, it appears that there will be many vague discriminative terms that are not qualitative ones, and that do not satisfy the vagueness condition for our qualitative expressions. Consequently, to have a general account of discriminative vagueness, we need a vagueness condition for these terms as well, along with a matching discriminative condition. But, what does this mean for our main topic?

Even without much thought on the matter, it is quite clear that 'person', unlike 'bachelor' and 'door', is indeed a purely qualitative term. Perhaps some creature qualitatively identical to me, but very far away, might not be a human being should he lack certain relations, causal or otherwise, to all (earthly) humans.[10] But he would still be a person for all that. Consequently, as our chief interest here is in 'person', and in putative persons, it is not much to present purposes to provide such more general conditions for discriminative vagueness as we now, admittedly, do desire.

Still, a suggestion or two seems to be in order, to give some idea of how our account of vague terms might be extended from the purely qualitative ones to cover

vague discriminative expressions generally. For a start, we may alter our vagueness condition so that the dimensions of difference involved, and so the minute differences with regard to them, will now concern external relations as well as internal properties. With this alteration we may declare an entity obtained from an alleged door to be a door, should the change be a suitably small one, such as will, in fact, be produced by the net removal of a peripheral atom. For this obtained object's relations to other things will differ only minutely from those of the original satisfier, all things considered, whether or not we regard it as the very same object as that original. But while we thus achieve some added explanatory power, this alteration provides only a rather weak, or unambitious, vagueness condition: Another door, far away from the original, and with internal properties only minutely different, may well not be declared a door. For, all things considered, the external relations of this distant object may be so different from the first, it seems, that no declaration concerning it will be available to us. To group these two doors together, a stronger vagueness condition is needed. A suitable one might be obtained, I suggest, if we do not speak of external relations generally, but limit our reference to those relations the bearing of which, by an object, are relevant to whether or not the object is (supposed to be) a satisfier, for example, a door. If these relevant relations are just the same or minutely different for the two objects, and their internal properties are also the same or minutely different, then they shall be grouped together as well. With these provisos, we may now have a suitable vagueness condition for all discriminative vague terms, as we have been understanding this category of expressions.

For such an extension of our account, I am inclined to think that our original discriminative condition will prove adequate, with its reference to the dimensions in the paired vagueness condition matching things up appropriately. But, if that is not quite right, a suitable matching condition should not be far to seek. These are my suggestions, then, for extending my account from its present exclusive concern with purely qualitative terms to cover vague discriminative expressions generally. Having made them, I shall not pursue the matter here, but will only note that most of the remarks to be made about the qualitative ones will apply as well to the others. Hence, in what follows, I often shall speak indiscriminately of vague discriminative terms, in general, and those of them that are qualitative vague expressions.

3. THE IDEA OF INCOMPLETE EXPRESSIONS

The main lines of our account are now before us. On this account, vague discriminative expressions are inconsistent terms. Against our account, others may be proposed. Perhaps the most common and appealing alternative will be the idea that these vague terms are *incomplete expressions*. Typically, at least, this idea will derive from the thought that each of our vague expressions has *borderline cases*, that is, cases that neither *definitely* satisfy the term nor *definitely* do not. The reason for these cases, the idea will then go, is that the vague expression says nothing

about them one way or the other. This lack of content or commitment is owing to the term's being incomplete, that is, incompletely defined.[11] Now, even if there were something in the idea of an incomplete term, its application to our typical vague expressions would now seem to be quite dubious. For these expressions seem logically on a par with 'nacknick', and that invented expression is (completely) inconsistent, and so is not an incomplete one. But matters are worse than that for our alleged alternative account. For, as I shall argue, this idea of incompleteness is incoherent, as is even the thought of borderline cases, on which it depends.

Let us begin our discussion by seeing that our own account implies the result I seek to establish. Now, on our account, typical vague expressions apply to no cases whatsoever, for they are each logically inconsistent. Hence, we may say all cases are decided negatively by each such term. Thus, no cases are borderline cases, and no expression is incomplete. Here is another way of seeing that, on our account, there are no borderline cases: Any borderline case for an expression requires positive cases, which satisfy the expression. For a case that is (on the) borderline is, on some relevant dimension, *between positive cases* and negative ones. On our account, there are no positive cases; thus, no borderline ones either. So it is amply clear that as our account has it, there are no vague discriminative expressions that are incomplete. In that I shall be arguing for this same conclusion, I shall be reasoning that this result is a virtue of our account.

Let us focus on the notion of borderline cases. These are supposed to be cases to which the expression in question does not *definitely* apply and does not *definitely* not apply. But what can be the proper force of this 'definitely' here? Imagine a typical vague expression and an object. Consider the statement that (1) the expression neither definitely applies to the object nor definitely does not. And consider as well the apparently simpler statement that (2) the expression either applies to the object or does not apply to it. Now, the former statement either is consistent with the latter, simpler one or else it is not. Suppose it *is* consistent with the simpler statement. What the simpler statement says is that each case is one where the expression applies or else is one where it does not apply, and so it leaves no room for any borderline cases. So, for all the statement with 'definitely' then says, there will be no borderline cases. Thus, if our two statements are mutually consistent, the one with 'definitely' cannot coherently indicate any borderline case. Well, then, let us suppose the alternative, that the first statement is *not* consistent with the second. Now, we shall want to notice the logical status of that second statement: it is necessarily true. For this statement is but a special consequence of a quite general necessary truth: with regard to any given object, any relation, and any entity, that object either bears that relation to that entity or does not bear the relation to the entity.[12] Now, if the object is an expression, that cannot change matters; nor can things be altered when the relation is that of application, whatever the entity in question might be. The truth of our simpler statement, (2), then, cannot be seriously challenged. But, if (1), our 'definitely' statement, is not then consistent with (2), (1) will not itself be true, and so it will not correctly indicate any borderline cases. Thus, in either case, that is, in any case, there are no borderline cases.

Our statement with 'definitely', it is true, at first appears to suggest coherently some cases of a third logical kind, though this appearance cannot be borne out. I should try to explain the illusory appearance here. The explanation, I think, falls into two parts: first, talk with 'definite' can be used, coherently, we may allow, to describe certain behavioral situations. And, once that is managed, the description can lead to the incoherent idea that, underlying the described behavior, there are logically borderline cases. Let us discuss the first part, for that is where the trouble starts.

With regard to a typical vague expression, a normal person will sometimes be in a state of hesitancy, uncertainty, and, perhaps, even confusion. With regard to certain (real or only imagined) objects, which he may call "borderline cases," he will have no definite disposition or tendency to apply the term nor any definite tendency to withhold it. These objects will contrast with others, for which the person has such a tendency to apply the term, as well as with still others, for which he has a definite disposition to withhold the expression. And, these behavioral contrasts can hold, not just for a single individual at a moment, but for a society during a long period of time. Where such a broadly based pattern of dispositions exists, we may give a certain currency to talk of "borderline cases." But that talk, to remain coherent, must confine itself to reporting upon the behaviors in question; it cannot properly entail, to explain the behavior, situations where an expression does not apply to an object and also does not not apply to it.

The behavioral contrasts just remarked, it may be appreciated, will hold just as well for invented inconsistent expressions, like 'nacknick'. A given individual will be ready to apply "nacknick" to certain objects, and to withhold it from others, but will be uncertain about still a third group. And, should the term gain currency, a more general behavioral pattern to the same effect would doubtless ensue. Objects in the third group might well be regarded, quite generally, as borderline cases. So long as nothing of much logical import is thus implied, such parlance may be allowed. But, clearly, nothing much more than reportage upon these dispositions could be coherently conveyed by such talk of borderlines. For, clearly, 'nacknick' is an inconsistent expression, and actually applies to no cases whatsoever. So it is with all vague discriminative expressions, both invented and inherited.

Except in the irrelevant behavioral sense of the expression, then, there can be no borderline cases. Thus, there are none to threaten our account; there is no competition for us from the idea of vague expressions as incomplete. For any incompleteness will arise only over logically borderline cases, and so the suggestion of incomplete expressions is not a coherent idea. Though we have just made short work of the idea of incomplete expressions, there will be some, no doubt, who will be loathe to part with it. The reason for their reluctance is simple: the idea can be made to appear very attractive. For our reasonings to have maximum effect here, we must consider the motivation from which such an appearance can derive.

The motivation underlying the idea of incomplete expressions is due primarily, I think, to a misplaced analogy between linguistic expressions and mathematical functions. For a mathematical function to yield a value for an object, that func-

tion must be defined for, or with respect to, that object. Typically, it will be so defined only if someone, a mathematician, does something, only if he defines it for the object. If nothing is done, then the function is undefined for the object, and it yields no particular value in the case. If one thinks of a linguistic expression as yielding a positive value for those objects it applies to, and a negative one for those it does not, one is well on his way toward applying this analogy.

Like the functions of mathematics, it may then be thought, an expression will yield a value only in the case of those objects for which it is defined. And, it will be defined for an object only if some people *have defined* the expression for the object. Now, this thinking continues, the people may have defined it positively with regard to a certain object: in that case, the value there will be positive, and the expression will apply to the object. Or, they may have defined it negatively: then, the value there will be negative, and the expression will not apply. Or, as in mathematics, they may not have defined it with regard to the object. In this last case, the expression will be *undefined* with respect to the object, it will yield no value there, neither positive nor negative; and, so, it will neither apply to the object nor not apply to it. Rather, it will find a borderline case in the object, thus being an incomplete expression.

According to one way of viewing the matter, a mathematical function that is defined for certain objects but not for others may be completed, so that it is then defined for those others as well. Analogously, the idea of incomplete expressions may be further developed: A vague discriminative expression may be made more precise by completing its definition. So long as the previously positive cases remain as such, and so with the previously negative ones, a completion will be admissible. Thus, for a typical vague expression, there will be a great, perhaps an infinite, variety of admissible completions, none of which violates the meaning with which the expression had been endowed. Any such completion will decide, whether positively or negatively, each of the expression's borderline cases. And, what can determine which completion we fix upon, if ever we desire to make precise a certain vague expression, will be the purposes we then wish it to serve. So, the acceptable completion we choose need not be an arbitrary choice.

The idea of incomplete expressions is thus a very attractive idea. According to it, our expressions are each consistent and more: through their already defined cases, they provide us with stable contrasts, with an intellectual anchor. At the same time, through their borderline cases, they provide us with the opportunity for creative conceptual choice. But, in addition to resting on an incoherent notion of borderline cases, this appealing picture rests upon a weak or misplaced analogy between mathematical functions and the expressions of our language.

What is it, in the special sense intended, for an expression to be defined? Of course, it is not for it to be defined in the usual sense, where a statement is made that elucidates the term's meaning. For, many precise terms, completely defined in our special sense, have never had their meaning thus elucidated and, on the other side, certain vague words have had their meaning made tolerably plain. On the contrary, what is here alluded to is simply this: the expression has been endowed with

such meaning that, with respect to some objects at least, that meaning determines whether or not the term applies to those objects. Once we realize that this is what this talk of definition comes to, we can see that the idea of incomplete definition amounts to nothing. For, with respect to any expression, and any object, unless we define that expression with respect to that object, that is, unless society has endowed it with such meaning as determines whether or not it applies to the object, the expression will *not* apply to the object. If we insist that the term's not applying to an object means that it yields a (negative) value for that object, then a (negative) value will be yielded even if nothing has been done to produce such a result. Consider the expression 'ouch'. It has not been defined with respect to the Empire State Building. Yet, it does *not apply* to that entity. If we insist that this means 'ouch' yields a negative value for the Building, then so be it. Of course, one might not insist that 'ouch' yields a value here. But, still, it does not apply to the Building. So, however we describe matters, we cannot coherently apply the offered analogy.

