The Problem of the Essential Indexical

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I once followed a trail of sugar on a supermarket floor, pushing my cart down the aisle on one side of a tall counter and back the aisle on the other, seeking the shopper with the torn sack to tell him he was making a mess. With each trip around the counter, the trail became thicker. But I seemed unable to catch up. Finally it dawned on me. I was the shopper I was trying to catch.

I believed at the outset that the shopper with a torn sack was making a mess. And I was right. But I did not believe that I was making a mess. That seems to be something I came to believe. And when I came to believe that, I stopped following the trail around the counter and rearranged the torn sack in my cart. My change in beliefs seems to explain my change in behavior. My aim in this paper is to make a key point about the characterization of this change, and of beliefs in general.

At first, characterizing the change seems easy. My beliefs changed, didn't they, in that I came to have a new one, namely, *that I am making a mess*. But things are not so simple.

The reason they are not is the importance of the word "I" in my expression of what I came to believe. When we replace it with other designations of me, we no longer have an explanation of my behavior and so, it seems, no longer an attribution of the same belief. It seems to be an *essential* index-

ical. But without such a replacement, all we have to identify the belief is the sentence "I am making a mess." But that sentence by itself does not seem to identify the crucial belief, for if someone else had said it, they would have expressed a different belief, a false one.

I argue that the essential indexical poses a problem for various otherwise plausible accounts of belief. I first argue that it is a problem for the view that belief is a relation between subjects and propositions conceived as bearers of truth and falsity. The problem is not solved merely by replacing or supplementing this with a notion of *de re* belief. Nor is it solved by moving to a notion of a proposition that, rather than true or false absolutely is only true or false at an index or in a context (at a time, for a speaker, say). Its solution requires us to make a sharp distinction between objects of belief and belief states, and to realize that the connection between them is not so intimate as might have been supposed.[1]

Locating Beliefs

I want to introduce two more examples. In the first, a professor, who desires to attend the department meeting on time and believes correctly that it begins at noon, sits motionless in his office at that time. Suddenly, he begins to move. What explains his action? A change in belief. He believed all along that the department meeting starts at noon; he came to believe, as he would have put it, that it starts *now*.

The author of the book *Hiker's Guide to the Desolation Wilderness* stands

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[1]In thinking about the problem of the essential indexical, I have been greatly helped by the writings of Hector-Neri Castañeda on indexicality and related topics. Castañeda 1966, 1967, and 1968 focused attention on these problems, and made many of the points made here. More recently, his view on these matters have been developed as a part of his comprehensive system of generalized phenomenalism. See particularly Castañeda 1977 and 1977a. Having benefited so much from Castañeda's collection of "protophilosophical data," I regret that differences of approach and limitations of competence and space have prevented me from incorporating a discussion of his theory into this essay. I hope to make good this omission at some future time. [See below, Essay 5.]

in the wilderness beside Gilmore Lake, looking at the Mt. Tallac trail as it leaves the lake and climbs the mountain. He desires to leave the wilderness. He believes that the best way out from Gilmore Lake is to follow the Mt. Tallac trail up the mountain to Cathedral Peaks trail, on to the Floating Island trail, emerging at Spring Creek Tract Road. But he does not move. He is lost. He is not sure whether he is standing beside Gilmore Lake, looking at Mt. Tallac, or beside Clyde Lake looking at Jack's Peak, or beside Eagle Lake looking at one of the Maggie peaks. Then he begins to move along the Mt. Tallac trail. If asked, he would have explained the crucial change in his beliefs this way: "I came to believe that *this* is the Mt. Tallac trail and *that* is Gilmore Lake."

In these three cases, the subjects in explaining their actions would use indexicals to characterize certain beliefs they came to have. These indexicals are essential, in that replacement of them by other terms destroys the force of the explanation, or at least requires certain assumptions to be made to preserve it.

Suppose I had said, in the manner of de Gaulle, "I came to believe that John Perry is making a mess." I would no longer have explained why I stopped and looked in my own cart. To explain that, I would have to add, "and I believe that I am John Perry," bringing in the indexical again. After all, suppose I had really given my explanation in the manner of de Gaulle, and said "I came to believe that de Gaulle is making a mess." That would not have explained my stopping at all. But it really would have explained it every bit as much as "I came to believe John Perry is making a mess." For if I added "and I believe that I am de Gaulle," the explanations would be on par. The only reason "I came to believe John Perry is making a mess" seems to explain my action is our natural assumption that I did believe I was John Perry and did not believe I was de Gaulle. So replacing the indexical "I" with another term designating the same person really does, as claimed, destroy the explanation.

Similarly, our professor, as he sets off down the hall, might say "I believe the meeting starts at noon." In accepting the former as an explanation, we would be assuming he believes it is *now* noon. If he believed it was now 5 P.M., he would not have explained his departure by citing his belief that the meeting starts at noon, unless he was a member of a department with very long meetings. After all, he believed that the meeting started at noon all along, so that belief can hardly explain a change in his behavior. Basically similar remarks apply to the lost author.

