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KNOWLEDGE AND BELIEF: 'DE DICTO' AND 'DE RE'[1]

1. INTRODUCTION

I will attempt to explicate the concepts of belief *de re*, knowledge *de dicto*, and knowledge *de re*. The general approach to be developed here may also be applied to those other intentional attitudes – for example, desire, hope, fear, and endeavor – which may be directed either upon propositions or upon things which are not propositions. It differs from other contemporary treatments of these topics in that it does not attempt to explicate belief and knowledge by reference to linguistic concepts. I assume that language should be explicated by reference to belief and knowledge, and that it is not enlightening to attempt to explicate belief and knowledge by reference to language.[2]

The definitions I will formulate presuppose the following philosophical concepts: (i) that of belief *de dicto*, or the acceptance of a proposition, as expressed in the locution '*h* is accepted by *S*'; (ii) that of epistemic preferability, as expressed in '*p* is epistemically preferable to *q* for *S*'; (iii) that of necessity *de re*, as expressed in '*x* is necessarily such that it is *F*' (iv) that of a property or attribute, considered as an 'eternal object', something existing in every possible world; and (v) the concept of a proposition being *true*. I will also make use of the expressions of logic and allow myself certain schematic definitions.

I believe that the system of concepts to be utilized here is much simpler than any of those presupposed by other discussions of these topics.

2. DE DICTO BELIEF

I propose that, in what follows, we restrict the schema

S believes that *p*,

(where *p* may be replaced by any English sentence) to its ordinary *de dicto* sense. This will mean, for one thing, that we cannot existentially generalize

over any term within the sentence in the place of *p*. Thus if our *de dicto* belief sentence is

> Jones believes that the tallest man is wise

we cannot take the proposition it expresses to entail

> There is an *x* such that Jones believes that *x* is wise.

Nor can we replace any term within the sentence occupying the place of *p* by any other term having the same extension. Hence, even if we know both that (1) the tallest man is the fastest runner and that (2) Jones believes that the tallest man is wise, we cannot, on the basis of this information, draw the inference to

> Jones believes that the fastest runner is wise.

Another feature of this *de dicto* use of 'Jones believes that the tallest man is wise' is this: If we know that the sentence is true, in this *de dicto* use, then we may say of Jones that, if he is asked 'Is the tallest man wise?', if he understands the question, and if he intends to reply honestly and correctly, then he will endeavor to reply in the affirmative.

In suggesting that we restrict the locution '*S* believes that *p*' to this *de dicto* sense, I am *not* suggesting that the locution is in fact so restricted in ordinary English. Indeed, I believe that it is not so restricted.[3]

If we are sensitive to what seem to be the ontological implications of belief, the ontological implications of the fact that people believe things, we will realize that

> (1)   Jones believes that the tallest man is wise

implies that

> (2)   There is something that Jones believes.

If we do not see this at once, perhaps it will help us if we consider such facts as the following. If we know, not only that (1) is true, but also that Smith believes that the tallest man is wise, then we may infer that there is something that both Jones and Smith believe. But if there is something that both Jones and Smith believe, then there is an answer to the question: And what is that something? (Or there is an answer to the question: What is one thing that they both believe?) In the case of our example the answer would be: That the tallest man is wise.

We may obviously infer (2) above from 'There is something that both Jones and Smith believe'. But the truth of (2) is hardly dependent upon the fact that Smith happens to believe the same thing Jones does. It would seem, therefore, that once we are clear about what is implied by (1), when (1) is taken in the way we have suggested, then we should see that (1) implies (2).[4]

Given, then, that (1) does imply (2), it is useful for philosophical purposes to make (1) more explicit. The logical structure of (1) is more adequately exposed if we rewrite it as

(3)   Jones accepts the proposition that the tallest man is wise.

Statement (3) expresses a straightforward dyadic relation between Jones and a certain proposition, enabling us to infer 'There exist an x and a y such that x accepts y'.

Thus our sentence (3) is an instance of this general schema:

S accepts the proposition that p.

I propose we take this locution as the paradigmatic expression of belief *de dicto* and introduce the more ordinary locution, instanced by (1), as an abbreviation. Thus we will have

(D1) S believes that $p =_{\text{Df}}$ The proposition that p is accepted by S.

The definition is schematic; we may replace p by any English sentence. Let us say that, if a man thus accepts a proposition, then the proposition is one of the *objects* of his belief.

It is essential to note that, very often, the propositions we *say* we believe (even when we are speaking sincerely) are not in fact the *objects* of our belief. I might point to a certain formula in *Principia Mathematica* and say "I believe that proposition", when, in fact, the proposition I accept is the one I might express by saying "The proposition expressed by that formula is true". The latter proposition could be said, in Brentano's terminology, to be a *surrogate* for the former.[5]

3. DE RE BELIEF

One may make analogous points about what has been called *de re* belief.

If we remain sensitive to what seem to be the ontological implications of belief, we will realize that

(1)   The tallest man is believed by Jones to be wise

implies

(2)   There is something that Jones attributes to the tallest man.

