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ATTITUDES *DE DICTO* AND *DE SE*

David Lewis

I

If I hear the patter of little feet around the house, I expect Bruce. What I expect is a cat, a particular cat. If I heard such a patter in another house, I might expect a cat but no particular cat. What I expect then seems to be a Meinongian incomplete cat. I expect winter, expect stormy weather, expect to shovel snow, expect fatigue—a season, a phenomenon, an activity, a state. I expect that someday mankind will inhabit at least five planets. This time what I expect is a state of affairs.

If we let surface grammar be our guide, the objects of expectation seem quite a miscellany. The same goes for belief, since expectation is one kind of belief. The same goes for desire: I could want Bruce, want a cat but no particular cat, want winter, want stormy weather, want to shovel snow, want fatigue, or want that someday mankind will inhabit at least five planets. The same goes for other attitudes to the extent that they consist partly of beliefs or desires or lacks thereof.

But the seeming diversity of objects might be an illusion. Perhaps the objects of attitudes are uniform in category, and it is our ways of speaking elliptically about these uniform objects that are diverse. That indeed is our consensus. We mostly think that the attitudes uniformly have propositions as their objects. That is why we speak habitually of “propositional attitudes.”

When I hear a patter and expect Bruce, for instance, there may or may not be some legitimate sense in which Bruce the cat is an object of my attitude. But, be that as it may, according to received opinion my expectation has a propositional object. It is directed upon a proposition to the effect that Bruce is about to turn up. If instead I expect a cat but no particular cat, then the object of my expectation is a different proposition to the effect that some cat or other is about to turn up. Likewise for our other examples.

The case of expecting a cat shows one advantage of our policy of uniformly assigning propositional objects. If we do not need a Meinongian incomplete cat as object of this attitude, then

we dodge the problem of saying what manner of strange cat that might be. That problem (and others like it) may be worth dodging, even if not beyond hope of solution.

There is a second advantage. When we assign a propositional object rather than, say, a Meinongian incomplete cat, we characterize the attitude more fully. If I want a cat, most likely what I want is that I enjoy the company of some cat. But my want might involve some other relationship; for instance, I might want that I be the legal owner of some cat. Saying just that I want a cat leaves it unclear which of these wants I have. Assigning a propositional object makes it clear.

(There is a genuinely unspecific want, namely wanting that I either own or enjoy the company of some cat. But to say that I want a cat is not to ascribe this unspecific want; it is to ascribe an underspecified want which may be this one, but more likely isn't.)

The third advantage is most important. Our attitudes fit into a causal network. In combination, they cause much of our behavior; they are caused in part by the stimuli we receive from our surroundings and in part by one another. In attempting to systematize what we know about the causal roles of attitudes, we find it necessary to refer to the logical relations among the objects of the attitudes. Those relations will be hard to describe if the assigned objects are miscellaneous. Uniform propositional objects, on the other hand, facilitate systematic common-sense psychology.

I fully support the policy of assigning objects of uniform category. But I think we have not chosen the right category. Rather than standardizing on *propositions*, I think we should standardize on *properties*. I want to make a case for two theses. (1) When propositional objects will do, property objects also will do. (2) Sometimes property objects will do and propositional objects won't.

II

The general agreement that the objects of the attitudes are propositions is to some extent phony. Not everyone means the

same thing by the word "proposition." I mean a set of possible worlds, a region of logical space. Others mean something more like a sentence, something with indexicality and syntactic structure but taken in abstraction from any particular language. Such a thing might be regarded as a sentential meaning.¹ My target in this paper is the view, until recently my own, that the objects of attitudes are propositions in the sense of sets of worlds. I need not quarrel with the view that they are propositions in some other sense.

You may think it goes without saying that the objects of attitudes are not sets of worlds because, for instance, believing that $2 + 2 = 4$ is not the same as believing that $123 + 456 = 579$ though both equations hold at exactly the same worlds—namely, all. I know perfectly well there is such a thing as ignorance of noncontingent matters. I do not know what is the proper treatment of such ignorance; several very different strategies have been proposed. They depart to different degrees, and in different directions, from the assignment of sets of possible worlds as propositional objects. My hunch is that this problem cuts across the issues I want to discuss, so I shall ignore it. If you wish, you may take it that I hope to cast some indirect light on our own attitudes by talking about the attitudes of imaginary hyper-rational creatures.

The word "property" also is used in many senses. I mean a set: the set of exactly those possible beings, actual or not, that have the property in question. That means that I shall confine myself to properties that things have or lack *simpliciter*. For instance I shall not speak of a property that a road has in some counties but not in others, or of a property that a person has at some times of his life but not at others; instead I shall speak of properties that segments of the road or the person simply have or lack. Apart from that, I am using the word "property" broadly. I do not limit myself to natural properties, as opposed to gruesome gerrymanders. Nor do I limit myself to intrinsic properties like size or shape; I include also properties that things have in virtue of their relations to other things. Thus I include the property of being taller than any Swede ever was or ever

¹ As in my "General Semantics," *Synthese*, XXII (1970), pp. 18–67.

will be; the property of inhabiting a country where the 7' ½" gauge once flourished; and even the property of inhabiting a possible world where someday mankind will inhabit at least five planets.

More generally: to any set of worlds whatever, there corresponds the property of inhabiting some world in that set. In other words, to any proposition there corresponds the property of inhabiting some world where that proposition holds. These properties that correspond to propositions may not be intrinsic properties, but they count as properties in the broader sense I have in mind.

Note that if a property corresponds to any proposition, it corresponds to exactly one. Else the property of inhabiting some world where *X* holds would be the property of inhabiting some world where *Y* holds, for two propositions *X* and *Y*. Since *X* and *Y* are two, there is a world where one holds but not both; then an inhabitant of that world both has and lacks the property, which is impossible. (I take it that the world in question is inhabited, on the grounds that every world is a part (an improper part), and hence an inhabitant, of itself.)

Now I am ready to defend my first thesis: when propositional objects of attitudes will do, property objects also will do. Since I construe properties broadly, this thesis is not very bold. We have a one-one correspondence between all propositions and some properties. Whenever it would be right to assign a proposition as the object of an attitude, I shall simply assign the corresponding property. Since the correspondence is one-one, no information is lost and no surplus information is added. The attitude is equally well characterized either way. And since it is easy to go back and forth, there can be no significant difference in convenience.

The exercise would be pointless if we stopped here. It gets its point from my second thesis: sometimes property objects will do and propositional objects won't. Remember that our correspondence runs from *all* propositions to only *some* properties: if a property belongs to some but not all inhabitants of some world, it corresponds to no proposition and cannot replace a propositional object. But once we switch from propositional objects to the corresponding properties, then the way is open for

expansion. We can include other properties also as objects for attitudes, without losing the categorial uniformity of objects. It remains to be shown that such an expansion serves any purpose.

III

First I hope to persuade you that there is an arbitrary restriction built into the view that the objects of attitudes are sets of worlds. Consider the subjects of attitudes. These are spread out. Some are here, some are in New Zealand. But not only are they spread out through space; also they are spread out through time. Some live now, others live in the 14th century. Admittedly, when we quantify over them we often omit all but our contemporaries. But that is a restriction we can drop at will, as when we say that few of the great philosophers are now alive.

