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Curtis Brown
Trinity University, cbrown@trinity.edu

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I

The word 'belief' is ambiguous, referring sometimes to what is believed, sometimes to the act or state of believing it. I believe that as I write this it is sunny outside. This belief is true. What is true is what I believe, namely that it is sunny, not my believing it. On the other hand, my belief that it is sunny is rational and unshakeable, and it played a causal role in my deciding not to wear a coat today. What is rational, unshakeable, and played a causal role is my believing a certain thing, not the thing I believe. I will say that what I believe is an *object of belief*, and that my believing it is a *belief state*.

There is a parallel distinction between perceptual states and objects of perception. If Agnes sees an Angus, then one object of her perception is a cow, and she herself is in one of the perceptual states which can be gotten into by looking at a cow. If I say, "Agnes sees an Angus," then I am conveying two sorts of information: information about Agnes' perceptual state, and information about the object of her perception. In ascriptions of belief, too, we convey information both about the believer's state and about the object of his or her belief.1

I take the moral of much-discussed examples due to Tyler Burge and Saul Kripke to be that the relation between one's belief state and what one believes is rather loose: one could be in the same belief state but have different objects of belief, and one can have the same objects of belief in virtue of being in different belief states (with qualifications to be noted later). In section II I explain why.

I then suggest, following my paper "What is a Belief State?"2 that one's being in a particular belief state is nevertheless best characterized by a set of propositions, namely those one would believe in any situation in

which one were in that belief state.3 I describe these propositions as one's *immediate objects of belief*. Many of the things we believe are not immediate objects of belief in this sense. So there is a distinction between two sorts of belief: one *directly* believes the propositions that are one's immediate objects of belief, and *indirectly* believes the rest of the propositions one believes.

My main purpose in this paper is to develop and defend this distinction between direct and indirect belief. In section III, I sketch the nature and fill in some of the content of an account according to which our direct beliefs together with our circumstances determine the rest of our beliefs. Finally, in section IV, I apply the account to some puzzles about belief.

I begin by characterizing belief states and objects of belief. The facts that determine what one believes may be divided into facts about the believer, on the one hand, and facts about the believer's environment, on the other. One's belief state consists of those facts solely about the believer that help determine what he or she believes. Being in a certain belief state is thus an intrinsic, nonrelational property of an individual.4

The objects of our belief are the things we believe, just as the objects of perception are the things we perceive and the objects of desire are the things we want. What one believes may be true or false, depending on the way things are. So the objects of belief must be such that they have truth values, and such that they would have truth values, not necessarily the same ones, in various possible situations other than the actual one. An object of belief, then, must be something which determines a function from possible situations to truth values. So the simplest possible answer to the question what the objects of belief are is that they simply are the relevant functions.5 I shall, in accordance with one modern tradition, use the term 'proposition' to mean such a function; the simple answer to the question about the objects of belief is then that they are propositions.6

Let us assume, then, that the objects of belief are propositions. Then the question arises, *which* propositions? Consider the following brief dialogue. "John believes that fluoridation is a communist plot." "What did you say he believes?" "That fluoridation is a communist plot." This reasonably natural short conversation seems to imply that there is something which John believes, and that this something is that

fluoridation is a communist plot. 'That fluoridation is a communist plot' appears to be a singular term denoting what John believes. I propose to take this appearance at face value. So I will suppose that if 'x believes that S' is true, and proposition P = that S, then P is an object of x's belief.7 I will further suppose that 'that S' denotes P (in a context) just in case S expresses P (in that context).

I have described the nature of belief states so briefly because I have discussed the issue in greater detail elsewhere. I have discussed the nature of the objects of belief so briefly because for my purposes here not much hinges on the details of an account of these objects. Different views about the nature of propositions, or about the semantics of belief sentences, would force reformulations of the points I will make, and for some purposes this could be very important: but the outlines of the case for the distinction between direct and indirect belief should be mostly independent of such details.

II

I take the moral of much recent writing on the propositional attitudes to be that belief states and many of the objects of belief are only contingently related. Many of the objects of an individual's belief do not characterize the belief state he or she is in essentially. This is because the belief states one is in supervene on one's intrinsic properties, while one has many of the objects of belief one does partly in virtue of facts about one's environment. One is in a given belief state independent of what situation one finds oneself in, except to the extent that the situation directly affects one's intrinsic properties; but one has many of the objects of one's belief only by virtue of the situation one is in.

I will consider two much-discussed examples which illustrate this point in different ways. The first example is due to Tyler Burge,8 the second to Saul Kripke.9 The examples are by now so familiar that I will spend little space on their details or variations.

In order to explain as clearly as possible what Burge's and Kripke's examples show, I need to introduce several notions. First, we need to distinguish between one's total object of belief and partial objects of belief. The total object of one's belief is simply the collection of all propositions which are objects of one's belief. Partial objects of one's

belief are any objects of belief short of the total object of one's belief. When we speak of objects of belief, we typically mean partial objects of belief.

One's total belief state, then, is what Daniel Dennett calls the "organismic contribution" to one's total object of belief.10 It is not clear whether there are also partial belief states. Let us call *particularism* the view that for any partial object of belief there is a partial belief state not identical with one's total belief state which is the complete organismic contribution to one's having that particular object. Particularism is opposed to *holism*, the view that one has any partial object of belief only in virtue of being in a total belief state: the view that belief states cannot be decomposed into parts. There are also intermediate views: for instance the view that some of our beliefs are "explicitly represented" or "core" beliefs, and that each proposition explicitly represented corresponds to a partial belief state, while obvious consequences of these beliefs, though still beliefs, do not have corresponding partial belief states.11

Now, let us call the following view the Total Necessary Connection View:

> For any total belief state S, and for any total object of belief O, if one is in S and has O as one's total object of belief, then of necessity one is in S if and only if one has O as one's total object of belief.

We could also express this as the view that, for any total belief state S and any total object of belief O, if one is in S and has O as one's total object of belief, then in any possible situation in which one is in S one has O as one's total object of belief, and in any possible situation in which one has O as one's total object of belief one is in S. Or again, we could say that if one's total belief state is fixed, then one's total object of belief is also fixed, and if one's total object of belief is fixed, then what total belief state one is in is also fixed.

The Total Necessary Connection View divides into two sub-claims. The first I will call the claim of *essential characterization*:

If one is in a total belief state S and has O as one's total object of belief, then of necessity if one is in S then one has O as one's total object of belief.

That is, in any possible situation in which one is in S, one has O as one's total object of belief; fixing the state suffices to fix the object. I call this the claim of essential characterization because it amounts to the claim that determining a certain total object of belief is an essential characteristic of a belief state.

The second sub-claim, the other half of the original biconditional, is the claim of complete characterization: If one is in a total belief state S and has O as one's total object of belief, then of necessity if one has O as one's total object of belief then one is in S.

If the claim of complete characterization is correct then in any situation in which one has the total object of belief one in fact has, one will also be in the total belief state one is in fact in; fixing the object suffices to fix the state.

If the particularist view that there are partial belief states is correct, then there are stronger versions of both parts of the Necessary Connection View. There is the strengthened claim of essential characterization, which holds that if one has a proposition as partial object of one's belief in virtue of being in a corresponding partial belief state, then of necessity if one is in that partial belief state one has that proposition as partial object of one's belief. And similarly there is the strengthened claim of complete characterization, which holds that if one has a proposition as partial object of one's belief in virtue of being in a corresponding partial belief state, then of necessity if one has that proposition as partial object of one's belief then one is in that partial state. However, Burge's example shows that the claim of essential characterization is false, and thus also that the strengthened claim of essential characterization is false. Kripke's example shows that the strengthened claim of complete characterization is false, but not that the weaker claim of complete characterization is false. Let us briefly consider these two examples.

Hilary Putnam has argued that meanings "ain't in the head."12 Burge's argument is very similar to Putnam's; it may be understood as an

attempt to show that beliefs are not in the head either. Burge asks us to consider someone of whom we would normally say that he believes that he has arthritis in his thigh. The individual--let us call him 'Art'--has learned English in the normal way and is now a competent English speaker; he has certain pains in his thigh which are in fact due to a rheumatoid ailment; and as a result of these pains he assents to the sentence "I have arthritis in my thigh." In such a situation it seems correct to say that Art believes that he has arthritis in his thigh--even though, as Burge points out, it is in fact impossible to get arthritis in the thigh.