(In the place of 'attributes to the tallest man', we might say 'believes of the tallest man'.) If one does not see immediately that (1) implies (2), one has only to note that, if (2) is true, and if the tallest man is also believed by Smith to be wise, then we could say that there is something that both Jones and Smith attribute to the tallest man. The logical structure of (1), then, is somewhat more adequately expressed if we rewrite it as

(3)   Jones attributes the property of being wise to the tallest man.

Our sentence is thus an instance of this general schema

       S attributes to x the property of being F

where the letter F is replaceable by any predicate-expression (e.g., 'wise' or 'such that he is wise' or 'such that he is wise and all men are mortal').

I propose we take this locution as the paradigmatic expression of belief *de re* and introduce the more ordinary locution, instanced by (1), as an abbreviation. Thus we will have

(D2) x is believed by S to be $F =_{Df} S$ attributes the property of being F to x.

But the definiens of (D2), 'S attributes the property of being F to x', is not included among the philosophical concepts we allowed ourselves at the outset. One problem, then, is that of explicating the concept of attributing a property to a thing.

4. INTERRELATIONS BETWEEN BELIEF 'DE RE' AND 'DE DICTO'

The following summary may now throw some light upon what has been said about the objects of belief. The letters F and G occupy the places of predicate expressions and 'the F' is short for 'the thing which is F'.

(a) S believes that the F is G.
(b)   The F is believed by S to be G.

(c)   S believes that the proposition that the F is G is true.
(d)   The proposition that the F is G is believed by S to be true.
(e)   The proposition that the F is G is accepted by S.
(f)   S believes that the F has the property of being G.
(g)   The F is believed by S to be such that it has the property of being G.
(h)   S attributes the property of being G to the F.

These eight locutions are easily confused with each other and such confusion sometimes infects what has been written about the philosophy of belief. Let us ask, with respect to each of these locutions, which ones of the others it entails.[6]

If 'accepts' and 'attributes' are restricted in the ways in which I have proposed, then we may assert that the following entailment relations hold:

> a entails e
> b entails h
> c entails a, d, and e
> e entails a
> f entails a and e
> g entails b and h
> h entails b

But no additional entailment relations hold among these locutions.

It is sometimes thought that belief *de dicto* is simply a special instance of belief *de re*. According to this view, to believe (*de dicto*) that Socrates is mortal is simply to believe (*de re*), with respect to the proposition that Socrates is mortal, that that proposition is true. This view presupposes, mistakenly, that (a) is equivalent to (d).[7] But (a) does not imply (d), and (d) does not imply (a).

The entailment relations we have set forth provide us with a partial test of any theory of *de re* belief. For any such theory should be compatible with saying that these relations obtain.

5. Reducing belief 'de re' to belief 'de dicto'

Can we exhibit belief *de re* as a species of belief *de dicto*? In other words, can we define 'S attributes the property of being F to x' by reference to such *de dicto* concepts as 'S accepts the proposition that p'?

When the locution 'S believes x to be F' ('S attributes the property of being F to x') is warranted, then one may say of the thing in question: 'One of its properties is that of being believed by S to be F'. If a thing x *is* thus an object of a person's belief, then the person has, so to speak, gotten "outside the circle of his own ideas". His thoughts are directed, at least in part, upon the thing x. In order for this to happen, should the person bear some intimate epistemic relation to x, or is it enough that he accept a proposition implying x to have a certain property?

There is some disagreement about the answers to such questions and there would seem to be no obvious procedure for arriving at agreement.[8] We may ask: "When would we *say*, of a thing x, that it's believed by someone to be something or other?" But an investigation or our language habits suggests two things; first that, on some occasions, we require very little of a person S in order to be able to say of a thing x that it is believed by S to be something or other; and secondly that, on other occasions, we require a considerable degree of epistemic intimacy between S and x before we will allow ourselves to say that x is the object of S's beliefs.

If, instead of considering the language we might use in talking about S and x, we restrict ourselves to descriptive psychology, or 'phenomenology', and just consider our own doxastic states, then, it would seem, there is no obvious difference between *de re* and *de dicto* belief. The distinction between the types of belief is not like that, say, between belief and desire. One may say with perfect certainty: "This is a matter of belief and not of desire, and that is a matter of desire and not of belief". But one may not say with any certainty at all: "This is a matter of *de re* and not of *de dicto* belief, and that is a matter of *de dicto* and not of *de re* belief".

It is fairly easy to set forth criteria enabling us to reduce the *de re* locution to the *de dicto* locution. The difficult problem is that of chosing among them.

To see how to formulate such criteria, let us consider briefly the nature of propositions, and then note some of the ways in which these abstract objects may be related to particular individual things.

6. Propositions

We will say that the mark of a proposition is the fact that it is something capable of being accepted:

(D3) p is a proposition $=_{Df}$ It is possible that there is someone who accepts p.

