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NAMING AND NECESSITY

LECTURES I + II

LECTURE I: JANUARY 20, 1970¹

I hope that some people see some connection between the two topics in the title. If not, anyway, such connections will be developed in the course of these talks. Furthermore, because of the use of tools involving reference and necessity in analytic philosophy today, our views on these topics really have wide-

¹ In January of 1970, I gave three talks at Princeton University transcribed here. As the style of the transcript makes clear, I gave the talks without a written text, and, in fact, without notes. The present text is lightly edited from the *verbatim* transcript; an occasional passage has been added to expand the thought, an occasional sentence has been rewritten, but no attempt has been made to change the informal style of the original. Many of the footnotes have been added to the original, but a few were originally spoken asides in the talks themselves.

I hope the reader will bear these facts in mind as he reads the text. Imagining it spoken, with proper pauses and emphases, may occasionally facilitate comprehension. I have agreed to publish the talks in this form with some reservations. The time allotted, and the informal style, necessitated a certain amount of compression of the argument, inability to treat certain objections, and the like. Especially in the concluding sections on scientific identities and the mind-body problem thoroughness had to be sacrificed. Some topics essential to a full presentation of the viewpoint argued here, especially that of existence statements and empty names, had to be omitted altogether. Further, the informality of the presentation may well have engendered a sacrifice of clarity at certain points. All these defects were accepted in the interest of early publication. I hope that perhaps I will have the chance to do a more thorough job later. To repeat, I hope the reader will bear in mind that he is largely reading informal lectures, not only when he encounters repetitions or infelicities, but also when he encounters irrelevance or corn.

ranging implications for other problems in philosophy that traditionally might be thought far-removed, like arguments over the mind-body problem or the so-called 'identity thesis'. Materialism, in this form, often now gets involved in very intricate ways in questions about what is necessary or contingent in identity of properties—questions like that. So, it is really very important to philosophers who may want to work in many domains to get clear about these concepts. Maybe I will say something about the mind-body problem in the course of these talks. I want to talk also at some point (I don't know if I can get it in) about substances and natural kinds.

The way I approach these matters will be, in some ways, quite different from what people are thinking today (though it also has some points of contact with what some people have been thinking and writing today, and if I leave people out in informal talks like this, I hope that I will be forgiven).² Some of the views that I have are views which may at first glance strike some as obviously wrong. My favorite example is this (which I probably won't defend in the lectures—for one thing it doesn't ever convince anyone): It is a common claim in contemporary philosophy that there are certain predicates which, though they are in fact empty—have null extension—have it

² Given a chance to add a footnote, I shall mention that Rogers Albritton, Charles Chastain, Keith Donnellan, and Michael Slote (in addition to philosophers mentioned in the text, especially Hilary Putnam), have independently expressed views with points of contact with various aspects of what I say here. Albritton called the problems of necessity and *a priori* in natural kinds to my attention, by raising the question whether we could discover that lemons were not fruits. (I am not sure he would accept all my conclusions.) I also recall the influence of early conversations with Albritton and with Peter Geach on the essentiality of origins. The apology in the text still stands; I am aware that the list in this footnote is far from comprehensive. I make no attempt to enumerate those friends and students whose stimulating conversations have helped me. Thomas Nagel and Gilbert Harman deserve special thanks for their help in editing the transcript.

as a matter of contingent fact and not as a matter of any sort of necessity. Well, *that* I don't dispute; but an example which is usually given is the example of *unicorn*. So it is said that though we have all found out that there are no unicorns, of course there *might* have been unicorns. Under certain circumstances there *would* have been unicorns. And this is an example of something I think is not the case. Perhaps according to me the truth should not be put in terms of saying that it is necessary that there should be no unicorns, but just that we can't say under what circumstances there would have been unicorns. Further, I think that even if archeologists or geologists were to discover tomorrow some fossils conclusively showing the existence of animals in the past satisfying everything we know about unicorns from the myth of the unicorn, that would not show that there were unicorns. Now I don't know if I'm going to have a chance to defend this particular view, but it's an example of a surprising one. (I actually gave a seminar in this institution where I talked about this view for a couple of sessions.) So, some of my opinions are somewhat surprising; but let us start out with some area that is perhaps not as surprising and introduce the methodology and problems of these talks.

The first topic in the pair of topics is naming. By a name here I will mean a proper name, i.e., the name of a person, a city, a country, etc. It is well known that modern logicians also are very interested in definite descriptions: phrases of the form 'the x such that ϕx ', such as 'the man who corrupted Hadleyburg'. Now, if one and only one man ever corrupted Hadleyburg, then that man is the referent, in the logician's sense, of that description. We will use the term 'name' so that it does *not* include definite descriptions of that sort, but only those things which in ordinary language would be called 'proper names'. If we want a common term to cover names and descriptions, we may use the term 'designator'.