I shall use the term "locating beliefs" to refer to one's beliefs about where one is, when it is, and who one is. Such beliefs seem essentially indexical. Imagine two lost campers who trust the same guidebook but disagree about where they are. If we were to try to characterize the beliefs of these campers without the use of indexicals, it would seem impossible to bring out this disagreement. If, for example, we characterized their beliefs by the set of "eternal sentences," drawn from the guidebook they would mark "true," there is no reason to suppose that the sets would differ. They could mark all of the same sentences "true," and still disagree in their locating beliefs. It seems that there has to be some indexical element in the characterization of their beliefs to bring out this disagreement. But as we shall see, there is no room for this indexical element in the traditional way of looking at belief, and even when its necessity is recognized, it is not easy to see how to fit it in.

The Doctrine of Propositions

I shall first consider how the problem appears to a traditional way of thinking of belief. The doctrines I describe were held by Frege, but I shall put them in a way that does not incorporate his terminology or the details of his view. This traditional way, which I call the "doctrine of propositions," has three main tenets. The first is that belief is a relation between a subject

and an object, the latter being denoted, in a canonical belief report, by a that-clause. So "Carter believes that Atlanta is the capital of Georgia" reports that a certain relation, *believing*, obtains between Carter and a certain object—at least in a suitably wide sense of the object—*that Atlanta is the capital of Georgia*. These objects are called *propositions*.

The second and the third tenets concern such objects. The second is that they have a truth-value in an absolute sense, as opposed to merely being true for a person or at a time. The third has to do with how we individuate them. It is necessary, for *that S* and *that S′* to be the same, that they have the same truth-value. But it is not sufficient, for *that the sea is salty* and *that milk is white* are not the same proposition. It is necessary that they have the same truth condition, in the sense that they attribute to the same objects the same relation. But this also is not sufficient, for *that Atlanta is the capital of Georgia* and *that Atlanta is the capital of the largest state east of the Mississippi* are not the same proposition. Carter, it seems, might believe the first but not the second. Propositions must not only have the same truth-value and concern the same objects and relations, but also involve the same concepts. For Frege, this meant that if *that S* = *that S′*, *S* and *S′* must have the same sense. Others might eschew senses in favor of properties and relations, others take concepts to be just words, so that sameness of propositions is just sameness of sentences. What these approaches have in common is the insistence that propositions must be individuated in a more "fine-grained" way than is provided by truth-value or the notion of truth conditions employed above.

The Problem

It is clear that the essential indexical is a problem for the doctrine of propositions. What answer can it give to the question, "What did I come to believe when I straightened up the sugar?" The sentence "I am making a mess" does not identify a proposition. For this sentence is not true or false absolutely, but only as said by one person or another; had another shopper said it when I did, he would have been wrong. So the sentence by which I identify what I came to believe does not identify, by itself, a proposition. There is a *missing conceptual ingredient*: a sense for which I am the reference, or a complex of properties I alone have, or a singular term that refers to no one but me. To identify the proposition I came to believe, the advocate of the doctrine of propositions must identify this missing conceptual ingredient.

An advocate of the doctrine of propositions, his attention drawn to indexicals, might take this attitude towards them: they are communicative shortcuts. Just before I straightened up the sack I must have come to believe some propositions with the structure α *is making a mess*, where α is some concept that I alone "fit" (to pick a phrase neutral among the different notions of a concept). When I say "I believe I am making a mess," my hearers know that I believe some such proposition of this form; which one in particular is not important for the purposes at hand.

If this is correct, we should be able to identify the proposition I came to believe, even if doing so is not necessary for ordinary communicative purposes. But then the doctrine of propositions is in trouble, for any candidate will fall prey to the problems mentioned above. If *that α is making a mess* is what I came to believe, then "I came to believe that A is making a mess," where A expressed α, should be an even better explanation than the original, where I used "I" as a communicative shortcut. But, as we saw, any such explanation will be defective, working only on the assumption that I

believed that I was α.

To this it might be replied that though there may be no replacement for "I" that generally preserves explanatory force, all that needs to be claimed is that there is such a replacement on each occasion. The picture is this. On each occasion that I use "I," there is some concept I have in mind that fits me uniquely, and which is the missing conceptual ingredient in the proposition that remains incompletely identified when I characterize my beliefs. The concept I use to think of myself is not necessarily the same each time I do so, and of course I must use a different one than others do, since it must fit me and not them. Because there is no general way of replacing the "I" with a term that gets at the missing ingredient, the challenge to do so in response to a particular example is temporarily embarrassing. But the doctrine of propositions does not require a general answer.