This characterization of propositions is suggested by Leibniz, Bolzano, Frege, and W. E. Johnson.[9]

Since we are characterizing propositions as possible intentional objects, as things which are such that they may be accepted, we will introduce the following strict concept of entailment, conceived as a relation that may hold among propositions:

(D4) p entails $q =_{Df} p$ is necessarily such that (a) if it is true then q is true and (b) whoever accepts it accepts q.

We may now may affirm this nontrivial criterion of identity for propositions: if a proposition p is identical with a proposition q, then p entails q and q entails p.

We will assume that propositions, like properties or attributes, exist necessarily. We will also assume that propositions are related to properties or attributes in the following way: For every property G, there is a proposition p and a proposition q which are necessarily such that: p is true if and only if G is exemplified, and q is true if and only if G is not exemplified.

Let us say that a proposition p *contradicts* a proposition q if p is necessarily such that it is true if and only if q is not true. We could now say that *a negation* of a proposition p is a proposition q of the following sort: q contradicts p, and for every r, if r contradicts p, then r is necessarily such that if it is true then q is true.

We will also assume that there are *conjunctive* propositions. That is to say, we will assume that for every proposition p and every proposition q, there is a proposition c which is necessarily such that, c is true if and only if p is true and q is true. Such a proposition c would be a *conjunction* of p and q.

The formulae of the propositional calculus may be interpreted as being general principles about propositions, so conceived.

7. PROPOSITIONS AND INDIVIDUAL THINGS

We defined above a relation of entailment that may be said to hold among propositions. Let us now consider the sense in which a *proposition* may be said to entail a *property*.

That proposition which is some dogs being brown may be said to entail the property of being brown, the property of being a dog (i.e., the property of being canine), and the property of being both a dog and brown. For the proposition is necessarily such that, if it is true, then something has those properties. Let us say, then:

(D5) p entails the property of being $F =_{Df} p$ is necessarily such that (i) if it is true then something has the property of being F and (ii) whoever accepts it believes that something is F.

This definition is a schema in which the letter F may be replaced by any English predicate expression – e.g., 'brown', or 'a dog', or 'such that all men are mortal'.

The point of the second clause in the above definiens ('whoever accepts it believes that something is F') is to give us a strong sense of of 'entail'. Without this clause, our definition would require us to say, of any contradictory proposition, that that proposition entails any property whatever – say the property of being a unicorn. For the proposition is necessarily such that, either it is not true or whoever accepts it believes that something is a unicorn.

We next add a definition of the concept of an *individual concept*.[10]

(D6) C is an individual concept $=_{Df} C$ is a property such that (i) it is possible that something has C and (ii) it is not possible that more than one thing has C at a time.

Thus the property of being the tallest man is an individual concept and so, too, for the property of being the President of the United States.

Given this concept of an individual concept, we can say what it is for a proposition to imply, *with respect to some particular thing*, that that thing has a certain property. This important concept may be explicated in the following way:

(D7) p implies x to have the property of being $F =_{Df}$ There is a property G such that (i) G is an individual concept, (ii) p entails the conjunction of G and the property of being F, and (iii) x has G.

An alternative reading of the definiens would be, 'p implies, with respect to x, that it is F'. Thus that proposition which is the President of the

United States being in Washington may be said to imply, with respect to Mr. Ford, that *he* is in Washington. For it entails an individual concept, being the President of the United States, and the proposition is necessarily such that, if it is true, then whatever has that individual concept is in Washington.

Definition (D7), as well as certain definitions to follow, presupposes that, for any two properties *A* and *B*, there is a property which is the *conjunction* of *A* and *B*, i.e., a property which is necessarily such that it is exemplified by all and only those things that exemplify both *A* and *B*.

8. A LATITUDINARIAN CONCEPTION OF 'DE RE' BELIEF

It is now a simple matter to formulate a latitudinarian account of *de re* belief. Thus we could say:

> *S* attributes the property of being *F* to $x =_{Df} S$ accepts a proposition which implies *x* to have the property of being *F*.

The proposed definition requires, as it should, that if *x* is to be believed by *S* to be *F*, then there must *be* such a thing as *x*. And it satisfies the requirements we formulated at the end of Section 4 above: it is compatible with the entailment relations there set forth. But otherwise the definition would seem to be overly latitudinarian or permissive.[11] One could object: "If *S*'s belief is actually to pertain to the particular individual *x*, then *S* must bear *some* kind of intimate epistemic relationship to *x*. *S* must be able to get outside the circle of his own ideas and direct his belief precisely upon *that* particular individual."

Is the epistemic objection sound? The following situation, adapted from an example proposed by Sosa, might lead us to conclude that it is not sound.