But not only are the subjects of attitudes spread out through time and space; also they are spread out through logical space. Some live here at our actual world, others live at other possible worlds. Admittedly, when we quantify over them we often omit all but our worldmates. But that again is a restriction we can drop at will.²

I shall assume that each subject of attitudes inhabits only one world. He may have counterparts to stand in for him at other worlds, related to him by bonds of similarity, but he himself is not there.³ I need not quarrel, here, with those who say that Adam is a vast aggregate, partly in each of many worlds. But this vast Adam—if we may call him that—consists of many causally isolated parts, each with attitudes of its own. The vast Adam

² I can. Some say they can't. They say their understanding is limited to what can be expressed by modalities and world-restricted quantifiers. I have no help to offer these unfortunates, since it is known that the expressive power of a language that quantifies across worlds outruns that of the sort of language they understand. See, for instance, Allen Hazen, "Expressive Completeness in Modal Language," *Journal of Philosophical Logic*, V (1976), pp. 25–46. His examples of theses inexpressible by modalities and world-restricted quantifiers alone are notable for their seeming intelligibility.

³ See my "Counterpart Theory and Quantified Modal Logic," *Journal of Philosophy*, LXV (1968), pp. 113–126; "Counterparts of Persons and Their Bodies," *Journal of Philosophy*, LXVIII (1971), pp. 203–211; and section 1.9 of *Counterfactuals* (Oxford: Blackwell, 1973).

is surely not a single subject of attitudes.

So, putting aside our occasional indulgences in tacitly restricted quantification, we have an enormous population spread out through space, through time, and through the worlds. That sets the stage. Now, what happens when one member of this scattered population has a propositional attitude, rightly so called? Take belief. What happens when he believes a proposition, say the proposition that cyanoacrylate glue dissolves in acetone?

Answer: he locates himself in a region of logical space. There are worlds where cyanoacrylate dissolves in acetone and worlds where it doesn't. He has a belief about himself: namely, that he inhabits one of the worlds where it does. Thereby he ascribes to himself the property of inhabiting one of the worlds included in the set which is the proposition that cyanoacrylate dissolves in acetone. This property that he self-ascribes is exactly the property that corresponds to the proposition that cyanoacrylate dissolves in acetone.

So it is in general. To believe a proposition is to self-ascribe the corresponding property. The property that corresponds to a proposition is a locational property: it is the property that belongs to all and only the inhabitants of a certain region of logical space.

We could just as well think of it a little differently. A proposition divides the populace. Some are privileged to inhabit worlds where cyanoacrylate dissolves in acetone, others are not. (I seem to be one of the unlucky ones.) Someone who believes a proposition, and thereby locates himself in logical space, also places himself within the divided population. He has a partial opinion as to who he is: he is one of *this* class, not one of *that* class. To believe a proposition is to identify oneself as a member of a subpopulation comprising the inhabitants of the region of logical space where the proposition holds. Note that the boundaries of such a subpopulation follow the borders between world and world. Either all the inhabitants of a world belong, or none do. To place oneself in such a subpopulation is to self-ascribe the property that distinguishes it from the rest of the population. And that, of course, is the property that corresponds to the believed proposition. It comes to the same in the end.

If you are willing to view our topic from the modal realist perspective just set forth, you will see why there is something arbitrary about taking the objects of belief always as sets of worlds. We are scattered not only through logical space, but also through ordinary time and space. We can have beliefs whereby we locate ourselves in logical space. Why not also beliefs whereby we locate ourselves in ordinary time and space? We can self-ascribe properties of the sort that correspond to propositions. Why not also properties of the sort that don't correspond to propositions? We can identify ourselves as members of subpopulations whose boundaries follow the borders of the worlds. Why not also as members of subpopulations whose boundaries don't follow the borders of the worlds?

IV

Why not? No reason! We can and we do have beliefs whereby we locate ourselves in ordinary time and space; whereby we self-ascribe properties that don't correspond to propositions; and whereby we identify ourselves as members of subpopulations whose boundaries don't follow the borders of the worlds. These beliefs are attitudes whose objects might better be taken as self-ascribed properties than as believed-true propositions.⁴ They show that sometimes property objects will do and propositional objects won't.

Let us begin with an example of John Perry's: the case of Lingens lost in the library.⁵

An amnesiac, Rudolf Lingens, is lost in the Stanford library. He reads a number of things in the library, including a biography of himself, and a detailed account of the library in which he is lost. . . . He still won't know who he is, and where he is, no matter how much knowledge he piles up, until that moment when he is ready to say, "*This* place is aisle five, floor six, of Main Library, Stanford. *I* am Rudolf Lingens."

⁴ Brian Loar, "The Semantics of Singular Terms," *Philosophical Studies*, XXX (1976), pp. 353–377, suggests analyzing certain exceptional beliefs as self-ascription of properties (or "propositional functions"). My suggestion is that Loar's analysis works not only in exceptional cases but in general, thus giving us a uniform treatment.

⁵ From John Perry, "Frege on Demonstratives," *Philosophical Review*, LXXXVI (1977), pp. 474–497.

It seems that the Stanford library has plenty of books, but no helpful little maps with a dot marked "location of this map." Book learning will help Lingens locate himself in logical space. The more he reads, the more he finds out about the world he lives in, so the fewer worlds are left where he may perhaps be living. The more he reads, the more propositions he believes, and the more he is in a position to self-ascribe properties of inhabiting such-and-such a kind of world. But none of this, by itself, can guarantee that he knows where in the world he is. He needs to locate himself not only in logical space but also in ordinary space. He needs to self-ascribe the property of being in aisle five, floor six, of Main Library, Stanford; and this is not one of the properties that corresponds to a proposition. He needs to identify himself as a member of a subpopulation whose boundaries don't follow the borders of the worlds—a subpopulation whose sole member at Lingens's own world is Lingens himself.

Book learning will help, no doubt, but only because Lingens has more than book learning. He is in a position to self-ascribe the property of being in a certain perceptual situation. This is a property that does not correspond to any proposition, since there are worlds where some have it and others do not. Book learning may eventually convince Lingens that he inhabits a world where exactly one person is in that perceptual situation, and where that one is Rudolf Lingens, who is in aisle five, floor six, of Main Library, Stanford. Then his problem is solved. But not because he has managed to conjure nonpropositional belief out of propositional belief. He relied on his perceptual belief, and that was already nonpropositional. Nonpropositional plus propositional belief can give more nonpropositional belief. That is how Lingens can find out who and where in the world he is.

We can imagine a more difficult predicament. Consider the case of the two gods. They inhabit a certain possible world, and they know exactly which world it is. Therefore they know every proposition that is true at their world. Insofar as knowledge is a propositional attitude, they are omniscient. Still I can imagine them to suffer ignorance: neither one knows which of the two he is. They are not exactly alike. One lives on top of the tallest mountain and throws down manna; the other lives on top of

the coldest mountain and throws down thunderbolts. Neither one knows whether he lives on the tallest mountain or on the coldest mountain; nor whether he throws manna or thunderbolts.