Call this situation "Situation 1". Now we are to imagine a counterfactual situation, Situation 2. In this second situation, Art is exactly the same as in Situation 1. Every episode in his history of language learning is the same, and he himself is in every intrinsic or nonrelational respect no different than in Situation 1. But his linguistic community is different: in Situation 2, 'arthritis' refers in Art's community not to arthritis but to rheumatoid ailments more generally. It refers, I will say, not to arthritis but to "arthritis". (The quotation marks here are scare quotes.) Now it seems that speakers in Situation 2 can correctly say "Art believes that he has arthritis in his thigh." But they do not mean by that sentence what we would mean by it. What they mean is rather that he believes he has "arthritis" in his thigh. Burge claims, plausibly, that in Situation 2 Art does not believe that he has arthritis in his thigh. He believes that he has "arthritis" in his thigh, but that is a belief in a different proposition.

Before considering what conclusions to draw from Burge's example, let us pause to consider whether the example should be taken at face value. A natural response to the example is to assert that in Situation 1 Art does *not*, despite appearances, believe that he has arthritis in his thigh. Kent Bach has argued for this conclusion along the following lines.13 Art does not associate the *concept of arthritis* with the term 'arthritis'. But assenting to the sentence "I have arthritis in my thigh" is not evidence that one has a belief about arthritis unless one associates the term 'arthritis' with the concept of arthritis. So we have no reason to think Art believes he has arthritis in his thigh. (Burge invites this sort of criticism by claiming that Art *has* the concept of arthritis, and associates it with 'arthritis', but incompletely understands the concept. Bach finds the notion of an incompletely understood concept mysterious, and suggests

that we should say instead that Art associates with 'arthritis' a *different* concept which he *does* completely understand.)

There are two main responses to be made here. First: Burge's example can be presented without making use of any views about concepts. (In particular, the example does not depend on Burge's view that one can possess a concept one incompletely understands.) The intuition which supports the view that Art believes he has arthritis in his thigh is rather strong, and is elicited by the bare description of Situation 1, without the aid of philosophical theories or technical notions. The notion of a concept, by contrast, has very little pretheoretical content. As far as I can see, the ordinary notion of concept permits any of the following views: (i) Art associates the concept of arthritis with the term 'arthritis', but incompletely understands this concept (Burge's view). (ii) Art associates with the term 'arthritis' a concept he *does* completely understand, but which is not the concept of arthritis. (Bach's view--but note that even on this view we *could* allow that Art believes he has arthritis in his thigh, by rejecting the idea that having the concept of arthritis is a necessary condition for having beliefs about arthritis. Similarly, we might want to allow that Fido believes his bone is buried in the back yard while denying that Fido possesses the concept of bone.) (iii) Art fully understands the concept of arthritis, and associates it with the term 'arthritis', but the concept of arthritis does not determine the extension of 'arthritis'. (Putnam may hold something like this view.) (iv) There is no such thing as "the concept of arthritis," just the disease, a term that denotes it, and various degrees of competence in the use of this term. (Someone sceptical of the analytic-synthetic distinction might well hold this view.)

If the ordinary notion of concept will not decide between such possibilities, Bach must be seen as advancing a theoretical account of the notion of a concept, and utilizing this account to counter a fairly strong linguistic intuition. This need not be a hopeless task, but at a minimum Bach's theory of concepts needs to be more fully described and motivated before it will give us grounds to reject the strong reaction that Art does believe he has arthritis in his thigh.14

This brings me to the second response. Were a theory of concepts with the consequence that Art does not believe he has arthritis in his thigh to be developed, it seems likely that its consequences would be

unacceptably sceptical. Bach concedes that we would normally *say* that Art believes this, and even that Art himself, once apprised of his mistake, would continue to assert that he *had* believed he had arthritis in his thigh. Moreover, Burge has persuasively argued that a*very* wide range of examples can be utilized to make the same point as the arthritis example. So it appears that Bach's view will involve rejecting, not just a few isolated intuitions, but a very great deal of what we would ordinarily say about people's beliefs.15

I shall, then, continue to take Burge's example at face value. The moral of the example, I suggest, is that the objects of a person's belief are not fully determined by that person's intrinsic properties. The argument for this conclusion is simple. We have seen that in Situation 1, Art believes that he has arthritis in his thigh, and that in Situation 2, it is not the case that Art believes that he has arthritis in his thigh. From these facts together with my remarks in section I about the objects of belief, it follows that there is a proposition which is an object of Art's belief in Situation 1 but not in Situation 2. And from this intermediate conclusion together with the point that in both situations all the intrinsic, nonrelational facts about Art are the same, it follows that the intrinsic, nonrelational facts about Art do not fully determine what the objects of his belief are. What belief state Art is in is an intrinsic, nonrelational fact about him. So the example shows that the claim of essential characterization is false, and therefore also that the strengthened claim of essential characterization is false.

We can put the conclusion of the argument in a suggestive way by introducing the notion of an immediate object of belief. It seems natural to say that in some sense, if Art is exactly the same in Situations 1 and 2, then he *must* believe exactly the same things in both situations. Burge's example shows that the sense in which this is true cannot be the ordinary one. But we can capture this somewhat special sense of believing as follows. Let us say that a proposition is an *immediate object* of Art's belief only if whether he has it is fully determined by the intrinsic, nonrelational facts about him. And let us say that Art *directly believes* that P if and only if the proposition that P is an immediate object of his belief. Then Burge has shown that many of the objects of our belief are not immediate objects of our belief, that is, that many of the things we believe are things we believe only indirectly. We

might say that he has shown that a sort of naive realism about belief cannot be correct.

I have intentionally adapted this terminology from the philosophy of perception. It is illuminating to consider Burge's result about the objects of belief in light of similar considerations about the objects of perception. It is enlightening and somehow liberating to find that the intrinsic facts about someone do not determine what the objects of his or her belief are. But it can also seem unpalatable and disturbing, and to alleviate this reaction it may be helpful to notice how *obvious* the parallel fact about perception is. For who would have thought that the intrinsic facts about me determine what the objects of my perception are? To take a classic example, suppose that I see a tomato, and thus that I have a tomato as object of my perception. Clearly there is a wide variety of possible situations in which the intrinsic facts about me are exactly the same and yet in which the object of my perception is very different: I could have been looking at a wax imitation of an apple, or at half an apple, or at a cleverly positioned photograph of an apple, or perhaps even at nothing at all, if my brain were being stimulated in the way it would be by seeing an apple. The intrinsic facts about me are not sufficient to determine what the objects of my perception are.

It seems clear that in some sense the subject sees exactly the same thing in all of these situations. After all, the situations are perceptually indistinguishable for him; he has exactly the same visual experiences in all of them; in all of them he is in the same perceptual state. If we say that an object is an immediate object of perception only if the intrinsic facts about the observer determine what the object is, and that one directly perceives an object just in case it is an immediate object of one's perception, then such examples show that one may indirectly perceive different objects in situations in which exactly the same objects are directly perceived.16

Perceptual ascriptions characterize states of the head only indirectly, by saying what one of the mediate objects of someone's perception is. I suggest that something directly analogous is true of belief ascriptions: they typically characterize belief states only indirectly, by saying what one of the mediate objects of someone's belief is. I will elaborate on this point later.

I turn now to Kripke's example, which I will use to illustrate a point in some ways the converse of Burge's example. (Kripke's own use of his example is rather different; I will discuss it briefly in section IV.) The example goes roughly as follows.17

Pierre is a normal French speaker who knows no English. He has heard, in French, of London, called by the French '*Londres*', and on the basis of what he has heard he thinks that it is pretty, so he assents to the French sentence '*Londres est jolie*'. It seems correct to conclude from this that Pierre believes that London is pretty. Later, Pierre moves to an unattractive part of London--without knowing that the city he is in is the city called by him '*Londres*'. He learns English by the direct method, until ultimately he is as competent in the language as his English neighbors. He calls the city he lives in 'London', and thinks it very unattractive; so he assents to 'London is not pretty'. It seems correct to conclude that Pierre believes that London is not pretty. But Pierre still assents to '*Londres est jolie*': he is unaware that '*Londres*' and 'London' denote the same city. So Pierre believes that London is pretty, and Pierre believes that London is not pretty. These are inconsistent beliefs, and yet it seems unfair to accuse Pierre of inconsistency, since "he lacks information, not logical acumen."

