

## LECTURE II: JANUARY 22, 1970

Last time we ended up talking about a theory of naming which is given by a number of theses here on the board.

- (1) To every name or designating expression 'X', there corresponds a cluster of properties, namely the family of those properties  $\phi$  such that  $A$  believes ' $\phi X$ '.
  - (2) One of the properties, or some conjunctly, are believed by  $A$  to pick out some individual uniquely.
  - (3) If most, or a weighted most, of the  $\phi$ 's are satisfied by one unique object  $y$ , then  $y$  is the referent of 'X'.
  - (4) If the vote yields no unique object, 'X' does not refer.
  - (5) The statement, 'If X exists, then X has most of the  $\phi$ 's' is known *a priori* by the speaker.
  - (6) The statement, 'If X exists, then X has most of the  $\phi$ 's' expresses a necessary truth (in the idiolect of the speaker).
- (C) For any successful theory, the account must not be circular. The properties which are used in the vote must not themselves involve the notion of reference in such a way that it is ultimately impossible to eliminate.

(C) is not a thesis but a condition on the satisfaction of the other theses. In other words, Theses (1)-(6) cannot be satisfied in a way which leads to a circle, in a way which does not lead to any independent determination of reference. The example I

gave last time of a blatantly circular attempt to satisfy these conditions was a theory of names mentioned by William Kneale. I was a little surprised at the statement of the theory when I was reading what I had copied down, so I looked it up again. I looked it up in the book to see if I'd copied it down accurately. Kneale *did* use the past tense. He said that though it is not trifling to be told that Socrates was the greatest philosopher of ancient Greece, it is trifling to be told that Socrates was called 'Socrates'. Therefore, he concludes, the name 'Socrates' must simply mean 'the individual called "Socrates"'. Russell, as I've said, in some places gives a similar analysis. Anyway, as stated using the past tense, the condition wouldn't be circular, because one certainly could decide to use the term 'Socrates' to refer to whoever was called 'Socrates' by the Greeks. But, of course, in that sense it's not at all trifling to be told that Socrates was called 'Socrates'. If this is any kind of fact, it might be false. Perhaps we know that *we* call him 'Socrates'; that hardly shows that the Greeks did so. In fact, of course, they may have pronounced the name differently. It may be, in the case of this particular name, that transiteration from the Greek is so good that the English version is not pronounced *very* differently from the Greek. But that won't be so in the general case. Certainly it is not trifling to be told that Isaiah was called 'Isaiah'. In fact, it is false to be told that Isaiah was called 'Isaiah'; the prophet wouldn't have recognized this name at all. And of course the Greeks didn't call their country anything like 'Greece'. Suppose we amend the thesis so that it reads: it's trifling to be told that Socrates is called 'Socrates' by us, or at least, by me, the speaker. Then in some sense this is fairly trifling. I don't think it is necessary or analytic. In the same way, it is trifling to be told that horses are called 'horses', without this leading to the conclusion that the word 'horse' simply *means* 'the animal called a "horse"'. As a theory of the reference of the name 'Socrates' it will lead immediately

to a vicious circle. If one was determining the referent of a name like 'Glunk' to himself and made the following decision, 'I shall use the term "Glunk" to refer to the man that I call "Glunk"', this would get one nowhere. One had better have some independent determination of the referent of 'Glunk'. This is a good example of a blatantly circular determination. Actually sentences like 'Socrates is called "Socrates"' are very interesting and one can spend, strange as it may seem, hours talking about their analysis. I actually did, once, do that. I won't do that, however, on this occasion. (See how high the seas of language can rise. And at the lowest points too.) Anyway this is a useful example of a violation of the noncircularity condition. The theory will satisfy all of these statements, perhaps, but it satisfies them only because there is some independent way of determining the reference independently of the particular condition: being the man called 'Socrates'.

I have already talked about, in the last lecture, Thesis (6). Theses (5) and (6), by the way, have converses. What I said for Thesis (5) is that the statement that if X exists, X has most of the  $\phi$ 's, is *a priori* true for the speaker. It will also be true under the given theory that certain converses of this statement hold true also *a priori* for the speaker, namely: if any unique thing has most of the properties  $\phi$  in the property weighted sense, it is X. Similarly a certain converse to this will be *necessarily* true, namely: if anything has most of the properties  $\phi$  in the property weighted sense, it is X. So really one can say that it is both *a priori* and necessary that something is X if and only if it uniquely has most of the properties  $\phi$ . This really comes from the previous Theses (1)-(4), I suppose. And (5) and (6) really just say that a sufficiently reflective speaker grasps this theory of proper names. Knowing this, he therefore sees that (5) and (6) are true. The objections to Theses (5) and (6) will *not* be that some speakers are unaware of this theory and therefore don't know these things.

What I talked about in the last lecture is Thesis (6). It's been observed by many philosophers that, if the cluster of properties associated with a proper name is taken in a very narrow sense, so that only one property is given any weight at all, let's say one definite description to pick out the referent—for example, Aristotle was the philosopher who taught Alexander the Great—then certain things will seem to turn out to be necessary truths which are not necessary truths—in this case, for example, that Aristotle taught Alexander the Great. But as Searle said, it is not a necessary truth but a contingent one that Aristotle ever went into pedagogy. Therefore, he concludes that one must drop the original paradigm of a single description and turn to that of a cluster of descriptions.

To summarize some things that I argued last time, this is not the correct answer (whatever it may be) to this problem about necessity. For Searle goes on to say,

Suppose we agree to drop 'Aristotle' and use, say, 'the teacher of Alexander', then it is a necessary truth that the man referred to is Alexander's teacher—but it is a contingent fact that Aristotle ever went into pedagogy, though I am suggesting that it is a necessary fact that Aristotle has the logical sum, inclusive disjunction, of properties commonly attributed to him. . . .<sup>21</sup>

This is what is not so. It just is not, in any intuitive sense of necessity, a necessary truth that Aristotle had the properties commonly attributed to him. There is a certain theory, perhaps popular in some views of the philosophy of history, which might both be deterministic and yet at the same time assign a great role to the individual in history. Perhaps Carlyle would associate with the meaning of the name of a great man his achievements. According to such a view it will be necessary, once a certain individual is born, that he is destined to perform

<sup>21</sup> Searle, 'Proper Names', in *Caton*, op. cit., p. 160.