This strategy does not work for two reasons. First, even if I was thinking of myself as, say, the only bearded philosopher in a Safeway store west of the Mississippi, the fact that I came to believe that the only such philosopher was making a mess explains my action only on the assumption that I believed that I was the only such philosopher, which brings in the indexical again. Second, in order to provide me with an appropriate proposition as the object of belief, the missing conceptual ingredient will have to fit me. Suppose I was thinking of myself in the way described, but that I was not bearded and was not in a Safeway store—I had forgotten that I had shaved and gone to the A&P instead. Then the proposition supplied by this strategy would be false, while what I came to believe, *that I was making a mess*, was true.

This strategy assumes that whenever I have a belief I would characterize by using a sentence with an indexical d,

> I believe that ... d ...

that there is some conceptual ingredient c, such that it is also true that,

I believe that d is c

and that, on this second point, I am right. But there is no reason to believe this would always be so. Each time I say "I believe it is *now* time to rake the leaves," I need not have some concept that uniquely fits the time at which I speak.

From the point of view of the doctrine of propositions, belief reports such as "I believe that I am making a mess" are deficient, for there is a missing conceptual ingredient. From the point of view of locating beliefs, there is something lacking in the propositions offered by the doctrine, a missing indexical ingredient.

The problem of the essential indexical reveals that something is badly wrong with the traditional doctrine of propositions. But the traditional doctrine has its competitors anyway, in response to philosophical pressures from other directions. Perhaps attention to these alternative or supplementary models of belief will provide a solution to our problem.

De Re Belief

One development in the philosophy of belief seems quite promising in this respect. It involves qualifying the third tenet of the doctrine of propositions, to allow a sort of proposition individuated by an object or sequence of objects, and a part of a proposition of the earlier sort. The motivation for this qualification or supplementation comes from a type of belief report, which gives rise to the same problem, that of the missing conceptual ingredient, as does the problem of the essential indexical.

The third tenet of the doctrine of propositions is motivated by the failure of substitutivity of coreferential terms within the that-clause following "believes." But there seems to be a sort of belief report, or a way of understanding some belief reports, that allows such substitution, and such successful substitution becomes a problem for a theory designed to explain

its failure. For suppose Patrick believes that, as he would put it, the dean is wise. Patrick does not know Frank, much less know that he lives next to the dean, and yet I might in certain circumstances say "Patrick believes Frank's neighbor is wise." Or I might say "There is someone whom Patrick believes to be wise," and later on identify that someone as "Frank's neighbor." The legitimacy of this cannot be understood on the unqualified doctrine of propositions; I seem to have gone from one proposition, *that the dean of the school is wise*, to another, *that Frank's neighbor is wise*; but the fact that Patrick believes the first seems to be no reason he should believe the second. And the quantification into the belief report seems to make no sense at all on the doctrine of propositions, for the report does not relate Patrick to an individual known variously as "the dean" and "Frank's neighbor," but only with a concept expressed by the first of these terms.

The problem here is just that of a missing conceptual ingredient. It looked in the original report as if Patrick was being said to stand in the relation of a belief to a certain proposition, a part of which was a conceptual ingredient expressed by the words of "the dean." But if I am permitted to exchange those words for others, "Frank's neighbor," which are not conceptually equivalent, then apparently the initial part of the proposition he was credited with belief in was not the conceptual ingredient identified by "the dean" after all. So what proposition was it Patrick was originally credited with belief in? And "There is someone such that Patrick believes that he is wise" seems to credit Patrick with belief in a proposition, without telling us which one. For after the "believes" we have only "he is wise," where the "he" does not give us an appropriate conceptual ingredient, but functions as a variable ranging over individuals.

We do seem in some circumstances to allow such substitutivity, and make ready sense of quantification into belief reports. So the doctrine of propositions must be qualified. We can look upon this sort of belief as involving a relation to a new sort of proposition, consisting of an object or

sequence of objects and a conceptual ingredient, a part of a proposition of the original kind, or what we might call an "open proposition." This sort of belief and this kind of proposition we call "*de re*," the sort of belief and the sort of proposition that fits the original doctrine, "*de dicto*." Taken this way, we analyze "Patrick believes that the dean of the school is wise," as reporting a relation between Patrick and a proposition consisting of a certain person variously describable as "the dean" and "Frank's neighbor" and something, *that x is wise*, which would yield a proposition with the addition of an appropriate conceptual ingredient. Since the dean himself, and not just a concept expressed by the words "the dean" is involved, substitution holds and quantification makes sense.

Here, as in the case of the essential indexical, we were faced with a missing conceptual ingredient. Perhaps, then, this modification of the third tenet will solve the earlier problem as well. But it will not. Even if we suppose—as I think we should—that when I said "I believe that I am making a mess" I was reporting a *de re* belief, our problem will remain.