We assume that a new man, called 'Shorty', has just joined the platoon and that the Lieutenant is unaware of this fact. The Lieutenant expresses to the Sergeant his *de dicto* belief that it would be best if the shortest man in the platoon were to go first. Since Shorty is now the shortest man, the Sergeant says to him: "The Lieutenant believes it is best that you go first". In such a situation, Sosa concludes, it is true to say, with respect to the shortest man in the platoon, that the Lieutenant believes he is the one who should go first.[12]

Yet Shorty could reply (or at least say to himself): "But the Lieutenant can't think that *I* am the one who should go first. He doesn't even know that I exist, much less that I'm now a member of the platoon." So far as our philosophical question is concerned, I'm inclined to think that Shorty would be right: the Lieutenant had no beliefs that were directed upon *him*. It is true that, so far as the practical, nonphilosophical question is concerned, it was sufficient for the Sergeant to say: "The Lieutenant thinks you are the one go first". But, I suggest, he would have been speaking more accurately if he had said: "What the Lieutenant believes implies that it would be best if you go first".

I am inclined to think, therefore, that this epistemic objection does apply to the present, latitudinarian account of *de re* belief. The account should be qualified by some reference to what the subject *knows*. To do this is a relatively simple matter. But before formulating and considering such a qualification, let us turn to the concept of *de dicto* knowledge. For the outcome of recent controversies about the nature of such knowledge bears directly upon the success of our attempt to characterize belief *de re*.

9. KNOWLEDGE 'DE DICTO'

In order to explicate the concept of *de dicto* knowledge, we make use of the undefined concept of epistemic preferability, as expressed in the locution, '*p* is epistemically preferable to *q* for *S* at *t*'.[13] In terms of this locution, we first define the concepts of the certain and the evident.

(D8)   *h* is certain for $S =_{\text{Df}} h$ is true; and *h* is necessarily such that, if it is true, then accepting *h* is epistemically preferable to withholding *h* for *S*, and there is no *i* such that accepting *i* is epistemically preferable to accepting *h* for *S*.

(For simplicity, we omit the temporal reference.) The expression 'withholding *h*', which appears in this definition, may be taken to abbreviate 'neither accepting *h* nor accepting not-*h*'.

What we know need not be certain, in this rigid sense of the term 'certain', but everything that we know may be said at least to be evident. An evident proposition, like one that is certain, is one such that accepting it is epistemically preferable to withholding it, but it may fall just short of certainty. Let us say:

(D9) h is evident for $S =_{Df}$ (i) Accepting h is epistemically preferable
for S to withholding h and (ii) for every i, if accepting i is epis-
temically preferable for S to accepting h, then i is certain for S.

Many other epistemic terms may be defined in this manner.[14]

Some propositions serve to make others evident. Thus the things I know
about the past are made evident by things I know about the present. In
place of 'making evident', we could also use 'justify', but the latter term
may be misleading since it is sometimes used to express relations that are
weaker than that of making evident.[15]

In order to characterize the concept of making evident, let us first say
what it is for one proposition to be such that it is a *basis* for another
proposition:

(D10) e is a basis of h for $S =_{Df}$ e is certain for S; and necessarily,
for every x, if e is certain for x, then h is evident for x.

I assume that, for anything h that is evident for S, there is something e
which is a basis of h for S.[16] (This assumption might be said to charac-
terize 'foundationalism'.)

And now we may formulate our definition of making evident:

(D11) e makes h evident for $S =_{Df}$ e is evident for S; and, for every
b, if b is a basis of e for S, then b is a basis of h for S.

It should be noted that, if e is a basis of h for S, then e makes h evident
for S. But e may make h evident for S without e thereby being a basis of h
for S. It may be, for example, that there are propositions about Neptune
and about astronomy that make evident, for some astronomer, a number
of propositions about the motions of Uranus. But the former propositions
do not provide a *basis* of the latter propositions, since the former proposi-
tions cannot be said to be certain in the strict sense defined in (D8) above.[17]

According to the traditional conception of knowledge, a man can be
said to know a proposition h provided the following three conditions are
fulfilled: (1) he accepts h, (2) h is true; and (3) h is evident for him.

But the traditional conception of knowledge has been shown to be
inadequate by Edmund L. Gettier, Jr., in his classic paper entitled 'Is
Justified True Belief Knowledge?'[18] It is essential that we consider briefly
the nature of this problem for, as we shall see, it bears directly upon our

problem of explicating belief *de re*. The inadequacy of the traditional con-
ception derives from the fact that some of the things we know are such
that they are not logically implied by things that make them evident – the
fact, in other words, that our evidence for some of the things we know is
nondemonstrative or inductive. This fact implies that one proposition
may make another proposition evident for a subject S even though the
second proposition is *false*, and hence that a proposition may be both
evident and false. And this fact proves disastrous for the traditional con-
ception of knowledge.

Suppose an evident falsehood makes evident still another proposition
– and that the other proposition happens to be *true*. Then the traditional
conception would require us to say that the latter proposition is known
to be true, but it may be in fact that the latter proposition is *not* known
to be true.