It is a point, made by Donnellan,³ that under certain circumstances a particular speaker may use a definite description to refer, not to the proper referent, in the sense that I've just defined it, of that description, but to something else which he wants to single out and which he thinks is the proper referent of the description, but which in fact isn't. So you may say, 'The man over there with the champagne in his glass is happy', though he actually only has water in his glass. Now, even though there is no champagne in his glass, and there may be another man in the room who does have champagne in his glass, the speaker *intended* to refer, or maybe, in some sense of 'refer', *did* refer, to the man he thought had the champagne in his glass. Nevertheless, I'm just going to use the term 'referent

³ Keith Donnellan, 'Reference and Definite Descriptions', *Philosophical Review* 75 (1966), pp. 281-304. See also Leonard Linsky, 'Reference and Referents', in *Philosophy and Ordinary Language* (ed. Caton), University of Illinois Press, Urbana, 1963. Donnellan's distinction seems applicable to names as well as to descriptions. Two men glimpse someone at a distance and think they recognize him as Jones. 'What is Jones doing?' 'Raking the leaves'. If the distant leaf-raker is actually Smith, then in some sense they are *referring* to Smith, even though they both use 'Jones' as a *name* of Jones. In the text, I speak of the 'referent' of a name to mean the thing named by the name—e.g., Jones, not Smith—even though a speaker may sometimes properly be said to use the name to refer to someone else. Perhaps it would have been less misleading to use a technical term, such as 'denote' rather than 'refer'. My use of 'refer' is such as to satisfy the schema, 'The referent of " x " is X ', where ' X ' is replaceable by any name or description. I am tentatively inclined to believe, in opposition to Donnellan, that his remarks about reference have little to do with semantics or truth-conditions, though they may be relevant to a theory of speech-acts. Space limitations do not permit me to explain what I mean by this, much less defend the view, except for a brief remark: Call the referent of a name or description in my sense the 'semantic referent'; for a name, this is the thing named, for a description, the thing uniquely satisfying the description.

Then the speaker may *refer* to something other than the semantic referent if he has appropriate false beliefs. I think this is what happens in the naming (Smith-Jones) cases and also in the Donnellan 'champagne' case; the one requires no theory that names are ambiguous, and the other requires no modification of Russell's theory of descriptions.

of the description' to mean the object uniquely satisfying the conditions in the definite description. This is the sense in which it's been used in the logical tradition. So, if you have a description of the form 'the x such that ϕx ', and there is exactly one x such that ϕx , that is the referent of the description.

Now, what is the relation between names and descriptions? There is a well known doctrine of John Stuart Mill, in his book *A System of Logic*, that names have denotation but not connotation. To use one of his examples, when we use the name 'Dartmouth' to describe a certain locality in England, it may be so called because it lies at the mouth of the Dart. But even, he says, had the Dart (that's a river) changed its course so that Dartmouth no longer lay at the mouth of the Dart, we could still with propriety call this place 'Dartmouth', even though the name may suggest that it lies at the mouth of the Dart. Changing Mill's terminology, perhaps we should say that a name such as 'Dartmouth' *does* have a 'connotation' to some people, namely, it *does* connote (not to me—I never thought of this) that any place called 'Dartmouth' lies at the mouth of the Dart. But then in some way it doesn't have a 'sense'. At least, it is not part of the *meaning* of the name 'Dartmouth' that the town so named lies at the mouth of the Dart. Someone who said that Dartmouth did not lie at the Dart's mouth would not contradict himself.

It should not be thought that every phrase of the form 'the x such that Fx ' is always used in English as a description rather than a name. I guess everyone has heard about The Holy Roman Empire, which was neither holy, Roman nor an empire. Today we have The United Nations. Here it would seem that since these things can be so-called even though they are not Holy Roman United Nations, these phrases should be regarded not as definite descriptions, but as names. In the case of some terms, people might have doubts as to whether they're names or descriptions; like 'God'—does it describe God as the

unique divine being or is it a name of God? But such cases needn't necessarily bother us.

Now here I am making a distinction which is certainly made in language. But the classical tradition of modern logic has gone very strongly against Mill's view. Frege and Russell both thought, and seemed to arrive at these conclusions independently of each other, that Mill was wrong in a very strong sense: really a proper name, properly used, simply was a definite description abbreviated or disguised. Frege specifically said that such a description gave the sense of the name.⁴

Now the reasons against Mill's view and in favor of the alternative view adopted by Frege and Russell are really very powerful, and it is hard to see—though one may be suspicious of this view because names don't seem to be disguised descriptions—how the Frege-Russell view, or some suitable variant, can fail to be the case.

Let me give an example of some of the arguments which seem conclusive in favor of the view of Frege and Russell. The basic problem for any view such as Mill's is how we can determine what the referent of a name, as used by a given

⁴ Strictly speaking, of course, Russell says that the names don't abbreviate descriptions and don't have any sense; but then he also says that, just because the things that we call 'names' do abbreviate descriptions, they're not really names. So, since 'Walter Scott', according to Russell, does abbreviate a description, 'Walter Scott' is not a name; and the only names that really exist in ordinary language are, perhaps, demonstratives such as 'this' or 'that', used on a particular occasion to refer to an object with which the speaker is 'acquainted' in Russell's sense. Though we won't put things the way Russell does, we could describe Russell as saying that names, as they are ordinarily called, *do* have sense. They have sense in a strong way, namely, we should be able to give a definite description such that the referent of the name, by definition, is the object satisfying the description. Russell himself, since he eliminates descriptions from his primitive notation, seems to hold in 'On Denoting' that the notion of 'sense' is illusory. In reporting Russell's views, we thus deviate from him in two respects. First, we stipulate that 'names' shall be names as ordinarily conceived, not Russell's 'logically proper names'; second, we regard descriptions, and their abbreviations, as having sense.

speaker, is. According to the description view, the answer is clear. If 'Joe Doakes' is just short for 'the man who corrupted Hadleyburg', then whoever corrupted Hadleyburg uniquely is the referent of the name 'Joe Doakes'. However, if there is *not* such a descriptive content to the name, then how do people ever use names to refer to things at all? Well, they may be in a position to point to some things and thus determine the referents of certain names ostensibly. This was Russell's doctrine of acquaintance, which he thought the so-called genuine or proper names satisfied. But of course ordinary names refer to all sorts of people, like Walter Scott, to whom we can't possibly point. And our reference here seems to be determined by our knowledge of them. Whatever we know about them determines the referent of the name as the unique thing satisfying those properties. For example, if I use the name 'Napoleon', and someone asks, 'To whom are you referring?', I will answer something like, 'Napoleon was emperor of the French in the early part of the nineteenth century; he was eventually defeated at Waterloo', thus giving a uniquely identifying description to determine the referent of the name. Frege and Russell, then, appear to give the natural account of how reference is determined here; Mill appears to give none.