various great tasks and so it will be part of the very nature of Aristotle that he should have produced ideas which had a great influence on the western world. Whatever the merits of such a view may be as a view of history or the nature of great men, it does not seem that it should be trivially true on the basis of a theory of proper names. It would seem that it's a contingent fact that Aristotle ever did *any* of the things commonly attributed to him today, *any* of these great achievements that we so much admire. I must say that there is *something* to this feeling of Searle's. When I hear the name 'Hitler', I do get an illusory 'gut feeling' that it's sort of analytic that that man was evil. But really, probably not. Hitler might have spent all his days in quiet in Linz. In that case we would not say that then this man would not have been Hitler, for we use the name 'Hitler' just as the name of that man, even in describing other possible worlds. (This is the notion which I called a *rigid designator* in the previous talk.) Suppose we do decide to pick out the reference of 'Hitler', as the man who succeeded in having more Jews killed than anyone else managed to do in history. That is the way we pick out the reference of the name; but in another counterfactual situation where some one else would have gained this discredit, we wouldn't say that in that case that other man would have been Hitler. If Hitler had never come to power, Hitler would not have had the property which I am supposing we use to fix the reference of his name. Similarly, even if we define what a meter is by reference to the standard meter stick, it will be a contingent truth and not a necessary one that that particular stick is one meter long. If it had been stretched, it would have been longer than one meter. And that is because we use the term 'one meter' rigidly to designate a certain length. Even though we fix what length we are designating by an accidental property of that length, just as in the case of the name of the man we may pick the man out by an accidental property of the man, still we use the name

to designate that man or that length in all possible worlds. The property we use need not be one which is regarded in any way as necessary or essential. In the case of a yard, the original way this length was picked out was, I think, the distance when the arm of King Henry I of England was outstretched from the tip of his finger to his nose. If this was the length of a yard, it nevertheless will not be a necessary truth that the distance between the tip of his finger and his nose should be a yard. Maybe an accident might have happened to foreshorten his arm; that would be possible. And the reason that it's not a necessary truth is not that there might be other criteria in a 'cluster concept' of yardhood. Even a man who strictly uses King Henry's arm as his one standard of length can say, counterfactually, that if certain things had happened to the King, the exact distance between the end of one of his fingers and his nose would not have been exactly a yard. He need not be using a cluster as long as he uses the term 'yard' to pick out a certain fixed reference to be that length in all possible worlds.

These remarks show, I think, the intuitive bizarreness of a good deal of the literature on 'transworld identification' and 'counterpart theory'. For many theorists of these sorts, believing, as they do, that a 'possible world' is given to us only qualitatively, argue that Aristotle is to be 'identified in other possible worlds', or alternatively that his counterparts are to be identified, with those things in other possible worlds who most closely resemble Aristotle in his most important properties. (Lewis, for example, says: 'Your counterparts . . . resemble you . . . in important respects . . . more closely than do the other things in their worlds . . . weighted by the importance of the various respects and by the degrees of the similarities.'<sup>32</sup>) Some may equate the important properties with those

<sup>32</sup> D. Lewis, *op. cit.*, pp. 114-15.

properties used to identify the object in the actual world.

Surely these notions are incorrect. To me Aristotle's most important properties consist in his philosophical work, and Hitler's in his murderous political role; both, as I have said, might have lacked these properties altogether. Surely there was no logical fare hanging over either Aristotle or Hitler which made it in any sense inevitable that they should have possessed the properties we regard as important to them; they could have had careers completely different from their actual ones. *Important* properties of an object need not be essential, unless 'importance' is used as a synonym for essence; and an object could have had properties very different from its most striking actual properties, or from the properties we use to identify it.

To clear up one thing which some people have asked me: When I say that a designator is rigid, and designates the same thing in all possible worlds, I mean that, as used in *our* language, it stands for that thing, when *we* talk about counterfactual situations. I don't mean, of course, that there mightn't be counterfactual situations in which in the other possible worlds people actually spoke a different language. One doesn't say that 'two plus two equals four' is contingent because people might have spoken a language in which 'two plus two equals four' meant that seven is even. Similarly, when we speak of a counterfactual situation, we speak of it in English, even if it is part of the description of that counterfactual situation that we were all speaking German in that counterfactual situation. We say, 'suppose we had all been speaking German' or 'suppose we had been using English in a nonstandard way'. Then we are describing a possible world or counterfactual situation in which people, including ourselves, did speak in a certain way different from the way we speak. But still, in describing that world, we use *English* with *our* meanings and *our* references. It is in this sense that I speak of a rigid designator as having the same

reference in all possible worlds. I also don't mean to imply that the thing designated exists in all possible worlds, just that the name refers rigidly to that thing. If you say 'suppose Hitler had never been born' then 'Hitler' refers here, still rigidly, to something that would not exist in the counterfactual situation described.

Given these remarks, this means we must cross off Thesis (6) as incorrect. The other theses have nothing to do with necessity and can survive. In particular Thesis (5) has nothing to do with necessity and it can survive. If I use the name 'Hesperus' to refer to a certain planetary body when seen in a certain celestial position in the evening, it will not therefore be a necessary truth that Hesperus is ever seen in the evening. That depends on various contingent facts about people being there to see and things like that. So even if I should say to myself that I will use 'Hesperus' to name the heavenly body I see in the evening in yonder position of the sky, it will not be necessary that Hesperus was ever seen in the evening. But it may be *a priori* in that this is how I have determined the referent. If I have determined that Hesperus is the thing that I saw in the evening over there, then I will know, just from making that determination of the referent, that if there is any Hesperus at all it's the thing I saw in the evening. This at least survives as far as the arguments we have given up to now go.

How about a theory where Thesis (6) is eliminated? Theses (2), (3), and (4) turn out to have a large class of counterinstances. Even when Theses (2)-(4) are true, Thesis (5) is usually false; the truth of Theses (3) and (4) is an empirical 'accident', which the speaker hardly knows *a priori*. That is to say, other principles really determine the speaker's reference, and the fact that the referent coincides with that determined by (2)-(4) is an 'accident', which we were in no position to know *a priori*. Only in a rare class of cases, usually initial baptisms, are all of (2)-(5) true.

What picture of naming do these Theses ((1)-(5)) give you? The picture is this. I want to name an object. I think of some way of describing it uniquely and then I go through, so to speak, a sort of mental ceremony: By 'Cicero' I shall mean the man who denounced Catiline; and that's what the reference of 'Cicero' will be. I will use 'Cicero' to designate rigidly the man who (in fact) denounced Catiline, so I can speak of possible worlds in which he did not. But still my intentions are given by first, giving some condition which uniquely determines an object, then using a certain word as a name for the object determined by this condition. Now there may be some cases in which we actually do this. Maybe, if you want to stretch and call it description, when you say: I shall call that heavenly body over there 'Hesperus'.<sup>38</sup> That is really a case where the theses not only are true but really even give a correct picture of how the reference is determined. Another case, if you want to call this a name, might be when the police in London use the name 'Jack' or 'Jack the Ripper' to refer to the man, whoever he is, who committed all these murders, or most of them. Then they are giving the reference of the name

<sup>38</sup> An even better case of determining the reference of a name by description, as opposed to ostension, is the discovery of the planet Neptune. Neptune was hypothesized as the planet which caused such and such discrepancies in the orbits of certain other planets. If Leverrier indeed gave the name 'Neptune' to the planet before it was ever seen, then he fixed the reference of 'Neptune' by means of the description just mentioned. At that time he was unable to see the planet even through a telescope. At this stage, an *a priori* material equivalence held between the statements 'Neptune exists' and 'some one planet perturbing the orbit of such and such other planets exists in such and such a position', and also such statements as 'if such and such perturbations are caused by a planet, they are caused by Neptune' had the status of *a priori* truths. Nevertheless, they were not *necessary* truths, since 'Neptune' was introduced as a name rigidly designating a certain planet. Leverrier could well have believed that if Neptune had been knocked off its course one million years earlier, it would have caused no such perturbations and even that some other object might have caused the perturbations in its place.

by a description.<sup>34</sup> But in many or most cases, I think the theses are false. So let's look at them.<sup>35</sup>

Thesis (1), as I say, is a definition. Thesis (2) says that one of the properties believed by *A* of the object, or some conjunctly, are believed to pick out some individual uniquely. A sort of example people have in mind is just what I said: I shall use the term 'Cicero' to denote the man who denounced Catiline (or first denounced him in public, to make it unique). This picks out an object uniquely in this particular reference. Even some writers such as Ziff in *Semantic Analysis*, who don't believe that names have meaning in any sense, think that this is a good picture of the way reference can be determined.