Surely their predicament is possible. (The trouble might perhaps be that they have an equally perfect view of every part of their world, and hence cannot identify the perspectives from which they view it.) But if it is possible to lack knowledge and not lack any propositional knowledge, then the lacked knowledge must not be propositional. If the gods came to know which was which, they would know more than they do. But they wouldn't know more propositions. There are no more to know. Rather, they would self-ascribe more of the properties they possess. One of them, for instance, would correctly self-ascribe the property of living on the tallest mountain. He has this property and his worldmate doesn't, so self-ascribing this property is not a matter of knowing which is his world.

I think these examples suffice to establish my second thesis: sometimes property objects will do and propositional objects won't. Some belief and some knowledge cannot be understood as propositional, but can be understood as self-ascription of properties.

When there is a propositional object, we are accustomed to speak of an attitude *de dicto*. Self-ascription of properties might suitably be called belief or knowledge *de se*. My thesis is that the *de se* subsumes the *de dicto*, but not vice versa. A general account of belief or knowledge must therefore be an account of belief or knowledge *de se*.

I am greatly indebted to Perry (op. cit.) and he in turn acknowledges a debt to several papers by Hector-Neri Castañeda.⁶ Castañeda argues that the "he" (or "he himself") that appears for instance in "The editor of *Soul* knows that he is a millionaire" is ineliminable. As I would put it, this typical attribution of knowledge *de se* is not equivalent to any attribution of knowledge

⁶ The first is "He': A Study in the Logic of Self-Consciousness," *Ratio*, VIII (1966), pp. 130–157. The best introduction is "On the Logic of Attributions of Self-Knowledge to Others," *Journal of Philosophy* LIV (1968), pp. 439–456. Similar arguments are found also in Peter Geach "On Beliefs about Oneself," *Analysis*, XVIII (1957), pp. 23–24; and in Arthur N. Prior, "On Spurious Egocentricity," *Philosophy*, XLII (1967), pp. 326–335.

de dicto. To support this claim, we need only find a case in which the editor knows well enough which of the worlds is his without knowing whether he is among the millionaires of his world: suppose, for instance, that the god on the tallest mountain is the editor of *Soul*, and is a millionaire, but that the god on the coldest mountain is not a millionaire. Castañeda concerns himself with the logic of knowledge *de se*; Perry and I are concerned instead with the problem of finding appropriate objects for such knowledge.

Perry distinguishes believing Fregean thoughts from what he calls "self-locating belief." The former is belief *de dicto*, near enough. (Perry is not committed to any analysis of Fregean thoughts in terms of worlds; and he might wish to endow them with something like syntactic structure, and thereby to distinguish between equivalent thoughts.) The latter is what I call belief irreducibly *de se*, exemplified by that which Lingens can't get from books. I reject Perry's terminology: I say that *all* belief is "self-locating belief." Belief *de dicto* is self-locating belief with respect to logical space; belief irreducibly *de se* is self-locating belief at least partly with respect to ordinary time and space, or with respect to the population. I propose that any kind of self-locating belief should be understood as self-ascription of properties. Perry has a different proposal, which we shall consider later.

V

Some people, called Haecceitists,⁷ may find even the case of the two gods unconvincing. They might analyze that case as follows.

The gods inhabit a world *W*; there is another world *V*, which is qualitatively just like *W* but which differs in that the gods have traded places. The god on the tallest mountain in *W* and the god on the coldest mountain in *V*, though not

⁷ For discussions of Haecceitism, see David Kaplan, "How to Russell a Frege-Church," *Journal of Philosophy*, LXXII (1975), pp. 716–729; and Robert M. Adams, "Primitive Thisness and Primitive Identity," *Journal of Philosophy*, LXXVI (1979), pp. 5–26. I do not mean to suggest, however, that Kaplan or Adams would endorse the whole of the Haecceitist analysis here considered.

qualitative counterparts, are united by a primitive bond that somehow makes them one. (Likewise for the god on the coldest mountain in W and the god on the tallest mountain in V .) If the god on the tallest mountain in W does not know whether he is on the tallest or the coldest mountain, he must not really know *quite* which world is his. He may know everything qualitative that there is to know about his world, but not know whether his world is W or V . If he knew that, he would know every proposition that holds at his world. But it seems there is one he doesn't know: the proposition he would express if he said, in English, "I am on the tallest mountain." If his pronoun "I" applies both to him and to his brother in Haecceity on the coldest mountain in V , then indeed this proposition holds at W but not at V . If he knew this proposition, would he not know that he is on the tallest mountain?

I would be well content to discover what I ought to believe about the objects of the attitudes, and leave the Haecceitists to sort out their affairs for themselves. But I can't resist the urge to meddle. Should you be a Haecceitist, I advise you to spit out the analysis I've put into your mouth. Haecceitism or no, there is a kind of ignorance that cannot be remedied by any amount of self-location in logical space.

Let's grant, briefly, that the world W of the gods has its qualitative duplicate V in which the gods have traded places. Let the god on the tallest mountain know that his world is W , not V . Let him be omniscient about *all* propositions, not only qualitative ones. How does that help? Never mind V , where he knows he doesn't live. There are still two different mountains in W where he might, for all he knows, be living.

What about the proposition he would express if he said "I am on the tallest mountain"? Doesn't he know it? Of course he does—he knows all the propositions that hold at W , and this is one of them. Doesn't he therefore know that he is on the tallest mountain?

No. That doesn't follow. Since he is the god on the tallest mountain, his sentence expresses a certain proposition, one true at W but not V , one that he knows to be true. Had he been the god on the coldest mountain—as he might be, for all he

knows—his sentence would have expressed a different proposition, one true at V but not W , one that he knows to be false. If he doesn't know which he is, he doesn't know which proposition his sentence expresses and he doesn't know whether his sentence expresses a truth. He knows the proposition that he would in fact express by "I am on the tallest mountain," but that doesn't mean that he knows whether he is on the tallest mountain.

VI

Perry (op. cit.) considers the case of the mad Heimson, who falsely believes himself to be David Hume. The case poses two problems for those who think of belief as a propositional attitude. Both problems vanish when we rather think of Heimson's mad belief as the mistaken self-ascription of a property he does not possess.

The first problem is that Heimson *couldn't* be Hume. If he believes the proposition that holds at just those worlds where he is Hume, then he believes the empty proposition that holds at no worlds. In the first place, there is no world where Heimson and Hume are literally identical. Suppose there were; then from the standpoint of that world, their difference at this world would be a difference between Hume and Hume, which is absurd. At most they could be vicariously identical, by having a common counterpart at some world. (Or if, as some think, Hume and Heimson are aggregates spread over many worlds, there could be some world such that the Hume-part and the Heimson-part that inhabit that world are identical. But if these aggregates are unified by a counterpart relation, this is simply a redescription of the vicarious identity just considered.) But in the second place, there is not even any world where Heimson and Hume are vicariously identical. For let me stipulate that they have precious little in common. Their origins don't match at all, neither do their noteworthy attributes and deeds. That stops them from having a common counterpart, under any reasonable counterpart relation, but does not at all hinder mad Heimson from believing that he is Hume.