A function, then, if not suitably defined, may yield no value with regard to a certain object, neither positive nor negative. But, whether owing to what is dictated by its meaning or not, an expression will apply to a given object or else it will not do so. Unlike the function, with its values, there is no further course for the expression to take.

The idea of incomplete expressions is itself inconsistent. It can offer no genuine alternative to our account of vague expressions as inconsistent terms. Let us inquire somewhat more deeply now as to the nature of their inconsistency.[13]

4. VAGUENESS AND GROUNDLESS INCONSISTENCY

It is easy to assume that any inconsistent expression results from a clash between ideas each of which is itself quite consistent. Our by now familiar expression 'perfectly square triangle' may be reckoned an example of this. As such, that expression may be regarded as governed by two quite precise conditions, which may be expressed as follows:

(1t) If some (actual or only possible) entity satisfies the expression 'perfectly square triangle', then (since that putative satisfier is a perfectly square object) the satisfier has exactly four interior angles.

(2t) If some (actual or only possible) entity satisfies the expression 'perfectly square triangle', then (since that putative satisfier is a triangle) the satisfier has exactly three interior angles.

The clash here is between the idea of having exactly four such angles, which implies having more than three, and that of having exactly three, which implies not having more than three. We might say that the inconsistency in 'perfectly square triangle' is *grounded* in the clash between these two consistent conceptions. It is easy to assume, then, that every inconsistent expression must be grounded in at least one such clash as that. On the contrary, however, it is a feature of vague discriminative terms that their inconsistency is *not* thus grounded, but is relevantly *groundless*.

And, it is a virtue of our two conditions for such expressions that they serve to bring out this groundlessness.

The differences that figure in our vagueness condition are referred to as *minute* ones, and those of our discriminative condition as *substantial* in amount or size. Whatever the meaning of 'minute' and 'substantial', we may take it that nothing satisfies both of these at once, whether the thing in question be a slice of meat, a number, or a difference. The terms 'minute' and 'substantial', then, purport to be mutually exclusive in their application; if they have any application, it must respect this condition. It is in virtue of this exclusivity that these terms might appear to underlie successful discriminations purported by our vague discriminative expressions. But 'minute' and 'substantial' are themselves discriminative vague terms. So, both of them are inconsistent expressions; neither has any real application at all, thus none which is exclusive of the other's. Even so, the inconsistency of other discriminative vague terms may be understood in terms of the inconsistency of each of these two expressions. At the same time, their own inconsistency may also be understood in terms of themselves. While these two terms are thus rather deeply placed, they provide no clash between consistent conceptions. Accordingly, the inconsistencies they serve to explain are relevantly groundless.

What is it, after all, for one object to differ minutely from another, in a certain respect, for that difference between them to be a minute one? If that difference is minute, then so is a difference, along the same dimension, which is only minutely greater than it. This leads to the conclusion that a certain difference, deemed substantial, and so *not* minute, must be deemed as well a minute one. Thus, there is no minute difference in the first place.

Let us reconsider our paradigm nacknick and the object we agreed to be so different from it as to be not a nacknick. The difference between these two, we supposed, was a substantial one, and so not a minute difference. But an object that was about a billionth of the way from the paradigm to the non-nacknick differed minutely from the paradigm. If it did, then so did the next object in the considered sequence, for the extra billionth of the way thus added will not mean the difference between a minute difference here and one that is not. But, then, the difference between the paradigm and the still next object will also be a minute one, on the same principle. By stepwise reasoning, we shall thus conclude that the difference between the paradigm and the considered non-nack is a minute difference. This lets us, in turn, conclude two things: first, we may conclude that the supposed non-nacknick is also a nacknick, which helps show how the quantitative term 'minute' underlies 'nacknick'. And, second, we deduce the related contradiction: that the supposed substantial difference, between the paradigm and the agreed non-nacknick, is also a minute one.

In general, we may say that when adding a minute difference to another, the result is a larger difference that is still a minute one. Suppose someone took exception to this generality, thinking that there might be two *big* differences *for* minute ones, so that when *they* were added the result failed to be a minute difference. Let us consider one of these: it is supposed to be large for a minute difference. Let us

consider as well a difference, the same in dimension and direction, that is only one *millionth* of *its* magnitude. This latter difference will not be a large one, even for a minute difference; it will be minute for a minute difference. But if it is minute for a minute difference, then so is one that is only two millionths the magnitude of the large minute difference, for the extra millionth cannot mean that we have gotten to a minute difference of some other sort. By stepwise reasoning, we may eventually conclude that our original minute difference, supposedly large for such a difference, is also minute for a minute difference. And, we may do as much for the large minute difference to which it might be added. Adding two such differences, each of which may thus be reckoned minute even for minute differences, cannot, then, yield a difference that is not minute.[14]

The idea of a substantial difference is relevantly on a par with that of a minute one. If a given difference is substantial, then so is one that is only minutely less. But however small we require a difference to be so that it fail to be substantial, we may eventually reach it. Thus, any such difference will be declared substantial, as well as not substantial.

The points we have made about 'minute' and 'substantial' can also be made about other pairs of similar terms, about 'small' and 'large', for example. Each member of such a pair will be a *quantitative* vague discriminative expression; one of them will purport to denote things whose magnitude is *less than* any to which the other can properly apply, the other to denote to opposite effect. Of course, a term may be quantitative in this sense and also be a purely qualitative expression in the sense we previously defined. In every case, I hypothesize, the inconsistency of vague discriminative expressions may be understood in terms of some such quantitative pair or pairs. When a pair is suitable for such understanding, we may call it an *underlying pair* for the expression in question. So, each typical vague expression has at least one such underlying pair.

In giving my conditions, in (1) and (2), for qualitative vague terms, I employed the term 'minute'. This was a measure in the direction of caution. For while a more common word like "small" appears suitable to underlie many such expressions, for which of course "minute" will also serve, there may be some for which only the latter term will prove adequate. It is worth noting, I think, that with many vague terms the sorites arguments that spell trouble can be quite short. For example, I think we regard a man of six-two as tall, but one of five-eleven as not a tall man. But half an inch will not mean the difference between a tall man and not. So, an explicit but quite short argument will yield no tall men at all. I suggest that this helpful shortness is due largely to the fact that 'small' is enough to underlie the first condition for 'tall man'. Consequently, 'minute' here gives us, with a longer argument, a luxury of caution.

This groundless inconsistency, characteristic of vague discriminative terms, is not to be conflated with the fact that the noted stepwise reasoning exposes the inconsistency of the expressions in question. To clarify this point, we may invent expressions whose inconsistency is exposed in that stepwise manner, but that do not have the feature of groundless inconsistency. In one respect, that of having

their inconsistency grounded in precise, consistent concepts, such expressions will be like 'perfectly square triangle'. In another, that associated with the stepwise reasoning, they will be unlike such an obviously inconsistent expression, and will be like our typical vague terms. Because of this latter likeness, such an invented term would, under suitable circumstances, prove useful to many normal people. Let me proceed to invent such a useful expression.

A *tinkergrid*, we might say, is something that one might endeavor to build out of the most typical items found in a tinkertoy set. These items are of two kinds: sticks and wheels. Now, the term 'stick', as well as 'wheel', is a vague discriminative one, and so it has groundless inconsistency. Thus, we do not want our invented 'tinkergrid' to be defined in terms of sticks and wheels, for then the invented term would also have groundless inconsistency. Let us better say, then, that what one would endeavor to build with a tinkertoy set would be, not a tinkergrid itself, but a physical realization of a tinkergrid. The tinkergrid itself would be a mathematical entity, composed of other mathematical entities, which are its *basic parts*: line segments of unit length, which one might use sticks to endeavor to realize, and nodes, where line segments can connect at right angles, for which a wheel might be used. The idea of a tinkergrid, then, is that of a certain mathematical structure. But, of course, there might be no more possibility of such a structure than of a structure that is a perfectly square triangle.

Now, to define the general conception of a tinkergrid, we begin with the more particular idea of a *paradigm tinkergrid*. A paradigm tinkergrid, we shall say, is in the form of a cube, with ten-unit line segments to each of its twelve edges; each edge, then, contains eleven nodes, two at its ends and nine internally. This tinkergrid is composed of a thousand unit cells, each in the form of a cube composed of twelve segments and eight nodes. The cells are arranged in such a way that they do not overlap, but are suitably adjacent, so that the whole tinkergrid is perfectly constituted of them: ten layers each with ten columns and ten rows of unit cells. It should appear clear how, using the standard tinkertoy items, one would try to realize a paradigm tinkergrid. So much for paradigm tinkergrids; what of those that are not paradigms?

As our definition is to have it, a paradigm tinkergrid is but one sort of tinkergrid; related to it are other sorts, which are all suitably related to each other. We shall not put this by means of any quantitive vague discriminative expression for that would involve 'tinkergrid' in groundless inconsistency, which we are to avoid. Thus, we do *not* have as a second clause of our definition any such conditional as this one: If something is a tinkergrid, then anything that differs from it by *a little bit* is also a tinkergrid. Rather, we shall put our second clause more suitably in some such terms as these: If something is a tinkergrid, then anything that differs from it by *the removal or addition of one or two basic parts* is also a tinkergrid.

While we thus move to avoid groundless inconsistency, we have not yet ensured any inconsistency at all for our invented term, but only a certain bizarreness. For without any further clause in our definition, our term allows a tinkergrid to have no basic parts at all. Such a "null tinkergrid" would be a most peculiar entity,

of course; still, according to the definition's progress so far, there they will be. But insofar as null tinkergrids are claimed by our invented expression, and no claim is made in the opposite direction, 'tinkergrid' will be quite unlike most ordinary terms. To make it more like them, we add this last clause to our definition: Any tinkergrid is composed of a finite positive number of basic parts. Now, our invented expression will have it that there are no "null tinkergrids," and it will indeed be much more like our ordinary terms. For, with this last clause, we have ensured that our invented expression will be an inconsistent one.

The inconsistency of 'tinkergrid' may be exhibited as follows: First, a paradigm tinkergrid is a tinkergrid, indeed, one having a certain finite positive number of basic parts, say, N of them. But, then, so will be an entity that, may be obtained from it by the removal of one part, which will have N-1 basic parts. By stepwise reasoning, we must conclude that there will be a tinkergrid with N-N basic parts, that is, with none at all. But our expression also requires that any tinkergrid have some positive number of such parts. Thus, this last item, with no basic parts, both is a tinkergrid and also is not one.

While this invented term is thus inconsistent, I have little doubt that it could be easily learned and put to use by many normal people, in various suitable circumstances. In the first place, few would notice that there was any inconsistency here. Indeed, few would notice that, without the final clause, there would be null tinkergrids. Despite the term's having grounded inconsistency, most people would get the idea that a tinkergrid was available only at levels "well above" that where no basic parts remain. So little, then, will these ideas be related to our expression's meaning. And, perhaps more important, even once the inconsistency is pointed out, as we did here, the problem is shunted aside.