One problem emerges when we look at accounts that have been offered of the conditions under which a person has a *de re* belief. The most influential treatments of *de re* belief have tried to explain it in terms of *de dicto* belief or something like it. Some terminological regimentation is helpful here. Let us couch reports of *de re* belief in terms "X believes of a that he is so and so," reserving the simpler "X believes that a is so and so" for *de dicto* belief. The simplest account of *de re* belief in terms of *de dicto* belief is this:

X believes of y that he is so and so

just in case

there is a concept α such that α fits y and X believes that α is so and so.

Now it is clear that if this is our analysis of *de re* belief, the problem of the essential indexical is still with us. For we are faced with the same problem we had before. I can believe that I am making a mess, even if there is no concept α such that I alone fit α and I believe that α is making a mess. Since I do not have any *de dicto* belief of the sort, on this account I do not have a *de re* belief of the right sort either. So, even allowing *de re* belief, we still do not have an account of the belief I acquired.

Now this simple account of *de re* belief has not won many adherents, because it is commonly held that *de re* belief is a more interesting notion than it allows. This proposal trivializes it. Suppose Nixon is the next President. Since I believe that the next President will be the next President, I would on this proposal believe of Nixon that he is the next President, even though I am thoroughly convinced that Nixon will not be the next President.[2]

To get a more interesting or useful notion of *de re* belief, philosophers have suggested that there are limitations on the conceptual ingredient involved in the *de dicto* belief that yields the *de re* belief. Kaplan, for example, requires not only that there be some α such that I believe that α will be the next President and that α denotes Nixon, for me to believe of Nixon that he will be the next President, but also that α be a *vivid name of Nixon for me* (1969, 225ff). Hintikka requires that α denote the same individual in every possible world compatible with what I believe (1967, 40ff). Each of these philosophers explains these notions in such a way that in the circumstances imagined, I would not believe of Nixon that he is the next President.

However well these proposals deal with other phenomena connected with *de re* belief, they cannot help with the problem of the essential indexical. They tighten the requirements laid down by the original proposal, but those were apparently already too restrictive. If in order to believe that I am making a mess I need not have any conceptual ingredient α that fits me, *a fortiori* I am not required to have one that is a vivid name of myself

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[2]For the classic discussion of these problems, see Quine 1966.

for me, or one that picks out the same individual in every possible world compatible with what I believe.

Perhaps this simply shows that the approach of explaining *de re* belief in terms of *de dicto* belief in incorrect. I think it does show that. But even so, the problem remains. Suppose we do not insist on an account of *de re* belief in terms of *de dicto* belief, but merely suppose that whenever we ascribe a belief, and cannot find a suitable complete proposition to serve as the object because of a missing conceptual ingredient, we are dealing with *de re* belief. Then we will ascribe a *de re* belief to me in the supermarket, I believed *of* John Perry that he was making a mess. But it will not be my having such a *de re* belief that explains my action.

Suppose there were mirrors at either end of the counter so that as I pushed my cart down the aisle in pursuit I saw myself in the mirror. I take what I see to be the reflection of the messy shopper going up the aisle on the other side, not realizing that what I am really seeing is a reflection of a reflection of myself. I point and say, truly, "I believe that he is making a mess." In trying to find a suitable proposition for me to believe, we would be faced with the same sorts of problems we had with my earlier report, in which I used "I" instead of "he." We would not be able to eliminate an indexical element in the term referring to me. So here we have *de re* belief; I believe of John Perry that he is making a mess. But then that I believe of John Perry that he is making a mess does not explain my stopping; in the imagined circumstances I would accelerate, as would the shopper I was trying to catch. But then, even granting that when I say "I believe that I am making a mess" I attribute to myself a certain *de re* belief, the belief of John Perry that he is making a mess, our problem remains.

If we look at it with the notion of a locating belief in mind, the failure of the introduction of *de re* belief to solve our problems is not surprising. *De re* propositions remain nonindexical. Propositions individuated in part by objects remain as insensitive to what is essential in locating beliefs as those

individuated wholly by concepts. Saying that I believed of John Perry that he was making a mess leaves out the crucial change, that I came to think of the messy shopper not merely as the shopper with the torn sack, or the man in the mirror, but as *me*.

Relativized Propositions

It seems that to deal with essential indexicality we must somehow incorporate the indexical element into what is believed, the object of belief. If we do so, we come up against the second tenet of the doctrine of propositions, that such objects are true or false absolutely. But the tools for abandoning this tenet have been provided in recent treatments of the semantics of modality, tense, and indexicality. So this seems a promising direction.

In possible-worlds semantics for necessity and possibility we have the notion of truth at a world. In a way this does not involve a new notion of a proposition and in a way it does. When Frege insisted that his "thoughts" were true or false absolutely, he did not mean that they had the same truth-value in all possible worlds. Had he used a possible-worlds framework, he would have had their truth-values vary from world to world, and simply insisted on a determinate truth-value in each world and in particular in the actual world. In a way, then, taking propositions to be functions from possible worlds to truth-values is just a way of looking at the old notion of a proposition.