The proposition that Heimson is Hume, even if charitably reconstrued as a matter of vicarious identity, is the empty prop-

osition, hence unfit to be believed. (Admittedly, we who are not hyper-rational do seemingly believe the empty proposition in some of its guises, as when we get our sums wrong; but Heimson's mistake seems nothing like that.) Yet Heimson does believe that he is Hume. How can that be? I reply that the property of being Hume is a perfectly possible property. Hume actually had it. Heimson couldn't possibly have this property (not even vicariously); but that doesn't stop him from self-ascribing it, and that is what he does. The empty proposition doesn't enter into it.

The second problem arises when we ask why Heimson is wrong. He believes he is Hume. Hume believed that too. Hume was right. If Hume believed he was Hume by believing a proposition, that proposition was true. Heimson believes just what Hume did. But Hume and Heimson are worldmates. Any proposition true for Hume is likewise true for Heimson. So Heimson, like Hume, believes he is Hume by believing a true proposition. So he's right. But he's not right. He's wrong, because he believes he's Hume and he isn't.

There are two ways out. (1) Heimson does not, after all, believe what Hume did. Or (2) Heimson does believe what Hume did, but Heimson believes falsely what Hume believed truly.

Doubtless it is true in *some* sense that Heimson does not believe what Hume did. But there had better also be a central and important sense in which Heimson and Hume believe alike. For one thing, the predicate "believes he is Hume" applies alike to both: Heimson believes he is Hume and Hume believes he is Hume. Do not say that I equivocate, and that what is true is only that Heimson believes that he (Heimson) is Hume and Hume believes that he (Hume) is Hume. Everyone believes that Hume is Hume, but not everyone believes that he—he himself—is Hume. There is a genuine, univocal predicate, which appears for instance in "Not everyone believes that he is Hume," and that is the predicate that applies alike to Heimson and Hume.

What is more important, Heimson may have got his head into perfect match with Hume's in every way that is at all relevant to what he believes. If nevertheless Heimson and Hume do not believe alike, then *beliefs ain't in the head!* They depend partly on something else, so that if your head is in a certain state

and you're Hume you believe one thing, but if your head is in that same state and you're Heimson you believe something else. Not good. The main purpose of assigning objects of attitudes is, I take it, to characterize states of the head; to specify their causal roles with respect to behavior, stimuli, and one another. If the assignment of objects depends partly on something besides the state of the head, it will not serve this purpose. The states it characterizes will not be the occupants of the causal roles.

(The New Theory of Reference teaches that meanings ain't in the head. That may be right—it depends on which of the many sorts of semantic values that new theorists of reference must distinguish best deserve the name "meanings." If it is right, it applies *inter alia* to the sentences whereby we express our beliefs to others and to ourselves. But the proper moral is not that beliefs ain't in the head. The proper moral is that beliefs are ill-characterized by the meanings of the sentences that express them. Hilary may express one of his beliefs by the sentences "Elms are threatened by disease," although the meaning of this sentence, in some sense of "meaning," depends on more than is in his head. But if so, then it seems that what Hilary believes and what his sentence means cannot be quite the same.)

Mean what you will by "object of an attitude." But if you mean something that is not determined by the state of the head, and that cannot do the job of characterizing states of the head by their causal roles, then I think you had better introduce something else that can do that job. I would prefer to reserve the term "object of an attitude" for that something else.

If we can agree that beliefs are in the head, so that Heimson and Hume may indeed believe alike, then the first way out is shut. We must take the second. Heimson's belief and Hume's have the same object, but Heimson is wrong and Hume is right. Then the object of their shared belief is not a proposition. Else it would be a proposition that either does nor doesn't hold at their common world, making them either both right or both wrong. The solution is that the object is not a proposition at all. It is a property: the property of being Hume. Hume self-ascribes this property; he has it; he is right. Heimson, believing just what Hume does, self-ascribes the very same property; he lacks it; he is wrong.

VII

So far, I have regarded the subjects of attitudes as ordinary people, or the like. And people are continuants, extended through time. But some cases of belief *de se* can be better understood if we take the believer not as a continuant but as a more-or-less momentary time-slice thereof. Earlier I assumed that each subject of attitudes inhabits only one world, even if, as some think, persons are extended across the worlds. Now I make a parallel assumption with respect to extension through time.

Consider the insomniac. Tonight, as most nights, he lies awake for hours. While he lies awake, his state of mind changes little. He does not keep track of the time. So all through the night he wonders what time it is.

To wonder is to lack knowledge, but what relevant knowledge does he lack? Not propositional knowledge; he knows, well enough, what sort of world is his. And not self-ascription of properties to his continuant self; he knows, well enough, what locus through space and time he occupies and what his various segments are like. He knows, for instance, that he spends the night of 13–14 February 1978 lying awake and wondering what time it is.

To understand how he wonders, we must recognize that it is time-slices of him that do the wondering. A slice of the insomniac may locate the whole of the insomniac well enough in logical space and space and time. Yet that slice may fail to locate itself in space, in time, and in the population of slices of the well-located continuant insomniac. The slice at 3:49 a.m. may self-ascribe the property of being one slice of an insomniac who lies awake all night on such-and-such date at such-and-such place at such-and-such a kind of world, and yet may fail to self-ascribe the property of being at 3:49 a.m. That is how this slice may be ignorant, and wonder what time it is, without failing in any relevant way to locate the continuant to which it belongs. It is the slice, not the continuant, that fails to self-ascribe a property.

VIII

Some say, condescendingly, that scientific knowledge of our

world is all very well in its place; but it ignores something of the utmost importance. They say there is a kind of personal, subjective knowledge that we have or we seek, and it is altogether different from the impersonal, objective knowledge that science and scholarship can provide.

Alas, I must agree with these taunts, in letter if not in spirit. Lingens has studied the encyclopedias long and hard. He knows full well that he needs a kind of knowledge they do not contain. Science and scholarship, being addressed to all the world, provide knowledge of the world; and that is knowledge *de dicto*, which is not the whole of knowledge *de se*.

But *distinguo*! I admit that knowledge *de dicto* is incomplete; but not that it is in any way misleading or distorted by its incompleteness. A map that is incomplete because the railways are left off is faulty indeed. By a misleading omission, it gives a distorted representation of the countryside. But if a map is made suitable for portable use by leaving off the "location of this map" dot, its incompleteness is not at all misleading. It cannot be said to misrepresent or distort the countryside at all, though indeed there is something that cannot be found out from it. A signpost that tells you where you are is none the worse for not being a clock that tells you when you are. An encyclopedia that tells you where in logical space you are is none the worse for being neither signpost nor clock. Knowledge *de dicto* is not the whole of knowledge *de se*. But there is no contradiction, or conflict, or unbridgeable gap, or even tension, between knowledge *de dicto* and the rest. They fit together as nicely as you please.