There are subsidiary arguments which, though they are based on more specialized problems, are also motivations for accepting the view. One is that sometimes we may discover that two names have the same referent, and express this by an identity statement. So, for example (I guess this is a hackneyed example), you see a star in the evening and it's called 'Hesperus'. (That's what we call it in the evening, is that right?—I hope it's not the other way around.) We see a star in the morning and call it 'Phosphorus'. Well, then, in fact we find that it's not a star, but is the planet Venus and that Hesperus and Phosphorus are in fact the same. So we express this by 'Hesperus is Phos-

phorus'. Here we're certainly not just saying of an object that it's identical with itself. This is something that we discovered. A very natural thing to say is that the real content [is that] the star which we saw in the evening is the star which we saw in the morning (or, more accurately, that the thing which we saw in the evening is the thing which we saw in the morning). This, then, gives the real meaning of the identity statement in question; and the analysis in terms of descriptions does this.

Also we may raise the question whether a name has any reference at all when we ask, e.g., whether Aristotle ever existed. It seems natural here to think that what is questioned is not whether this *thing* (man) existed. Once we've got the thing, we know that it existed. What really is queried is whether anything answers to the properties we associate with the name—in the case of Aristotle, whether any one Greek philosopher produced certain works, or at least a suitable number of them.

It would be nice to answer all of these arguments. I am not entirely able to see my way clear through every problem of this sort that can be raised. Furthermore, I'm pretty sure that I won't have time to discuss all these questions in these lectures. Nevertheless, I think it's pretty certain that the view of Frege and Russell is false.⁵

⁵ When I speak of the Frege-Russell view and its variants, I include only those versions which give a substantive theory of the reference of names. In particular, Quine's proposal that in a 'canonical notation' a name such as 'Socrates' should be replaced by a description 'the Socratizer' (where 'Socratizes' is an invented predicate), and that the description should then be eliminated by Russell's method, was not intended as a theory of reference for names but as a proposed reform of language with certain advantages. The problems discussed here will all apply, *mutatis mutandis*, to the reformed language; in particular, the question, 'How is the reference of "Socrates" determined?' yields to the question, 'How is the extension of "Socratizes" determined?' Of course I do not suggest that Quine has ever claimed the contrary.

Many people have said that the theory of Frege and Russell is false, but, in my opinion, they have abandoned its letter while retaining its spirit, namely, they have used the notion of a cluster concept. Well, what is this? The obvious problem for Frege and Russell, the one which comes immediately to mind, is already mentioned by Frege himself. He said,

In the case of genuinely proper names like 'Aristotle' opinions as regards their sense may diverge. As such may, e.g., be suggested: Plato's disciple and the teacher of Alexander the Great. Whoever accepts this sense will interpret the meaning of the statement 'Aristotle was born in Stagira', differently from one who interpreted the sense of 'Aristotle' as the Stagirite teacher of Alexander the Great. As long as the nomennum remains the same, these fluctuations in sense are tolerable. But they should be avoided in the system of a demonstrative science and should not appear in a perfect language.⁶

So, according to Frege, there is some sort of looseness or weakness in our language. Some people may give one sense to the name 'Aristotle', others may give another. But of course it is not only that; even a single speaker when asked 'What description are you willing to substitute for the name?' may be quite at a loss. In fact, he may know many things about him; but any particular thing that he knows he may feel clearly expresses a contingent property of the object. If 'Aristotle' meant *the man who taught Alexander the Great*, then saying 'Aristotle was a teacher of Alexander the Great' would be a mere tautology. But surely it isn't; it expresses the fact that Aristotle taught Alexander the Great, something we could discover to be false. So, *being the teacher of Alexander the Great* cannot be part of [the sense of] the name.

⁶ Gottlob Frege, 'On Sense and Nominatum', translated by Herbert Feigl in *Readings in Philosophical Analysis* (ed. by Herbert Feigl and Wilfrid Sellars), Appleton Century Crofts, 1949, p. 86.

The most common way out of this difficulty is to say 'really it is not a weakness in ordinary language that we can't substitute a *particular* description for the name; that's all right. What we really associate with the name is a *family* of descriptions.' A good example of this is (if I can find it) in *Philosophical Investigations*, where the idea of family resemblances is introduced and with great power.

Consider this example. If one says 'Moses did not exist', this may mean various things. It may mean: the Israelites did not have a *single* leader when they withdrew from Egypt—or: their leader was not called Moses—or: there cannot have been anyone who accomplished all that the Bible relates of Moses—... But when I make a statement about Moses,—am I always ready to substitute some *one* of those descriptions for 'Moses'? I shall perhaps say: by 'Moses' I understand the man who did what the Bible relates of Moses, or at any rate, a good deal of it. But how much? Have I decided how much must be proved false for me to give up my proposition as false? Has the name 'Moses' got a fixed and unequivocal use for me in all possible cases?

According to this view, and a *locus classicus* of it is Searle's article on proper names,⁷ the referent of a name is determined not by a single description but by some cluster or family. Whatever in some sense satisfies enough or most of the family is the referent of the name. I shall return to this view later. It may seem, as an analysis of ordinary language, quite a bit more plausible than that of Frege and Russell. It may seem to keep all the virtues and remove the defects of this theory.