This example shows, though a little indirectly, that one may have a given proposition as (partial) object of one's belief in virtue of being in different (partial) states. Pierre entertains the same proposition--that London is pretty--positively in virtue of being in one partial belief state, and negatively in virtue of being in a different partial belief state. That the two states result in his taking opposite attitudes toward this proposition shows that they are distinct states.

The example will more clearly illustrate my point if we suppose that Pierre actually moved to a lovely part of London and came to accept the sentence 'London is pretty'. Now Pierre believes twice over that London is pretty. Either the partial belief state he entered in France or the one he entered in England would by itself have resulted in his believing that London is pretty. And he could have entered either of these partial states without entering the other. Let us then imagine two possible situations. In S1 Pierre learns in France to accept '*Londres est jolie*', but never moves to England. In S2 Pierre learns nothing of London in France, but does move to London and there comes to accept 'London is

pretty'. In each situation Pierre is in a partial belief state which he is not in in the other; thus Pierre's total belief state is different in S1 than in S2. And yet in both situations he has the proposition that London is pretty as an object of his belief.

This example shows that the sentence 'Pierre believes that London is pretty' does not characterize Pierre as being in any *particular* partial belief state. It characterizes him only as being in some one of the many partial belief states in virtue of which he could have the proposition that London is pretty as an object of his belief. It thus shows that the strengthened claim of complete characterization is false: fixing a partial object of belief does not suffice to fix a partial belief state.

It is natural to wonder whether Kripke's example can be strengthened so as to show that even the weaker complete characterization claim is false: so as to show that one could have the same total object of belief in virtue of being in different total belief states. I believe that the example cannot be strengthened in this way. If *all* of someone's objects of belief are fixed, that is enough to fix one's total belief state. S1 and S2 are situations in which Pierre is in different total belief states and yet in which one of the partial objects of his belief is the same. But there are other partial objects of his belief which are different in the two situations. For instance, in S1 Pierre believes that the sentence '*Londres est jolie*' is true, and thus has as a partial object of his belief the proposition that the sentence '*Londres est jolie*' is true. But in S2 Pierre does not have this proposition as a partial object of belief. And I suspect that what is true in this example will be true in general: we will not be able to construct an example in which Pierre is in different total belief states in two situations and yet has *all* the same objects of belief in the two situations.

Our conclusion so far is that there is a rather loose fit between belief states and objects of belief. Either can change independently of the other. But my last paragraph already suggests that there may be limits to this looseness and independence. I would suggest that there is a part or subset of one's total object of belief, namely one's total *immediate* object of belief, which really does characterize one's belief state essentially and completely, about which the Necessary Connection View is correct.

I define the immediate objects of belief as those propositions one not only believes, but *would* believe no matter how much different one's situation were, provided that one were in the very same belief state. (Remember that having all the same intrinsic properties, physical and phenomenological and whatever others there might be, is sufficient for being in the same belief state.) Having so defined the immediate objects of belief I guarantee that one's total immediate object of belief characterizes one's belief state essentially, that is, that one's total immediate object of belief will be the same whenever one's belief state is the same.

Of course, I cannot guarantee by definition that there *are* any immediate objects of belief. Why should we think that there are? I can provide only a schematic defense of this view here. I have three main reasons for supposing that there are immediate objects of belief, objects of belief which characterize one's belief state essentially. First: it seems clear that one's belief state provides a way of ordering a wide range of possible worlds. (Here I loosely follow Daniel Dennett.18) Given one's belief state, one is *better suited* to some worlds than to others: in some one's expectations are better met, and actions designed to satisfy one's desires more likely to do so, than in others. In particular, then, drawing a line somewhere, we may say that one's belief state determines the set of worlds to which one is *best* suited, and we can describe a belief state in terms of the worlds it determines in this way. On the view I am provisionally adopting, a set of worlds *is* a proposition. So it looks as though there *must* be a proposition which characterizes one's belief state essentially. Second: the intrinsic properties of an individual (or at least some of them, those captured by one's belief state) clearly play some sort of important role in determining what one believes. But what *sort* of role? If the relevant intrinsic properties are characterized semantically, in terms of things believed, it is easy to see how one's intrinsic states could combine in a principled way with one's context to yield the objects of one's belief; in the next section I will provide some candidates for the principles involved. But if one's intrinsic properties cannot be characterized intentionally, then it becomes very difficult to see how they determine what one believes.19 Third: there are some purposes for which objects of belief are essential, but for which mediate objects of belief will not serve. An account of the rationality of belief, for example, must be an account of the rationality of *what is believed*; we lose our grip

on the notion of rationality if we talk about mental states in physical or syntactic terms. But examples like that of Kripke's Pierre, discussed in section IV, suggest that indirect objects of belief may always obscure the reasonableness of the mental states we are in. If we need to evaluate the rationality of belief in terms of the objects of belief, and cannot reliably do so in terms of mediate objects of belief, this gives us reason to think that there are immediate objects of belief. (I do not expect this brief defense of the existence of immediate objects of belief to be persuasive to the unconverted, but at least it suggests the lines along which I would hope to develop a fuller defense.)

I now propose, first, to explain how one's mediate objects of belief are determined by one's immediate objects of belief plus context and, second, to put the resulting distinction between direct and indirect belief to work in thinking about some puzzles.

III

In section II, we considered the case of Art and his belief that he has arthritis in his thigh. In the articles in which he presents this and related examples, Tyler Burge draws from them the very general conclusion that no "individualistic" theory of the mental can be correct--that is, that no theory can account for such mental states as belief in terms solely of intrinsic properties of the subject. And Burge counts among individualistic theories Cartesianism, central-state materialism, and functionalism.

Burge's example does indeed show that there is no true lawlike generalization of the form Art believes P iff C(Art), where C(Art) is a purely intrinsic characterization of Art. For there are at least some, and probably very many, replacements for P such that no matter what intrinsic characterization we fill in for C(Art), there will be possible situations in which C(Art) but Art does not believe P. The example shows this in particular for the case in which P is the proposition that Art has arthritis in his thigh.

It is important to see that this sort of account is impossible. But this result need not be especially disturbing to functionalists or advocates of any of the other individualistic views Burge mentions. Compare the case of *weight*. An individualistic account of what weight I have is

impossible, since I could have a very different weight even though all the intrinsic facts about me were exactly the same--if, for instance, I were on the moon instead of in Texas. But it is possible to give an individualistic account of that property of mine in virtue of which I have the weight I do, namely my mass, and then to give a very general account of what weight anyone with a given mass will have in any situation. It is my hope that the objects of belief are analogous to weights, and that beliefs themselves are analogous to masses; if so we may be able to give an individualistic account of what belief states one is in, and then give a general account of what the objects of belief will be in various circumstances of anyone who is in one of those belief states.20

On this view, a full theory of belief should consist of an individualistic and a non-individualistic part. The individualistic part would be an account of belief states or of direct or immediate belief. It would have this form:

Art *directly* believes P iff C(Art),

where, as before, C(Art) is a purely intrinsic characterization of Art. The remaining component of a full theory would have this form:

Art believes Q in S iff there is a P such that

Art directly believes P and R(S,P,Q)

where S is a situation and R(S,P,Q) is some relation whereby the proposition which Art directly believes and the situation he finds himself in together determine the proposition he mediately or indirectly believes.

In "What is a Belief State?" I said a little, though hardly enough, about what sort of characterization C(Art) might be. In the present section I will try to say something about what sort of relation R(S,P,Q) might be. If I could completely characterize this relation, then I would have presented an explicit definition of belief in terms of direct belief. But it will be convenient to aim toward such a definition one clause at a time. I will here suggest what some of the needed clauses might look like. We want to know the conditions under which someone believes Q, for any proposition Q; I will suggest some such conditions but not all.

A first clause is obvious:

(1) If x directly believes Q, then x believes Q in any situation.