Still, this way of looking at it invites generalization that takes us away from the old notion. From a technical point of view, the essential idea is that a proposition is, or is represented by, a function from an index to a truth-value; when we get away from modality, this same technical idea may be useful, though something other than possible worlds are taken as indices. To deal with temporal operators, we can use the notion of truth at a time. Here the indices will be times, and our propositions will be functions from

times to truth-values. For example, *that Elizabeth is Queen of England* is a proposition true in 1960 but not in 1940. Hence "At some time or other Elizabeth is Queen of England" is true, simpliciter.[3]

Now consider "I am making a mess." Rather than thinking of this as partially identifying an absolutely true proposition, with the "I" showing the place of the missing conceptual ingredient, why not think of it as completely identifying a new-fangled proposition, that is true or false only *at a person*? More precisely, it is one that is true or false at a time and a person, since though true when I said it, it has since occasionally been false.

If we ignore possibility and necessity, it seems that regarding propositions as functions to truth-values from indices that are pairs of persons and times will do the trick, and that so doing will allow us to exploit relations between elements within the indices to formulate rules that bring out differences between indexicals. "I am tired now" is true at the pair consisting of the person a and the time t if and only if a is tired at t, while "You will be tired" is true at the same index if and only if the addressee of a at t is tired at some time later than t.

Does this way of looking at the matter solve the problem of the essential indexical? I say "I believe that I am making a mess." On our amended doctrine of propositions, this ascribes a relation between me and *that I am making a mess*, which is a function from indices to truth-values. The belief report seems to completely specify the relativized proposition involved; there is no missing conceptual ingredient. So the problem must be solved.

But it is not. I believed that certain proposition, *that I am making a mess* was true—true for me. So belief that this proposition was true for me then does not differentiate me from some other shopper, who believes *that I am making a mess* was true for John Perry. So this belief cannot be what explains my stopping and searching my cart for the torn sack. Once we have adopted these new-fangled propositions, which are only true at times for

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[3]See Montague 1974 (especially "Pragmatics") and Scott 1970.

persons, we have to admit also that we believe them as true for persons at times, and not absolutely. And then our problem returns.

Clearly an important distinction must be made. All believing is done by persons at times, or so we may suppose. But the time of belief and the person doing the believing cannot be generally identified with the person and time relative to which the propositions believed is held true. You now believe that *that I am making a mess* was true for me, then, but you certainly do not believe it is true for you now, unless you are reading this in a supermarket. Let us call *you* and *now* the context of belief, and *me* and *then* the context of evaluation. The context of belief may be the same as the context of evaluation, but need not be.

Now the mere fact that I believed that proposition *that I am making a mess* to be true for someone at some time did not explain my stopping the cart. You believe so now, and doubtless have no more desire to mess up supermarkets than I did. But you are not bending over to straighten up a sack of sugar.

The fact that I believed this proposition true for Perry at the time he was in the supermarket does not explain my behavior either. For so did the other shopper. And you also now believe this proposition was true for Perry at the time he was in the supermarket.

The important difference seems to be that for me the context of belief was just the context of evaluation, but for the other shopper it was not and for you it is not. But this does not do the trick either.

Consider our tardy professor. He is doing research on indexicals, and has written on the board "My meeting starts now." He believes that the proposition expressed by this sentence is true at noon for him. He has believed so for hours, and at noon the context of belief comes to be the context of evaluation. These facts give us no reason to expect him to move.

Or suppose I think to myself that the person making the mess should say so. Turning my attention to the proposition, I certainly believe *that I am*

making a mess is true for the person who ought to be saying it (or the person in the mirror, or the person at the end of the trail of sugar) at that time. The context of evaluation is just the context of belief. But there is no reason to suppose I would stop my cart.

One supposes that in these cases the problem is that the context of belief is not believed to be the context of evaluation. But formulating the required belief will simply bring up the problem of the essential indexical again. Clearly and correctly we want the tardy professor, when he finally sees he must be off to the meeting, to be ready to say "I believe that the time at which it is true *that the meeting starts now* is now." On the present proposal, we analyze the belief he thereby ascribes to himself as belief in the proposition *that the time at which it is true that the meeting starts now is now*. But he certainly can believe at noon that this whole proposition is true at noon, without being ready to say "It is starting now" and leave. We do not yet have a solution to the problem of the essential indexical.