Insofar as I have been successful, 'tinkergrid', while inconsistent, has not been defined by using any discriminative vague term in an essential role. Accordingly, the inconsistency thus generated is not relevantly groundless; it is not like that observed with typical vague expressions. Like the inconsistency in 'square triangle', the inconsistency in 'tinkergrid' involves a clash between ideas that are each precise, consistent ones. But of the two, only 'tinkergrid' has grounded inconsistency of a sort that allows for a quite useful expression, potentially, as useful as typical vague ones.

5. PARADIGMS IN PERSPECTIVE

We began with a putative paradigm of a nacknick, imagined or real, with something that was to satisfy the expression. But as further imposed conditions determined matters, the beginning object could not possibly satisfy the invented term. For, as that expression was thus determined to be logically inconsistent, no object at all could satisfy it. By parity of reasoning, we have suggested that a logically similar situation holds for our ordinary vague discriminative expressions. Against this suggestion, one might try to strengthen the role of paradigms in the learning situations, not only as regards our ordinary expressions, but also as concerns such explicitly invented ones as 'nacknick'. The objection to our reasoning would then proceed

along some such lines as these: When I instructed you that any object minutely differing from a nacknick (as regards shape) would also be a nacknick, what you really accepted, and had as a determinant of your new useful expression, was not quite what I instructed you. Instead, it was this rather similar sounding, but logically quite different, condition: If something is (not just any old nacknick, but) a *paradigm* nacknick, then any object differing from it minutely (in shape) is a nacknick. But, the objection continues, this "paradigmatic" condition, even in conjunction with other learned conditions for the term, causes no troublesome inconsistency. As this was the true situation even with 'nacknick', we may be quite confident that this sort of thing occurs with our typical vague inherited expressions. Consequently, the objection concludes, they may be satisfied by their paradigm cases, as well as by various other objects.[15]

A good deal later on, in Section 9, I shall discuss the question of "what you really got out of my instructions." And I shall there argue that whatever else you may have gotten, one thing you got was the vagueness condition, with no reference to paradigms, that I actually offered to you. And, so, I shall argue, that troublesome condition helped to determine 'nacknick' for you, whatever else may also have played such a determining role. If this is so, then your 'nacknick' will be an inconsistent expression, since you were given our other, discriminative condition for it. For once those two conditions govern a term, that term will be an inconsistent one, however many further conditions may also govern it. But for now, realizing that our recent objection may possibly be deficient in some such other respects as we have just indicated, let us focus only on the condition that it claims is so readily learned. Is this paradigmatic condition quite free from difficulties, and suitable for an objection to our account? I shall argue that, for at least three reasons, it is not: first, it is unlikely that we learn it (unlikelier still that we learn it without learning the simpler offered condition); second, it would involve us in inconsistency anyway, and, third, should the first two reasons be discounted, the condition would have our apparently vague terms be precise and not vague at all.

The first argument proceeds from the recognition that 'paradigm nacknick' will be just as much a vague discriminative term as 'nacknick' itself. Suppose that we have an alleged paradigm nacknick before us. After a while, even less than a second, the object loses some atoms, generally more than any it might have then gained. This will have various effects upon the object. As regards various dimensions, generally including that of shape, the object will be minutely different from the way it was. But despite these minute differences, we regard the object now before us as being a paradigm nacknick. Now, as relevant expressions with the word 'paradigm' will thus also be vague discriminative ones, the sort of condition that is to govern 'nacknick' must govern them as well. To deny this is to impose an entirely *ad hoc* restriction on the situation, and one which, we have just seen, runs counter even to common-sense judgments. So, we must now have this condition as well: if something is a paradigm *paradigm nacknick*, then any object that differs from it minutely (in shape) is a *paradigm nacknick*. But, of course, matters do not rest here, for the expression 'paradigm paradigm nacknick' is also a vague discriminative one.

Thus, an infinite chain is established. Do we learn, with 'nacknick', such an infinity of governing conditions? I find the suggestion quite incredible.

On the view I am advocating, each of these infinite conditions does hold true. Indeed, in each case, a stronger condition holds true, from which one of these former may be deduced. For example, I advocate that this condition holds: If an object is a paradigm nacknick, then any object that differs from it minutely (in shape) is also a paradigm nacknick (and so, of course, it is a nacknick). But, on my view, a person, a small child, for example, can learn and understand one of the conditions without having to learn an infinity of them. On the objector's view, infinitely more learning must be done by such a person.

As an addendum to this first argument, we may note that, from an intuitive perspective, this objection gets things backward. The objection would have it that our understanding of 'nacknick', or 'stone', is dependent on that of 'paradigm nacknick', or 'paradigm stone'. But, intuitively, in ordinary situations, the contrary seems to hold. We first learn 'stone' and only then understand longer expressions of which it is a part, like 'expensive stone', 'poor example of a stone', or 'paradigm case of a stone'. Returning to our small child, we can believe that he might understand 'stone' without yet understanding any of these longer expressions. But he could not attach much significance to any of them without first understanding 'stone'.

A second argument is readily at hand should it be needed. Now, for the sake of argument, let us suppose that, for all we have just said, "paradigm nacknick" and its associated infinity may all be learned quite easily even by tiny tots. But even supposing this, we now have to confront the problem of groundless inconsistency. For it seems that if something is minutely different from a paradigm nacknick (in shape), then something which is, in that same direction, only a tiny, minute bit more different, will also be minutely different from the paradigm nacknick. But, by reasoning familiar from the previous section, we shall then have to conclude of any shaped object that it is minutely different from a paradigm nacknick. So, on our new paradigmatic condition, it must be a nacknick. But by our discriminative condition for 'nacknick', some such objects will not be nacknicks. So, our paradigmatic condition will not provide us with a consistent expression.

In reply to this, the objection might have it that a similar paradigmatic condition applies to our underlying quantitative vague expressions, for example, to 'minute'. But is there any plausibility to the idea that we have a paradigm of something minute? What would this putative paradigm be? But, perhaps, then, we should expand the quantitative expression that now is to have a paradigm. What is it to be: 'minutely different', 'minutely different from something as regards shape', 'minutely different from a paradigm nacknick as regards shape', or what? The choice seems hopeless. For there seems no paradigm that we have for *any* of these expressions. Moreover, the expressions that have 'nacknick' as a component seem to get ordinary learning the wrong way round, as before, while those that lack such a component seem too general to have much bearing on the case at hand.

Even if both of the previous two arguments are discounted, and we presume that our paradigmatic condition is both easily learned and also results in no inconsistency, that condition would not seem to serve the purposes for which it was introduced. For, as a third argument shows, the condition would then have it that our apparently vague expressions were actually precise ones, and so not vague at all: We begin by remembering, from Section 3, our truism that a given expression either applies to a certain object or does not apply. This will hold true for 'paradigm nacknick'. Thus, this expression will apply to just those cases in a perfectly definite range, and to any others it will not apply. So, 'paradigm nacknick' will be a precise expression. By the same reason, 'minutely different in shape from a paradigm nacknick' will also be a precise expression. So, both indirectly and also quite directly, we may reason that precisely the same will hold for the simpler 'nacknick' itself: it will be a precise expression and, as such, not a vague one. So, contrary to all appearances, 'nacknick', as well as 'stone', will be absolutely precise, and thus will not be vague at all. This final failure of our paradigmatic condition suggests a thought whose importance goes beyond our interest in rebutting objections to our account. The only way for our apparently vague terms to be vague is for them to be inconsistent. Were they not inconsistent, they should have to be precise, which they are not.

6. SORITES ARGUMENTS, COUNTERFACTUAL REASONING, AND OBSCURE DIMENSIONS

The stepwise reasoning we have recently gone through, to exhibit the inconsistency in our invented expressions, 'nacknick' and 'tinkergrid', is hardly new to philosophical discussion. Such reasoning is characteristic of *sorites arguments*, which, following the classical case of the alleged heap, or *soros*, seek to show that certain entities, ordinarily alleged to exist, in fact do not. In Section 2, we encountered one such argument, against the existence of tall men. That argument, following tradition, was exhibited in a highly realistic form. With normal suppositions in force, the instances in the sequence over which reasoning ranged were all to be found in the actual world. The realism was available for us, we might say, because of the *relevantly gradual* nature of the actual world. This gradualness, and the attendant realism, is in one way all to the good: It makes sorites arguments hard to dismiss, if not to ignore, by serious thinkers who encounter them. But in another way, I think, a concentration on realistic examples can be unfortunate: it can blind us to the conceptual basis of the arguments. So, to help illuminate this basis, let us engage in some suitably counterfactual reasoning.[16] The appropriate reasoning, as will shortly appear, is more thoroughly counterfactual, or hypothetical, than that usually encountered in philosophy, as well as in everyday thinking. It requires us to imagine people living in a world different from ours who are themselves imagining a world different from theirs, in particular, a world just like ours. In a way, then, we might think of this reasoning as doubly counterfactual. But I cannot see that the extra imagination involved causes any serious difficulties.

Suppose, then, that according to some law of nature, all of the men who ever lived, and who ever will, were either exactly ten feet in height or else nine feet, and that they were aware of their heights. Now, let us suppose as well that, even with this knowledge, these men had the same expression 'tall man' as we now do, complete with the same meaning; they might even speak English, or an exact counterpart. Supposing this, it would be common for them to judge that all men were tall men. And, supposing them to be aware of the law governing their heights, they would judge further that all men would always be tall men, as indeed, in a sense, they must. These men could *imagine* a man of five feet six, of course, just as we can imagine one of six inches. But for them, such men would be only imaginary.

Could a philosopher among them, who wanted to construct a sorites against the existence of tall men, develop an effective sorites? It seems clear to me that he could do as well as we now can. It is just that his arguments, by our previous suppositions, would be conducted in a counterfactual manner. The philosopher would bid his fellows to consider a world just like ours in fact is, where the distribution of actual heights would thus be greatly increased in number and also shifted downward. They would agree that a man of six feet six *would still be* tall, but a man of five feet six *would not be*. Our philosopher would then have available a principle, in counterfactual form, corresponding to our first condition for qualitative vagueness: If a man of a certain height *would be* a tall man, then so too *would be* a man whose height *would be* no more than a thousandth of an inch less. Thus, our philosopher could conclude that *if* there *are* any tall men, then a man of five feet six *would be* a tall man *and also would not be* one. Since he now could reason that there really are not any tall men in the first place, our philosopher would have constructed an effective sorites against tall men, though he employed counterfactual reasoning in the process. Thus, we have supported the idea that a sorites argument against tall men is essentially a conceptual argument, which fits in so well with our account of vague discriminative expressions.

Just as our account of vague expressions has it, our counterfactual sorites against tall men served to indicate that 'tall man' is inconsistent. Its inconsistency is generated by our two conditions for qualitative vague terms. The second condition says that an expression of that sort will purport to distinguish, with respect to *at least one* relevant dimension of difference, those entities that satisfy it from those that do not. This condition, being quite general, does not specify or characterize the dimensions to be involved. It is up to us in any particular case to pick out a relevant dimension, as a basis for our stepwise reasoning, or else to conduct that reasoning in such a way that, we can be confident, it will cover at least one such dimension. In the case of 'tall man', our understanding of the expression allows us to be confident that height is relevant. With 'stone', as already indicated, no such relevant dimension is ready to be so clearly specified: Size itself is not crucial. If you pour an Alice-in-Wonderland potion on a stone, it will get much smaller, but will still be a stone (if one before). Perhaps, 'size in relation to structure' is more like it, but I cannot say exactly what that means, much less how it is to be treated as a

dimension of difference. But we may build confidence, nevertheless, that 'stone' is a logically inconsistent expression.