Notice that in such principles as this I am presupposing that 'Art believes that S' is true just in case the proposition expressed by S is an object of Art's belief. If this view is too simplistic, then my quantifying over Q in 'x believes Q' is illegitimate; in that case principles like (1) would have to be modified in one of two ways. We might make them partial truth conditions for belief sentences, so that (1) would become something like (1'): If Q is an immediate object of x's belief, and S expresses Q, then 'x believes that S' is true. Or we might just provide a theory of the mediate objects of belief and then leave it an open question how the truth conditions of 'x believes that S' are related to the mediate objects of x's belief. In that case (1) would become something like (1''): If Q is an immediate object of x's belief, then Q is a mediate object of x's belief.

A second needed principle is one which says, roughly, how *de re* belief depends on *de dicto* belief in conjunction with circumstances. More precisely, we need a principle which says how belief in a general proposition can in conjunction with circumstances result in belief in a singular proposition. *De re* belief has been the focus of a great deal of attention since Quine's early discussions of "quantifying in," and I have nothing novel to say on the subject. But I will borrow from David Lewis's account of *de re* belief21 to show what role such an account will play in the theory of belief I envision. Lewis's account gives rise, in the present context, to a clause something like this:

If x directly believes the proposition that the

F is G, and F is solely a relation of acquaintance

to x, and, in situation S, the F $= y$, then,

in S, x believes the proposition that y is G.

Notice that this principle does not imply that one can believe a singular proposition *only* by virtue of believing a general proposition. To use the familiar (but misleading) terms, the principle does not imply that all *de re* belief is reducible to *de dicto* belief. I am inclined to believe (to put it

crudely) that *de re* beliefs are always had by virtue of having *de se* beliefs, but that *de se* beliefs are *not* always had by virtue of having *de dicto* beliefs. But I need not defend this view here.

To see how the principle works, consider the familiar case of someone, x, who believes the general proposition that the tallest spy is a spy. Suppose that in x's situation the tallest spy is Fred. Does the above principle direct us to attribute to x belief in the singular proposition that Fred is a spy? Clearly not. F in this case is 'tallest spy', and whether is acquainted with Fred is irrelevant to whether Fred is the tallest spy.

Now consider a case in which x is standing in front of Fred and staring at him. Suppose that x forms the general belief, 'The person I see and who looks like *this* is a spy'. It seems clear that in this case x does believe that Fred is a spy, and our principle endorses this. F is 'person x sees who looks like *this*'--a property which is a relation of acquaintance to x.

Problems lurk just beneath the surface here, and the term 'solely' is intended to meet them.22 For consider this case: suppose I saw two people this morning--first Adams, then Bates. I believe that the first person I saw this morning is a spy (and that the second is not). I also believe that the first person I saw this morning is bald. I infer that the spy I saw this morning is bald. But in fact, unknown to me, Adams is *not* a spy while Bates is. It seems clear that in this case I do *not* believe that Bates is bald in virtue of believing that the spy I saw this morning is bald. But I believe that the spy I saw this morning is bald, 'spy I saw this morning' is a relation of acquaintance with me, and the spy I saw this morning is Bates. The crucial point here is that 'spy I saw this morning' is a property which involves not only a relation of acquaintance but more as well. My seeing something is a relation of acquaintance between me and the thing, but something's being a spy is not. So F is not *solely* a relation of acquaintance to x.

This example raises interesting issues about how to identify properties which are entirely relations of acquaintance. This seems to be difficult even in cases of direct visual perception, which one would expect to be among the easiest cases. For example, the Muller-Lyer arrow illusion shows that two lines of the same length can be made to appear to be of different lengths. One can even modify the illusion to make the shorter of two lines appear to be the longer. So a predicate like 'longest line I

see' will not be a suitable F, on pain of counterexamples exactly parallel to the Adams-Bates example. (How about 'line which appears to me to be longest'? This seems to mean something like 'x such that x is a line and I believe that x is longer than any other line I see.' But this already attributes to me a *de re* belief about the line in question, and the conditions under which we have *de re* beliefs are precisely what our principle is supposed to explain. How about 'thing which produces *these* sensations in me'? This sort of description does not sufficiently discriminate between the many causes of my perceptual experiences. And anyway it is not a property nothing could have unless I were acquainted with it: perhaps I am a brain in a vat, and all my sensations are produced by a mad scientist. I need not be acquainted with the mad scientist in the relevant sense.) No doubt being the longest line I see mixes an acquaintance relation with something else. But it is very difficult to see how to cut away the "something else" and have enough left to provide a suitable F. But I cannot pause to pursue this issue here.

I turn now to a third clause which has a metalinguistic element. In order to see the motivation for this clause, let us look yet again at Burge's example. We know that Art does not directly believe that he has arthritis in his thigh, since he is in exactly the same belief state in Situations 1 and 2 but believes that he has arthritis in his thigh only in Situation 1. Call the proposition that Art has arthritis in his thigh 'Q'.

Any immediate object of Art's belief is a proposition he believes in both situations. We need a principle which tells us, for some proposition P, that anyone who believes P in Situation 1 believes Q in Situation 1, but which does *not* tell us the same thing about Situation 2. The principle has to be sensitive to the difference between Situations 1 and 2.

But the only difference between Situations 1 and 2 in Burge's example is a difference in the speech practices of other members of Art's linguistic community, and as a result a difference in the meaning of the term 'arthritis'. Since the only relevant difference between the two situations is a linguistic one, the desired principle has to appeal to linguistic facts. It will have to look something like this: If Art directly believes P, and 'arthritis' means arthritis, then Art believes that he has arthritis in his thigh. Any such principle will clearly be silly unless P itself has something to do with the term 'arthritis'.

Now Art does in fact have beliefs about the term 'arthritis' which hold constant across Situations 1 and 2. In particular, he believes that he has the disease called 'arthritis' in his thigh. And, given that Art is a normal English speaker, it seems plausible that it is in virtue of this metalinguistic belief that Art believes in Situation 1 that he has arthritis in his thigh and in Situation 2 that he has "arthritis" in his thigh. After all, what else could be responsible for these beliefs?

Art's case can be accounted for by this principle: If Art immediately believes that he has the disease called 'arthritis' in his thigh, and is a competent user of the term 'arthritis', and in situation S 'arthritis' means arthritis, then, in S, Art believes that he has arthritis in his thigh. Somewhat more generally, we may say this:

> (3) If Art believes that a sentence R is true, and Art is a competent user of R, and, in situation S, R expresses proposition Q, then, in S, Art believes Q.

In Situation 1 the sentence 'Art has arthritis in his thigh', or the sentence 'I have arthritis in my thigh' as uttered by Art, expresses the proposition that Art has arthritis in his thigh; in Situation 2 the same sentence expresses the different proposition that Art has "arthritis" in his thigh; so the principle yields the results we need for the two situations. Note that competence admits of degrees: there are speakers of Art's language more competent than he in the use of 'arthritis'. The competence required for the principle is whatever minimal competence one needs in order for a sentence to be said to be part of one's language, or in order for one to be able to use the sentence to express or assert the proposition it expresses in one's linguistic community. If one *understands* an expression, one is a competent user of it, but perhaps not conversely; perhaps for instance Art's minimal competence in the use of 'arthritis' does not suffice for understanding.

It is worth pausing to see that the present principle is not vulnerable to certain obvious objections to other sorts of metalinguistic account. The principle does not have the consequence that all we really have beliefs about are sentences. Art's belief that he has arthritis in his thigh is not about a sentence, although the deeper belief in virtue of which he believes this is. Nor does the principle have the consequence that we have all our nonlinguistic beliefs in virtue of deeper metalinguistic

beliefs. Although Art's belief that he has arthritis in his thigh is mediated by a metalinguistic belief, his belief that he is hungry very likely is not.

The principle also does not have the consequence that apparently object-level belief ascriptions really ascribe metalinguistic beliefs. The sentence 'Art believes that he has arthritis in his thigh' does not ascribe to Art belief in the proposition that the sentence 'Art has arthritis in his thigh' is true. We have a different sentence to perform that task, namely the sentence 'Art believes that the sentence "Art has arthritis in his thigh" is true.' And since the principle is not part of an analysis of belief sentences or ascriptions, it is not subject to counterexamples involving translation.