Let me say (and this will introduce us to another new topic before I really consider this theory of naming) that there are two ways in which the cluster concept theory, or even the

⁷ Ludwig Wittgenstein, *Philosophical Investigations*, translated by G. E. M. Anscombe, MacMillan, 1953, § 79.

⁸ John R. Searle, 'Proper Names', *Mind* 67 (1958), 166-73.

theory which requires a single description, can be viewed. One way of regarding it says that the cluster or the single description actually gives the meaning of the name; and when someone says 'Walter Scott', he means *the man such that such and such and such and such*.

Now another view might be that even though the description in some sense doesn't give the *meaning* of the name, it is what *determines its reference* and although the phrase 'Walter Scott' isn't *synonymous* with 'the man such that such and such and such and such', or even maybe with the family (if something can be synonymous with a family), the family or the single description is what is used to determine to whom someone is referring when he says 'Walter Scott'. Of course, if when we hear his beliefs about Walter Scott we find that they are actually much more nearly true of Salvador Dali, then according to this theory the reference of this name is going to be Mr. Dali, not Scott. There are writers, I think, who explicitly deny that names have meaning at all even more strongly than I would but still use this picture of how the referent of the name gets determined. A good case in point is Paul Ziff, who says, very emphatically, that names don't have meaning at all, [that] they are not a part of language in some sense. But still, when he talks about how we determine what the reference of the name was, then he gives this picture. Unfortunately I don't have the passage in question with me, but this is what he says.⁹

⁹ Ziff's most detailed statement of his version of the cluster-of-descriptions theory of the reference of names is in 'About God', reprinted in *Philosophical Turnings*, Cornell University Press, Ithaca, and Oxford University Press, London, 1966, pp. 94-96. A briefer statement is in his *Semantic Analysis*, Cornell University Press, Ithaca, 1960, pp. 102-05 (esp. pp. 103-04). The latter passage suggests that names of things with which we are acquainted should be treated somewhat differently (using ostension and baptism) from names of historical figures, where the reference is determined by (a cluster of) associated descriptions. On p. 93 of *Semantic Analysis* Ziff states that 'simple

The difference between using this theory as a theory of meaning and using it as a theory of reference will come out a little more clearly later on. But some of the attractiveness of the theory is lost if it isn't supposed to give the meaning of the name; for some of the solutions of problems that I've just mentioned will not be right, or at least won't clearly be right, if the description doesn't give the meaning of the name. For example, if someone said 'Aristotle does not exist' *means* 'there is no man doing such and such', or in the example from Wittgenstein, 'Moses does not exist', *means* 'no man did such and such', that might depend (and in fact, I think, does depend) on taking the theory in question as a theory of the meaning of the name 'Moses', not just as a theory of its reference. Well, I don't know. Perhaps all that is immediate now is the other way around: if 'Moses' means the same as 'the man who did such and such' then to say that Moses did not exist is to say that the man who did such and such did not exist, that is, that no one person did such and such. If, on the other hand, 'Moses' is not synonymous with any description, then even if its reference is in some sense determined by a description, statements containing the name cannot in general be *analyzed* by replacing the name by a description, though they may be materially equivalent to statements containing a description. So the analysis of singular existence statements mentioned above will have to be given up, unless it is established by some special argument, independent of a general theory of the meaning of names; and the same applies to identity statements. In any case, I think it's false that 'Moses exists' means that at all.

strong generalization(s) about proper names' are impossible; 'one can only say what is so for the most part . . .'. Nevertheless Ziff clearly states that a cluster-of-descriptions theory is a reasonable such rough statement, at least for historical figures. For Ziff's view that proper names ordinarily are not words of the language and ordinarily do not have meaning, see pp. 85-89 and 93-94 of *Semantic Analysis*.

So we won't have to see if such a special argument can be drawn up.¹⁰

Before I go any further into this problem, I want to talk about another distinction which will be important in the methodology of these talks. Philosophers have talked (and, of course, there has been considerable controversy in recent years over the meaningfulness of these notions) [about] various categories of truth, which are called '*a priori*', 'analytic', 'necessary'—and sometimes even 'certain' is thrown into this batch. The terms are often used as if *whether* there are things answering to these concepts is an interesting question, but we might as well regard them all as meaning the same thing. Now, everyone remembers Kant (a bit) as making a distinction between '*a priori*' and 'analytic'. So maybe this distinction is still made. In contemporary discussion very few people, if any, distinguish between the concepts of statements being '*a priori*' and their being necessary. At any rate I shall *not* use the terms '*a priori*' and 'necessary' interchangeably here.

Consider what the traditional characterizations of such terms as '*a priori*' and 'necessary' are. First the notion of a *prioricity* is a concept of epistemology. I guess the traditional characterization from Kant goes something like: *a priori* truths are those which can be known independently of any experience. This introduces another problem before we get off the ground, because there's another modality in the characterization of '*a priori*', namely, it is supposed to be something which *can* be known independently of any experience. That means that in some sense it's *possible* (whether we do or do not in fact know it independently of any experience) to know this independently of any experience. And possible for whom? For God? For the Martians?

¹⁰ Those determinists who deny the importance of the individual in history may well argue that had Moses never existed, someone else would have arisen to achieve all that he did. Their claim cannot be refuted by appealing to a correct philosophical theory of the meaning of 'Moses exists'.

Or just for people with minds like ours? To make this all clear might [involve] a host of problems all of its own about what sort of possibility is in question here. It might be best therefore, instead of using the phrase '*a priori* truth', to the extent that one uses it at all, to stick to the question of whether a particular person or knower knows something *a priori* or believes it true on the basis of *a priori* evidence.