The following example, somewhat oversimplified, will illustrate this
situation. Suppose S mistakes a dog for a sheep, but under such condi-
tions that the false proposition he would express by 'I see a sheep in the
field' is evident to him. That is to say, there is a set of propositions such
as S might express by: 'I seem to see a sheep in the field, I remember having
seen one there before, and I don't know of any disturbance that might be
affecting my vision...'. This set of propositions, we may assume, makes
evident the proposition he would express by 'I see a sheep in the field'.
Then the proposition he would express by 'A sheep is in the field' will also
be evident to him. Suppose further that, as luck would have it, there *is*
a sheep in the field – but elsewhere in the field and not seen or even thought
of by S. This situation, obviously, would not warrant our saying that S
knows that there is a sheep in the field. But it satisfies the terms of the
traditional definition of knowledge, for the proposition that there is a
sheep in the field is a proposition h which is such that: (1) S accepts h;
(2) h is true; and (3) h is evident for S.

What went wrong in the situation described? Although the proposition
h 'There is a sheep in the field', was both true and evident, the *basis* the
man had for h was also a basis for the *false* proposition 'I see a sheep in
the field'. Since we do not want to count h as a case of knowledge, we
might consider saying that, if a man knows a proposition to be true, then
his basis for that proposition should not also be a basis for a false proposi-
tion. But this would be too stringent a requirement. It would not enable

us to say, of the man of our example, that he knew the conjunction of propositions which made evident for him the false proposition that he saw a sheep in the field. (Since that conjunction made a false proposition evident, then its basis was also basis of a false proposition.) We may note, however, that although the conjunction made a false proposition evident, none of its conjuncts was such as to make a false proposition evident. We could say, then, that if a proposition is to be known, then it is equivalent to a conjunction of propositions no one of which is such that its basis is a basis of a false proposition. But, to be even more cautious, let us add that, if a proposition is to be known, then it should itself be evident. We may put this requirement by saying that what is known should be *nondefectively evident*.[19]

We will define 'nondefectively evident' in the following way:

(D12)   *h* is nondefectively evident for $S =_{Df} h$ is evident for *S* and is entailed by a conjunction of propositions each having for *S* a basis which is not a basis of any false proposition for *S*.

We may now define *de dicto* knowledge as follows:

(D13)   *h* is known by $S =_{Df} h$ is accepted by *S*; *h* is true; and *h* is nondefectively evident for *S*.

In (D1) above, we defined the schema '*S* believes that *p*' in terms of '*S* accepts the proposition that *p*'. The schema '*S* knows that *p*' could now be construed analogously:

(D14)   *S* knows that $p =_{Df}$ The proposition that *p* is known by *S*.

10. A MORE RIGID CONCEPTION OF BELIEF 'DE RE'

Given the concept of knowledge *de dicto*, we are now able to replace the latitudinarian conception of belief *de re*, set forth above, by a more rigid definition:

(D14)   *S* attributes the property of being *F* to $x =_{Df}$ There is an individual concept *C* such that (i) *S* knows a proposition implying *x* to have *C* and (ii) *S* accepts a proposition which entails the conjunction of the property *C* and the property of being *F*.

If Scott is the author of *Waverley*, and if the proposition that the author of *Waverley* is Scotch is one that is known by George, then, whether or not George has any idea that Scott might have written *Waverley*, Scott may be said to be such that George believes him to be Scotch. And this will be so even if George accepts the proposition that Scott is not Scotch.

What if Scott is also author of *Marmion* and George accepts the proposition that the author of *Marmion* is not Scotch? It will still be the case, given our definitions, that Scott – i.e., the author of *Marmion* – is believed by George to be Scotch.

Suppose that, in addition, the proposition that the author of *Marmion* wrote many works is one that George knows to be true. Since, we are assuming, George accepts the proposition that the author of *Marmion* is *not* Scotch, must we now say that Scott is the author of believed by George to be both Scotch and not Scotch? We are not entitled to say this. We can say that George believes with respect to Scott that he is Scotch and we can also say that George believes with respect to Scott that he is not Scotch. But we cannot say that George believes with respect to Scott that he is both Scotch and not Scotch. It would be unjust, therefore, to say that George has a contradictory belief or even that he has beliefs that contradict each other.[20]

11. SOME OBJECTIONS CONSIDERED

Let us consider now four possible objections to this definition of *de re* belief.

(1) "Your definition is over-permissive. If Robinson knows that the tallest spy is a spy and believes that all spies are secretive, then, if he puts two and two together, he will believe that the tallest spy is secretive. Your account, therefore, would require you to say that the tallest spy is believed by Robinson to be secretive. But, surely, his knowledge that the tallest spy is a spy is much too easily acquired. It hardly brings him into the requisite relationship with the tallest spy."

This objection has many variants. None takes the concept of *knowledge* sufficiently seriously. The knowledge in question is *not* easily acquired. To say of a proposition that it is *known* by a given person is not merely to say that the proposition is one that he is justified in accepting. Nor is it to say merely that the proposition is one that for him is beyond reasonable

doubt. To *know* that the tallest spy is a spy, one must know, not only that there are spies, but also that there are not two or more spies such that they are of the same height and taller than all other spies. And to know that latter proposition one must have information that probably *no one* has.[21]

(2) "Suppose *C* is the property of being identical with the President; *q* is the proposition that the President is a Republican; and *p* is the proposition that the President is a resident of California. Imagine now a well-informed Washington correspondent who had been asleep for a week and woke up on August 10th, 1974, still believing that Mr. Nixon was President and still believing that the President was a resident of California. Since the proposition *q*, that the President is a Republican, is a proposition that the correspondent knew to be true, your definition would have the absurd consequence that this well-informed correspondent believes, with respect to Mr. Ford, that *he* is a resident of California."