IX

My title concerns attitudes in general. Yet so far I've concentrated on belief and knowledge (without heeding the difference between them). Now I shall argue that my two theses hold for desire as well. When propositional objects of desire can be assigned, property objects also will do; but sometimes property objects will do and propositional objects won't. Desire *de se* subsumes desire *de dicto*, but not vice versa.

If my theses hold for belief and knowledge and desire, then also they hold for any attitude which amounts to lack of belief

or knowledge or desire. Further, they hold for any attitude that is at least in part a combination of suitably related beliefs or unbeliefs, bits of knowledge or of ignorance, desires or indifferences. Now we have a broad class indeed, and I think the generality of my title is well justified. I'm not sure anything is left out—perhaps some ill-understood attitudes of imagining, conceiving, contemplating, or entertaining a thought.

Typical cases of desire *de se* are wanting to be healthy, wealthy, and wise; wanting to visit Swindon; wanting not to read admissions folders. Each of these desires can be understood as a relation of the subject to some property he desires to possess.

Propositional objects of desire may be traded in for the corresponding properties. Wishing that cyanoacrylate dissolved in acetone is wishing to have the property of inhabiting a world where it does. More often, however, we desire properties that do not correspond to propositions. All those listed in the previous paragraph, for instance, belong to some but not all inhabitants of our world.

But that does not yet establish that desire *de se* outruns desire *de dicto*. Is it so, perhaps, that anyone who desires a property *X* thereby desires a proposition *Y*; and hence also desires the property of inhabiting a world where *Y* holds, which need not be the same as the original property *X*? To refute this conjecture, we may return to the case of the two gods. Imagine that besides knowing exactly which world is theirs, they see all of that world and behold, it is very good. So they want to inhabit exactly that world, and no other. So far as wanting *de dicto* goes, they are as choosy as can be. But they are not quite as choosy as can be, for neither god cares much which of the two he is. The want they lack cannot be a propositional want, since they are not indifferent to any proposition. For every proposition that holds at their world, they want it to hold; for every other proposition, they want it not to hold. But when it comes to living on the tallest mountain and throwing down manna, they can take it or leave it. If instead one of them did want to be the god on the tallest mountain, then he would want more than he does. But he would not want another proposition.

Or take lost Lingers. Doubtless he wants to find his way out. We might say that he likes those worlds where he finds his way

out and dislikes those where he doesn't. (He or one of his counterparts, as the case may be.) But that is too simple. There are worlds where some are lost in libraries and find their way out and others are lost in libraries and don't. And there are some of these worlds where Lingens is unable to locate himself either among the winners or among the losers. That is, some worlds have winners with all the properties that Lingens self-ascribes and also have losers with all those properties. What does Lingens think of these worlds? Does he want to inhabit them? Yes and no—he wants to inhabit such a world as one of its winners, but not as one of its losers. He does not like or dislike that world as such. Rather, he likes the lot of some of its inhabitants who might for all he knows be he, and he dislikes the lot of others. He wants a property that some but not all of them have. His liking for certain locations in certain worlds is not simply a liking for certain worlds. His want *de se* is not equivalent to any want *de dicto*.

I suppose I might want to be a poached egg. (An ordinary poached egg—not an eggy creature that walks and talks.) Would I then want to inhabit one of the worlds where I am a poached egg? That's not it. I take it there are no such worlds. No poached egg is a counterpart of mine! If the object of my want is a proposition, it is the empty proposition. How could I want the empty proposition, in such a guise that I recognize it for what it is? But if the object is a property, it is nonempty. It is a property that plenty of poached eggs actually have.

As I write this, I know that next Wednesday evening I will be done with graduate admissions for the year. Afterwards I'll go home and sit down by the fire, and I'll think "Thank goodness that's over!"⁸ I will be content. There is something—namely, for that to be over— that I want now and will still want then, and I will then take it that I have what I want. What is this thing—a proposition? No. My contented time-slice will not be especially pleased about inhabiting a world where the chore of graduate admissions goes on at certain times and not at others. What's

⁸ See Arthur N. Prior's paper of that name, *Philosophy*, XXXIV (1959), pp. 12–17. Prior uses the example of saying "Thank goodness that's over" to argue that not all we say can be expressed with a timeless copula and dates. It doesn't mean: "Thank goodness that's over before 11 p.m., 22 February 1978." I am echoing Prior, but in the material mode.

good about that? After all, there are plenty of other time-slices of me whose tastes are no different, and who also know that they inhabit such a world, but who are most discontented because the chore is not yet over. The contented time-slice will not be especially fortunate in its location in logical space, but rather will take delight in its location in time. What it will want, and what it will take itself to have, is the property of being located after the end of graduate admissions.

I note an analogy.⁹ The saintly crusader, who would like to live in a world without avoidable misery, is something like the snob who would like to live in a better part of town. Each wants a locational property. The crusader wants to be in a nice part of logical space, whereas the snob wants to be in a nice part of ordinary space. I trust the analogy redounds more to the credit of the snob than to the discredit of the crusader.

X

Quine once defended something very close to my present account of desire *de se*.¹⁰ He considers a cat, chased by a dog, who wants to get on to a roof. He considers attitudes *de dicto*.

What the cat wants, then, is the state of affairs that is the class of all possible worlds in which he is on that roof. What he fears is the class of all possible worlds in which the dog has him.

Then he finds trouble. After discussing the familiar problem of identity across worlds for Catiline and for the Great Pyramid, he returns to the cat.

In a possible world with many similar cats and dogs and roofs, which cat is to be he? One of these possible worlds will have a cat like him on a roof like his, and another cat like him in the dog's jaws; does it belong to both the desired state of affairs and the feared one?

He therefore suggests that we take *centered possible worlds*—in effect, pairs of a world and a designated space-time point therein—and regard the wanted or feared state of affairs as a class of centered

⁹ At this point I am indebted to Robert M. Adams, "Theories of Actuality," *Noûs*, VIII (1974), pp. 211–231 and especially pp. 215–216; and to discussion with Adams.

¹⁰ "Propositional Objects," in W. V. Quine, *Ontological Relativity and Other Essays* (New York: Columbia University Press, 1969).

worlds. A centered world is *centered on* a cat therein if and only if the designated point is in the midst of the cat—more precisely, is the center of gravity of the cat's pineal gland. The cat wants a class of centered worlds that are centered on a cat safely on a roof. He fears a class of centered worlds that are centered instead on a cat in the jaws of a dog. No centered world belongs to both classes. A problematic world with many similar cats is a world that belongs to the wanted class under some centerings and to the feared class under other centerings.

(Quine does not in the end adopt the theory just stated. He prefers a divided theory, on which the objects of some "primitive" attitudes are classes of stimulation patterns, whereas the objects of less primitive attitudes are linguistic. I protest that the advantages of uniform objects are not to be lightly forsaken.)

A class of centered worlds corresponds to a property. Most directly it corresponds to a property of space-time points, but also it corresponds to a property of cats. Let X be a class of centered worlds; there corresponds to it the property of being a cat on which some member of X is centered. Let Y be a property; there corresponds to it the class of exactly those centered worlds that are centered on a cat having the property Y . (Here I assume that one centered world cannot be centered on two different cats, cats who occupy the same place at the same time. To avoid that assumption, as perhaps we should, we might redefine centered worlds as pairs of a world and a designated inhabitant thereof.) By centering the worlds, Quine has in effect replaced propositions by properties as objects of the attitudes.