I won't go further too much into the problems that might arise with the notion of a *prioricity* here. I will say that some philosophers somehow change the modality in this characterization from *can* to *must*. They think that if something belongs to the realm of *a priori* knowledge, it couldn't possibly be known empirically. This is just a mistake. Something may belong in the realm of such statements that *can* be known *a priori* but still may be known by particular people on the basis of experience. To give a really common sense example: anyone who has worked with a computing machine knows that the computing machine may give an answer to whether such and such a number is prime. No one has calculated or proved that the number is prime; but the machine has given the answer: this number is prime. We, then, if we believe that the number is prime, believe it on the basis of our knowledge of the laws of physics, the construction of the machine, and so on. We therefore do not believe this on the basis of purely *a priori* evidence. We believe it (if anything is *a posteriori* at all) on the basis of *a posteriori* evidence. Nevertheless, maybe this could be known *a priori* by someone who made the requisite calculations. So '*can*' be known *a priori*' doesn't mean '*must*' be known *a priori*'. The second concept which is in question is that of necessity. Sometimes this is used in an epistemological way and might then just mean *a priori*. And of course, sometimes it is used in a physical way when people distinguish between physical and logical necessity. But what I am concerned with here is a notion which is not a notion of epistemology but of metaphysics,

in some (I hope) nonpejorative sense. We ask whether something might have been true, or might have been false. Well, if something is false, it's obviously not necessarily true. If it is true, might it have been otherwise? Is it possible that, in this respect, the world should have been different from the way it is? If the answer is 'no', then this fact about the world is a necessary one. If the answer is 'yes', then this fact about the world is a contingent one. This in and of itself has nothing to do with anyone's knowledge of anything. It's certainly a philosophical thesis, and not a matter of obvious definitional equivalence, either that everything *a priori* is necessary or that everything necessary is *a priori*. Both concepts may be vague. That may be another problem. But at any rate they are dealing with two different domains, two different areas, the epistemological and the metaphysical. Consider, say, Fermat's last theorem—or the Goldbach conjecture. The Goldbach conjecture says that an even number greater than 2 must be the sum of two prime numbers. If this is true, it is presumably necessary, and, if it is false, presumably necessarily false. We are taking the classical view of mathematics here and assume that in mathematical reality it is either true or false.

If the Goldbach conjecture is false, then there is an even number, n , greater than 2, such that for no primes p_1 and p_2 , both $< n$, does $n = p_1 + p_2$. This fact about n , if true, is verifiable by direct computation, and thus is necessary if the results of arithmetical computations are necessary. On the other hand, if the conjecture is true, then every even number exceeding 2 is the sum of two primes. Could it then be the case that, although in fact every such even number is the sum of two primes, there might have been such an even number which was not the sum of two primes? What would that mean? Such a number would have to be one of 4, 6, 8, 10, . . .; and, by hypothesis, since we are assuming Goldbach's conjecture to be true, each of these can be shown, again by direct computation, to be the sum of

two primes. Goldbach's conjecture, then, cannot be contingently true or false; whatever truth-value it has belongs to it by necessity.

But what we can say, of course, is that right now, as far as we know, the question can come out either way. So, in the absence of a mathematical proof deciding this question, none of us has any *a priori* knowledge about this question in either direction. We don't know whether Goldbach's conjecture is true or false. So right now we certainly don't know anything *a priori* about it.

Perhaps it will be alleged that we *can* in principle know *a priori* whether it is true. Well, maybe we can. Of course an infinite mind which can search through all the numbers can or could. But I don't know whether a finite mind can or could. Maybe there just is no mathematical proof whatsoever which decides the conjecture. At any rate this might or might not be the case. Maybe there is a mathematical proof deciding this question; maybe every mathematical question is decidable by an intuitive proof or disproof. Hilbert thought so; others have thought not; still others have thought the question unintelligible unless the notion of intuitive proof is replaced by that of formal proof in a single system. Certainly no one formal system decides all mathematical questions, as we know from Gödel. At any rate, and this is the important thing, the question is not trivial; even though someone said that it's necessary, if true at all, that every even number is the sum of two primes, it doesn't follow that anyone knows anything *a priori* about it. It doesn't even seem to me to follow without some further philosophical argument (it is an interesting philosophical question) that anyone *could* know anything *a priori* about it. The 'could', as I said, involves some other modality. We mean that even if no one, perhaps even in the future, knows or will know *a priori* whether Goldbach's conjecture is right, in principle there is a way, which *could* have been

used, of answering the question *a priori*. This assertion is not trivial.

The terms 'necessary' and '*a priori*', then, as applied to statements, are *not* obvious synonyms. There may be a philosophical argument connecting them, perhaps even identifying them; but an argument is required, not simply the observation that the two terms are clearly interchangeable. (I will argue below that in fact they are not even coextensive—that necessary *a posteriori* truths, and probably contingent *a priori* truths, both exist.)

I think people have thought that these two things must mean the same for these reasons:

First, if something not only happens to be true in the actual world but is also true in all possible worlds, then, of course, just by running through all the possible worlds in our heads, we ought to be able with enough effort to see, if a statement is necessary, that it is necessary, and thus know it *a priori*. But really this is not so obviously feasible at all.