This objection, like the preceding one, does not take the concept of knowledge sufficiently seriously. As we have seen, if a person *knows* a proposition to be true, then, not only must the proposition be evident or justified, but also it should be such that the ground or basis that it has does not justify or make evident any *false* proposition. But the ostensible knowledge referred to in the proposed counter-example does not fulfill this condition. The well-informed correspondent did not know that the President is a Republican; for the basis *he* had for this proposition made evident the false proposition that Mr. Nixon is President. Our definition (D13) above – the definition of '*h* is known by *S*' – would not allow us to say that the correspondent knows that the President is a Republican.[22] And so, too, for any of the other things he might be thought to know about the President.

(3) "Suppose *S* knows (*p*) that the Mayor is well respected, *S* believes (*r*) that the man who robbed the bank is dead, and, unsuspected by *S*, the Mayor *is* the man who robbed the bank. Now *S* puts two and two together and accepts the conjunction, *p* and *r*. But this conjunction implies, with respect to the Mayor, that he is dead. Therefore your theory requires you to say, implausibly, that *S* believes, with respect to the Mayor, that he is dead."

The reply is that the conjunction, *p* and *r*, does *not* imply, with respect to the Mayor, that he is dead. If *p* and *r* is to imply this, it must entail

a conjunction of two properties. One of the two properties should be entailed by a proposition which is known by S and which implies something with respect to the Mayor; the other property should be the property of being dead. But the conjunction, p and r, implies no such conjunction of properties. It is not a proposition which is necessarily such that whoever accepts it believes that there is something which is *both* the Mayor and dead. See (D5) in Section 7 above.

(4) "If there is a person such that Jones believes, with respect to him, that he is the next President, then Jones knows who that person is. And more generally, if there is an entity x which a person S has a belief about, then S knows who or what that entity is. But the conditions of your definition could be satisfied even if Jones didn't know who the next President is. Therefore your account is over-permissive."

But is it correct to say that a person S cannot have a belief with respect to a thing x unless S *knows who*, or *knows what*, x is? Surely not. I can believe, with respect to a man I see standing on the corner, that he is wearing a hat – without knowing who the man is. A visitor from another country could visit one of our political conventions and be led to believe, with respect to the speaker on the rostrum, that *he* is our next President – without having any idea as to who the speaker might in fact be. It is a mistake, then, to equate an explication of *de re* belief with an explication of the extraordinarily elusive concepts of *knowing who* and *knowing what*.

It is possible, of course, to formulate more restrictive characterizations of *de re* belief. For example, one might define 'S attributes the property of being F to x' by saying: 'There is a q such that S knows q to be true and q implies x to be F'. But I think that the present account has the advantage of being neither excessively rigoristic nor excessively latitudinarian.[23]

12. KNOWLEDGE 'DE RE'

Given the preceding definitions, it is now a relatively simple matter to characterize knowledge *de re*. Let us say this:

(D15) x is known by S to be $F =_{Df}$ There is a proposition which is known by S and which implies x to be F.

The other epistemic terms referred to above may also be given a *de re* interpretation. Thus we may say, not only that a certain proposition is

evident for S, but also that there is a certain thing x which is such that it is evident for S that x has a certain property. We may say:

(D16) x is such that it is evident for S that it is $F =_{Df}$ There is an individual concept C such that: (i) S knows a proposition implying x to have C; and (ii) there is a proposition which is evident for S and which entails the conjunction of the property C and the property of being F.

Definitions of other *de re* epistemic concepts would be analogous.

What has been said here about the relations between *de re* and *de dicto* belief may be carried over to other propositional attitudes – for example, desire, hope, fear, and endeavor – and it may also be applied to the theory of value.[24]