I am not sure how far Quine's reasons are the same as mine. Insofar as he was dealing with the problem of a world with many similar cats, our reasons are the same. But insofar as he was trying to avoid all need for a counterpart relation, as is suggested by his discussion of Catiline and the Great Pyramid, our reasons are not the same. If I thought it could be done, I would be glad to rescue the doctrine of propositional objects by means of a counterpart relation. I would regard all that depended on the counterpart relation as infected with vagueness, but would not worry unduly about that.

I haven't yet mentioned one big difference between Quine's treatment and mine. By "possible worlds" I simply mean certain

big concrete particulars, of which this world of ours is one. Quine rather means certain abstract entities—certain classes of classes of quadruples of real numbers, as it happens. I trust that he distinguishes the concrete world we're part of from that one of his abstract ersatz worlds that represents it. Call that one the "actualized ersatz world" to distinguish it from the world itself. Up to a point it makes little difference whether you believe as I do in a multitude of concrete worlds of which ours is one, or whether instead you believe as Quine does¹¹ in a multitude of abstract ersatz worlds, of which one is special in that it represents the one and only concrete world. Most analyses involving possible worlds go through equally well either way. (Further, as has been rightly emphasized by Stalnaker (op. cit.), a view of other worlds as abstract accords better than mine with the tendency of ordinary usage to speak of possibilities as "ways things might have been." That phrase certainly does suggest that possibilities are abstract.) All the same, I think that Quine's view, or any similarly moderate version of modal realism, comes to grief in the end. The actualized ersatz world is special, since it alone represents the one concrete world. And it is special not just from its own standpoint, but from the standpoint of any world. So it is noncontingently special, since contingency is variation from world to world. But it is part of the theory that the actualized ersatz world is the special one. So it seems to turn out to be a noncontingent matter which of the ersatz worlds is actualized. That is wrong, and needs explaining away.

XI

I think that common-sense psychology implicitly defines the attitudes—they are whatever states occupy the causal roles it sets forth¹²—and I think common-sense psychology, systematized,

¹¹ And many others. Abstract ersatz worlds are ably defended, for instance, in Adams, "Theories of Actuality," and in Robert Stalnaker, "Possible Worlds," *Noûs*, X (1976), pp. 65–75. Adams, Stalnaker, and Quine differ about the exact nature of the ersatz worlds, but all regard them as abstract entities of some sort.

¹² See my "An Argument for the Identity Theory," *Journal of Philosophy*, LXIII (1966), pp. 17–25; "Psychophysical and Theoretical Identifications," *Australasian Journal of Philosophy*, L (1972), pp. 249–258; and "Radical Interpretation," *Synthese*, XXIII (1974), pp. 331–344.

should look a lot like Bayesian decision theory. Then it is interesting to ask what happens to decision theory if we take all attitudes as *de se*. Answer: very little. We replace the space of worlds by the space of centered worlds, or by the space of all inhabitants of worlds. All else is just as before. Whatever the points of the space of possibilities may be, we have probability distributions over the space and assignments of utility values to the points. For any rational agent at any time there is a pair of a probability distribution and a utility assignment. The probabilities change under the impact of his perception; the probabilities and utilities jointly govern his action. His degrees of belief at a time are got by taking the total probability of regions of the space; his degrees of desirability are got by integrating the point-by-point utilities, weighted by probability, over regions of the space. But since the space of possibilities is no longer the space of worlds, its regions to which degrees of belief and desirability attach are no longer propositions. Instead they are properties.

Robert Stalnaker has argued that propositions, taken as sets of worlds, are just the right objects of attitudes to assign if we want the assignment to be part of a theory of rational action.¹³ But he was not considering the question of propositional versus property objects. In fact, the very considerations he gives turn out to call for a version of decision theory based on attitudes *de se*. He describes the rational agent as one who

sees various alternative possible futures with the one to become actual depending in part on his choice of action. The function of desire is simply to divide these alternative courses of events into the ones to be sought and the ones to be avoided, or. . . to provide an ordering or measure of the alternative possibilities with respect to their desirability. The function of belief is simply to determine which are the relevant alternative possible situations, or. . . to rank them with respect to their probability on various conditions of becoming actual.

He goes on to argue that objects for attitudes ought to be identified if and only if they are functionally equivalent, and are functionally equivalent if and only if they disagree on none of the agent's alternative possible situations.

If the agent's alternative possible situations are always alter-

¹³ "Propositions," in Alfred MacKay and Daniel Merrill, eds., *Issues in the Philosophy of Language* (New Haven: Yale University Press, 1976).

native worlds, as Stalnaker assumes, this is indeed an argument for propositional objects. But I claim that sometimes the agent has alternative possibilities in a single world. Consider Lingen when he knows almost enough to get out. He has narrowed the possibilities down to two. Perhaps he is in aisle five, floor six, of Main Library, Stanford, in which case the way out is to go downstairs. Or perhaps he is on one of the lower floors in the stacks of Widener, in which case the thing to do is to go up. The books tell him that there are amnesiacs lost in both places, and he has figured out that he is one of the two. His deliberation concerns eight alternative possibilities.

	He is the Stanford amnesiac		He is the Widener amnesiac	
	Stanford amnesiac goes down	Stanford amnesiac goes up	Stanford amnesiac goes down	Stanford amnesiac goes up
Widener amnesiac goes down	Case 1 Good	Case 2 Bad	Case 3 Bad	Case 4 Bad
Widener amnesiac goes up	Case 5 Good	Case 6 Bad	Case 7 Good	Case 8 Good

He must choose whether to go down, and thereby actualize one of cases 1, 3, 4, or 5, or whether to go up and actualize one of 2, 6, 7, or 8. The eight cases are spread over only four sorts of worlds. The good case 1 and the bad case 3, for instance, do not belong to different worlds. They are separated by about 3000 miles within a single world. If the objects of Lingen's attitudes are to play their proper role in a systematic account of his deliberation, they must discriminate between these two cases. Propositions won't, properties will.

XII

I hope I've convinced you that propositions won't quite do as uniform objects for the attitudes, and that properties will do at least somewhat better. But I haven't tried to show that *only* properties will do. I presume there are workable alternatives to my theory, as to most philosophical theories.

Some philosophers would favor sentential objects, drawn either from natural language or from some hypothetical language of thought. Others would favor sentence meanings, entities enough like sentences to have syntactic structure and indexicality. If you are of one of these persuasions, my advice to you is by no means new: do not limit yourself to complete, closed, nonindexical sentences or meanings. Be prepared to use predicates, open sentences, indexical sentences, or meanings thereof—something that can be taken to express properties rather than propositions.

Another proposal, given by Perry (op. cit.), is roughly as follows. (I shall disregard any difference there may be between properties and Perry's "incomplete Fregean senses" and I shall not use Perry's terminology.) Take belief; the cases of knowledge, desire, and the rest would be parallel. In Perry's scheme, a belief has *two* objects.