Let's see if Thesis (2) is true. It seems, in some *a priori* way, that it's got to be true, because if you don't think that the properties you have in mind pick out anyone uniquely—let's say they're all satisfied by two people—then how can you say which one of them you're talking about? There seem to be no grounds for saying you're talking about the one rather than about the other. Usually the properties in question are supposed to be some famous deeds of the person in question. For example, Cicero was the man who denounced Catiline. The average person, according to this, when he refers to Cicero, is

<sup>34</sup> Following Donnellan's remarks on definite descriptions, we should add that in some cases, an object may be identified, and the reference of a name fixed, using a description which may turn out to be false of its object. The case where the reference of 'Phosphorus' is determined as the 'morning star', which later turns out not to be a star, is an obvious example. In such cases, the description which fixes the reference clearly is in no sense known *a priori* to hold of the object, though a more cautious substitute may be. If such a more cautious substitute is available, it is really the substitute which fixes the reference in the sense intended in the text.

<sup>35</sup> Some of the theses are sloppily stated in respect of fussy matters like use of quotation marks and related details. (For example, Theses (5) and (6), as stated, presuppose that the speaker's language is English.) Since the purport of the theses is clear, and they are false anyway, I have not bothered to set these things straight.

saying something like 'the man who denounced Catiline' and thus has picked out a certain man uniquely. It is a tribute to the education of philosophers that they have held this thesis for such a long time. In fact, most people, when they think of Cicero, just think of *a famous Roman orator*, without any pretension to think either that there was only one famous Roman orator or that one must know something else about Cicero to have a referent for the name. Consider Richard Feynman, to whom many of us are able to refer. He is a leading contemporary theoretical physicist. Everyone here (I'm sure!) can state the contents of one of Feynman's theories so as to differentiate him from Gell-Mann. However, the man in the street, not possessing these abilities, may still use the name 'Feynman'. When asked he will say: well he's a physicist or something. He may not think that this picks out anyone uniquely. I still think he uses the name 'Feynman' as a name for Feynman.

But let's look at some of the cases where we do have a description to pick out someone uniquely. Let's say, for example, that we know that Cicero was the man who first denounced Catiline. Well, that's good. That really picks someone out uniquely. However, there is a problem, because this description contains another name, namely 'Catiline'. We must be sure that we satisfy the conditions in such a way as to avoid violating the noncircularity condition here. In particular, we must not say that Catiline was the man denounced by Cicero. If we do this, we will really not be picking out anything uniquely, we will simply be picking out a pair of objects *A* and *B*, such that *A* denounced *B*. We do not think that this was the only pair where such denunciations ever occurred; so we had better add some other conditions in order to satisfy the uniqueness condition.

If we say Einstein was the man who discovered the theory of relativity, that certainly picks out someone uniquely. One can

be sure, as I said, that everyone *here* can make a compact and independent statement of this theory and so pick out Einstein uniquely; but many people actually don't know enough about this stuff, so when asked what the theory of relativity is, they will say: 'Einstein's theory', and thus be led into the most straightforward sort of vicious circle.

So Thesis (2), in a straightforward way, fails to be satisfied when we say Feynman is a famous physicist without attributing anything else to Feynman. In another way it may not be satisfied in the proper way even when it is satisfied: If we say Einstein was 'the man who discovered relativity theory', that does pick someone out uniquely; but it may not pick him out in such a way as to satisfy the noncircularity condition, because the theory of relativity may in turn be picked out as 'Einstein's theory'. So Thesis (2) seems to be false.

By changing the conditions  $\phi$  from those usually associated with names by philosophers, one could try to improve the theory. There have been various ways I've heard; maybe I'll discuss these later on. Usually they think of famous achievements of the man named. Certainly in the case of famous achievements, the theory doesn't work. Some student of mine once said, 'Well, Einstein discovered the theory of relativity'; and he determined the reference of 'the theory of relativity' independently by referring to an encyclopedia which would give the details of the theory. (This is what is called a transcendental deduction of the existence of encyclopedias.) But it seems to me that, even if someone has heard of encyclopedias, it really is not essential for his reference that he should know whether this theory is given in detail in any encyclopedia. The reference might work even if there had been no encyclopedias at all.

Let's go on to Thesis (3): If most of the  $\phi$ 's, suitably weighted, are satisfied by a unique object  $y$ , then  $y$  is the referent of the name for the speaker. Now, since we have already established

that Thesis (2) is wrong, why should any of the rest work? The whole theory depended on always being able to specify unique conditions which are satisfied. But still we can look at the other theses. The picture associated with the theory is that only by giving some unique properties can you know who someone is and thus know what the reference of your name is. Well, I won't go into the question of knowing who someone is. It's really very puzzling. I think you *do* know who Cicero is if you just can answer that he's a famous Roman orator. Strangely enough, if you know that Einstein discovered the theory of relativity and nothing about that theory, you can both know who Einstein is, namely the discoverer of the theory of relativity, and who discovered the theory of relativity, namely Einstein, on the basis of this knowledge. This seems to be a blatant violation of some sort of noncircularity condition; but it is the way we talk. It therefore would seem that a picture which suggests this condition must be the wrong picture.

Suppose most of the  $\phi$ 's are in fact satisfied by a unique object. Is that object necessarily the referent of 'X' for A? Let's suppose someone says that Gödel is the man who proved the incompleteness of arithmetic, and this man is suitably well educated and is even able to give an independent account of the incompleteness theorem. He doesn't just say, 'Well, that's Gödel's theorem', or whatever. He actually states a certain theorem, which he attributes to Gödel as the discoverer. Is it the case, then, that if most of the  $\phi$ 's are satisfied by a unique object  $y$ , then  $y$  is the referent of the name 'X' for A? Let's take a simple case. In the case of Gödel that's practically the only thing many people have heard about him—that he discovered the incompleteness of arithmetic. Does it follow that whoever discovered the incompleteness of arithmetic is the referent of 'Gödel'?