Burge reports that one common reaction to his case is to deny that Art *really* believes that he has arthritis in his thigh. He really believes, it is claimed, only that the sentence 'Art has arthritis in his thigh' is true. Burge responds that Art may well have that metalinguistic belief, but that he also clearly has the object-level belief. On this point I agree with Burge. My point is just that Art has the object-level belief in virtue of believing that 'Art has arthritis in his thigh' is true. If he had no metalinguistic beliefs about the term 'arthritis', he would not have the object-level belief either.

A fourth element in our account of the relation between mediate and immediate belief is suggested by a consideration of the lottery paradox, which initially seems to provide an objection to a view I will briefly defend in section IV, namely that we believe all the logical consequences of our immediate beliefs.23 Suppose I know of a lottery with a thousand tickets. It seems that I might well immediately believe, of any of those tickets, that it will not win. (If I cannot immediately believe that, I can at least immediately believe that the sentence 'Ticket i will not win' is true, and this will give rise to the same difficulty.) But I have no special information about that particular ticket, so if I can immediately believe that it will not win I should be able to believe this of each of the tickets; that is, I should be able to immediately believe that ticket 1 will not win, that ticket 2 will not win, . . . , and that ticket 1,000 will not win. But then, since I believe all the consequences of my immediate beliefs, I believe that ticket 1 will not win and ticket 2 will not win and . . . and ticket 1,000 will not win. If I also believe that

tickets 1 through 1,000 are all the tickets there are, then I immediately believe that no ticket will win. But I don't believe that, immediately or otherwise. So some premise of the argument must have been mistaken, and it seems natural to pick on the one that says I believe all the conjunctions of things I immediately believe.

Natural but mistaken. We should instead reject the view that I believe immediately that ticket i will not win. I immediately believe only propositions true in all the worlds to which I am best suited, and I am just as well suited to some world in which ticket i wins as to any world in which it does not. So I do not immediately believe that ticket i will not win.24

Although I do not *immediately* believe that ticket i will not win, very likely I do, in the ordinary way, believe that it will not win.25 There must, then, be some principle which gets me from what I immediately believe to the mediate belief that ticket i will not win. None of the principles so far discussed will accomplish this, so there must be another.

> I suggest the following:
>> (4) If P is true in more than n percent of the worlds in which my total immediate object of belief is true, then I (mediately) believe that P.

I leave the value of n unfixed; presumably it will vary with context. Notice that even if there are infinitely many worlds in which my total immediate object of belief is true and ticket i wins, and infinitely many more in which my total immediate object of belief is true and ticket i does not win, this should not lead to difficulty in computing percentages. There are just as many even positive integers as positive integers; nevertheless half of the positive integers are even. Similarly, 99.9% of the worlds to which I am best suited are worlds in which ticket i does not win.

I do, then, believe *mediately* that ticket 1 will not win, that ticket 2 will not win, . . . , and that ticket 1,000 will not win. But we do not believe all the conjunctions of things we *mediately* believe. And in particular it seems unlikely that I believe the conjunction of all my beliefs that tickets will not win. Certainly this conjunctive belief cannot be arrived at in the

same way the conjuncts were, since in *none* of the worlds to which I am best suited is it true that no ticket wins.

If we had now specified all the conditions under which one believes that Q, then we could add a final clause to the effect that under no other conditions does one believe that Q; our "definition" or theory of belief would then be complete. But there are surely conditions other than those set forth here. For instance, our third clause appealed to the notion of *competence* in the use of a sentence. Competence in the use of a sentence presumably amounts to the belief that the sentence expresses a certain proposition, in circumstances in which it *does* express that proposition. This belief will usually be indirect. But it seems doubtful that the conditions mentioned so far are enough to explain what grounds these indirect beliefs. So I must leave this account of the way direct belief determines indirect belief as an incomplete sketch.

IV

There are several puzzles about belief, cases in which powerful considerations seem to support each of two inconsistent theses about belief. I would suggest that in several such cases one of the theses is true of direct belief, one of indirect belief; thus we can respect the intuitions behind the apparently conflicting theses without contradiction. I will discuss a few of these puzzles rather briefly; my aim is to suggest areas in which the distinction I have been defending may be useful, not to provide fully worked-out analyses of the puzzles.

Let us begin with Kripke's puzzle. The puzzle begins with the example of Pierre, which in section II I modified to make a point of my own. The puzzle is this: on the one hand, there is good reason to attribute to Pierre inconsistent beliefs, beliefs which cannot be true together. Our ordinary practices of belief ascription lead us to say that Pierre believes that London is pretty (in virtue of accepting, and understanding, '*Londres est jolie*'), and Pierre believes that London is not pretty (in virtue of accepting, and understanding, 'London is not pretty'). These two propositions are incompatible. On the other hand, we also seem to have good reason *not* to ascribe incompatible beliefs to Pierre: he has made no logical blunders, and cannot discover by introspection that his beliefs cannot be true together. As Kripke puts it, it seems that we cannot "convict Pierre of inconsistency."23

Convicting Pierre of inconsistency might involve one of two things: showing that he has inconsistent beliefs, in the sense of 'objects of belief', or showing that he deserves to be criticized for the belief state he is in. Showing the former does not suffice to show the latter.

I suggest that we agree that Pierre has inconsistent beliefs in the first, weak, sense. That is, he has two propositions as objects of his belief which cannot be true together: the proposition that London is pretty, and the proposition that London is not pretty. But the sting of acknowledging this may be lessened by the recognition that these propositions are not *immediate* objects of his belief, that they do not characterize his belief state essentially. Pierre could be in exactly the same belief state and yet not have inconsistent objects of belief--if for instance there were a British city other than London which the French called '*Londres*', and it was this other city which Pierre had heard of as '*Londres*' in France.26 That Pierre's beliefs are inconsistent is a result not only of his belief state but also of facts about the world. But it would be wrong to criticize Pierre for such facts as that '*Londres*' names London rather than some other city. If he were involved in inconsistencies which stemmed only from his own belief state, then he should indeed be criticized, but no such inconsistencies are involved in Kripke's example.

Pierre believes that London is, and that it is not, pretty in virtue of a variety of deeper beliefs, including the belief that the city called 'London' is not pretty and the belief that the city called '*Londres*' is pretty. If I am right then some such propositions, the immediate objects of his belief, *do* characterize his belief state essentially; if they were inconsistent then something would be seriously wrong with his belief state. But the deeper beliefs by virtue of which Pierre has beliefs about London are not inconsistent.

Kripke's puzzle is one of several reasons that have led various writers to argue that we cannot rationally believe the impossible. I have argued elsewhere that their reasons are not persuasive with respect to indirect belief, but do give good grounds for thinking it cannot be the case that a fully rational agent *directly* believes the impossible.27

Another puzzle is also due to Kripke. There are strong reasons for supposing that any matter of contingent fact can be known only *a*

posteriori or with the aid of experience. But Kripke has provided purported examples of contingent truths which can be known *a priori*.

What sort of thing can be known *a priori*? Knowledge we have *a priori* is knowledge we have independently of experience. But not necessarily independently of *all* experience: things we know solely in virtue of knowing our language are generally considered to be known *a priori* even though experience is required in order to come to know one's language. We can construct a partial inventory of things known *a priori* as follows: (i) If I know P solely in virtue of knowing my language, then I know P *a priori*; (ii) If I know P *a priori*, and I know that P implies Q, and I know Q, and I have come to believe Q on the basis of my beliefs that P and that P implies Q, then I know Q *a priori*; (iii) Anything I know solely in virtue of knowing things *a priori* is something I know *a priori*.

An argument that we cannot know (nonlinguistic) matters of contingent fact *a priori* might run like this: if a true proposition P is contingent, then it is made true by some matter of fact. Now whenever I know a proposition, what makes the proposition true must play a role in my coming to believe it, so if I know that P then some matter of fact must have played a role in my coming to believe P. I believe the things I do in virtue of the belief state I am in. But the only way a matter of fact can affect my belief state is by way of experience. So I cannot come to know P independently of experience.28

But now consider the following purported example of a contingent truth which we know *a priori*, taken from Fred Kroon:29 "If in the world as it *actually* is the planets revolve around the sun, then the planets revolve around the sun." I take this example rather Kripke's because it seems to avoid criticisms which have been raised with regard to Kripke's own examples.30 Kroon writes of this example that "it is clearly *a priori*, for no one needs recourse to actual bits of experience to know that if in the *actual* world the planets revolve around the Sun, then is it *true* that they revolve around the sun. And it is contingent, for, while true in the *actual* world, in worlds in which Ptolemaic astronomy holds the consequent is false while the antecedent, being necessarily true, is again true, leaving the entire proposition false at those worlds."