The first object is a pair of an individual and a property. To have the belief is to ascribe the property to the individual, and if the individual has the property then the belief is true. (More generally we should take pairs of an n -tuple of individuals and an n -ary relation. The case of an individual-property pair is the case $n=1$, near enough; and ordinary propositional belief could be taken as the case $n=0$. But let's keep to individual-property pairs for the sake of simplicity.)

Insofar as belief is characterized by the first object, Perry claims that beliefs ain't in the head. Hume and Heimson are alike in the head. But the first object of Hume's belief that he himself is Hume is the pair of Hume and the property of being Hume, whereas the first object of Heimson's like belief is the pair of Heimson and the property of being Hume. Perry asks how can it be, if Hume and Heimson are alike, that Hume is right and Heimson is crazy? He takes the first way out: despite the likeness of their heads, they don't believe the same thing. The first object of Hume's belief is true, that of Heimson's belief is false.

Perry fully appreciates that attributions of belief enter into a systematic common-sense psychology, and that for this purpose beliefs had better be in the head. Hence the second object. The second object is a function that takes the subject as argument and delivers as value the first object, the pair of an individual

and a property ascribed to it. Characterized by second object, beliefs *are* in the head. Hume and Heimson have the same second object of belief: a function that assigns to Hume the pair of Hume and the property of being Hume, and that assigns to Heimson the pair of Heimson and the property of being Hume. So Perry recognizes, as he should, a sense in which Hume and Heimson believe alike.

Perry's second object has a job to do, sure enough, but what about the first? It has two jobs. It determines whether one's belief is true, as we saw. In addition, it serves to explain agreement in belief. Suppose Heimson manages to convince his psychiatrist that he is right, so that the psychiatrist also ascribes to Heimson the property of being Hume. Then Heimson and his psychiatrist share a common belief. Not in the sense in which Heimson and Hume do—the psychiatrist doesn't believe that he himself is Hume—but in another, equally legitimate sense. They agree in that they share as a first object of belief the pair of Heimson and the property of being Hume.

That is Perry's proposal. I am sure it works as well as mine, but it is more complicated. I doubt that the extra complexity buys anything.

Perry's proposal must work at least as well as mine, because mine can be subsumed under his. Whenever I say that someone self-ascribes a property *X*, let Perry say that the first object of his belief is the pair of himself and the property *X*. Let Perry say also that the second object is the function that assigns to any subject *Y* the pair of *Y* and *X*.

The apparent advantage of Perry's scheme is that it provides, in the most straightforward way possible, for other-ascription as well as self-ascription of properties. Ascription of properties to individuals, in general, is called belief *de re*. Perry's scheme is made for belief *de re*, and belief *de se* falls under that as a special case. By providing for ascription of properties in general, Perry gives an account of agreement in the ascription of properties. Heimson and his gullible psychiatrist agree in that they both ascribe to Heimson the property of being Hume.

Certainly we need to be able to make sense of belief *de re* in general—of other-ascription as well as self-ascription of properties. But do we need a scheme as elaborate as Perry's? I think not.

On the account I shall suggest, the subject's self-ascriptions are the whole of his system of beliefs. Other-ascriptions of properties are not some further beliefs alongside the self-ascriptions. Beliefs are in the head; but I agree with Perry that beliefs *de re*, in general, are not. Beliefs *de re* are not really beliefs. They are states of affairs that obtain in virtue of the relations of the subject's beliefs to the *res* in question. If I am right, Perry's scheme for representing beliefs actually represents beliefs and more besides. As a scheme for representing beliefs, it is redundant. Given just a few of the first objects—those that represent the subject's self-ascriptions—and given the requisite facts not about beliefs, we have all the first and second objects of belief. And the same goes *mutatis mutandis* for other attitudes, though I shall continue to discuss only the case of belief.

XIII

Unaware that the Lord High Auditor and the Paymaster-General are the same man, Go-To ascribes rectitude to this man under the description "Lord High Auditor" but not under the description "Paymaster-General." This familiar notion of ascription of properties to individuals under descriptions is not yet belief *de re*, but it is a step in that direction.

We needn't take the so-called descriptions as verbal, thereby limiting ourselves to what can be expressed in some particular language. I might ascribe espionage to a stranger under a description given by a visual image of his face. We might take descriptions as properties, not as particular expressions of properties in thought and language. As a preliminary definition, we might say that a subject ascribes property *X* to individual *Y* under description *Z* if and only if (1) *Y* uniquely has the property *Z*, and (2) the subject believes the proposition that there is something which uniquely has property *Z* and also has property *X*. (By "uniquely" I mean "uniquely in its world.") But this is not general enough, because it requires the subject's belief to be propositional. We want to be able to raise the question whether one of our two gods ascribes to his mountain, under the description "mountain I live on top of," the property of being the tallest mountain. The answer should be that he does if and only if he

self-ascribes the property of living on top of the tallest mountain, and that is a matter of his nonpropositional belief *de se*. So let us take relations of the subject to the described individual, such as the relation expressed by “mountain I live on top of,” also as descriptions under which properties may be ascribed. (There is a sense in which “mountain I live on top of” expresses a property relative to any given subject; but also there is a sense in which what it expresses is not relative to subject, and it expresses a relation. The latter sense is more convenient for present purposes.) If we take relations as descriptions, we need not consider separately the case in which the description is a property: we can trade in such a property for a peculiar sort of relation, a relation which a subject bears to an individual if and only if the individual has the given property.

Here is a final definition. A subject ascribes property *X* to individual *Y* under description *Z* if and only if (1) the subject bears the relation *Z* uniquely to *Y*, and (2) the subject self-ascribes the property of bearing relation *Z* uniquely to something which has property *X*.

Now for belief *de re*. Up to a point it is obvious what to say. To ascribe property *X* to individual *Y* *simpliciter*—to believe *de re* of *Y* that *Y* has *X*—is to ascribe *X* to *Y* under some suitable description of *Y*. It remains to ask what makes a description “suitable.”

Certainly not just any description is suitable. Ascribing espionage to someone under the description “shortest spy” is notoriously not an example of belief *de re*.¹⁴ Neither is any ascription I might make under the description “shortest of my ancestors,” to take an example in which the description must be regarded as a relation. An ascription under the description “the murderer” may or may not be an example of belief *de re*, depending on how close the subject is to solving the crime in question.

It will not be possible to say precisely which relations are

¹⁴ See David Kaplan, “Quantifying In,” *Synthese*, XIX (1968), pp. 178–214. My account of belief *de re* is broadly similar to Kaplan’s. The most important difference is that Kaplan takes the subject’s causal *rapport* with the described individual under the description as an extra condition; whereas I take it as part of the content of a suitable description, at least in most cases. (I am indebted at this point to David Lumsden.)

suitable, since it is often quite vague whether some case should or should not count as an example of belief *de re*. The vagueness is partly resolved in context, but differently in different contexts. Still, I can at least say something about what tends to make a relation be a suitable description.