Imagine the following blatantly fictional situation. (I hope Professor Gödel is not present.) Suppose that Gödel was not in

fact the author of this theorem. A man named 'Schmidt', whose body was found in Vienna under mysterious circumstances many years ago, actually did the work in question. His friend Gödel somehow got hold of the manuscript and it was thereafter attributed to Gödel. On the view in question, then, when our ordinary man uses the name 'Gödel', he really means to refer to Schmidt, because Schmidt is the unique person satisfying the description, 'the man who discovered the incompleteness of arithmetic'. Of course you might try changing it to 'the man who *published* the discovery of the incompleteness of arithmetic'. By changing the story a little further one can make even this formulation false. Anyway, most people might not even know whether the thing was published or got around by word of mouth. Let's stick to 'the man who discovered the incompleteness of arithmetic'. So, since the man who discovered the incompleteness of arithmetic is in fact Schmidt, we, when we talk about 'Gödel', are in fact always referring to Schmidt. But it seems to me that we are not. We simply are not. One reply, which I will discuss later, might be: You should say instead, 'the man to whom the incompleteness of arithmetic is commonly attributed', or something like that. Let's see what we can do with that later.

But it may seem to many of you that this is a very odd example, or that such a situation occurs rarely. This also is a tribute to the education of philosophers. Very often we use a name on the basis of considerable misinformation. The case of mathematics used in the fictive example is a good case in point. What do we know about Peano? What many people in this room may 'know' about Peano is that he was the discoverer of certain axioms which characterize the sequence of natural numbers, the so-called 'Peano axioms'. Probably some people can even state them. I have been told that these axioms were not first discovered by Peano but by Dedekind. Peano was of course not a dishonest man. I am told that his footnotes

include a credit to Dedekind. Somehow the footnote has been ignored. So on the theory in question the term 'Peano', as we use it, really refers to—now that you've heard it you see that you were really all the time talking about—Dedekind. But you were not. Such illustrations could be multiplied indefinitely.

Even worse misconceptions, of course, occur to the layman. In a previous example I supposed people to identify Einstein by reference to his work on relativity. Actually, I often used to hear that Einstein's most famous achievement was the invention of the atomic bomb. So when we refer to Einstein, we refer to the inventor of the atomic bomb. But this is not so. Columbus was the first man to realize that the earth was round. He was also the first European to land in the western hemisphere. Probably none of these things are true, and therefore, when people use the term 'Columbus' they really refer to some Greek if they use the roundness of the earth, or to some Norseman, perhaps, if they use the 'discovery of America'. But they don't. So it does not seem that if most of the  $\phi$ 's are satisfied by a unique object  $y$ , then  $y$  is the referent of the name. This seems simply to be false.<sup>36</sup>

<sup>36</sup> The cluster-of-descriptions theory of naming would make 'Peano discovered the axioms for number theory' express a trivial truth, not a misconception, and similarly for other misconceptions about the history of science. Some who have conceded such cases to me have argued that there are other uses of the same proper names satisfying the cluster theory. For example, it is argued, if we say, 'Gödel proved the incompleteness of arithmetic,' we are, of course, referring to Gödel, not to Schmidt. But, if we say, 'Gödel relied on a diagonal argument in this step of the proof,' don't we here, perhaps, refer to *whoever proved the theorem*? Similarly, if someone asks, 'What did Aristotle (or Shakespeare) have in mind here?', isn't he talking about the author of the passage in question, whoever he is? By analogy to Donnellan's usage for descriptions, this might be called an "attributive" use of proper names. If this is so, then assuming the Gödel-Schmidt story, the sentence 'Gödel proved the incompleteness theorem' is false, but 'Gödel used a diagonal argument in the proof' is (at least in some contexts) true, and the reference of the name 'Gödel' is ambiguous. Since some counterexamples remain, the



Thesis (4): If the vote yields no unique object the name does not refer. Really this case has been covered before—has been covered in my previous examples. First, the vote may not yield a *unique* object, as in the case of Cicero or Feynman. Secondly, suppose it yields *no* object, that nothing satisfies most, or even any, substantial number, of the  $\phi$ 's. Does that mean the name doesn't refer? No: in the same way that you may have false beliefs about a person which may actually be true of someone else, so you may have false beliefs which are true of absolutely no one. And these may constitute the totality of your beliefs. Suppose, to vary the example about Gödel, no one had discovered the incompleteness of arithmetic—perhaps the proof simply materialized by a random scattering of atoms on a piece of paper—the man Gödel being lucky enough to have been present when this improbable event occurred. Further, suppose arithmetic is in fact complete. One wouldn't really expect a random scattering of atoms to produce a correct proof. A subtle error, unknown through the decades, has still been unnoticed—or perhaps not actually unnoticed, but the friends of Gödel. . . . So even if the conditions are not satisfied

cluster-of-descriptions theory would still, in general, be false, which was my main point in the text; but it would be applicable in a wider class of cases than I thought. I think, however, that no such ambiguity need be postulated. It is, perhaps, true that sometimes when someone uses the name 'Gödel', his main interest is in whoever proved the theorem, and *perhaps*, in some sense, he 'refers' to him. I do not think that this case is different from the case of Smith and Jones in n. 3, p. 25. If I mistake Jones for Smith, I may refer (in an appropriate sense) to Jones when I say that Smith is taking the leaves; nevertheless I do not use 'Smith' ambiguously, as a name sometimes of Smith and sometimes of Jones, but univocally as a name of Smith. Similarly, if I erroneously think that Aristotle wrote such-and-such passage, I may perhaps sometimes use 'Aristotle' to refer to the actual author of the passage, even though there is no ambiguity in my use of the name. In both cases, I will withdraw my original statement, and my original use of the name, if apprised of the facts. Recall that, in these lectures, 'referent' is used in the technical sense of the thing named by a name (or uniquely satisfying a description), and there should be no confusion.

by a unique object the name may still refer. I gave you the case of Jonah last week. Biblical scholars, as I said, think that Jonah really existed. It isn't because they think that someone ever was swallowed by a big fish or even went to Nineveh to preach. These conditions may be true of no one whatsoever and yet the name 'Jonah' really has a referent. In the case above of Einstein's invention of the bomb, possibly no one really deserves to be called the 'inventor' of the device.

Thesis 5 says that the statement 'If X exists, then X has most of the  $\phi$ 's', is *a priori* true for A. Notice that even in a case where (3) and (4) *happen* to be true, a typical speaker hardly knows *a priori* that they are, as required by the theory. I think that my belief about Gödel is in fact correct and that the 'Schmidt' story is just a fantasy. But the belief hardly constitutes *a priori* knowledge.