Once we distinguish between mediate and immediate objects of belief, I would suggest, the apparent conflict between the argument and the example disappears. The argument shows that we cannot have *direct* or *immediate a priori* knowledge of contingent fact, while the example establishes only the possibility of indirect or mediate *a priori* knowledge of contingent fact.

Consider first the argument. The final premise is that the only way a matter of fact can affect my belief state is by way of experience. Let us suppose that this is correct. Nevertheless, while affecting my belief state is the only way to affect what I directly believe, it is not the only way to affect what I believe indirectly. A difference in my situation can make a difference to what I believe without making any difference to my belief state. In the case of indirect *a priori* knowledge of P, the necessary role of extra linguistic fact in my believing P need not involve directly affecting my belief state. So the argument shows that direct *a priori* knowledge of contingent facts is impossible, but not that indirect *a priori* knowledge of such facts is impossible.

The example does not conflict with the argument so understood. We come to know the proposition that if the planets actually revolve around the sun, they revolve around the sun, I suggest, as follows. We know that for any sentence S, 'Actually S if and only if S' is true. We know this simply in virtue of knowing English, so we know it *a priori*. We similarly know *a priori* that 'The planets revolve around the sun' is a sentence, and we know that these two facts imply that 'If the planets actually revolve around the sun, they revolve around the sun' is true: so we also know *a priori* that this latter sentence is true. If we know the language, we know *a priori* what this sentence means.

Now, all the *a priori* knowledge mentioned so far may well be direct, but, given purely linguistic fact, none of it is contingent. (That expressions mean what they do is a contingent matter, but, given that they mean what they do, it is necessary for instance that 'Actually S iff S' is true.) The next step is the one that gives us *a priori* knowledge of contingent fact, but the knowledge resulting from this step is no longer direct. For the next step is to apply clause (3) in the account of indirect belief given in section III. Given that I believe that 'If the planets actually revolve around the sun, they revolve around the sun' is true, and understand what it means, and given that it expresses the proposition

that if the planets actually revolve around the sun, they revolve around the sun, clause (3) asserts that I also believe the proposition that if the planets actually revolve around the sun, they revolve around the sun. And, according to my partial inventory of *a priori* knowledge, this belief, if it counts as knowledge, is knowledge *a priori*.

It must be admitted that indirect knowledge *a priori* is quite a weak notion. If I believe a proposition indirectly, then there is a possible world in which I am in the same belief state but do not believe that proposition. Suppose things had been different: suppose that the planets revolved around the sun, and I were in exactly the same belief state I am in fact in, but something else were drastically different--that China had only half as many people, say, or that our whole galaxy had popped into existence fifty years ago. The proposition we are considering would still have been true, but I would not have known it *a priori*, in fact would not even have believed it. I would instead know *a priori* a different proposition--the proposition expressed in *that* possible world by the sentence 'If the planets actually revolve around the sun, then they revolve around the sun'. It will rightly be felt that *a priori* knowledge I would not have in some worlds in which the proposition actually known remains true and I remain in the same belief state is somehow lacking.

In addition to rejecting the traditional view that one cannot know contingent truths *a priori*, Kripke has also rejected the view that we cannot come to know necessary truths *a posteriori*. I have elsewhere defended his rejection of this view, but have suggested that those necessary truths we know *a posteriori* we typically *also* know *a priori*. I have also suggested that we cannot come to *directly* believe a necessary truth on the basis of *a posteriori* evidence.31

A third puzzle concerns belief and logical consequence. It seems obvious that we do not believe all the logical consequences of things we believe. For instance, we sometimes try to convince others of the truth of propositions dear to us by showing them that the propositions in question are logical consequences of things they already believe. But if they believed all the logical consequences of things they believe, and the proposition in question really followed from their beliefs, then it seems they would believe it already and would need no convincing.

On the other hand, it can seem incredible that we could fail to believe all the logical consequences of our beliefs, especially if we are committed to the possible-worlds view of propositions. On this view, to believe a proposition, say P, is to locate oneself as being in one of a set of possible worlds, the set of worlds at which P is true. Now any logical consequence of P, say P or Q, is true at a set of worlds which includes the set at which P is true, so to believe P or Q is to locate oneself as being in one of the worlds in the larger set. But surely if I have located myself as being in one or other of the worlds in the smaller set, I have already thereby located myself as being in one or other of the worlds in any set which includes the smaller set! Or, to put the matter slightly differently, the information that P includes the information that P or Q, so if I have the information that P then I already have the information that P or Q.32

I suggest tentatively that this puzzle is to be resolved as follows. We do not believe all the logical consequences of things we believe. But we do believe all the logical consequences of things we directly or immediately believe.

I am inclined to regard direct belief as holistic--to suppose that at root there is just one big immediate belief, roughly the proposition true at those worlds to which one is best suited, and that one's partial immediate objects of belief are just all the logical consequences of one's total immediate object of belief. One's partial immediate objects of belief may not have psychological reality in the way one's total immediate object of belief does: it may be that the only way to say what someone's partial immediate objects of belief are is by reference to that person's total immediate object of belief. One's total immediate object of belief is a seamless whole. One's total object of belief, on the other hand, is a grab-bag or hodgepodge of propositions believed in various ways and in virtue of different features of oneself and one's environment. The grab-bag is not closed under logical implication, but the seamless whole is.

It may be that talk of logical consequence in this context is misleading: it may suggest incorrectly that the objects of belief are sentences. For consider this account of what logical consequence is: Q is a logical consequence of P just in case 'if P, then Q' is logically true; and this in turn may mean that 'if P, then Q' is true solely in virtue of its (logical)

form. But if we understand logical consequence in this way we must take P and Q to be sentences rather than propositions, since propositions as I understand them have no form. They are just bits of information or sets of worlds. In this sense of logical consequence, beliefs do not have logical consequences.

There is a related notion, call it '*logical consequence', which does apply to propositions. If we identify propositions with the sets of worlds in which they are true, then proposition Q is a *logical consequence of proposition P just in case P is a subset, not necessarily proper, of Q. Use of this notion can easily be extended to sentences; sentence R is a *logical consequence of sentence S just in case the proposition expressed by R is a *logical consequence of the proposition ex-pressed by S. But logical consequence and *logical consequence must be kept carefully distinct: 'Hesperus is Phosphorus' is a *logical consequence, but not a logical consequence, of 'Hesperus is Hesperus'.

It may in part be confusion on this point which makes it seem so obvious that we need not believe logical consequences of our beliefs. Though our beliefs do not have logical consequences, some of our beliefs are *about* sentences, which do. So when we say e.g. that someone believes all the axioms of a formal system but not all the theorems, even though the theorems are logical consequences of the axioms, we may well be thinking of the axioms and theorems as sentences and have in mind that he believes of all the axioms but not of all the theorems that they are true. One can believe the necessary truth without believing, of some sentence which expresses it, that the sentence is true.

These remarks may suggest the following objection to the view that we believe all the *logical consequences of our immediate beliefs. I suppose that we can directly believe that sentences are true. But then suppose that I directly believe that the axioms of a system of logic are true and that its rules of inference are correct. It seems that for any theorem, it is a *logical consequence of my beliefs that the theorem is true, but it is clear that I do not believe of all theorems that they are true. For concreteness, let us take a very simple example. Suppose I were to directly believe that 'Grass is green' is true, and that the rule of inference: from Q, infer if P, then Q is correct. Then it would be a *logical consequence of my direct beliefs that 'If the moon is square, then grass is green' is true. Yet it seems that I could have the former

beliefs without the latter, and this will seem even clearer in more complicated cases.

I would suggest in response that we need to look more closely at the supposed direct belief that the rule of inference is correct. Just what is it to believe that a rule of inference is correct? I suggest that in the present case it comes to this: to believe that the rule is correct is to believe that for any sentences R and S, if S is true then 'if R, then S' is true. My tentative suggestion is that we cannot *directly* believe a generalization of this sort unless we directly believe all its instances. I may be disposed to work out proofs in accordance with the rule of inference, I may believe that a sentence which expresses the proposition that it is a correct rule of inference is true, I may indirectly believe that it is correct, but unless I directly believe all its instances I do not directly believe that it is correct. So the objection fails because the story it tells is incoherent.