Limited Accessibility

One may take all that has been said so far as an argument for the existence of a special class of propositions, propositions of limited accessibility. For what have we really shown? All attempts to find a formula of the form "A is making a mess," with which any of us at any time could express what I believed, have failed. But one might argue that we can hardly suppose that there was not anything that I believed; surely I believed just that proposition which I expressed, on that occasion, with the words "I am making a mess." That we cannot find a sentence that always expresses this proposition when said by anyone does not show that it does not exist. Rather it should lead us to the conclusion that there is a class of propositions that can only be expressed in special circumstances. In particular, only I could express the proposition I expressed when I said "I am making a mess." Others

can see, perhaps by analogy with their own case, that there is a proposition that I express, but it is in a sense inaccessible to them.

Similarly, at noon on the day of the meeting, we could all express the proposition the tardy professor expressed with the words "The meeting starts now." But once that time has passed, the proposition becomes inaccessible. We can still identify it as the proposition that was expressed by those words at that time. But we cannot express it with those words any longer, for with each passing moment they express a different proposition. And we can find no other words to express it.

The advocate of such a stock of propositions of limited accessibility may not need to bring in special propositions accessible only at certain places. For it is plausible to suppose that other indexicals can be eliminated in favor of "I" and "now." Perhaps "That is Gilmore Lake" just comes to "What I see now in front of me is Gilmore Lake." But elimination of either "I" or "now" in favor of the other seems impossible.

Such a theory of propositions of limited accessibility seems acceptable, even attractive, to some philosophers.[4] Its acceptability or attractiveness will depend on other parts of one's metaphysics; if one finds plausible reasons elsewhere for believing in a universe that has, in addition to our common world, myriads of private perspectives, the idea of propositions of limited accessibility will fit right in.[5] I have no knockdown argument against such propositions, or the metaphysical schemes that find room for them. But I believe only in a common actual world. And I do not think the phenomenon of essential indexicality forces me to abandon this view.

The Obvious Solution?

Let us return to the device of the true/false exam. Suppose the lost author had been given such an exam before and after he figured out where he

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[4]Frege seems to accept something like it, as necessary for dealing with "I" (1918/1967).

[5]See Castañeda 1977a, especially section II.

was. Would we expect any differences in his answers? Not so long as the statements contained no indexicals. "Mt. Tallac is higher than either of the Maggie Peaks" would have been marked the same way before and after, the same way he would have marked it at home in Berkeley. His mark on that sentence would tell us nothing about where he thought he was. But if the exam were to contain such sentences as "That is Gilmore Lake in front of me," we would expect a dramatic change, from "False" or "Unsure" to "True."

Imagine such an exam given to various lost campers in different parts of the Wilderness. We could classify the campers by their answers, and such a classification would be valuable for prediction and explanation. Of all the campers who marked "This is Gilmore Lake" with "True," we would say they believed that they were at Gilmore Lake. And we should expect them to act accordingly; if they possessed the standard guidebook and wished to leave the Wilderness, we might expect what is, given one way of looking at it, the same behavior: taking the path up the mountain above the shallow end of the lake before them.

Now consider all the good-hearted people who have ever been in a supermarket, noticed sugar on the floor, and been ready to say "I am making a mess." They all have something important in common, something that leads us to expect their next action to be that of looking into their grocery carts in search of the torn sack. Or consider all the responsible professors who have ever uttered "The department meeting is starting now." They too have something important in common; they are in a state that will lead those just down the hall to go to the meeting, those across campus to curse and feel guilty, those on leave to smile.

What the members within these various groups have in common is not what they believe. There is no *de dicto* proposition that all the campers or shoppers or professors believe. And there is no person whom all the shoppers believe to be making a mess, no lake all the campers believe to be

Gilmore Lake, and no time at which all the professors believe their meetings to be starting.

We are clearly classifying the shoppers, campers, and professors into groups corresponding to what we have been calling "relativized propositions"— abstract objects corresponding to sentences containing indexicals. But what members of each group have in common, which makes the groups significant, is not belief that a certain relativized proposition is true. Such belief, as we saw, is belief that such a proposition is true at some context of evaluation. Now all of the shoppers believe that *that I am making a mess* is true at some context of evaluation or other, but so does everyone else who has ever given it a moment's thought. And similar remarks apply to the campers and the professors.

If believing the same relativized proposition is not what the members of each of the groups have in common with one another, why is it being used as a principle of classification? I propose we look at things in this way. The shoppers, for example, are all in a certain belief state, a state that, given normal desires and other belief states they can be expected to be in, will lead each of them to examine his cart. But although they are all in the same belief state (not the same *total* belief state, of course), they do not all have the same belief (believe the same thing, have the relation of belief to the same object).

We use sentences with indexicals or relativized propositions to individuate belief states, for the purposes of classifying believers in ways useful for explanation and prediction. That is, belief states individuated in this way enter into our commonsense theory about human behavior and more sophisticated theories emerging from it. We expect all good-hearted people in the state that leads them to say "I am making a mess" to examine their grocery carts, no matter what belief they have in virtue of being in that state. That we individuate belief states in this way doubtless has something to do with the fact that one criterion for being in the states we postulate—at

least for articulate, sincere adults—is being disposed to utter the indexical sentence in question. A good philosophy of mind should explain this in detail; my aim is merely to get clear about what it is that needs explaining.