What's going on here? Can we rescue the theory?<sup>27</sup> First, one may try and vary these descriptions—not think of the famous achievements of a man but, let's say, of something else, and try and use that as our description. Maybe by enough futzing around someone might eventually get something out

<sup>27</sup> It has been suggested to me that someone might argue that a name is associated with a 'referential' use of a description in Donnellan's sense. For example, although we identify Gödel as the author of the incompleteness theorem, we are talking about him even if he turns out not to have proved the theorem. Theses (2)-(6) could then fail; but nevertheless each name would abbreviate a description, though the role of description in naming would differ radically from that imagined by Frege and Russell. As I have said above, I am inclined to reject Donnellan's formulation of the notion of referential definite description. Even if Donnellan's analysis is accepted, however, it is clear that the present proposal should not be. For a referential definite description, such as 'the man drinking champagne', is typically withdrawn when the speaker realizes that it does not apply to its object. If a Gödelian fraud were exposed, Gödel would no longer be called 'the author of the incompleteness theorem' but he would still be called 'Gödel'. The name, therefore, does not abbreviate the description.

of this;<sup>38</sup> however, most of the attempts that one tries are open to counterexamples or other objections. Let me give an example of this. In the case of Gödel one may say, 'Well, "Gödel" doesn't mean "the man who proved the incompleteness of arithmetic"'. Look, all we really know is that most people *think* that Gödel proved the incompleteness of arithmetic, that Gödel is the man to whom the incompleteness of arithmetic is commonly attributed. So when I determine the referent of the name 'Gödel', I don't say to myself, 'by "Gödel" I shall mean "the man who proved the incompleteness of arithmetic, whoever he is"'. That might turn out to be Schmidt or Post. But instead I shall mean 'the man who most people *think* proved the incompleteness of arithmetic'.

Is this right? First, it seems to me that it's open to counterexamples of the same type as I gave before, though the counterexamples may be more *recherché*. Suppose, in the case of Peano mentioned previously, unbeknownst to the speaker, most people (at least by now) thoroughly realize that the number-theoretic axioms should not be attributed to him. Most people don't credit them to Peano but now correctly ascribe them to Dedekind. So then even the man to whom this thing is commonly attributed will still be Dedekind and not Peano. Still, the speaker, having picked up the old outmoded

<sup>38</sup> As Robert Nozick pointed out to me, there is a sense in which a description theory must be trivially true if any theory of the reference of names, spelled out in terms independent of the notion of reference, is available. For if such a theory gives conditions under which an object is to be the referent of a name, then it of course uniquely satisfies these conditions. Since I am not pretending to give any theory which eliminates the notion of reference in this sense, I am not aware of any such trivial fulfillment of the description theory and doubt that one exists. (A description using the notion of the reference of a name is easily available but circular, as we saw in our discussion of Kneale.) If any such trivial fulfillment were available, however, the arguments I have given show that the description must be one of a completely different sort from that supposed by Frege, Russell, Searle, Strawson and other advocates of the description theory.

belief, may still be referring to Peano, and hold a false belief about Peano, not a true belief about Dedekind.

But second, and perhaps more significantly, such a criterion violates the noncircularity condition. How is this? It is true that most of us think that Gödel proved the incompleteness of arithmetic. Why is this so? We certainly say, and sincerely, 'Gödel proved the incompleteness of arithmetic'. Does it follow from that that we believe that Gödel proved the incompleteness of arithmetic—that we attribute the incompleteness of arithmetic to this man? No. Not just from that. We have to be *referring to Gödel* when we say 'Gödel proved the incompleteness of arithmetic'. If, in fact, we were always referring to Schmidt, then we would be attributing the incompleteness of arithmetic to Schmidt and not to Gödel—if we used the sound 'Gödel' as the name of the man whom I am calling 'Schmidt'.

But we do in fact refer to Gödel. How do we do this? Well, not by saying to ourselves, 'By "Gödel" I shall mean the man to whom the incompleteness of arithmetic is commonly attributed'. If we did that we would run into a circle. Here we are all in this room. Actually in this institution<sup>39</sup> some people have met the man, but in many institutions this is not so. All of us in the community are trying to determine the reference by saying 'Gödel is to be the man to whom the incompleteness of arithmetic is commonly attributed'. None of us will get started with any attribution unless there is some independent criterion for the reference of the name other than 'the man to whom the incompleteness of arithmetic is commonly attributed'. Otherwise all we will be saying is, 'We attribute this achievement to the man to whom we attribute it', without saying who that man is, without giving any independent criterion of the reference, and so the determination will be circular. This then is a violation of the condition I have

<sup>39</sup> Princeton University.

marked 'C', and cannot be used in any theory of reference. Of course you might try to avoid circularity by passing the buck. This is mentioned by Strawson, who says in his footnote on these matters that one man's reference may derive from another's.

The identifying description, though it must not include a reference to the speaker's own reference to the particular in question, may include a reference to another's reference to that particular. If a putatively identifying description is of this latter kind, then, indeed, the question, whether it is a genuinely identifying description, turns on the question, whether the reference it refers to is itself a genuinely identifying reference. So one reference may borrow its credentials, as a genuinely identifying reference, from another; and that from another. But this regress is not infinite.<sup>40</sup>

I may then say, 'Look, by "Gödel" I shall mean the man Joe thinks proved the incompleteness of arithmetic'. Joe may then pass the thing over to Harry. One has to be very careful that this doesn't come round in a circle. Is one really sure that this won't happen? If you could be sure yourself of knowing such a chain, and that everyone else in the chain is using the proper conditions and so is not getting out of it, then maybe you could get back to the man by referring to such a chain in that way, borrowing the references one by one. However, although in general such chains do exist for a living man, you won't know what the chain is. You won't be sure what descriptions the other man is using, so the thing won't go into a circle, or whether by appealing to Joe you won't get back to the right man at all. So you cannot use this as your identifying description with any confidence. You may not even remember from whom you heard of Gödel.

What is the true picture of what's going on? Maybe reference doesn't really take place at all! After all, we don't really know

<sup>40</sup> Strawson, *op. cit.*, p. 182 n.

that any of the properties we use to identify the man are right. We don't know that they pick out a unique object. So what *does* make my use of 'Cicero' into a name of *him*? The picture which leads to the cluster-of-descriptions theory is something like this: One is isolated in a room; the entire community of other speakers, everything else, could disappear; and one determines the reference for himself by saying—'By "Gödel" I shall mean the man, whoever he is, who proved the incompleteness of arithmetic'. Now you can do this if you want to. There's nothing really preventing it. You can just stick to that determination. If that's what you do, then if Schmidt discovered the incompleteness of arithmetic you *do* refer to him when you say 'Gödel did such and such'.

But that's not what most of us do. Someone, let's say, a baby, is born; his parents call him by a certain name. They talk about him to their friends. Other people meet him. Through various sorts of talk the name is spread from link to link as if by a chain. A speaker who is on the far end of this chain, who has heard about, say Richard Feynman, in the market place or elsewhere, may be referring to Richard Feynman even though he can't remember from whom he first heard of Feynman or from whom he ever heard of Feynman. He knows that Feynman is a famous physicist. A certain passage of communication reaching ultimately to the man himself does reach the speaker. He then is referring to Feynman even though he can't identify him uniquely. He doesn't know what a Feynman diagram is, he doesn't know what the Feynman theory of pair production and annihilation is. Not only that: he'd have trouble distinguishing between Gell-Mann and Feynman. So he doesn't have to know these things, but, instead, a chain of communication going back to Feynman himself has been established, by virtue of his membership in a community which passed the name on from link to link, not by a ceremony that he makes in private in his study: 'By "Feynman" I shall

mean the man who did such and such and such'.