Toward this end, we may look for a variation or gradation in things that will have associated with it a relevant gradation in at least one dimension that plays a discriminative role with 'stone'. Our actual world, with its considerable divisibility of "material complexes" suggests to us a suitable procedure. By removing a single peripheral atom gently from an alleged stone, and then tossing it randomly away, one will progressively produce a sequence of entities, going down to a single atom, whose properties, with regard to a relevant dimension, will vary quite gradually. With this procedure, we remain quite in the dark as to *what* dimensions of difference (are supposed to) form the basis of our term's discriminations. But whatever ones they may be, we can be confident that at least one is covered by a sequence of entities, many millions in number, obtained in this systematic manner. Let us construct, then, a suitable *sorites of decomposition by minute removals*.

By having relevant properties vary gradually with our minute removals, nature conspires to suggest to us an effective sorites against stones, in a rather realistic form. For it is easy to find acceptable each of these two conditional propositions, at least as true in fact:

(i) For anything there may be, if it is a stone, then the net removal from it of a single atom, in a way most preservative of there being a stone in the situation, will not mean the difference as to whether or not there is at least one stone in the situation.

(ii) For anything there may be, if it is a stone, then it consists of more than a hundred atoms but of a finite number of them.

These two premises, we may notice, will yield us a contradiction from the rather common-sensical assertion

There is at least one stone.

For, consider any plausible candidate for stonehood: That entity will consist of a finite number of atoms, say N, where N is greater than one hundred. That is assured us by our second premise. But, by our first premise we are told that by taking away an atom, we shall still have a stone, now one with N-1 atoms. According to that same premise, then, by stepwise reasoning, we shall have a stone even when what is before us is only an object consisting of ten atoms, or, indeed, even when we have no atoms at all. But this contradicts what (ii) tells us: as there are not more than a hundred atoms there, there is no stone in the situation.

Now, it is, of course, not part of the meaning of 'stone' that any stone should consist of atoms, let alone more than a hundred but some finite number of them. Indeed, so far as I can discern, it is not even required by our term that any portion of a stone should be physically removable from the remainder. Further, providing that some is thus removable, and even removed, there's nothing in 'stone' which says that the rest will not suddenly vanish, or suddenly serve to constitute some-

thing utterly different, for example, an exotic plant. That none of these things happen, and that our argument proceed in way of a gradual sequence of suitable entities is, we might say, wholly a matter of worldly, contingent fact. But as presented, our sorites against stones might seem to depend on these suppositions. This appearance is easily dispelled, however. For we may combine the idea of counterfactual reasoning, previously discussed, with the systematic procedure used for obscure dimensions just developed. Without going into much detail, we may imagine a philosopher, with our same language, living in a very different world from ours, where his alleged stones cannot be decomposed. But, if he were imaginative enough, he could contemplate a world just like ours, where stones can be appropriately picked apart. If his world contained stones, then so too would ours, he could reason. Then he could show himself that ours would not and, thus, none anywhere.

We are next to pass to a direct discussion of 'person', and of putative people. Pursuing the ideas so far developed, we shall argue that the expression cannot be satisfied, and that there really are no such entities as people. Before we do so, I should note briefly that many objections have been raised against sorites arguments, even against what might be regarded as the most realistic sort. While I think there is little merit in any of these objections, it is not a main purpose of mine here to meet them. To the extent that my present account is well argued, of course, that provides some support for sorites arguments. Thus, indirectly, the account gives a reply to all objections to these reasonings. But I leave to other places the matter of detailed responses to particular objections.[17]

To give you an idea, however, of what one must accept if one is to reject sorites arguments, I shall just mention two points that I discuss elsewhere.[18] First, to reject our sorites against stones, we must accept this: there will be certain stones, composed of many billions of atoms, whose continued existence, with no atoms replaced, requires every single one of these billions! Can you believe that there are ever any stones whose essence is as refined and tenuous as that? A second thought, on the side of language, mirrors the first: Consider the sentence, "There is a stone before me now," and discount all problems of vagueness except those most directly concerned with 'stone'. With a promising candidate for stonehood before you, imagine peripheral atoms extracted in the style of our sorites. We are to evaluate the sentence after each net removal. We suppose the sentence at first to express a genuine statement that is true. But can a single atomic removal alter the proper evaluation? To suppose it can requires us to suppose an enormous sensitivity on the part of our word 'stone'. This, I suggest, is quite incredible.

7. THE INCONSISTENCY OF 'PERSON'

It is now time to extend the results so far obtained to the key expression 'person'. I shall argue that this term is a qualitative vague discriminative term and, as such, it is inconsistent. Accordingly, as nothing then satisfies the expression, anymore than anything satisfies 'perfectly square triangle', there are no people. Like perfectly square triangles, people are logically impossible entities.

Should we arrive at such a negative result for people, a paradoxical situation will arise. Briefly, if there is not anybody, then there is no one to understand these alleged accounts, arguments, and conclusions to that effect. So, perhaps, these last may themselves be negated or dismissed as "self-defeating." But, if our account is otherwise unobjectionable, we may then employ it again, to complete a paradoxical circle and begin a new one. Now, in the section directly to follow this one, I shall argue that this admitted paradox cannot seriously nullify our nihilistic account. But, first, in this present section, I shall argue that the paradoxical situation cannot be avoided. I shall argue, that is, that our account of vague expressions cannot be brought to rest at some relatively unproblematic stopping point.

The expression 'person' is a vague discriminative term and, as such, an inconsistent expression. To support this thought, suitable sorites arguments shall be sought. Now, as with 'stone', I have no very good idea how to specify adequately those dimensions of difference with respect to which 'person' purports to make discriminations. It is not that I have nothing at all to say on the matter: Perhaps, power of thought, or intelligence, provides one such dimension; perhaps capacity for varied feelings and experiences provides one. But I should prefer to regard these proposals as primarily illustrative, and to construct our sorites arguments on the basis of ideas in which I have more confidence. Toward this end, we recall our experience with 'stone', for we had success there by adopting a procedure that required no specification of dimensions. So, let us look for a sorites of decomposition by minute removals that will work well for 'person'. We may best begin in a moderately realistic vein. Then we can move to the utterly fantastic, so that the conceptual nature of the arguments may be more clearly perceived.

In our common thinking on the matter, though this was not always so, it is supposed that there are some people, if not all, who are composed of many cells, though of a finite number. We distinguish, of course, between a person and his body. But, then, while we think the body to be of a certain weight, and to be composed of such cells, we *also* think the person himself to be. Now, some people, I suppose, do not go along with this idea and think that, whatever might be true of the body, the person himself never consists of any cells, or of any other spatially extended things. But even these people, I imagine, will agree that, in the case of many people, each of whom has a body, there is a certain *close association*, or *intimate relation*, whatever its specific character, between each of these people and his or her respective body. (That intimate relation, for all I am saying, *might* be that of identity.) And, no doubt, they will also agree that there is a close relation, perhaps another one, between each of these people and those cells serving to compose his or her body. So, all of us may agree that if there are any people at all, then some of them, at least, are in a close association with certain cells, or with certain groups or complexes of cells, and that each such suitable group, while containing more than ten cells, has only a finite number of cells in it.

Now, I think that another thing we agree on is this: that if there is a person in a situation, and that person is in some such aforesaid close relation with a certain group of cells, then, if only one cell is removed from the group, and this is done in a

way most conducive to there being a person in such a close relation with the remaining cells, then there will be a person in the situation after the removal. In certain instances, of course, this *way* will have to include the importation into the situation of certain life-support apparatus, and of certain items for supporting consciousness. For matters with people seem more complex than with stones, however unreal all of these may eventually prove to be. We may say, then, that whatever substances or properties are *supported by* some cells, so that a person is there in close association, they will also be supported, and in sufficient degree, with only one cell less, providing, of course, that the lesser complex is so chosen, and so allowed to function, that it can do as good a job at such supporting as is possible for a group obtained by such a slight removal. Of course, in the cases to be considered, the imported material does *not* replace cells; rather like a kidney machine, it just helps cells, and what they serve to constitute, to function.

These shared suppositions yield a sorites argument to the effect that there are no people at all. For, if any person is closely associated with a certain group of cells, say, N in number, so will one be there with a group of N-1 cells. I suppose that, as matters progress, we shall get down to a brain, in a vat, then half a brain, then a third, and then a sixteenth. In each case, we must say, there is a person in the situation, one who is in a special close association with the remaining cells. Eventually, there are but three living cells in some sort of combination, and it must be said that there is a person there. But we have also agreed that, with no more than ten cells, there will be no such associated person. Thus, supposing there to be a person at the start, there both is and is not a person in close association with our three cells. Of course, this argues that there never are any people in close association with any groups of cells. So, finally, we may conclude, there really are not any people at all.

With an appropriately realistic argument before us, it is now time to reason counterfactually, so as to see the conceptual basis of the idea that there are no people. Let us imagine a world in which there are entities that we should consider persons, and that consider themselves as such. We shall suppose that these putative people have a language just like ours. They are a bit more intelligent than we, but their powers of imagination far exceed our own. Their greatest differences from us, however, are these: unlike us, these people have no physical existence; they have no bodies nor are they in any very close relation with any physical phenomena. Further, as a matter of imagined fact, they are neither divisible, diminishable, nor even susceptible of any major change. Each of them has always existed and always will exist, and always is at or near the peak of his sensibilities and powers. So, these beings are, I suppose, quite as some philosophers have supposed ourselves really to be. Finally, let us suppose that there are no other sentient beings in this world.

Consider a critical philosopher among them. How might he convince himself that his term 'person', which is the same as our expression, is a logically inconsistent term? Now, he has no relevant gradations in reality to help him base a sorites argument. And, we suppose, it is not clear to him either how to specify the dimensions of difference with respect to which 'person' purports to discriminate. Now,

what this reasoner should do is try to supply himself with a sequence of imagined entities that differed gradually with regards to at least one such relevant dimension. While by our poor standards it would take a great feat of imagination, how better for him to do this than to imagine a world just like ours is (supposed to be) in fact? In this world, thus imagined by him, whatever features were relevant would be supported by brains, each of which was composed of billions of cells.