The proposal, then, is that there is not an identity, or even an isomorphic correspondence, but only a systematic relationship between the belief states one is in and what one thereby believes. The opposite assumption, that belief states should be classified by propositions believed, seems to be built right into traditional philosophies of belief. Given this assumption, whenever we have believers in the same belief state, we must expect to find a proposition they all believe, and differences in belief state lead us to expect a difference in proposition believed. The bulk of this paper consisted in following such leads to nowhere (or to propositions of limited accessibility).

Consider a believer whose belief states are characterized by a structure of sentences with indexicals or relativized propositions (those marked "true" in a very comprehensive exam, if we are dealing with an articulate, sincere adult). This structure, together with the context of belief—the time and identity of the speaker—will yield a structure of *de re* propositions. The sequence of objects will consist of the values that the indexicals take in the context. The open propositions will be those yielded by the relativized proposition when shorn of its indexical elements. These are what the person believes, in virtue of being in the states he is in, when and where he is in them.[6]

This latter structure is important, and classifications of believers by *what* they believe are appropriate for many purposes. For example, usually, when a believer moves from context to context, his belief states adjust to

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[6]This two-tiered structure of belief states and propositions was suggested by David Kaplan's system of characters and contents (1979). While Kaplan's motivations for the distinction were basically semantical, it seems to me that the present considerations also supply an epistemological motivation for it. (See also Kaplan 1989.)

preserve beliefs held. As time passes, I go from the state corresponding to "The meeting will begin" to the one corresponding to "The meeting is beginning" and finally to "The meeting has begun." All along I believe of noon that it is when the meeting begins. But I believe it in different ways. And to these different ways of believing the same thing, different actions are appropriate: preparation, movement, apology. Of course, if the change of context is not noted, the adjustment of belief states will not occur, and a wholesale change from believing truly to believing falsely may occur. This is what happened to Rip van Winkle. He awakes in the same belief states he fell asleep in twenty years earlier, unadjusted to the dramatic change in context, and so with a whole new set of beliefs, such as that he is a young man, mostly false.

We have here a metaphysically benign form of limited accessibility. Anyone at any time can have access to any proposition. But not in any way. Anyone can believe of John Perry that he is making a mess. And anyone can be in the belief state classified by the sentence "I am making a mess." But only I can have that belief by being in that state.

There is room in this scheme for *de dicto* propositions, for the characterization of one's belief states may include sentences without any indexical element. If there are any, they could appear on the exam. For this part of the structure, the hypothesis of perfect correspondence would be correct.

A more radical proposal would do away with objects of belief entirely. We would think of belief as a system of relations of various degrees between persons and other objects. Rather than saying I believed in the *de re* proposition consisting of me and the open proposition, *x is making a mess*, we would say that I stand in the relation, believing to be making a mess, to myself. There are many ways to stand in this relation to myself, that is, a variety of belief states I might be in. And these would be classified by sentences with indexicals. On this view, *de dicto* belief, already demoted from its central place in the philosophy of belief, might be seen as merely

an illusion, engendered by the implicit nature of much indexicality.

To say that belief states must be distinguished from objects of belief, cannot be individuated in terms of them, and are what is crucial for the explanation of action, is not to give a full-fledged account of belief, or even a sketchy one. Similarly, to say that we must distinguish the object seen from the state of the seeing subject, and that the latter is crucial for the explanation of action guided by vision, is not to offer a full-fledged account of vision. But just as the arguments from illusion and perceptual relativity teach us that no philosophy of perception can be plausible that is not cognizant of this last distinction, the problem of the essential indexical should teach us that no philosophy of belief can be plausible that does not take account of the first.[7]

Postscript

Essay 2 was the second paper that emerged from the chapter "On Self Knowledge" after I followed Moravcsik's suggestion to split it into two. It was given at a number of colloquia and delivered at the Central Division meetings of the American Philosophical Association in Salt Lake City in 1979, and published in *Noûs*. One should note that the positive theory advanced here is not exactly the same as that in Essay 1. In that paper I was trying to construct a conservative modification of Frege's view to take care of the problems I saw indexicals and demonstratives posing for it, while in this paper I was putting forward my own view. The modification of the Fregean view is, I think, fairly described as involving direct and indirect

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[7]Versions of this paper were read at philosophy department colloquia at UCLA, Claremont Graduate School, and Stanford University, to the Washington State University at Bellingham Philosophy Conference, and to the Meeting of Alberta Philosophy Departments. I am indebted to philosophers participating in these colloquia for many helpful criticisms and comments. I owe a special debt to Michael Bratman and Dagfinn Føllesdal for detailed comments on the penultimate version. Most of the ideas in this paper were developed while I held a fellowship from the Guggenheim Foundation and was on sabbatical leave from Stanford University, and I thank both for their support.