How does this view differ from Strawson's suggestion, mentioned before, that one identifying reference may borrow its credentials from another? Certainly Strawson had a good insight in the passage quoted; on the other hand, he certainly shows a difference at least in emphasis from the picture I advocate, since he confines the remark to a footnote. The main text advocates the cluster-of-descriptions theory. Just because Strawson makes his remark in the context of a description theory, his view therefore differs from mine in one important respect. Strawson apparently requires that the speaker must *know* from whom he got his reference, so that he can say: 'By "Gödel" I mean the man Jones calls "Gödel"'. If he does not remember how he picked up the reference, he cannot give such a description. The present theory sets no such requirement. As I said, I may well not remember from whom I heard of Gödel, and I may think I remember from which people I heard the name, but wrongly.

These considerations show that the view advocated here can lead to consequences which actually *diverge* from those of Strawson's footnote. Suppose that the speaker has heard the name 'Cicero' from Smith and others, who use the name to refer to a famous Roman orator. He later thinks, however, that he picked up the name from Jones, who (unknown to the speaker) uses 'Cicero' as the name of a notorious German spy and has never heard of any orators of the ancient world. Then, according to Strawson's paradigm, the speaker must determine his reference by the resolution, 'I shall use "Cicero" to refer to the man whom Jones calls by that name', while on the present view, the referent will be the orator in spite of the speaker's false impression about where he picked up the name. The point is that Strawson, trying to fit the chain of communication view into the description theory, relies on what the speaker *thinks* was the source of his reference. If the speaker has for-

gotten his source, the description Strawson uses is unavailable to him; if he misremembers it, Strawson's paradigm can give the wrong results. On our view, it is not how the speaker thinks he got the reference, but the actual chain of communication, which is relevant.

I think I said the other time that philosophical theories are in danger of being false, and so I wasn't going to present an alternative theory. Have I just done so? Well, in a way; but my characterization has been far less specific than a real set of necessary and sufficient conditions for reference would be. Obviously the name is passed on from link to link. But of course not every sort of causal chain reaching from me to a certain man will do for me to make a reference. There may be a causal chain from our use of the term 'Santa Claus' to a certain historical saint, but still the children, when they use this, by this time probably do not refer to that saint. So other conditions must be satisfied in order to make this into a really rigorous theory of reference. I don't know that I'm going to do this because, first, I'm sort of too lazy at the moment; secondly, rather than giving a set of necessary and sufficient conditions which will work for a term like reference, I want to present just a *better picture* than the picture presented by the received views.

Haven't I been very unfair to the description theory? Here I have stated it very precisely—more precisely, perhaps, than it has been stated by any of its advocates. So then it's easy to refute. Maybe if I tried to state mine with sufficient precision in the form of six or seven or eight theses, it would also turn out that when you examine the theses one by one, they will all be false. That might even be so, but the difference is this. What I think the examples I've given show is not simply that there's some technical error here or some mistake there, but that the whole picture given by this theory of how reference is determined seems to be wrong from the fundamentals. It

seems to be wrong to think that we give ourselves some properties which somehow qualitatively uniquely pick out an object and determine our reference in that manner. What I am trying to present is a better picture—a picture which, if more details were to be filled in, might be refined so as to give more exact conditions for reference to take place.

One might never reach a set of necessary and sufficient conditions. I don't know. I'm always sympathetic to Bishop Butler's 'Everything is what it is and not another thing'—in the nontrivial sense that philosophical analyses of some concept like reference, in completely different terms which make no mention of reference, are very apt to fail. Of course in any particular case when one is given an analysis one has to look at it and see whether it is true or false. One can't just cite this maxim to oneself and then turn the page. But more cautiously, I want to present a better picture without giving a set of necessary and sufficient conditions for reference. Such conditions would be very complicated, but what is true is that it's in virtue of our connection with other speakers in the community, going back to the referent himself, that we refer to a certain man.

There may be some cases where the description picture is true, where some man really gives a name by going into the privacy of his room and saying that the referent is to be the unique thing with certain identifying properties. Jack the Ripper<sup>41</sup> was a possible example which I gave. Another was 'Hesperus'. Yet another case which can be forced into this description is that of meeting someone and being told his name. Except for a belief in the description theory, in its importance in other cases, one probably wouldn't think that that was a case of giving oneself a description, i.e., 'the guy I'm just meeting now'. But one can put it in these terms if one wishes, and if one has never heard the name in any other way. Of course, if you're introduced to a man and told, 'That's

Einstein', you've heard of him before, it may be wrong, and so on. But maybe in some cases such a paradigm works—especially for the man who first gives someone or something a name. Or he points to a star and says, 'That is to be Alpha Centauri'. So he can really make himself this ceremony: 'By "Alpha Centauri" I shall mean the star right over there with such and such coordinates'. But in general this picture fails. In general our reference depends not just on what we think ourselves, but on other people in the community, the history of how the name reached one, and things like that. It is by following such a history that one gets to the reference.

More exact conditions are very complicated to give. They seem in a way somehow different in the case of a famous man and one who isn't so famous. For example, a teacher tells his class that Newton was famous for being the first man to think there's a force pulling things to the earth; I think that's what little kids think Newton's greatest achievement was. I won't say what the merits of such an achievement would be, but, anyway, we may suppose that just being told that this was the sole content of Newton's discovery gives the students a false belief *about Newton*, even though they have never heard of him before. If, on the other hand,<sup>41</sup> the teacher uses the name 'George Smith'—a man by that name is actually his next door neighbor—and says that George Smith first squared the circle, does it follow from this that the students have a false belief about the teacher's neighbor? The teacher doesn't tell them that Smith is his neighbor, nor does he believe Smith first squared the circle. He isn't particularly trying to get any belief *about the neighbor* into the students' heads. He tries to inculcate the belief that there was a man who squared the circle, but not a belief about any particular man—he just pulls out the first name that occurs to him—as it happens, he uses his neighbor's name. It doesn't seem clear in that case that the

<sup>41</sup> The essential points of this example were suggested by Richard Miller.

students have a false belief about the neighbor, even though there is a causal chain going back to the neighbor. I am not sure about this. At any rate more refinements need to be added to make this even begin to be a set of necessary and sufficient conditions. In that sense it's not a theory, but is supposed to give a better picture of what is actually going on.

A rough statement of a theory might be the following: An initial 'baptism' takes place. Here the object may be named by ostension, or the reference of the name may be fixed by a description.<sup>42</sup> When the name is 'passed from link to link', the receiver of the name must, I think, intend when he learns it to use it with the same reference as the man from whom he heard it. If I hear the name 'Napoleon' and decide it would be a nice name for my pet aardvark, I do not satisfy this condition.<sup>43</sup> (Perhaps it is some such failure to keep the reference

<sup>42</sup> A good example of a baptism whose reference was fixed by means of a description was that of naming Neptune in n. 33, p. 79. The case of a baptism by ostension can perhaps be subsumed under the description concept also. Thus the primary applicability of the description theory is to cases of initial baptism. Descriptions are also used to fix a reference in cases of designation which are similar to naming except that the terms introduced are not usually called 'names'. The terms 'one meter', '100 degrees Centigrade', have already been given as examples, and other examples will be given later in these lectures. Two things should be emphasized concerning the case of introducing a name via a description in an initial baptism. First, the description used is not synonymous with the name it introduces but rather fixes its reference. Here we differ from the usual description theorists. Second, most cases of initial baptism are far from those which originally inspired the description theory. Usually a baptizor is acquainted in some sense with the object he names and is able to name it ostensively. Now the inspiration of the description theory lay in the fact that we can often use names of famous figures of the past who are long dead and with whom no living person is acquainted, and it is precisely these cases which, on our view, cannot be correctly explained by a description theory.