Our philosopher, in particular, might imagine someone exactly like you yourself; living, kicking, breathing, and thinking, if anyone ever does, in just such a world as you now find yourself to be. He would think to himself, we may suppose, first, that if *anyone is* a person, then this being like you *would be* a person, for that is our same word, 'person', that is figuring in his premising. What more would that free spirit endeavor to think? Well, we might imagine, he could say to himself that, under the total circumstances imagined, if there is indeed a person just like you, then,so too will there by a person when a single cell is removed, most conducively for the continued support of a person, from those that may have supported the original candidate. Far better than we can do, he could imagine in detail the importation of those life-support and consciousness-support systems involved in a most conducive way, so as to establish a suitable sequence of entities. Of course, he can imagine this while starting, not only with an imagined counterpart of you, but with that of any of a great variety of the putative people we suppose to populate our world. For our world, in general, he could then premise that a single cell removed, in such a circumstance and manner, will never mean the difference between at least one person being in the situation and there being none. For he could reason that, in such a world, no one cell will mean a difference, on the dimensions in question, to which 'person' is sensitive. Further, our thinker could say that, in this world, when there were no more than ten cells in a relevant group or complex, then there *would be* no person in the situation. From these premises, by familiar stepwise reasoning, our philsopher would now conclude that if a being like yourself would be a person, then, with ten cells supporting at their best and utmost, there *both would be a person in close association and also would not be.* Thus, he should conclude that the being first imagined, the one just like you yourself, was never any person in the first place. And, finally, by his very first premise, he could now reason that there were not, or are not, any people at all. Thus, without any reality to help him, our imagined philosopher could see for himself that there could never be any people, even while having no clear idea how to specify what dimensions of difference served to determine the impossibility thus perceived.

I have made my imagined philosopher a most pristine soul, a being whose "nature in itself" would seem immune to sorites arguments. Moreover, if he appreciated his nature, that awareness would do nothing to suggest our word 'person'. But so long as this being does share our expression, he may reason to expose its inconsistency and, thus, its lack of application. To make these points, I made my imagined philosopher as described.

There is another reason, too, for my giving this being such a logically unobjectionable nature. For philosophers have sometimes suggested that our own natures

are much as I have stipulated his to be and, what is perhaps more interesting here, even that our term 'person' analytically requires such a nature for its application. Now, let us suppose that any being with such a nature as that cannot be dimensionally compared with, or related to, any other being. With these suppositions in force, we may advance, for 'person', a condition of *incomparability:*

(3p) If an entity satisfies 'person', then there is no dimension of difference such that with regard to it there are entities which differ from that putative satisfier.

According to this condition, there will be no entities that thus differ minutely, or substantially, from a satisfier. So, one might well think that were such a condition to hold for 'person', but perhaps not for 'stone', then, unlike 'stone', 'person' might be a perfectly consistent term after all.[19]

But this supposition of consistency for 'person' would be much mistaken. For as our sorites arguments indicate, 'person' is a vague discriminative expression and, whatever else may be true of it, the term is governed by (1) and (2), our dimensional conditions of vagueness and of discriminativeness. So long as these conditions do govern it, which we have seen no good reason to deny, the expression will be inconsistent. Whatever further conditions may govern it as well cannot erase the two for which we have argued or, then, the contradictions that they serve to generate. This incomparability condition, if there be one governing 'person', will not make matters better for the term. On the contrary, it will serve only to compound the term's troubles. For taken together with either of our prior two conditions for 'person', the incomparability condition, (3p), yields a contradiction from the supposition that any entity satisfies the term. For, by either of the prior two, if there is a person, then there *are* entities that differ *dimensionally* from any satisfier. And, by our new condition, if there is a person, then there are *no* such entities. Hence, if there is a person, then there both are and also are not such dimensionally differing entities, which is absurd. Hence, by (1) and (3p), and also by (2) and (3p), there are no people. Supposing an incomparability condition for 'person', we should say, not that it is a consistent term, but, on the contrary, that "person" is *inconsistent from multiple sources.*

The inconsistency of 'person' means that no people exist; they can exist no more than can perfectly square triangles. Do I exist, then, but am no person after all? Things would seem otherwise: If I exist, then there is at least one person. So, as there are none, there is no me. This result, paradoxical to say the least, can be obtained as well by sorites arguments where there is a purported direct reference to myself, by means, for example, of such terms as 'I', 'Peter Unger', and so on. The most imaginative of our counterfactual sorites arguments might be out of place with these terms, or at least might have a rather different bearing on the issues. Our more realistic versions, however, will have obviously close parallel arguments. Take away one peripheral cell from Peter Unger, with suitable life-support systems in place, and that will not mean the difference between Unger and no Unger. But, with ten cells there is no Unger. So, there never was that Unger.

The analysis of, or the account of, even the most realistic arguments with such singular terms will require, of course, the presentation of conditions that logically govern the key singular expressions. No doubt, these conditions will be importantly analogous to those given here for qualitative vague terms; perhaps our suggestions for such terms as 'door' will be of some help. But these analytical questions take us beyond our topic.

More to the present point, 'person' is hardly the only qualitative vague expression whose inconsistency means much difficulty for us here. For example, the expression 'entity with a capacity for thought' means similar troubles for us, however that expression may relate to 'person'. For the arguments that point up the inconsistency in 'person' will do as much for this longer expression. Moreover, as this expression is of the purely qualitative sort, even the supporting account of the arguments will be along the same familiar lines. Thus, for quite familiar reasons, it may be concluded that there are no entities with a capacity for thought. As with thought, no capacity for experience could be ours, nor for feeling, nor for anything of importance. As regards each of these negative matters, we have, paradoxically enough, not only adequate arguments, but accounts of how those arguments work adequately. For the key expressions involved are, in each case, vague discriminative terms of the purely qualitative sort.

8. THE INABILITY OF PARADOX TO NULLIFY THIS ACCOUNT

Paradox, already indicated, can easily be made manifest: if there are no beings with any capacity for thought, then no argument or statement can be understood, or accepted at all, and so none to the effect that there are no such beings. So it seems that we are driven back logically to the assertion of our existence, of the existence of beings that can think. Thus, there is next the implication that our expressions 'person' and 'thinking being' do indeed apply. And so, finally, we have the implication that these terms are logically consistent ones. But things do not really stop here, either. For, along lines that are by now familiar, we may in turn reduce these assertions to absurdity. Thus, their negations obtain, including the proposition that there are no beings with any capacity for thought. The reasoning goes around and around. What are we to make of this paradoxical situation? Should we hold onto common sense robustly and say that the only genuine errors are in our account of vagueness and in its connecting sorites arguments? Following this course, we might better try to be comfortable. For then thoughts of absurdity will be harder to keep in mind. But perhaps, "so to try to say," paradox does little to nullify the basic point and value of our radical account and arguments.

In available terms, for want of any better, I have argued that many of our common expressions are logically inconsistent terms, including such key expressions as 'person' and 'entity with a capacity for thought'. Much of my argument began with the invention of a term, 'nacknick', for which inconsistent instructions were given in its very introduction. Then, as our sorites arguments progressively indicated, there appeared no logically relevant difference between 'nacknick' and

such common expressions as 'stone' and even 'person'. To be sure, the latter terms are not learned from any explicit instructions at all. But there is still a parity of inconsistency, or at least a very strong suggestion of it, that supports my account of the ordinary terms as logically inconsistent. Despite whatever paradoxes our account may engender, then, how can this apparent parity be rationally denied?

To deny the shared inconsistency, one cannot rationally rely on pointing to paradox. For, let us consider the implications of our lessons with 'nacknick'. Now, as this term concerns only the shape of objects, it is idle to suppose that it might yield the sort of paradox that an expression like 'thinking being' was recently observed to do. What is less idle, however, is to imagine that inconsistent instructions were, at a suitable point, *imposed upon* the learning of such terms as 'person' and 'thinking being'. Let us imagine, then, a society much like ours, with this exception: *After normal early learning had occurred,* explicit inconsistent instructions were given to the moderately young. Thus, children would hear words like these: "Typical vague words that you have learned, like 'stone' and 'person', will now be more clearly revealed to you. To begin with, each of you should know that each of these words serves to discriminate, or distinguish, different sorts of things. So, the word 'stone' distinguishes between the stones and everything else, which differ so from stones that they do not fit the meaning of the word. Of course, this word is a vague one, and you should know this about it too: if something is a stone, and so fits the word 'stone' properly, then anything that differs from it only a little bit will also fit the word, that is, will also be a stone. To be sure, there is no definite limit as to how much something may differ from a stone and for it yet to be a stone. All of this, you are to understand, is part of what it is for the word 'stone' to be a vague word while still allowing us to make useful discriminations with it. And, of course, these points apply just as well to other typical vague words, for example, to such words as 'house', 'person', 'red', 'soft', 'tall', 'running', 'thinking', and so on. Now, none of this should come as a surprise to any of you; in fact, in a way, you have known it already. But it is just as well for us to be explicit about these things, for us to have them out in the open."

What results would such instructions have if they were often involved in teaching routines? As the people in this society are to be much like ourselves, it must be supposed that they will master what they are thus taught, should much training be imposed. Later in life, even, should someone manage to claim some such word to be precise, the people will appeal to the teachings, which they could recite with little distortion. Thus, if someone said that a stone could not be less than one inch in diameter, but that it could be less than one and one millionths inches, he would be accused of violating the meaning of 'stone' just as we should accuse him. Unlike us, however, the people in this other society, to support the charge that such a claim of precision is in way of being an arbitrary stipulation, would appeal to the explicit, repeated teaching routines. They would appear to be in a quite obviously good position, then, to claim that there is indeed a stipulation here and, moreover, one which conflicts with the learned, accepted meaning of the word.

Now, let us suppose that, just as I am doing for our own words, a philosopher in this society puts forward the idea that typical vague terms are inconsistent. This is hardly an arbitrary supposition now, given what we have already imagined. For if I have supposed as much with no such explicit teaching to suggest the thought to me, how much easier it will be for a thinker who is amidst so much apparent inconsistency. Focusing on the teaching, he would point out the inconsistency in the instructions. Now, in that society, since the people are assumed to be much like us, there would be thinkers of a rather conservative bent, who would wish to cleave to the accepted thinking of their culture. How should these conservatives defend that thinking; how should they rationally reply to the nihilistic critic?

Whatever replies may be open to them, it seems to me that *among the least effective* of these would be an appeal to comprehensive paradox. True enough, if such expressions as their 'person' and 'thinking being' are logically inconsistent, as the explicit instructions for them indicate, then they would have to conclude that no one could accept, or even understand, the critic's arguments. But if the matter were allowed to rest there, or even if the burden of argument were thought to be substantially shifted, those conservative thinkers would display terribly little philosophical sense, and virtually no depth of thought or understanding. Generally, we may note that any thoroughgoing radical critique of a language, or a system of thought, conducted in the terms or concepts of what is criticized, must, of course, have this paradoxical quality. But this does not mean that such a criticism cannot be, so to try to say, appropriate to its object. In the society now under consideration, whatever most of its members may think on the matter, such a criticism will be quite appropriate indeed.

Now, it seems clear to me that the situation is not relevantly different in our own case. It is, of course, true that things are not exactly the same with us, for we have had no explicit instructions for our typical vague terms, much less have we any that are inconsistent. But, as our arguments have indicated, what our imagined society's members will have learned explicitly we seem to have learned implicitly. The logic of our expressions is not at variance with theirs. So, it is most unlikely, I submit, that pointing to paradox will be futile against their radical critic but rational against a critic in our less explicit society. As it will not be rational there, so it is not rational here. Pointing to paradox, then, does little or nothing to nullify these present efforts.

The point that paradox cannot nullify our account will stand just as well should we agree that, in addition to the paradoxical situation already noted, various other, perhaps deeper, paradoxes are consequences of our account. For example, it might be held that if there are no entities with any capacity to think, or to use language, then there will be no sentences, or any other expressions. And, it might be held that if there are none of these latter, then there are no statements or propositions, no arguments or accounts of any sort, and not just none that are ever understood or accepted. If this may be maintained, then fuller, or more direct, paradoxes can be added to our account's consequences. But, as our discussion has already in-

dicated amply, this will do little to worsen matters for us. For, *whatever* paradoxes our account should engender will all be rationally treated alike. They all will best be taken, it seems clear, as showing the comprehensiveness of our radical account, rather than its futility.