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NOTES

[1] My thought on these questions has been influenced by discussions with Michael Corrado, Fred Feldman, Richard Feldman, Edmund L. Gettier, Herbert Heidelberger, Michael Hooker, Gareth Matthews, Mark Pastin, Ernest Sosa, and Robert Swartz.
[2] This general point of view is defended in 'Chisholm-Sellars Correspondence on Intentionality', *Minnesota in the Philosophy of Science* II (1957), 521–539; reprinted in A. Marras (ed.), *Intentionality, Mind and Language* (University of Illinois Press, Urbana, 1972), p. 539.
[3] I have discussed this point in 'Leibniz's Law in Belief Contexts', in A. Tymieniecka and Charles Parsons (eds.), *Contributions to Logic and Methodology in Honor of J. M. Bochenski* (North-Holland Publ. Co., Amsterdam, 1965), pp. 243–250.
[4] This is the conception of *de dicto* belief that is presupposed in the writings of Bolzano, Frege, Husserl, W. E. Johnson, and others. For its relevance to contemporary problems about reference and translation, compare Stephen Leeds, 'How to Think about Reference', *Journal of Philosophy* LXX (1973), 485–503.
[5] See Franz Brentano, *Grundzüge der Asthetik* (A. Francke, Bern, 1959), pp. 82–87, and *Die Lehre vom richtigen Urteil* (A. Francke, Bern, 1956), p. 64. Compare also Anton Marty, *Untersuchungen zur Grundlegung der allgemeinen Grammatik und Sprachphilosophie* (Max Niemeyer, Halle, 1908), pp. 455–467.
[6] A strict entailment relation will be defined in (D4), in Section 6 below.
[7] A clear example of this mistake may be found in the first edition of my book, *Theory of Knowledge* (Prentice-Hall, Inc., Englewood Cliffs, N.J., 1966). I there wrote: "A belief is *true* provided, first, that it is a belief or assertion with respect to a certain state of affairs that that state of affairs exists, and provided, secondly, that that state of affairs exists". (p. 103) Compare Frege: "Judging, we may say, is acknowledging the truth of something [*ist etwas als wahr anerkennen*]; what is acknowledged to be true can only be a thought. The original kernel now seems to have cracked in two; one part

of it lies in the word 'thought' and the other in the word 'true'". The passage is from 'Negation', in Frege's *Philosophical Writings*, ed. by Black and Geach, p. 126n.

[8] Compare the discussions of this question in W. V. Quine, 'Quantifiers and Propositional Attitudes', *Journal of Philosophy* LIII (1956), 177–187; W. V. Quine, *Word and Object* (The Massachusetts Institute of Technology, Cambridge, Mass., 1960). Chapter IV; and Robert Sleigh, 'Quantifying into Epistemic Contexts', *Noûs* I (1967), 23–31.

[9] Compare Leibniz, 'Dialogus de Connexione inter Res et Verba, et Veritatis Realitate', in J. E. Erdmann (ed.), *Opera Philosophica*, Vol. I, p. 76; Bernard Bolzano, *Theory of Science*, ed. by Rolf George (Basil Blackwell, Oxford, 1972), p. 26; G. Frege *Philosophical Writings*, ed. by Peter Geach and Max Black, p. 120; W. E. Johnson, *Logic*, Part I (The University Press, Cambridge, 1921), pp. 3–4. Compare also Anton Marty, *Untersuchungen zur Grundlegung der allgemeinen Grammatik und Sprachphilosophie* (Max Niemeyer, Halle, 1908), pp. 288–362.

[10] Wilfrid Sellars makes essential use of the concept of an individual concept in analyzing belief; see 'Some Problems about Belief', in D. Davidson and J. Hintikka (eds.), *Words and Objections: Essays on the Work of W. V. Quine* (D. Reidel Publ. Co., Dordrecht, 1969), pp. 186–205. But Sellars's account is quite different from that proposed here. Following Frege, he assumes that singular terms within intentional contexts refer to their senses rather than to their ordinary designata; thus 'Jones believes that the tallest man is wise' refers to a relation between Jones and the concept expressed by 'the tallest man' (i.e., to the property of being the tallest man). But to *what* relation between Jones and the individual concept? Sellars concedes it is not that of believing the individual concept to be wise. Evidently the best that can be done is to say that it is a relation very much *like* that of believing the individual concept to be wise. Thus Alonzo Church, defending an analogous account of "Schliemann sought the site of Troy", said: "The relation holding between Schliemann and the concept of the site of Troy is not quite that of having sought, or at least it is misleading to call it that – in view of the way in which the verb *to seek* is commonly used in English". *Introduction to Mathematical Logic*, Vol. I (Princeton University Press, Princeton, 1956), p. 8n.

[11] For a defense of this latitudinarian account of *de re* belief, compare: Ernest Sosa, 'Propositional Attitudes De Dicto and De Re', *Journal of Philosophy* LXVII (1970), 883–896, and 'Rejoinder to Hintikka', *Journal of Philosophy* LXVIII (1971), 498–501; and Mark Pastin, 'About *De Re* Belief", *Philosophy and Phenomenological Research* XXXIV (1974), 569–575.

[12] Propositional Attitudes *De Dicto* and *De Re*, p. 890.

[13] Axioms for this concept are set forth in 'A System of Epistemic Logic', by Roderick M. Chisholm and Robert Keim, *Ratio* XV (1973), 99–115.

[14] For example: h is beyond reasonable doubt (for S) if accepting it is preferable to withholding it; h has some presumption in its favor if accepting it is preferable to accepting not-h; h is acceptable if withholding it is not preferable to accepting it; h is unacceptable if it is not acceptable; h is gratuitous if accepting it is not preferable to withholding it; and h is counterbalanced if there is no presumption in its favor and no presumption in favor of not-h.

[15] For example, the relations that might be expressed by saying 'making acceptable', 'making such as to be beyond reasonable doubt', and 'making such as to have some presumption in its favor'.