Now suppose that I am correct in thinking that we believe all the *logical consequences of our direct beliefs. It does not follow that we believe all the *logical consequences of *all* the things we believe. Consider again the case of Pierre. It is a *logical consequence of his indirect beliefs that there is a city which is both pretty and not pretty. Nevertheless he need not believe this, and no doubt does not. For neither this proposition nor any other in virtue of which he could believe it need be a *logical consequence of his *direct* beliefs, of for instance his beliefs that '*Londres est jolie*' is true and that 'London is not pretty' is true.

We have now seen how Burge's and Kripke's examples show that most of the objects of our belief are not immediate, and also why this does not rule out the possibility that there *are* immediate objects of belief. We have seen how a two-tiered conception of belief might go, a conception in which we first explain how one's direct beliefs are determined by one's intrinsic properties and then explain indirect belief in terms of direct belief plus circumstances. And we have seen how the resulting distinction between direct and indirect belief is of use in thinking about some familiar puzzles. I hope this is enough to make the present sort of account seem worth pursuing.33

NOTES

1. I will return to this helpful analogy between perception and belief. A similar analogy is employed by John Perry, "The Problem of the Essential Indexical," *Nous* 13 (1979): 3-21.

2. "What is a Belief State?" *Midwest Studies in Philosophy* 10 (1986): 357-78.

3. One's belief state itself is best characterized, I suggested, by a certain *property* or set of properties; *one's being in* the belief state is characterized by the proposition that one has the property or properties.

4. More precisely, it is the property determined by the set of actual and possible total intrinsic states which determine the same mapping from possible situations to objects of belief as the individual's actual total intrinsic state determines. See "What is a Belief State?" 358-62.

5. I am suggesting that an account of the objects of belief must include an account of their truth conditions. For a related argument that an account of the meaning of sentences must include truth conditions, see Hartry Field, "Mental Representation," *Erkenntnis* 13 (1978): 9-61, reprinted in Ned Block, ed., *Readings in the Philosophy of Psychology*, vol. 2 (Cambridge, Mass.: Harvard University Press, 1981): 78-114, at 101.

6. Much of what I say will, however, be neutral between this account and others which take propositions to be something sufficient to determine a function from possible worlds to truth values--for example, the account which takes propositions to be something like ordered $n + 1$-tuples of an n-place property and n objects. Such an $n + 1$-tuple determines a function from worlds to truth-values (T if in that world the n objects have the n-place property, F otherwise), but also allows for a distinction between e.g. the proposition that John = John and the proposition that if John is tall then John is tall. For such an account see especially Nathan Salmon, *Frege's Puzzle* (Cambridge, Mass.: MIT Press, 1986).

7. The assumption that 'that S' is a singular term denoting the proposition S expresses is rarely called into question. It *is* questioned by Stephen Schiffer, in *Remnants of Meaning* (Cambridge: MIT Press, 1987). But even Schiffer concedes that "the relational account of propositional-attitude verbs is the most plausible way of trying to make them square with the assumption that natural languages have compositional

semantics" (181). Schiffer's rejection of the relational account of 'believes' thus leads him to take the dramatic step of rejecting the possibility of a compositional semantics. He argues against the relational account by providing detailed arguments against the various candidates for what entity might be named by 'that S'. Most relevantly for our purposes, he argues in Chapter 3 against the view that that-clauses name propositions.

Schiffer's opening criticism is that the sentence "Tanya believes that Gustav is a dog" cannot simply mean that Tanya bears the belief-relation to the proposition that Gustav is a dog, since being a shmog could be the same thing as being a dog and yet Tanya could fail to believe that Gustav is a shmog. But I deny that this can happen. If shmoghood is doghood, then believing that Gustav is a dog *is* believing that Gustav is a shmog. It may be pragmatically inappropriate to say that Tanya believes that Gustav is a shmog, but it is not false. (Here I follow the line developed in Nathan Salmon, *Frege's Puzzle* (Cambridge: MIT Press, 1986): 57-60, 81-85, 114-18. Matters here quickly become extremely complicated: see Schiffer's criticism of Salmon's view in "The 'Fido'-Fido Theory of Belief," in James E. Tomberlin, ed., *Philosophical Perspectives, 1: Metaphysics* (Atascadero, Cal.: Ridgeview, 1987): 455-80, and Salmon's reply in "Illogical Belief," in Tomberlin, ed., *Philosophical Perspectives, 3: Philosophy of Mind and Action Theory* (Atascadero, Cal.: Ridgeview, 1989): 243-85.) What *can* happen is that Tanya, at the same time she believes that Gustav is a dog, believes that Gustav is not a shmog. Since this latter belief just is the belief that Gustav is not a dog, Tanya believes both that Gustav is a dog and that Gustav is not a dog. The case is then very similar to Kripke's puzzle about Pierre, which I discuss in section IV.

Schiffer sometimes expresses his criticism of the relational view of 'believes' by saying that the proposition that Gustav is a dog cannot be "the complete content of Tanya's belief." This is ambiguous, depending on whether beliefs are individuated by object believed or by belief state. If we individuate by object believed, I deny the claim, but if we individuate by belief state I accept it: there *will* be a fuller account of the content of the belief state which underlies Tanya's belief that Gustav is a dog. But in this sense, denying that the proposition is the "complete content" of Tanya's belief (state) is quite compatible with accepting that

the only thing communicated by the belief sentence is that the proposition is an object of her belief.

Schiffer uses the "shmog" example to motivate a modification to the relational view of "believes," and proceeds to criticize this modified view. On the modified view, Tanya does not believe the proposition that Gustav is a dog; rather, there is some mode of presentation of doghood *m* such that she believes (roughly) the proposition that Gustav is an *m*. On the view I will develop, Tanya *does* believe the proposition that Gustav is a dog, but no doubt believes it *in virtue of* believing some other proposition--perhaps the proposition that Gustav is an *m*. I believe that Schiffer's criticisms of the modified view are less telling against my own view, although my view bears a family resemblance to the modified view.

8. Tyler Burge, "Individualism and the Mental," *Midwest Studies in Philosophy* 4 (1979): 73-121. Burge discusses related arguments and examples in a number of other places, notably "Other Bodies," in Andrew Woodfield, ed., *Thought and Object* (Oxford: Oxford University Press, 1982), 97-120; "Individualism and Psychology," *Philosophical Review* 95 (1986): 3-45.

9. Saul Kripke, "A Puzzle About Belief," in A. Margalit, ed., *Meaning and Use* (Dordrecht: D. Reidel, 1979), 239-283.

10. Daniel Dennett, "Beyond Belief," in Andrew Woodfield, ed., *Thought and Object* (Oxford: Oxford University Press, 1982).

11. For the distinction between core beliefs and implicit beliefs see D. C. Dennett, "Brain Writing and Mind Reading," in Dennett, *Brainstorms* (Montgomery, Vermont: Bradford Books, 1978), 39-50, at 45-46; and Field, "Mental Representation," 83-84.

12. Hilary Putnam, "The Meaning of 'Meaning'," in Putnam, *Mind, Language and Reality: Philosophical Papers Volume 2* (Cambridge: Cambridge University Press, 1974), 227.

13. Kent Bach, *Thought and Reference* (Oxford: Oxford University Press, 1987), 264-70.

14. For example, Bach gives no positive account of what it is to possess the concept associated with a term, and the obvious possibilities face serious difficulties. Is it to be an infallible detector of things to which the term applies? That is clearly far too strong. Is it to know a description coextensive with the term? That is far too weak; after all, 'disease denoted in English by 'arthritis'' is coextensive with 'arthritis'. Is it to know a description *necessarily* coextensive with the term? Well, (a) it is not clear that there must always *be* such a description; consider 'game' or 'poem'; (b) this account is threatened with a regress, for what is it to possess the concepts associated with the terms contained in the description? And (c) anyway, for reasons familiar from the work of Kripke and Putnam, this seems clearly too strong a requirement on knowing the meaning of many kind terms.