9. A REEXAMINATION OF OUR ARGUMENT FROM INVENTED EXPRESSIONS

Our account of vague expressions has been provided. It has given support to our Argument from Invented Expressions, support which will not be nullified by any charges of paradox. If we are to maintain common sense still, and hold that there really are people, we must object to one of the premises of that Argument, though few courses for such an objection appear still to be available. To take last things first, there is little to be said against the Argument's final premise:

(III) If the expression 'person' is logically inconsistent, then there are no people.

For a denial of it, as I have argued in Section 1, will rest only upon a confusion. So, objections must come against its first two premises, for the Argument's form is not faulty. At the outset of our reexamination of them, we note that at this point these premises look well supported. So, now, I suggest, the burden of argument is on any attempted objection. Can this burden be shouldered effectively?

Let us reexamine our second premise, in an attempt to review matters back to our beginning:

(II) The expression 'person' is logically on a par with 'nacknick'; if the latter is inconsistent, then so is the former.

So far as we have been able to discern, from our early experiments onward, there is indeed this logical parity. If the matter is just an empirical, or contingent, or causal one, to be decided primarily by experiment and observation, then parity seems surely right. For only the most tortuous and forced interpretation of our recent experiments and observations would have things be otherwise. For an objection to (II) to be at all plausible, then, it must be maintained that it is for some conceptual or logical reasons that there is a disparity between our invented expression and our ordinary one. Now, we have already argued that, whatever else may be true of it, 'person' is a qualitative vague discriminative term. As such, it is logically on a par with such other, less central common expressions as 'stone', 'tall man,' and 'cubical object'. So, in effect, what the objection must claim is that there is a logical barrier to a parallel between 'nacknick' and 'cubical object', and even 'object whose shape is quite similar to that of a cube'. But how might the claim of such a logical barrier be rationally supported?

The support required would have to come in the form of 'logical' truths, which would logically yield the statement of no logical parity. But anything that might be even plausibly considered a logical truth appears quite inadequate to pro-

vide the needed deduction. Here is an example of the problem, with a candidate for relevant logical truth that is much better than most I have examined: One must understand an invented expression, if one understands it at all, in terms of a set of expressions (each of which is not invented and) each of which is consistent. While it might later be doubted, let us now grant that, in a relevant sense, this is indeed a logical truth. But, even so, of what use will it be in deriving logical disparity between invented and ordinary vague expressions?

We have already encountered an invented expression which, if any ordinary term satisfies this offered condition, quite nicely meets the alleged requirement. That expression is 'tinkergrid', which I introduced and discussed in Section 4. Discounting any minor lapse, I showed there that, unlike both ordinary vague terms and also the invented 'nacknick', the invented 'tinkergrid', while it was indeed inconsistent, had inconsistency which was relevantly grounded. What seemed to hold only between 'nacknick' and the ordinary terms, none of which appear to satisfy our offered requirement, was the *further* parallel of having *groundless* inconsistency. So, even if we grant the offered requirement, the most it could logically yield, it should be clear, is that ordinary vague expressions will differ from 'nacknick' as regards the source or nature of whatever inconsistency they might have. The parity we are concerned with, however, concerns whether, like both 'nacknick' and also 'tinkergrid', typical vague expressions are, in any way, and from whatever source, logically inconsistent. As regards the required disparity, then, the offered requirement, even if logically true, is powerless to yield any result.

While our reconsideration of 'tinkergrid' has shown the offered requirement to be irrelevant, it suggests as well great doubt as to its truth. It seems incredible to suppose that we might have invented a term like 'tinkergrid' to parallel our ordinary vague terms but failed with 'nacknick'. For of the two useful, inconsistent inventions, it is the latter that seems to provide the closer parallel here. So, our problems compound: to have a (logical) truth presented in the first place, we are constrained to weaken our alleged requirement. Perhaps the following has a decent chance for truth: One must understand an invented expression, if at all, in terms of a set of expressions (each of which is not invented and) at least some of which are consistent terms. But, now, we have available to yield contradiction, in addition to the clashes between consistent ideas that 'tinkergrid' displayed, the inconsistency in various vague expressions (which are not invented).

The experience we have just suffered is typical of what I have encountered in my examination of objections to (II), the second premise of our Argument. The more an offered proposition looks like it might be a logical truth, and so suitable for a counterargument in that respect, the less it looks relevant to yielding the required deduction of disparity. No candidate, then, of which I am aware, looks very promising, and no suitable counterargument appears forthcoming. While these matters must, perhaps, always be somewhat inconclusive, it thus seems to me that there is no good objection to the apparent logical parity between the invented and ordinary expressions.

There is only one place left for an objection to be effective against our Argument, namely, in the place of our first premise:

(I) The invented expression 'nacknick' is logically inconsistent.

This question brings us back to the beginning of our essay. Could we have misinterpreted our little learning experiments, so that the apparently obvious and rational interpretation was really out of place all along? As with (II), if the matter is essentially an empirical, or contingent one, there would be little chance indeed that we have been misinterpreting things, and that some ingenious complicated hypothesis must be preferred. Thus, the objection must be that there is some logical barrier to the truth of our first premise. But how might it be argued that we have been laboring under such an intellectual illusion?

The occurrence of a definite description at the head of our premise, "the invented expression 'nacknick'," may trigger the response that there may in fact never have been any such invented expression. If so, then this premise will fail of truth, whatever other status should then be accorded it. Now, it is clearly no good to deny the thought that if there is any expression 'nacknick', then it is an invented term. But it will also do no good to challenge the premise on the ground that there is no expression 'nacknick' at all. For anything which will serve to argue that much, it appears, will undermine as well the idea that there are ordinary vague expressions, including 'cubical object' and 'person'. The paradoxical consequences of our own account, for example, can be used to this effect against the premise; but they will undermine as well any typical vague expression, including 'person'. So, this is no good way to challenge our premise, as it gets rid of the baby along with the bath water. Similar maneuvers will prove to no better critical effect. For example, it is no good to find 'nacknick' an expression but a meaningless one, for how should 'cubical object' and 'person' then prove meaningful? The only plausible manner of objection, then, will allow 'nacknick' as an expression that either is consistent or else inconsistent.

It remains to object, of course, that this invented expression cannot possibly be, in any sense that it might have, an inconsistent expression. It appears that the teacher, at least, has an understanding of such an inconsistent term, but this appearance, the objection continues, must be an intellectual illusion. How might this be cogently maintained? I suspect that an idea which might motivate this objection is the by now old one that meaning is use, or is a function of use, though perhaps in one of that idea's newer guises or forms. But, in whatever form, this idea looks quite unrealistic. Even when we consider terms that are not vague, and which may be allowed as consistent, there seems little value in this approach. Consider a surface. With certain purposes in mind, someone may say "This is flat," his idea being that the surface is suitable for those purposes. Weeks later, he may return with other purposes, and say of the same surface "This is not flat," and then turning to another surface may say of it "That one is flat." But, we may suppose, the original surface did not become any less flat, and even may have been somewhat improved in that respect. Weeks later still, with a third set of purposes, the same individual

may declare the second surface to be not flat, now declaring a third surface to be a flat one. And, so it may go, half a dozen times or more. How is this most plausibly to be accounted? Surely, the meaning of the words did not relevantly change. And, just as surely, the meaning of 'flat' does not concern anyone's purposes. The realistic explanation, I suggest, involves supposing that *none* of the surfaces here *ever are flat*, and that while actually speaking falsely, the man is informally implying in each case something like this: The currently indicated surface is sufficiently close to being (absolutely) flat so as to be suitable for the purposes the speaker and hearer now have in mind.[20]

If even apparently consistent terms are best accounted by thus distinguishing meaning and semantic application from the uses to which the words are put, at least as much should be expected where the terms appear to be inconsistent expressions. I think we may do well now to consider once again our invented term 'tinkergrid'. This is a term that is to apply only to certain abstract, mathematical objects. To say of a wooden structure that it is a tinkergrid is, just for this reason, a plain failure to speak the truth. If use is to match with truth and meaning here, it will have to come from quarters much further removed from directly observable behaviors and stimuli. Perhaps we might ask various people to try to imagine tinkergrids. Various people, perhaps unaware of any inconsistency, will frequently allege success. They are using the term to describe what they imagine. But, I think we may agree that they can be imagining no such thing, and that a literally accurate description of what they imagine can be given only in some other terms. To go on multiplying examples and considerations would be inappropriate for us now. To be sure, it is most unlikely that anything can be said on these matters that will prove absolutely conclusive. But, lacking such certainty, perhaps we may still agree that I have invented some inconsistent expressions, even if those terms are well suited for our use.

At this point, a subtler, and somewhat more plausible, objection may be attempted. The idea here is to grant that 'nacknick' is an inconsistent expression, but to deny it much of a place in our experimental learning situations. It is not obvious, however, precisely how this will serve to challenge our Argument. So, let us discuss the matter.

The attempted objection may take any of several forms, but they are all more or less equivalent to this: our 'nacknick' is a term with two (or more?) meanings. In one sense, which it does seem forced to deny it, the term is indeed an inconsistent one. In this sense, however, the objection continues, the term is not a useful expression. The sense in which the term is useful is another sense, in which the term is consistent. And, what has happened in the learning situation? The teacher has intended by his instructions, to inculcate in his hearers (or readers) the expression 'nacknick' in its inconsistent sense. But what his instructions actually have done is to *suggest* to the hearers *another* sense for the term, a consistent useful one. The hearers then learn 'nacknick' only in this latter sense; the former never gets further than the teacher's sounds or marks.[21]

This objection, we may see, attempts to force an equivocation upon our Argument. Interestingly, the term upon which the equivocation focuses is not a com-

mon, accepted one, but is our invented 'nacknick' itself. For the Argument to seem to work, 'nacknick' must have one meaning in the first premise, on which the term is inconsistent, and another meaning in the second premise, on which the term is consistent. As the Argument thus equivocates, it is not a cogent piece of reasoning.

This objection has some plausibility, but it will not bear scrutiny. For it to work, we must suppose that the only way for 'nacknick' to be logically on a par with ordinary vague terms, in particular, with 'person', is for the new expression to be taken in a consistent sense. But, might not there be a deep parallel here between the two, so that 'person' as well as 'nacknick' has an inconsistent meaning? If so, then our Argument will not equivocate, but will concern both terms, as regards their inconsistent meanings. As such, it will be a cogent piece of reasoning, though perhaps a bit limited in its scope.