Second, I guess it's thought that, conversely, if something is known *a priori* it must be necessary, because it was known without looking at the world. If it depended on some contingent feature of the actual world, how could you know it without looking? Maybe the actual world is one of the possible worlds in which it would have been false. This depends on the thesis that there can't be a way of knowing about the actual world without looking that wouldn't be a way of knowing the same thing about every possible world. This involves problems of epistemology and the nature of knowledge; and of course it is very vague as stated. But it is not really *trivial* either. More important than any particular example of something which is alleged to be necessary and not *a priori* or *a priori* and not necessary, is to see that the notions are different, that it's not trivial to argue on the basis of something's being something which maybe we can only know *a posteriori*, that it's not

a necessary truth. It's not trivial, just because something is known in some sense *a priori*, that what is known is a necessary truth.

Another term used in philosophy is 'analytic'. Here it won't be too important to get any clearer about this in this talk. The common examples of analytic statements, nowadays, are like 'bachelors are unmarried'. Kant (someone just pointed out to me) gives as an example 'gold is a yellow metal', which seems to me an extraordinary one, because it's something I think that can turn out to be false. At any rate, let's just make it a matter of stipulation that an analytic statement is, in some sense, true by virtue of its meaning and true in all possible worlds by virtue of its meaning. Then something which is analytically true will be both necessary and *a priori*. (That's sort of stipulative.)

Another category I mentioned was that of certainty. Whatever certainty is, it's clearly not obviously the case that everything which is necessary is certain. Certainty is another epistemological notion. Something can be known, or at least rationally believed, *a priori*, without being quite certain. You've read a proof in the math book; and, though you think it's correct, maybe you've made a mistake. You often do make mistakes of this kind. You've made a computation, perhaps with an error.

There is one more question I want to go into in a preliminary way. Some philosophers have distinguished between essentialism, the belief in modality *de re*, and a mere advocacy of necessity, the belief in modality *de dicto*. Now, some people say: Let's give you the concept of necessity.¹¹ A much worse

¹¹ By the way, it's a common attitude in philosophy to think that one shouldn't introduce a notion until it's been rigorously defined (according to some popular notion of rigor). Here I am just dealing with an intuitive notion and will keep on the level of an intuitive notion. That is, we think that some things, though they are in fact the case, might have been otherwise. I might not have given these lectures today. If that's right, then it is possible that I

thing, something creating great additional problems, is whether we can say of any particular that it has necessary or contingent properties, even make the distinction between necessary and contingent properties. Look, it's only a *statement* or a *state of affairs* that can be either necessary or contingent! Whether a particular necessarily or contingently has a certain property depends on the way it's described. This is perhaps closely related to the view that the way we refer to particular things is by a description. What is Quine's famous example? If we consider the number 9, does it have the property of necessary oddness? Has that number got to be odd in all possible worlds? Certainly it's true in all possible worlds, let's say, it couldn't have been otherwise, that *nine* is odd. Of course, 9 could also be equally well picked out as *the number of planets*. It is *not* necessary, not true in all possible worlds, that the number of planets is odd. For example if there had been eight planets, the number of planets would not have been odd. And so it's thought: Was it necessary or contingent that Nixon won the election? (It might seem contingent, unless one has some view of some inexorable processes. . . .) But this is a contingent property of Nixon only relative to our referring to him as 'Nixon' (assuming 'Nixon' doesn't mean 'the man who won the election at such and such a time'). But if we designate Nixon as 'the man who won the election in 1968', then it will be a necessary truth, of course, that the man who won the election in 1968, won the election in 1968. Similarly, whether an object has the same property in all possible worlds depends

wouldn't have given these lectures today. Quite a different question is the epistemological question, how any particular person knows that I gave these lectures today. I suppose in that case he does know this is *a posteriori*. But, if someone were born with an innate belief that I was going to give these lectures today, who knows? Right now, anyway, let's suppose that people know this *a posteriori*. At any rate, the two questions being asked are different.

not just on the object itself, but on how it is described. So it's argued.

It is even suggested in the literature, that though a notion of necessity may have some sort of intuition behind it (we do think some things could have been otherwise; other things we don't think could have been otherwise), this notion [of a distinction between necessary and contingent properties] is just a doctrine made up by some bad philosopher, who (I guess) didn't realize that there are several ways of referring to the same thing. I don't know if some philosophers have not realized this; but at any rate it is very far from being true that this idea [that a property can meaningfully be held to be essential or accidental to an object independently of its description] is a notion which has no intuitive content, which means nothing to the ordinary man. Suppose that someone said, pointing to Nixon, "That's the guy who might have lost". Someone else says "Oh no, if you describe him as "Nixon", then he might have lost; but, of course, describing him as the winner, then it is not true that he might have lost". Now which one is being the philosopher, here, the unintuitive man? It seems to me obviously to be the second. The second man has a philosophical theory. The first man would say, and with great conviction, "Well, of course, the winner of the election *might have been someone else*. The actual winner, had the course of the campaign been different, might have been the loser, and someone else the winner; or there might have been no election at all. So, such terms as "the winner" and "the loser" don't designate the same objects in all possible worlds. On the other hand, the term "Nixon" is just a *name of this man*'. When you ask whether it is necessary or contingent that Nixon won the election, you are asking the intuitive question whether in some counterfactual situation, *this man* would in fact have lost the election. If someone thinks that the notion of a necessary or contingent property (forget whether there *are* any nontrivial

necessary properties [and consider] just the *meaningfulness* of the notion¹²) is a philosopher's notion with no intuitive content, he is wrong. Of course, some philosophers think that something's having intuitive content is very inconclusive evidence in favor of it. I think it is very heavy evidence in favor of anything, myself. I really don't know, in a way, what more conclusive evidence one can have about anything, ultimately speaking. But, in any event, people who think the notion of accidental property unintuitive have intuition reversed, I think.