If our topic were modality *de re*, the suitable descriptions would be those that capture the essence of the thing described. It is necessary *de re* of individual *Y* that *Y* has property *X* if and only if, for some property *Z*, (1) *Z* is the essence of *Y*, and (2) the proposition that whatever has *Z* also has *X* is the necessary proposition. (This and a definition of belief *de re* are not quite parallel in form; rightly not, I think.) I have elsewhere¹⁵ suggested that the essence of *Y* is that property which belongs to *Y* and all its counterparts, and to nothing else. If so, essence is infected with the vagueness of the counterpart relation. The balancing of respects of similarity and difference—for instance, the question whether perfect match of origins should have decisive weight—goes differently in different contexts, and is never fully determinate. That is as it should be. In view of our difficulty in applying it, the concept of essence had better not turn out to be a precise concept.

The trouble with essences, as “suitable descriptions” in the analysis of belief *de re*, is not that the concept of essence is imprecise. The trouble is that essences are hard to come by. Hume’s essence is an extremely rich property, rich enough to apply to Hume alone out of all the inhabitants of this world and rich enough to distinguish Hume’s counterparts from all of his not-quite-counterparts at other worlds. Certainly I don’t know Hume’s essence. I doubt that anyone does, even the scholars who know most about Hume. I doubt that Hume did himself. Yet I think I have beliefs *de re* about Hume, and I’m certain that many of his contemporaries did. If I could never have a *de re* belief about *Y* without knowing that there is something which uniquely has *Z*, where *Z* is *Y*’s essence under some reasonable counterpart relation, I would have scarcely any beliefs *de re*. (Beliefs *de re* about numbers might be the most likely sur-

¹⁵ “Counterpart Theory and Quantified Modal Logic,” p. 122. Others would define the essence differently, or not at all.

vivors.) And that is just what would follow if the only “suitable descriptions” were those rich enough to capture essences.

The psychiatrist ascribes to Heimson the property of being Hume. He would be unlikely to do so under a description that captures Heimson’s essence. Heimson’s essence is quite unlike Hume’s, so it would be quite difficult to believe that there is something that uniquely has Heimson’s essence and that also has the property of being Hume. For this reason also, it seems wrong that the only “suitable descriptions” are those that capture essences.

(A complication arises. It is plausible that ordinary proper names express essences, so that the description “Hume” applies exactly to Hume and his counterparts under some reasonable counterpart relation. If I ascribe a property to Hume *by name*, having a belief I might express by saying “Hume was noble,” do I thereby ascribe nobility to Hume under a description that captures his essence? No. As I have noted already in sections V and VI, the sentential expression of belief is not a straightforward matter.¹⁶ I may say “Hume was noble,” not knowing quite which proposition it expresses because I don’t know Hume’s essence. And I may thereby express a belief, indeed a belief in virtue of which I believe *de re* of Hume that he was noble. And still I do not believe that something noble uniquely has *Z*, where *Z* is Hume’s unknown essence.)

Leaving essences in abeyance, we will do well to look elsewhere for “suitable descriptions.” It will help to have a collection of examples, uncontroversial or so I hope, of relationships in which belief *de re* is possible. I can have beliefs *de re* (1) about my acquaintances, present or absent; (2) about contemporary public figures prominent in the news; (3) about the famous dead who feature prominently in history; (4) about authors whose works I have read; (5) about strangers now face to face with me; (6) about strangers I am somehow tracing, such as the driver of the car ahead of me, or the spy I am about to catch because he has left so many legible traces; and (7) about myself.

¹⁶That is why it seems to me unfortunate that the study of the objects of belief has become entangled with the semantic analysis of attributions of belief. I hope that in this paper I have managed to keep the topics separate.

What have these cases in common? To put a name to it: a *relation of acquaintance*.¹⁷ To make it a little more precise: in each case, I and the one of whom I have beliefs *de re* are so related that there is an extensive causal dependence of my states upon his; and this causal dependence is of a sort apt for the reliable transmission of information.

It is too much to require that information actually be reliably transmitted. In every case, a lot might go wrong and I might be very badly misinformed, and yet I could have beliefs *de re*—many of them wrong, perhaps—about the one to whom I bear a relation of acquaintance.

It is not enough just to require an extensive causal dependence. My life may be remarkably entangled with that of some stranger. I may have caught his germs time and again. His driving may have caused traffic jams that made me late to many important appointments. He may have caused many people to go to places where they happened to meet me. And so on. In short, maybe my life would have been very different but for his doings. None of this, by itself, makes it possible for me to have beliefs *de re* about this stranger.

Here is my proposal. A subject ascribes property *X* to individual *Y* if and only if the subject ascribes *X* to *Y* under some description *Z* such that either (1) *Z* captures the essence of *Y*, or (2) *Z* is a relation of acquaintance that the subject bears to *Y*.

(If I have a belief that I might express by saying “Hume was noble,” I probably ascribe nobility to Hume under the description “the one I have heard of under the name of ‘Hume’.” That description is a relation of acquaintance that I bear to Hume. This is the real reason why I believe *de re* of Hume that he was noble. The fact that “Hume” expresses Hume’s unknown essence is irrelevant.)

Seldom do we know essences; seldom do we believe *de re* by ascribing properties to individuals under descriptions that capture their essences. If I did manage to know someone’s essence, probably it would be by dint of much investigation. But in that

¹⁷ Compare Charles Chastain’s discussion of “knowledge of” in section 12 of “Reference and Context,” in *Language, Mind, and Knowledge (Minnesota Studies in the Philosophy of Science, Volume VII)*, ed. by Keith Gunderson (Minneapolis: University of Minnesota Press, 1975).

case I would bear a relation of acquaintance to the one I had investigated. Then I don't need his essence to have beliefs *de re* about him. I can ascribe properties to him under the description "target of such-and-such investigations of mine." So it is unclear that anything is gained by providing for essence-capturing descriptions as well as relations of acquaintance. If we have the former, we will have the latter. (But again, beliefs *de re* about numbers may be an exception—how can you be acquainted with a number?)

This has not been a very thorough study of belief *de re*. But I hope it is enough to make my point: other-ascriptions of properties are not further beliefs alongside the self-ascriptions, but rather are states of affairs that obtain partly in virtue of the subject's self-ascriptions and partly in virtue of facts not about his attitudes.

XIV

Self-ascription of properties is ascription of properties to oneself under the relation of identity. Certainly identity is a relation of acquaintance par excellence. So belief *de se* falls under belief *de re*.

But there are other relations of acquaintance, besides identity, that a subject may bear to himself. So belief *de re* about oneself turns out to cover more than self-ascription of properties. To take an example due to David Kaplan,¹⁸ watching is a relation of acquaintance. I watch myself in reflecting glass, unaware that I am watching myself. I ascribe to myself, under the description "the one I am watching," the property of wearing pants that are on fire. I therefore believe *de re* of the one I am watching—that is, myself—that his pants are on fire. But I do not self-ascribe the property of wearing pants that are on fire. Very soon I will, but not yet. So self-ascription isn't quite the same thing as ascription, *de re*, to oneself.¹⁹

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¹⁸ *Demonstratives* (unpublished manuscript).

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