My suggestion of this deep parallel implies that the inconsistent sense for 'nacknick' did get further than my marks or sounds, that it was inculcated in you. What might support this suggestion? We remember our instructive society, where inconsistent instructions for learned ordinary terms became a matter of widespread, repeated scholastic drill. Now, we need only extend our experiments with 'nacknick' to match their drills with 'stone', 'cubical object', and 'person'. So, let us imagine that after I taught you 'nacknick', we went over the instructions so much that you had them down pat. In such a case, there is no plausibility at all in supposing the inconsistent sense got no further than my marks or sounds, and never entered your learning. For, now, you would be confident that the aforesaid instructions governed your 'nacknick', which you had learned from me. Indeed, after you perceive the inconsistency in your term, you will be able to say of other expressions, which are *not* thus inconsistent, that they are thus different from the expression you just learned. Thus, you will say that 'perfect cube' is logically quite different from the term you learned from me. But, of course, you will be ready to use 'nacknick' for many objects anyway and to withhold it of many others. It appears quite easy to tell how our extended experiments will turn out, and what those results show. For what occurs there explicitly also occurs, implicitly, in our original experiments.

Now, none of this is to deny that my instructions may have inculcated in you, in *addition* to 'nacknick' in the inconsistent sense, a consistent sense for the expression. And, it is not to deny that this consistent sense may have been important, even essential, for the term's being a useful one for you. I think these last possibilities to be, in fact, quite unlikely. But there is still some plausibility in the idea of them. What is important for us to notice now is, first, how much less plausible it is to think that with 'nacknick', as well as with 'person', no inconsistent sense ever got to you at all, no matter what else may have gotten to you, and, second, that it is this much less plausible idea that is required for the charge of equivocation to work against our Argument.

To appreciate fully the failure of this charge, we should understand that whatever we may say of 'nacknick' in these regards, we may say with just as much reason, or just as little, in regards to 'stone' and 'person'. Thus, even if it concerns

terms only in one, conscious meaning, our Argument will have a second premise suitable to match its first. For example, we may grant that there is an unconscious, consistent sense for 'nacknick' which, in our experiments, you learned and then employed. Then we might say, of course, that you *also* used the term in its inconsistent sense, perhaps doing so in (the process of) using it in its consistent one. But then we might just as well say the same for 'person', or 'stone': We learn two senses and, when we use 'stone' in its inconsistent sense, we do so in (the process of) using it in its unconscious, consistent sense. For another example, we might say that the consciously learned sense is never useful, and that there appears to be a use for 'nacknick' only in this inconsistent sense. But, then, of course, we might just as well say that 'stone' is perfectly idle in its conscious, inconsistent sense, and is used only in that unconscious sense in which it is a consistent expression. Whatever we may say for 'nacknick', we should understand, we may just as well say for 'stone' and for 'person'. So, to repeat, our Argument does not rely upon equivocation, but is an adequate piece of reasoning.

This final objection has failed. But it suggests some ideas, recently considered, that, while they do not constitute an objection to our Argument, may serve to place limits on its application. For, if there may be two senses of 'nacknick', and thus of 'person' also, it might be said that our Argument concerns these expressions in only one of those senses, the inconsistent one. Thus, for all that piece of reasoning says, there may be a consistent sense for 'person', as well as for 'nacknick', and, in *that* sense, there may well be plenty of people. If our Argument is thus limited, then the interest of our conclusion, it might be said, will be equally limited, though perhaps still of some significance. What are we to make of this?

In the first place, we should remind ourselves that the postulation of these additional meanings appears to be quite gratuitous and, if it actually is so, then nothing further need be said. Indeed, can't we leave it at that? For these alleged meanings are not only wholly unconscious ones, but we are to have no clue as to how anyone might ever become aware of them. Of course, someone might take a stab at articulating his putative unconscious meaning of 'person', but how should he ever judge his success, let alone the propriety of extending his suggestion to my own putative unconscious meaning for the term? To my mind, the postulation of these alleged meanings looks to be a desperate pretense.

But suppose we grant that there really are such shared consistent unconscious meanings. So far as I can tell, we still cannot say anything much as to what they are. Unlike the conscious inconsistent meanings, for which we can give at least such conditions as in (1) and (2), these postulated entities are utterly obscure and mysterious. But if we do not have any idea as to these obscure meanings, then we have none either as to what it is for an entity to be a person, or even to be a nacknick. Thus, with respect to any entity whatever, even an alleged shoelace, we have no idea either as to whether it is a person or a nacknick, or both, or neither. In *this* sense of person—and how many others like it—perhaps there may be ever so many people. But now the matter has become utterly mysterious and obscure. If this is all there is to our Argument's being limited, that reasoning seems not to have any serious limitations.

10. SOME OUTSTANDING PROBLEMS POSED BY THIS ACCOUNT AND ITS RELATION TO THEM

Largely by providing and employing an account of typical vague expressions as logically inconsistent, I have argued that there are no people. We have discussed the chief objections to the account, including the charge of paradox, and we have supported the account by answering or disarming them. Thus, paradoxically enough, I suggest that at this point my account is to be accepted, at least as a working hypothesis for certain problems. I should now like briefly to discuss three of these.

A. The Problem of Explanation

If 'person' is an inconsistent term, then *how* are *any* entities able, so to say, to use it as successfully as it appears gets done quite regularly? Indeed, how does this happen with any inconsistent expression? If such an expression is tied to consistent terms, so that it functions in place of them, then the matter is not very problematic. We saw this before, in Section 1, where we discussed a working agreement to use 'perfectly square triangle' in place of 'tomato which is both yellow and sweet', supposing the latter expression to be consistent. But, without any such supposition as that, which is our present problem situation, there is considerable explanatory difficulty.

If our account is right, then any explanation given in available terms must eventually, like the terms themselves, prove logically incoherent. So, we should not expect too much here in the way of valuable results. Nevertheless, it is unhelpful to say nothing more than that there is nothing for us to do. For, even if they are incoherent, the questions that introduced this problem for us appear to point up some puzzling phenomena. So, I shall stick my neck out now and offer the beginnings of an explanatory suggestion.

Perhaps we might understand the role of putative paradigms on the model of an animal's learning to respond to a stimulus. A rat can be taught to press a nearby bar just when a certain sort of stimulus is present, for example, a triangular object. After learning with this stimulus, what happens with rats when, on the next trial, a somewhat different stimulus is for the first time presented, perhaps a more or less rounded triangular object? We may plot measures of response against difference from the original shape, those measures being frequency of any response, quickness of response when one is made, strength of response, such as pressure on the bar, and so on. With such suitable measures, a gradient, or curve, will be established for a rat population and, by extrapolation, for a typical rat member. For almost any rat, the peak of the gradient will center quite precisely on the original shape, the slope away from that varying somewhat from rat to rat. We might say, then, that each rat has his own idea of a *triangular object*, though there is important commonality to their ideas.

I suggest that our conception of a triangular object, and of a nacknick, is similarly based. Much as a rat can be trained to respond to an alleged paradigm nacknick, so I can more quickly learn to respond more flexibly with regard to such puta-

tive objects, and with respect to my invented term for them. And, of course, so can you. While our centers will not differ much, though with different people and different individual paradigms *some* difference is to be expected, our slopes may be expected to differ significantly, especially for cases far away from center. Thus, various behavioral borderline cases will arise where you and I are inclined toward disparate judgments. Now, suppose my interior decorator tells me to use a nacknick in a certain place, though any shaped nacknick will be suitable. In a store, I come upon a "borderline case" while shopping in your company. I am inclined to judge it a nacknick, you to judge it not one. Who is right? It would be silly for us, even if we thought there were some nacknicks, to force the issue and to declare that there must be a fact of the matter. Behaving typically, we would not do that. Rather, I suggest, we should treat the matter as a social problem, with each person having a chance to influence the other. Now, to move you to my side, to apply, I will rely on the vagueness condition: Look, this is so like those others, in shape, which you agree are nacknicks; so why should we stop just there, and not here? To move me, not to apply, you will rely on the discriminative condition: But, see here, we have to stop *somewhere*, or just any old thing will do; so why not stop there, which is a perfectly good place to do so? In the logic of the situation itself, there is nothing to settle matters. So, things get settled by further considerations. For example, if you are an architect, and I have no strong interest in conventional shape description, I may well yield to you, expecting like treatment from you in areas where my classificatory interests are the stronger. Of course, if you are a king and I am a peasant, then I may expect to do a good deal more yielding on matters generally. The discriminative vagueness of 'nacknick', as established in our conditions, allows these accommodations to take place with no one getting the idea that he is giving up any truth, or being hypocritical.

Even in one's own case, the matter is similar. If my decorator told me to use a nacknick, and I happen to have a putative borderline case free to hand, while most nacknicks would be quite expensive for me, I might rely on the vagueness condition to allow me to judge it a nacknick, even should I otherwise not be much inclined to do so. I want to follow my decorator's advice, and I also want to use what is free if possible, so as to keep my expenses down. By appealing to the vagueness condition, I can happily satisfy both of my desires.

Now, I do not mean to place much stock in this bare explanatory suggestion. It points up a virtue, though, in our account, and a corresponding problem with other ways of thinking about vague expressions. For people do differ as to how to handle many such behavioral borderline cases, and a given person often differs from himself over time. These do not appear to be matters of losing truth, where thoughts of self-deception should enter, or thoughts of losing one's faculties owing to social pressure. On the idea that 'nacknick' is consistent, and that it actually applies to a whole bunch of things, which are exactly the nacknicks, these bizarre thoughts move to take over. For, as we saw in Section 3, in every case, 'nacknick' either applies or else it does not, so that there are no logical borderline cases. Thus, on this more usual idea, in accommodating, someone will often give up truth (for falsity). But on our account, there are no such strange losses to be further accounted.

In a way, though, the main point for us now is to see how we have succeeded in *avoiding* the complex problem of explanation. We have done so by introducing 'nacknick', and by then formulating our Argument from Invented Expressions. For, just as with ordinary vague terms, with 'nacknick' also we have no good detailed *explanation of how* it might be useful to us even while it is inconsistent. But, we may *accept the idea that* 'nacknick' is both useful and inconsistent, and also that it is relevantly similar to 'cubical object' and to other typical vague expressions. So, even in the absence of a worked out explanation for them, we may accept the idea that our common vague expressions are useful even while they are inconsistent.

Of course, were I able to offer a good explanation of how they were useful, that would offer *more* support for our account of common vague discriminative terms. Similarly, were I able to offer a detailed explanation for 'nacknick', that would further my support for my thoughts about it. In each case, the better the explanation, the more the support we add. But, then, all of this is in the area of adding support to an account which, by other means, is already supported. On the other hand, should no good explanation be forthcoming for any of these terms, that would not, I suggest, detract much from the credibility of my account. For the problem of explanation might just be too difficult for anybody.

B. The Problem of Scope and Comparison

On my account, our language is inconsistent in a certain respect: it is inconsistent in (the fact that it has) its qualitative vague discriminative expressions, including 'being with a capacity for using language'.[22] Already we have found a fair number and variety of expressions to be of this sort. Our success suggests that we inquire as to which other terms can also be thus categorized. This is an inquiry into the problem of the *scope* of our account.

One of the first things we shall wish to examine, as regards the scope of our account, are those expressions that are the negatives of expressions we have already accounted. Thus, we look at such expressions as 'not a nacknick' and 'not a person'. While syntax thus often suffices to spot such terms, we may semantically define a negative of an expression *e* quite simply: *n* is a negative of *e* just in case, with respect to any entity, *n* applies to the entity if and only if *e* does not apply to it. Thus, 'person' is a negative of 'not a person' just as the latter is a negative of the former. We should inquire, then, whether a negative of a qualitative vague discriminative expression is also an expression of that sort. The issues here are, I think, exceptionally difficult and complex. Partly for this reason, I have not broached them in our previous discussions. For now, I think it will be enough to say this: If our negatives are also terms of our key category, that will mean a further source of contradictions and paradoxes.