[16] The definiens above could also be read as 'e is a basis of h being evident for S'. We could define, in an analogous way, 'e is a basis of h being beyond reasonable doubt for

S', '*e* is a basis of *h* having some presumption in its favor for *S*', and similarly for our other epistemic categories.

¹⁷ The following relations between the two concepts just defined should also be noted. If *e* is a *basis* of *h* for *S*, then *e* is necessarily such that, if it is certain for *S*, then *h* is evident for *S*. But if *e makes h evident* for *S*, then it is possible for it to be the case that *e* is certain for *S* and *h* is *not* evident for *S*. The latter possibility will be realized if *e*'s contribution toward *h* being evident is *defeated* – if there is some proposition *i* such that *i* is evident for *S* and the conjunction, *e* and *i*, does not make *h* evident. But if *e* is a *basis* for *h*, *e*'s contribution cannot be thus defeated; as long as *e* is certain for *S*, *h* will be evident for *S*.

¹⁸ *Analysis* XXV (1963), 121–23.

¹⁹ This term was suggested by Ernest Sosa.

²⁰ Compare Quine's discussion of Ortcut and the man seen at the beach, in 'Quantifiers and Propositional Attitudes', referred to above.

²¹ But I would say it is no special epistemic achievement to know propositions entailing one's own individual essence or haecceity. (We may define an *individual essence* or *haecceity* as an individual concept *G* which is necessarily such that, for every *x*, *x* has *G* if and only if *x* is necessarily such that it has *G*, and it is not possible that there is a *y* other than *x* such that *y* has *G*.) I would say that, when I believe, with respect to myself, say, that I am walking, then I accept a proposition (which I would express by saying 'I am walking') and which entails my individual essence or haecceity (the property I would express when I use the word 'I' or 'me').

²² I believe that the analyses of knowledge to be found in the following writings would have a similar result: Ernest Sosa, 'The Analysis of "Knowledge that *P*"', *Analysis* XXV (1964), 1–8; Keith Lehrer and Thomas Paxon, 'Knowledge: Undefeated Justified True Belief', *Journal of Philosophy* LXVI (1969), 225–237; Gilbert Harman, 'Knowledge, Inference, and Explanation', *American Philosophical Quarterly* V (1968), 164–173; Peter D. Klein, 'A Proposed Definition of Propositional Knowledge', *Journal of Philosophy* LVIII (1971), 471–482; R. Hilpinen, 'Knowledge and Justification', *Ajatus* XXXIII (1971), 8–39; Marshal Swain, 'Knowledge, Causality, and Justification', *Journal of Philosophy* LXIX (1972), 291–300; Bredo C. Johnsen, 'Knowledge', *Philosophical Studies* XXV (1974), 273–382; Keith Lehrer, *Knowledge* (The Clarendon Press, Oxford, 1974), and Ernest Sosa, 'How Do You Know?' *American Philosophical Quarterly* XI (1974), 113–122.

²³ Most of the alternatives to this account of *de re* belief make essential use of certain linguistic concepts, e.g., 'vivid name', 'singular term', 'a description being representative of an individual for a given person', and the like. Compare David Kaplan, 'Quantifying In', in *Words and Objections: Essays on the Work of W. V. Quine*, ed. by D. Davidson and J. Hintikka (D. Reidel Publ. Co., Dordrecht, 1969), pp. 206–242; Ernest Sosa, 'Propositional Attitudes *De Dicto* and *De Re*' (referred to above); and Mark Pastin, *op. cit.* Hintikka defends the view that a person *S* has a belief, with respect to a certain thing *x*, only if *S* knows, with respect to *x*, that *x* is identical with *x*; but he does not attempt to explicate the latter *de re* epistemic locution. See J. Hintikka, *Knowledge and Belief* (Cornell University Press, Ithaca, N.Y., 1962), Chapter 6; and 'On Attributions of "Self-Knowledge"', *Journal of Philosophy* LXVII (1970), 73–87.

²⁴ We may say, not only (*de dicto*) it is intrinsically good that there are people who are happy, but also (*de re*) that John is such that it is intrinsically good that *he* is happy. (The latter could be explicated this way. There is a nonempty set of states of affairs each of which occurs and implies with respect to John that he is happy; the conjunction

C, of all those states of affairs such that each is implied by every member of S, is intrinsically good.) The present type of analysis may also be extended to the theory of causation. We may distinguish (a) the *de dicto* causal situation wherein one state of affairs is said to contribute causally to another from (b) the *de re* causal situation wherein we may say, of individual things, that one of them being in a certain state or having a certain property contributes causally to the other being in a certain state or having a certain property. I have set forth such an account of *de re* causation in my Carus Lectures, *Person and Object: A Metaphysical Study*, to be published in 1976 by The Open Court Publishing Company and Allen and Unwin, Ltd. I there also defend the view that propositions constitute a subspecies of states of affairs and that the concept of the *truth* of a proposition may be defined in terms of the *occurrence* of a state of affairs.