<sup>43</sup> I can transmit the name of the aardvark to other people. For each of these people, as for me, there will be a certain sort of causal or historical connection between my use of the name and the Emperor of the French, but not one of the required type.

fixed which accounts for the divergence of present uses of 'Santa Claus' from the alleged original use.)

Notice that the preceding outline hardly *eliminates* the notion of reference; on the contrary, it takes the notion of intending to use the same reference as a given. There is also an appeal to an initial baptism which is explained in terms either of fixing a reference by a description, or ostension (if ostension is not to be subsumed under the other category).<sup>44</sup> (Perhaps there are other possibilities for initial baptisms.) Further, the George Smith case casts some doubt as to the sufficiency of the conditions. Even if the teacher does refer to his neighbor, is it clear that he has passed on his reference to the pupils? Why shouldn't their belief be about any other man named 'George Smith'? If he says that Newton was hit by an apple, somehow his task of transmitting a reference is easier, since he has communicated a common misconception about Newton.

To repeat, I may not have presented a theory, but I do think that I have presented a better picture than that given by description theorists.

I think the next topic I shall want to talk about is that of statements of identity. Are these necessary or contingent? The matter has been in some dispute in recent philosophy. First,

<sup>44</sup> Once we realize that the description used to fix the reference of a name is not synonymous with it, then the description theory can be regarded as presupposing the notion of naming or reference. The requirement I made that the description used not itself involve the notion of reference in a circular way is something else and is crucial if the description theory is to have any value at all. The reason is that the description theorist supposes that each speaker essentially uses the description he gives in an initial act of naming to determine his reference. Clearly, if he introduces the name 'Cicero' by the determination, 'By "Cicero" I shall refer to the man I call "Cicero"', he has by this ceremony determined no reference at all.

Not all description theorists thought that they were eliminating the notion of reference altogether. Perhaps some realized that some notion of ostension, or primitive reference, is required to back it up. Certainly Russell did.

everyone agrees that descriptions can be used to make contingent identity statements. If it is true that the man who invented bifocals was the first Postmaster General of the United States—that these were one and the same—it's contingently true. That is, it might have been the case that one man invented bifocals and another was the first Postmaster General of the United States. So certainly when you make identity statements using descriptions—when you say 'the  $x$  such that  $\phi x$  and the  $x$  such that  $\psi x$  are one and the same'—that can be a contingent fact. But philosophers have been interested also in the question of identity statements between names. When we say 'Hesperus is Phosphorus' or 'Cicero is Tully', is what we are saying necessary or contingent? Further, they've been interested in another type of identity statement, which comes from scientific theory. We identify, for example, light with electromagnetic radiation between certain limits of wavelengths, or with a stream of photons. We identify heat with the motion of molecules; sound with a certain sort of wave disturbance in the air; and so on. Concerning such statements the following thesis is commonly held. First, that these are obviously contingent identities: we've found out that light is a stream of photons, but of course it might not have been a stream of photons. Heat is in fact the motion of molecules; we found that out, but heat might not have been the motion of molecules. Secondly, many philosophers feel damned lucky that these examples are around. Now, why? These philosophers, whose views are expounded in a vast literature, hold to a thesis called 'the identity thesis' with respect to some psychological concepts. They think, say, that pain is just a certain material state of the brain or of the body, or what have you—say the stimulation of C-fibers. (It doesn't matter what.) Some people have then objected, 'Well, look, there's perhaps a *correlation* between pain and these states of the body; but this must just be a contingent correlation between two different things, because

it was an empirical discovery that this correlation ever held. Therefore, by "pain" we must mean something different from this state of the body or brain; and, therefore, they must be two different things.'

Then it's said, 'Ah, but you see, this is wrong! Everyone knows that there can be contingent identities.' First, as in the bifocals and Postmaster General case, which I have mentioned before. Second, in the case, believed closer to the present paradigm, of theoretical identifications, such as light and a stream of photons, or water and a certain compound of hydrogen and oxygen. These are all contingent identities. They might have been false. It's no surprise, therefore, that it can be true as a matter of contingent fact and not of any necessity that feeling pain, or seeing red, is just a certain state of the human body. Such psychophysical identifications can be contingent facts just as the other identities are contingent facts. And of course there are widespread motivations—ideological, or just not wanting to have the 'homological dangle' of mysterious connections not accounted for by the laws of physics, one to one correlations between two different kinds of thing, material states, and things of an entirely different kind, which lead people to want to believe this thesis.

I guess the main thing I'll talk about first is identity statements between names. But I hold the following about the general case. First, that characteristic theoretical identifications like 'Heat is the motion of molecules', are not contingent truths but necessary truths, and here of course I don't mean just physically necessary, but necessary in the highest degree—whatever that means. (Physical necessity, *might* turn out to be necessary in the highest degree. But that's a question which I don't wish to prejudge. At least for this sort of example, it might be that when something's physically necessary, it always is necessary *tout court*.) Second, that the way in which these have turned out to be necessary truths does not seem to me to

be a way in which the mind-brain identities could turn out to be either necessary or contingently true. So this analogy has to go. It's hard to see what to put in its place. It's hard to see therefore how to avoid concluding that the two are actually different.

Let me go back to the more mundane case about proper names. This is already mysterious enough. There's a dispute about this between Quine and Ruth Barcan Marcus.<sup>45</sup> Marcus says that identities between names are necessary. If someone thinks that Cicero is Tully, and really uses 'Cicero' and 'Tully' as names, he is thereby committed to holding that his belief is a necessary truth. She uses the term 'mere tag'. Quine replies as follows, 'We may tag the planet Venus, some fine evening, with the proper name "Hesperus". We may tag the same planet again, some day before sunrise, with the proper name "Phosphorus". When we discover that we have tagged the same planet twice our discovery is empirical. And not because the proper names were descriptions.'<sup>46</sup> First, as Quine says when we discovered that we tagged the same planet twice, our discovery was empirical. Another example I think Quine gives in another book is that the same mountain seen from Nepal and from Tibet, or something like that, is from one angle called 'Mt. Everest' (you've heard of that); from another it's supposed to be called 'Gaurisanker'. It can actually be an empirical discovery that Gaurisanker is Everest. (Quine says that the example is actually false. He got the example from Erwin Schrödinger. You wouldn't think the inventor of wave mechanics got things that wrong. I don't know where the mistake is supposed to come from. One could certainly imagine this situation as having been the case; and it's another

<sup>45</sup> Ruth Barcan Marcus, 'Modalities and Intensional Languages' (comments by W. V. Quine, plus discussion) *Boston Studies in the Philosophy of Science*, volume I, Reidel, Dordrecht, Holland, 1963, pp. 77-116.