Why have they thought this? While there are many motivations for people thinking this, one is this: The question of essential properties so-called is supposed to be equivalent (and it is equivalent) to the question of 'identity across possible worlds'. Suppose we have someone, Nixon, and there's another possible world where there is no one with all the properties Nixon has in the actual world. Which one of these other people, if any, is Nixon? Surely you must give some criterion of identity here! If you have a criterion of identity, then you just look in the other possible worlds at the man who is Nixon; and the question whether, in that other possible world, Nixon has certain properties, is well defined. It is also supposed to be well defined, in terms of such notions, whether it's true in all possible worlds, or there are some possible worlds in which Nixon didn't win the election. But, it's said, the problems of giving such criteria of identity are very difficult. Sometimes

¹² The example I gave asserts a certain property—electoral victory—to be *accidental* to Nixon, independently of how he is described. Of course, if the notion of accidental property is meaningful, the notion of essential property must be meaningful also. This is not to say that there are any essential properties—though, in fact, I think there are. The usual argument questions the *meaningfulness* of essentialism, and says that whether a property is accidental or essential to an object depends on how it is described. It is thus *not* the view that all properties are accidental. Of course, it is also not the view, held by some idealists, that all properties are essential, all relations internal.

in the case of numbers it might seem easier (but even here it's argued that it's quite arbitrary). For example, one might say, and this is surely the truth, that if position in the series of numbers is what makes the number 9 what it is, then if (in another world) the number of planets had been 8, the number of planets would be a different number from the one it actually is. You wouldn't say that that number then is to be identified with our number 9 in this world. In the case of other types of objects, say people, material objects, things like that, has anyone given a set of necessary and sufficient conditions for identity across possible worlds?

Really, adequate necessary and sufficient conditions for identity which do not beg the question are very rare in any case. Mathematics is the only case I really know of where they are given even *within* a possible world, to tell the truth. I don't know of such conditions for identity of material objects over time, or for people. Everyone knows what a problem this is. But, let's forget about that. What seems to be more objectionable is that this depends on the wrong way of looking at what a possible world is. One thinks, in this picture, of a possible world as if it were like a foreign country. One looks upon it as an observer. Maybe Nixon has moved to the other country and maybe he hasn't, but one is given only qualities. One can observe all his qualities, but, of course, one doesn't observe that someone is Nixon. One observes that something has red hair (or green or yellow) but not whether something is Nixon. So we had better have a way of telling in terms of properties when we run into the same thing as we saw before; we had better have a way of telling, when we come across one of these other possible worlds, who was Nixon.

Some logicians in their formal treatment of modal logic may encourage this picture. A prominent example, perhaps, is myself. Nevertheless, intuitively speaking, it seems to me not

to be the right way of thinking about the possible worlds. A possible world isn't a distant country that we are coming across, or viewing through a telescope. Generally speaking, another possible world is too far away. Even if we travel faster than light, we won't get to it. A possible world is *given by the descriptive conditions we associate with it*. What do we mean when we say 'In some other possible world I would not have given this lecture today?' We just imagine the situation where I didn't decide to give this lecture or decided to give it on some other day. Of course, we don't imagine everything that is true or false, but only those things relevant to my giving the lecture; but, in theory, everything needs to be decided to make a total description of the world. We can't really imagine that except in part; that, then, is a 'possible world'. Why can't it be part of the *description* of a possible world that it contains Nixon and that in that world Nixon didn't win the election? It might be a question, of course, whether such a world *is* possible. (Here it would seem, *prima facie*, to be clearly possible.) But, once we see that such a situation is possible, then we are given that the man who might have lost the election or did lose the election in this possible world is Nixon, because that's part of the description of the world. 'Possible worlds' are *stipulated*, not *discovered* by powerful telescopes. There is no reason why we cannot *stipulate* that, in talking about what would have happened to Nixon in a certain counterfactual situation, we are talking about what would have happened to *him*.

Of course, if someone makes the demand that every possible world has to be described in a purely qualitative way, we can't say, 'Suppose Nixon had lost the election', we must say, instead, something like, 'Suppose a man with a dog named Checkers, who looks like a certain David Frye impersonation, is in a certain possible world and loses the election.' Well, does he resemble Nixon enough to be identified with Nixon? A very explicit and blatant example of this way of looking at

things is David Lewis's counterpart theory,¹³ but the literature on quantified modality is replete with it.¹⁴ Why need we make this demand? That is not the way we ordinarily think of counterfactual situations. We just say 'suppose this man had

¹³ David K. Lewis, 'Counterpart Theory and Quantified Modal Logic', *Journal of Philosophy* 65 (1968), 113-126. Lewis's elegant paper also suffers from a purely formal difficulty: on his interpretation of quantified modality, the familiar law $(\forall y)((x)A(x) \supset A(y))$ fails, if $A(x)$ is allowed to contain modal operators. (For example, $(\exists y)((x) \diamond (x \neq y))$ is satisfiable but $(\exists y) \diamond (y \neq y)$ is not.) Since Lewis's formal model follows rather naturally from his philosophical views on counterparts, and since the failure of universal instantiation for modal properties is intuitively bizarre, it seems to me that this failure constitutes an additional argument against the plausibility of his philosophical views. There are other, lesser, formal difficulties as well. I cannot elaborate here.

Strictly speaking, Lewis's view is not a view of 'transworld identification'. Rather, he thinks that similarities across possible worlds determine a counterpart relation which need be neither symmetric nor transitive. The counterpart of something in another possible world is *never* identical with the thing itself. Thus if we say 'Humphrey might have won the election (if only he had done such-and-such), we are not talking about something that might have happened to *Humphrey* but to someone else, a "counterpart"'. Probably, however, Humphrey could not care less whether someone else, no matter how much resembling him, would have been victorious in another possible world. Thus, Lewis's view seems to me even more bizarre than the usual notions of transworld identification that it replaces. The important issues, however, are common to the two views: the supposition that other possible worlds are like other dimensions of a more inclusive universe, that they can be given only by purely qualitative descriptions, and that therefore either the identity relation or the counterpart relation must be established in terms of qualitative resemblance.