objects of thought. (See Lewis 1979.) Frege's view falls within the classical intentionalist tradition, which sees beliefs as fundamentally characterized by their objects. My own view is that belief involves being in a state with a certain causal role in a set of wider circumstances. One can classify these beliefs in a variety of ways, relying more or less on the state and the circumstance. Characterizing them by the proposition believed is one way; characterizing them by the sentence accepted is another. These characterizations project onto different sets of similarities, and are useful for different purposes. David Lewis argued that his way of dealing with these cases had an advantage over the one I described in Essay 1 in that he has only one object of belief, properties, while I had two (1979). I do not think this criticism applies to the view in Essay 2. In fact, I think my own way of looking at things is more congenial to Lewis' physicalism than his own, although of course his view fits beautifully with his brand of possible-worlds semantics. I say a bit more about Lewis' account in footnote 3 of Essay 6 and the last section of Essay 9.

Robert Stalnaker argues that my account leaves out "the informational content" that is crucial in the case of essential indexicals (1981). His candidate for this role is what he calls the diagonal proposition. Consider the case where I say "I am standing." Call the token I use t. Suppose, for the sake of argument, that tokens are not necessarily tied to their producers—that the very token that one person in fact produces, could have been produced by others. Now consider the set of possible worlds in which t is true. Be careful. Do not consider the set of possible worlds in which *what I say* is true. That is just the set of worlds in which I am standing. In many of these worlds, t will never have been produced. Consider instead the possible worlds in which t is produced by the various people that we have agreed could have produced it. In some of those, the producer will be standing. The set of those worlds is the proposition we want. Call this proposition P.

We might say that P is more tightly tied by the meaning of t to the ut-

terance of t than is the proposition expressed. We can determine the proposition expressed only given information about who is the speaker, but this information is not necessary to determine the diagonal proposition. For this reason, it is natural to think that P *is* an important part of the story. Jaakko Hintikka also recognizes the importance of these diagonal propositions in his theory of demonstrative identification.

I think this proposition is an important part of the story. It gets at the information that someone who hears the utterance, recognizes the type, and understands the meaning will get from the utterance, independently of whether they know the relevant contextual factors. Suppose, for example, I hear a cry, "I am standing" coming from the next room. I do not know who is saying it. But, at least if I regard the utterance as providing information, I do know that *whoever* uttered the token I hear is standing. Stalnaker's diagonal proposition is roughly what I call "the proposition created" in Essay 11 and the "nonincremental truth conditions" in Essay 13. These essays develop an account of the epistemology of utterances that gives this proposition a central role.

So I agree with Stalnaker that something was missing in Essay 2, although I want to insist on a number of points.

The first point is that it is a bit misleading to call the diagonal proposition, important as it is, *the* informational content. It is not the content, in the sense of what is said. It is not the information that one usually intends to convey. It is not the belief that one is attempting to express.

We might then ask, what is it? The answer, from the "classificatory" view of propositional attitudes that is emerging in Essay 2, is that there are many propositions that arise from the meaning of a sentence uttered or accepted that can be used to classify the belief for various purposes. On the classical picture of "intentionality," a propositional attitude consists in a relation to a proposition, what is believed (desired, etc.). That proposition is essential to the attitude. On the classificatory picture, the proposition be-

lieved (desired, etc.) is determined in part by external factors that are not essential to the attitude in question. It is one way of classifying belief that is useful for many purposes. The diagonal proposition is another way of classifying the belief that involves quantifying over certain contextual factors rather than fixing them. Stalnaker has found an important proposition that we need in the epistemology of language, one I later call "the cognitive significance of the utterance," but he has not found *the* content. The diagonal proposition simply is not the content, if we use "content" in Kaplan's sense, as what is said. It is not *the* content, if we use "content" to mean a proposition that gets at information that might be conveyed, for there are many contents in this sense.

The idea that to be relevant to classifying a belief, a proposition must be part of what is believed is what is called the "fallacy of misplaced information" in Essay 6 and in Barwise and Perry 1983.

The final point is that I believe the diagonal proposition is best conceived of in the old-fashioned way, the way Reichenbach originally thought about it, as the "token-reflexive proposition." That is, it is a singular proposition about tokens. This is the way diagonal propositions come into the later essays mentioned above, with the important difference that the key proposition is actually an *utterance*-reflexive proposition, rather than a *token*-reflexive one. These propositions, like all singular propositions, can be believed in more than one way, because a single token or utterance can be presented in more than one way. If the reader thinks about tape-recordings, echos, written tokens, and the like, she will be able to think of many examples of this.