<sup>46</sup> p. 101.

good illustration of the sort of thing that Quine has in mind.)

What about it? I wanted to find a good quote on the other side from Marcus in this book but I am having trouble locating one. Being present at that discussion, I remember<sup>47</sup> that she advocated the view that if you really have names, a good dictionary should be able to tell you whether they have the same reference. So someone should be able, by looking in the dictionary, to say that Hesperus and Phosphorus are the same. Now this does not seem to be true. It does seem, to many people, to be a consequence of the view that identities between names are necessary. Therefore the view that identity statements between names are necessary has usually been rejected. Russell's conclusion was somewhat different. He did think there should never be any empirical question whether two names have the same reference. This isn't satisfied for ordinary names, but it is satisfied when you're naming your own sense datum, or something like that. You say, 'Here, this, and that (designating the same sense datum by both demonstratives)'. So you can tell without empirical investigation that you're naming the same thing twice; the conditions are satisfied. Since this won't apply to ordinary cases of naming, ordinary 'names' cannot be genuine names.

What should we think about this? First, it's true that someone can use the name 'Cicero' to refer to Cicero and the name 'Tully' to refer to Cicero also, and not know that Cicero is Tully. So it seems that we do not necessarily know *a priori* that an identity statement between names is true. It doesn't follow from this that the statement so expressed is a contingent one if true. This is what I've emphasized in my first lecture. There is a very strong feeling that leads one to think that, if you can't know something by *a priori* ratiocination, then it's got to be contingent: it might have turned out otherwise; but nevertheless I think this feeling is wrong.

<sup>47</sup> p. 115.





Let's suppose we refer to the same heavenly body twice, as 'Hesperus' and 'Phosphorus'. We say: Hesperus is that star over there in the evening; Phosphorus is that star over there in the morning. Actually, Hesperus is Phosphorus. Are there really circumstances under which Hesperus wouldn't have been Phosphorus? Supposing that Hesperus is Phosphorus, let's try to describe a possible situation in which it would not have been. Well, it's easy. Someone goes by and he calls two *different* stars 'Hesperus' and 'Phosphorus'. It may even be under the same conditions as prevailed when we introduced the names 'Hesperus' and 'Phosphorus'. But are those circumstances in which Hesperus is not Phosphorus or would not have been Phosphorus? It seems to me that they are not.

Now, of course I'm committed to saying that they're not, by saying that such terms as 'Hesperus' and 'Phosphorus', when used as names, are rigid designators. They refer in every possible world to the planet Venus. Therefore, in that possible world too, the planet Venus is the planet Venus and it doesn't matter what any other person has said in this other possible world. How should *we* describe this situation? He can't have pointed to Venus twice, and in the one case called it 'Hesperus' and in the other 'Phosphorus', as we did. If he did so, then 'Hesperus is Phosphorus' would have been true in that situation too. He pointed maybe neither time to the planet Venus—at least one time he didn't point to the planet Venus, let's say when he pointed to the body he called 'Phosphorus'. Then in that case we can certainly say that the name 'Phosphorus' might not have referred to Phosphorus. We can even say that in the very position when viewed in the morning that we found Phosphorus, it might have been the case that Phosphorus was not there—that something else was there, and that even, under certain circumstances it would have been called 'Phosphorus'. But that still is not a case in which Phosphorus was not Hesperus. There might be a possible world in

which, a possible counterfactual situation in which, 'Hesperus' and 'Phosphorus' weren't names of the things they in fact are names of. Someone, if he did determine their reference by identifying descriptions, might even have used the very identifying descriptions we used. But still that's not a case in which Hesperus wasn't Phosphorus. For there couldn't have been such a case, given that Hesperus is Phosphorus.

Now this seems very strange because in advance, we are inclined to say, the answer to the question whether Hesperus is Phosphorus might have turned out either way. So aren't there really two possible worlds—one in which Hesperus was Phosphorus, the other in which Hesperus wasn't Phosphorus—in advance of our discovering that these were the same? First, there's one sense in which things might turn out either way, in which it's clear that that doesn't imply that the way it finally turns out isn't necessary. For example, the four color theorem might turn out to be true and might turn out to be false. It might turn out either way. It still doesn't mean that the way it turns out is not necessary. Obviously, the 'might' here is purely 'epistemic'—it merely expresses our present state of ignorance, or uncertainty.

But it seems that in the Hesperus-Phosphorus case, something even stronger is true. The evidence I have before I know that Hesperus is Phosphorus is that I see a certain star or a certain heavenly body in the evening and call it 'Hesperus', and in the morning and call it 'Phosphorus'. I know these things. There certainly is a possible world in which a man should have seen a certain star at a certain position in the evening and called it 'Hesperus' and a certain star in the morning and called it 'Phosphorus'; and should have concluded—should have found out by empirical investigation—that he names two different stars, or two different heavenly bodies. At least one of these stars or heavenly bodies was not Phosphorus, otherwise it couldn't have come out that way. But that's true. And so it's

true that given the evidence that someone has antecedent to his empirical investigation, he can be placed in a sense in exactly the same situation, that is a qualitatively identical epistemic situation, and call two heavenly bodies 'Hesperus' and 'Phosphorus', without their being identical. So in that sense we can say that it might have turned out either way. Not that it might have turned out either way as to Hesperus's being Phosphorus. Though for all we knew in advance, Hesperus wasn't Phosphorus, that couldn't have turned out any other way, in a sense. But being put in a situation where we have exactly the same evidence, qualitatively speaking, it could have turned out that Hesperus was not Phosphorus; that is, in a counterfactual world in which 'Hesperus' and 'Phosphorus' were not used in the way that we use them, as names of this planet, but as names of some other objects, one could have had qualitatively identical evidence and concluded that 'Hesperus' and 'Phosphorus' named two different objects.<sup>48</sup> But we, using the names as we do right now, can say in advance, that if Hesperus and Phosphorus are one and the same, then in no other possible world can they be different. We use 'Hesperus' as the name of a certain body and 'Phosphorus' as the name of a certain body. We use them as names of those bodies in all possible worlds. If, in fact, they are the *same* body, then in any other possible world we have to use them as a name of that object. And so in any other possible world it will be true that Hesperus is Phosphorus. So two things are true: first, that we do not know *a priori* that Hesperus is Phosphorus, and are in no position to find out the answer except empirically. Second, this is so because we could have evidence qualitatively indistinguishable from the evidence we have and determine the reference of the two names by the positions of two planets in the sky, without the planets being the same.

<sup>48</sup> There is a more elaborate discussion of this point in the third lecture, where its relation to a certain sort of counterpart theory is also mentioned.

Of course, it is only a contingent truth (not true in every other possible world) that the star seen over there in the evening is the star seen over there in the morning, because there are possible worlds in which Phosphorus was not visible in the morning. But that contingent truth shouldn't be identified with the statement that Hesperus is Phosphorus. It could only be so identified if you thought that it was a necessary truth that Hesperus is visible over there in the evening or that Phosphorus is visible over there in the morning. But neither of those are necessary truths even if that's the way we pick out the planet. These are the contingent marks by which we identify a certain planet and give it a name.