For consider 'not a stone' and suppose it applies to a certain group of twenty atoms, or to something they constitute. Now, if our first condition governs this expression, we may keep adding suitable atoms, one at a time, and it will apply to the result in each case. But, if our second condition also governs it, we must reach an

entity that does *not* satisfy 'not a stone', if not by *that* additive process then by *some* such procedure. But, then, as 'not a stone' does *not* apply to this entity, any *negative* of it *will* apply to it, including 'stone'. Thus, this entity, which by our vagueness condition is not a stone, also is a stone. Thus, 'not a stone' does not apply to our original complex of twenty atoms. So, any negative of 'not a stone' applies to that complex. Thus, as 'stone' is such a negative, those twenty atoms constitute a stone! But, then, our familiar arguments show, as well, that those few atoms do not compose a stone.[23]

What we say about our negative expressions, then, will determine whether or not such new sources of paradox and contradiction are upon us. But, even if we eventually say that these negatives are indeed of our typical vague variety, and so have these paradoxes upon us, that will do nothing to discredit seriously our account of them, or of any other terms. For the points we made about paradox before, in Section 8, apply in full generality. Thus, in particular, they will fully cover these present matters.

On a slightly more positive note, another thing we shall want to examine, in connection with the scope of our account, is the logic of vague discriminative terms that are not purely qualitative. For powerful sorites arguments are available to refute the existence of those entities that putatively satisfy 'bachelor', 'door', and many other terms, including arguments of a relevantly counterfactual form. To explain these arguments, we want to exhibit conditions that govern the key terms, according to which those terms are inconsistent. I believe that many proper names will find their logic exposed in this manner, as will various expressions that have been supposed interestingly similar to names. In Section 2, I made some brief suggestions for extending our account to cover discriminative expressions generally. But, we want to go far deeper into the matter.

While there is no real line separating them, we may conveniently move from discussing this problem of scope to examining the related problem of *comparison*. What we want to do here is show that the sort of source of inconsistency so far discussed, which has much to do with vagueness, is not an isolated phenomenon of our language, but is only one of several linguistic sources of inconsistency. As a possible example of another type of source, we may consider the putative expression 'expression that does not apply to itself'. It seems that there really cannot be any such expression, for if there is one, then it applies to itself if and only if it does not, which is absurd. This might be just a surprising case of reason cutting through illusory appearance. But, it may not stop there. For if this alleged expression is really not anything genuine, then, it seems, there will not really be any expression 'expression that applies to itself'. But, if not that, then not either 'expression that applies to something other than itself' nor, then, 'expression that applies to something'. But, if not this last, then it seems there is no real expression 'expression'. And, with this last gone, it seems we must conclude, in fact, that there are no expressions, and so no languages, at all. So, comparative matters merit further examination.[24]

Now, we should notice that the putative expression 'expression that does not apply to itself', supposing it does exist, might well be a vague discriminative expres-

sion. If so, then it will yield inconsistency from at least two sorts of source. And, if that is so, then so much the better for our present account.

C. The Problem of Replacement

What I regard as the most difficult problem posed by my account, but also the most important, is that of devising consistent expressions to replace the inconsistent ones that have been prevalent to date. Part of the problem is that it is unclear even in what sense or way the new terms will *replace* the old. But the most dizzying part is that the devising seems to require an indefinite number of choices for us to make, and while these choices look like extremely important ones, they must be entirely arbitrary. While these two parts may not exhaust this problem, it will be enough for us now, in an attempt to understand the problem's difficulty, to focus our discussion upon them exclusively.

In what sense or way is a newly devised term to *replace* an existing ordinary one, for example, to replace 'stone'? Normally, we should think of replacing one term by another where we think of two consistent terms involved. Thus, an old expression may apply to certain cases that we want to capture as well with a new term, but it may include other cases that we want newly to exclude. So, the new term will be defined accordingly. If we then give up the old term, and no other available expression comes near to applying and excluding along these lines, we shall naturally think of having replaced the old term by the new. But, in the present case, each old term is inconsistent, applying to no cases at all. So, what does any do that a new term may do with a difference?

A "pragmatic" answer seems the only one relevant. While our inconsistent terms are all logically on a par, different ones serve us differently. Roughly, this difference in service is due to different response repertoires associated with the different terms. Each term has, for any speaker at any time, associated with it a certain pattern of responses to different possible situations. While there is some variation here, there will be, even across many speakers over a substantial period of time, a considerable amount of agreement in response for a term. So, for each inconsistent term, we might devise a consistent one that is to have a rather similar response repertoire. Still, as conflicting responses each has no claim to be (more) in accord with the old term itself, a ruling in favor of some, and against others, will have no basis in the meaning of the common term. But someone's repertoire will suffer should any decision be made. Thus, it is not easy to tell what can possibly count as a successful outcome for such a project.

Let us pretend that, for many vague expressions, this difficulty has been resolved. We are now to replace our term 'person'. For this particular task, we should reflect back on situations we have imaginatively encountered already. For example, when we remove peripheral neurons, one at a time, from an alleged person, there really seems nothing to choose, despite our generous reference to a "way most conducive to there still being a person." Thus, at (virtually) any point, the removal of (almost) any particular neuron does not leave an entity that is, in any acceptable

sense, any *less of a person* than would be left instead with the removal of (almost) any other. With nothing for a guide, how are "we" to choose an expression that, unlike 'person', will select certain removals as preferable to others.

To highlight the problem, consider two rather different sequences of removal, each disposing of the same number of neurons, millions of them, where the net result, in terms of eventually supported capacities, is quite dissimilar. Now, in certain cases of this sort, our associated response repertoire may indicate one resulting entity to be preferred as a person over the other. For example, the capacities supported at the end of one sequence may be much greater as regards feelings, while the main advantage resulting from another sequence may lie in the less personal area of physical dexterity. But, in many other such cases, while the net results from the sequences are apparently different in important ways, there seems nothing to choose between them as far as being a person is concerned: suppose one entity is more intelligent and is better able to experience pleasure, while the other is more sympathetic and is more sensitive to varieties of pain. Now, what we are to do, in devising a new term, is to make a choice anyway for even such arbitrary cases, which choice will then be reflected in how the term itself "decides things."

These dizzying matters get far more difficult when the underlying circle of our thought is exposed and appreciated. For, we want our key terms, like 'person', to reflect certain interests, which will favor those entities included under the term over those not so included. But whose interests will these be? They cannot be the interests of any people, since there are not any such things. But, even supposing any of our descriptions to be coherent, should the interests of entities less brilliant than Einstein be accorded in devising a most suitable replacement for 'person'? Should any weight be given to having eyes whose color lies within a certain precise range (of bright blue)? Should entities with a very low degree of musical aptitude be excluded altogether? We have firm ideas and strong feelings on these matters, but who are we to have feelings and ideas that matter? There appears to be an impossible bootstrap operation required of any attempt at replacement to achieve any priority or even significance. Indeed, I cannot see how there could be, in any area of intellectual endeavor, a harder problem than this one.[25]

Notes

1. In formulating these conditions, I have been helped by correspondence with John Tienson.

2. I use the plural term 'Expressions' in naming this Argument because, while I, in fact, chose to begin with 'nacknick', and with certain matters of shape, I could have begun as well with other matters and invented expressions.

3. My discussion of this matter emerged from conversation with Samuel Wheeler.

4. I am indebted to several people for help in formulating these complex statements, especially to Terence Leichti. But there have been so many problems with previous versions that I despair that some must still remain. I trust, however, that the reader will not judge my philosophy primarily in terms of formulational details.

5. For an extended discussion of the semantics of 'flat', and of other such *absolute terms*, see chapter II of my book *Ignorance* (Oxford, 1975).

6. For an alternative interpretation of why sorites arguments are sound, see two papers by Samuel Wheeler: "Reference and Vagueness," *Synthese*, Vol. 30, No. 3/4 (April/May, 1975) and "On That Which Is Not," *Synthese* (forthcoming).

7. In the case of (almost) all the sorites arguments presented in this paper, in regards to matters of formulation, I am indebted to Terence Leichti.

8. On the need for such a "providing" clause, I am indebted to James Van Cleve.

9. In John Tienson, "Can Things of Different Natural Kinds Be Exactly Alike?", *Analysis* 37 (1977):190-97.

10. This is suggested by the main point of Tienson's paper, "Can Things of Different Natural Kinds Be Exactly Alike?"

11. Perhaps the most prominent recent exponent of this idea of incompleteness, or of an idea much like it, is Michael Dummett in his unfortunately named "Wang's Paradox," *Synthese* 30 (1975), especially as on pages 309-12.

12. As I hope is indicated by the language, this general proposition is not intended to concern future situations. As regards the future, I think there are genuine problems, as made famous by Aristotle and his argument of the sea battle.

13. Various remarks in the section just ended are in response to conversations with Terence Leichti and with David Lewis.

14. This argument, adapted, shows that there is no genuine dyadic relation of *similarity*. For we can now show that if there is such a relation, then it must be transitive. But, also, quite clearly, if there is such a relation, then it is not transitive. Thus, despite intellectual appearances to the contrary, there is no real similarity relation. (The question of *respects*, and of *degrees*, of similarity changes nothing here.) This point first emerged for me in discussion with Vincent Tomas.

15. This objection, or one much like it, was offered to me in conversation by Terence Leichti and also by David Lewis. What I go on to say about the matter is indebted to these helpful conversations.

16. For impressing upon me the importance of counterfactual reasoning in relation to sorites arguments, I am indebted to discussion with David Lewis.

17. See three recent papers of mine: "I Do Not Exist," in *Epistemology in Perspective*, ed. Graham Macdonald (London, forthcoming), which is the festschrift for Professor Sir A. J. Ayer; "There Are No Ordinary Things," *Synthese*, forthcoming: "Skepticism and Nihilism," *Nous*, forthcoming.

18. See the three papers cited in the just previous note.

19. For discussion regarding an incomparability condition for 'person', I am indebted to James Van Cleve.

20. The points just made were suggested to me by an unpublished paper of John Tienson's, "An Argument Concerning Quantification and Propositional Attitudes." I make some related points in *Ignorance*.

21. This objection, or one much like it, was offered in conversation by David Lewis.

22. Saying that a language is inconsistent is admittedly somewhat unnatural. But if one specifies appropriate respects in which it might be inconsistent, that unnaturalness will be harmless.

23. If 'not a stone' is indeed a vague discriminative expression, the foregoing argument will go against a good deal of what I said in Section 4 of "There Are No Ordinary Things." But most of what I said there is directed against certain arguments from common sense and, as such, still will stand.

24. The paradox just sketched derives from the Grelling, which in turn derives from the Liar. The Liar is attributed by scholars to the great Megarian thinker Eubulides, who is also credited with inventing the sorites, as well as other important arguments. For some recent research on Eubulides, see Jon Moline, "Aristotle, Eubulides and the Sorites," *Mind* 78 (1969): 343-407. To my mind, it is puzzling how much this great philosopher has been neglected.

25. In writing this paper, I have been fortunate in having been helped by many people, too many to thank each individually. However, I should like to express thanks now to three who were especially helpful: Terence Leichti, David Lewis, and Samuel Wheeler.