15. I might add that on my own view there is a *sense* in which Art does not believe he has arthritis in his thigh: although he believes this indirectly, he does not believe it directly. Perhaps this can do justice to the motivation of Bach's view without embracing its awkward consequences.

16. This is not the way in which these terms are generally used in the philosophy of perception. 'Directly perceived' usually means either 'perceived without inference' or 'perceived, but not in virtue of perceiving anything else'. For the former use see D. M. Armstrong, *Perception and the Physical World* (London: Routledge & Kegan Paul, 1961); for the latter, see Frank Jackson, *Perception*: *A Representative Theory* (Cambridge: Cambridge University Press, 1977).

17. The following paragraph paraphrases "A Puzzle About Belief," 254-57.

18. Dennett, "Beyond Belief," 40-44.

19. Of course a full presentation of this reason for thinking there are immediate objects of belief would need to respond to both (a) proposed accounts of how nonsemantically characterized properties could give rise, in a context, to semantic properties, such as Jerry Fodor's account in Chapter 4 of *Psychosemantics* (Cambridge: MIT Press, 1987), and (b) the view that there simply is no principled connection between one's

intrinsic properties and what one believes, a view I take to be held by Tyler Burge and Lynne Rudder Baker.

20. I borrow this analogy from "What Is a Belief State?" 362. Robert Stalnaker discusses the same analogy in "On What's in the Head," in James E. Tomberlin, ed., *Philosophical Perspectives, 3: Philosophy of Mind and Action Theory* (Atascadera, CA: Ridgeview, 1989), 287-316, but gives reasons to be sceptical that the prospects for individualism are as bright as the analogy might suggest.

21. David Lewis, "Attitudes *De Dicto* and *De Se*," *Philosophical Review* 87 (1979): 513-43, at 538-43.

22. I am indebted to Gilbert Harman for the problematic example that follows, and to David Lewis for suggesting this line of response. But I don't know how committed Lewis is to the response or whether he would agree with this formulation of it.

23. I owe this observation to Scott Soames. See section IV for further discussion of belief and logical consequence.

24. Does this mean that I can only immediately believe things of which I am certain? I could use the term 'immediate object of belief' in such a way that it only encompasses propositions of which I am certain, but I need not to block the lottery argument.

I have said that one's total immediate object of belief is (roughly) the set of worlds to which one is best suited. But this makes things more black and white than they need be. We might order the worlds according to how well suited I am to them.

When we talk about my immediate beliefs, we draw a line somewhere: my immediate beliefs are those propositions true at any world to which I am at least as well suited as *this* one. If we want to get at the deepest core of immediate beliefs, we will draw the circle so widely as to exclude only those worlds which are actually incompatible with my being in the belief state I am in. If the line is drawn there, then only propositions of which I am absolutely certain will be among my immediate beliefs. (The proposition that I exist will be one such proposition, since I could not possibly be in the mental state I am in fact

in unless I existed.) But perhaps for some purposes we might want to draw the line more narrowly and thus count more propositions as immediate objects of my belief. It may be that I am better suited to some world in which there are rabbits than to any world in which there are not. If so, there will be a place to put the circle which makes the proposition that there are rabbits one of my immediate beliefs, even though I am not certain that there are rabbits.

I am not sure whether this business of narrowing and widening the circle will turn out to have any use--or even that the relation 'w1 is better suited to me then w2' imposes enough order on the worlds to make it possible. I mention it only to distinguish it from the lottery case. For no matter how close I draw the circle, I will not immediately believe that ticket *i* will not win (unless I believe that there is something special about ticket *i*, but in that case the paradox evaporates). For any world in which ticket *i* does not win, there is another to which I am equally well suited in which it does win. There is no circle both tight enough to exclude worlds in which ticket *i* wins and loose enough to include worlds in which it does not. I immediately believe only those propositions true in all the worlds to which I am best suited; so I do not immediately believe that ticket *i* will not win (or for that matter that any other ticket will not win); so I certainly do not immediately believe that no ticket will win.

25. One might insist that I have *no* belief *simpliciter* about whether the ticket will win; I believe only that it is highly probable that it will not win. As evidence, one might argue that we would not say that the person who buys a ticket, knowing the odds, believes his or her ticket will not win. But it seems to me that in at least some contexts we *would* say this; I can easily imagine saying, in all sincerity, "I believe my ticket will not win, but I bought it on the chance that I'm wrong." (It might be more natural to say only "I don't think my ticket will win." But while "I don't think P" does not mean or logically imply "I think not-P," "I think not-P" is nevertheless precisely what it is usually used to convey.)

26. David Lewis shows this by means of a plausible story in "What Puzzling Pierre does not Believe," *Australasian Journal of Philosophy* 59 (1981): 283-89.

27. For arguments that we cannot believe the impossible, see Ruth Barcan Marcus, "Rationality and Believing the Impossible," *Journal of Philosophy* 80 (1983): 321-38, and Richard Foley, "Is It Possible to Have Contradictory Beliefs?" *Midwest Studies in Philosophy* 10 (1986): 327-55. I have responded to Foley's arguments in "How to Believe the Impossible," *Philosophical Studies* 58 (1990): 271-85, and to Marcus's in "Believing the Impossible," presented at the 1990 Central Division meeting of the APA. For an interesting exploration of the relations between believing the impossible, incompatible beliefs, and a possible-worlds account of the objects of belief, see Stalnaker's discussion of the "problem of deduction" in*Inquiry*, Chapter 5; see also Michael Pendlebury, "Stalnaker on Inquiry," *Journal of Philosophical Logic* 16 (1987): 229-72.

28. For a similar argument see Keith Donnellan, "The Contingent *A Priori* and Rigid Designators," in Peter A. French et al., ed.,*Contemporary Perspectives in the Philosophy of Language* (Minneapolis: Univ.of Minnesota Press, 1979), 45-50, at 46.

29. Fred Kroon, "Kant and Kripke on the Identifiability of Modal and Epistemic Notions," *Southern Journal of Philosophy* 19 (1981): 49-60, at 58. Related examples may be found in David Kaplan, "Demonstratives: An Essay on the Semantics, Logic, Metaphysics, and Epistemology of Demonstratives and Other Indexicals," in Joseph Almog et al., eds.,*Themes From Kaplan* (New York: Oxford University Press, 1989): 481-563, circulated in manuscript since 1977.

30. Kripke suggests that if Leverrier had stipulatively fixed the reference of 'Neptune', before its first sighting, as "the planet which caused such and such discrepancies in the orbits of certain other planets," then he could have known *a priori* the contingent fact that if the perturbations were caused by a planet they were caused by Neptune. (See *Naming and Necessity* (Cambridge: Harvard University Press, 1980), 79n.) Donnellan has objected that Leverrier could not have such knowledge about Neptune without being better acquainted with Neptune: in fact, Donnellan suggests, Leverrier's imagined stipulation about 'Neptune' would not put him in a position to *use* the name (57), but must be understood as "reserving a name for future use" (58).

I suggest that Donnellan's objection could be overcome by examples in which we stipulate that a name shall refer to an object with which we are acquainted. Suppose I introduce the name 'Jones' as a rigid designator for whomever I am seeing. I know *a priori* that the sentence 'If I am seeing anyone, I am seeing Jones' is true. I am also acquainted with Jones as the bearer of 'Jones', so I am a competent user of the sentence. Thus it seems that I know *a priori* that if I am seeing anyone, I am seeing Jones. But it is difficult to keep intuitions straight with respect to such examples. For I also know the very same proposition *a posteriori* in virtue of believing on the basis of evidence that I am seeing someone in particular. One and the same proposition is, it seems, known both *a priori* and *a posteriori*.

31. Curtis Brown, "The Necessary *A Posteriori*: A Response to Tichy," *Philosophical Studies* 45 (1984): 379-97.

32. The sort of considerations that make this view attractive are skillfully explained by Robert Stalnaker in the course of a defense of the possible-worlds account of the objects of belief against the apparent counterexample of mathematical belief: see his "Propositions," in A. MacKay and D. Merrill, ed., *Issues in the Philosophy of Language* (New Haven: Yale University Press, 1976); see also Stalnaker, *Inquiry* (Cambridge, Mass.: MIT Press, 1984).