Many have pointed out to me that the father of counterpart theory is probably Leibniz. I will not go into such a historical question here. It would also be interesting to compare Lewis's views with the Wheeler-Everett interpretation of quantum mechanics. I suspect that this view of physics may suffer from philosophical problems analogous to Lewis's counterpart theory; it is certainly very similar in spirit.

¹⁴ Another *locus classicus* of the views I am criticizing, with more philosophical exposition than Lewis's paper, is a paper by David Kaplan on transworld identification. Unfortunately, this paper has never been published. It does not represent Kaplan's present position.

lost'. It is *given* that the possible world contains *this man*, and that in that world, he had lost. There may be a problem about what intuitions about possibility come to. But, if we have such an intuition about the possibility of *that* (*this man's* electoral loss), then it is about the possibility of *that*. It need not be identified with the possibility of a man looking like such and such, or holding such and such political views, or otherwise qualitatively described, having lost. We can point to the *man*, and ask what might have happened to *him*, had events been different.

It might be said 'Let's suppose that this is true. It comes down to the same thing, because whether Nixon could have had certain properties, different from the ones he actually has, is equivalent to the question whether the criteria of identity across possible worlds include that Nixon does not have these properties'. But it doesn't really come to the same thing, because the usual notion of a criterion of transworld identity demands that we give purely qualitative necessary and sufficient conditions for someone being Nixon. If we can't imagine a possible world in which Nixon doesn't have a certain property, then it's a necessary condition of someone being Nixon. Or a necessary property of Nixon that he [has] that property. For example, supposing Nixon is in fact a human being, it would seem that we cannot think of a possible counterfactual situation in which he was, say, an inanimate object; perhaps it is not even possible for him not to have been a human being. Then it will be a necessary fact about Nixon that in all possible worlds where he exists at all, he is human or anyway he is not an inanimate object. This has nothing to do with any requirement that there be purely qualitative *sufficient* conditions for Nixonhood which we can spell out. And should there be? Maybe there is some argument that there should be, but we can consider these questions about *necessary* conditions without going into any question about *sufficient* conditions.

Further, even if there were a purely qualitative set of necessary and sufficient conditions for being Nixon, the view I advocate would not demand that we find these conditions *before* we can ask whether Nixon might have won the election, nor does it demand that we restate the question in terms of such conditions. We can simply consider *Nixon* and ask what might have happened to *him* had various circumstances been different. So the two views, the two ways of looking at things, do seem to me to make a difference.

Notice this question, whether Nixon could not have been a human being, is a clear case where the question asked is not epistemological. Suppose Nixon actually turned out to be an automaton. That might happen. We might need evidence whether Nixon is a human being or an automaton. But that is a question about our knowledge. The question of whether Nixon might have not been a human being, given that he is one, is not a question about knowledge, *a posteriori* or *a priori*. It's a question about, even though such and such things are the case, what might have been the case otherwise.

This table is composed of molecules. Might it not have been composed of molecules? Certainly it was a scientific discovery of great moment that it was composed of molecules (or atoms). But could anything be this very object and not be composed of molecules? Certainly there is some feeling that the answer to that must be 'no'. At any rate, it's hard to imagine under what circumstances you would have this very object and find that it is not composed of molecules. A quite different question is whether it is in fact composed of molecules in the actual world and how we know this. (I will go into more detail about these questions about essence later on.)

I wish at this point to introduce something which I need in the methodology of discussing the theory of names that I'm talking about. We need the notion of 'identity across possible worlds' as it's usually and, as I think, somewhat misleadingly

called,¹⁵ to explicate one distinction that I want to make now. What's the difference between asking whether it's necessary that 9 is greater than 7 or whether it's necessary that the number of planets is greater than 7? Why does one show anything more about essence than the other? The answer to this might be intuitively 'Well, look, the number of planets might have been different from what it in fact is. It doesn't make any sense, though, to say that nine might have been different from what it in fact is'. Let's use some terms quasi-technically. Let's call something a *rigid designator* if in every possible world it designates the same object, a *nonrigid* or *accidental designator* if that is not the case. Of course we don't require that the objects exist in all possible worlds. Certainly Nixon might not have existed if his parents had not gotten married, in the normal course of things. When we think of a property as essential to an object we usually mean that it is true of that object in any case where it would have existed. A rigid designator of a necessary existent can be called *strongly rigid*.

One of the intuitive theses I will maintain in these talks is that *names* are rigid designators. Certainly they seem to satisfy the intuitive test mentioned above: although someone other than the U.S. President in 1970 might have been the U.S. President in 1970 (e.g., Humphrey might have), no one other than Nixon might have been Nixon. In the same way, a

¹⁵ Misleadingly, because the phrase suggests that there is a special problem of 'transworld identification', that we cannot trivially stipulate whom or what we are talking about when we imagine another possible world. The term 'possible world' may also mislead; perhaps it suggests the 'foreign country' picture. I have sometimes used 'counterfactual situation' in the text; Michael Stoe has suggested that 'possible state (or history) of the world' might be less misleading than 'possible world'. It is better still, to avoid confusion, not to say, 'In some possible world, Humphrey would have won' but rather, simply, 'Humphrey might have won'. The apparatus of possible worlds has (I hope) been very useful as far as the set-theoretic model-theory of quantified modal logic is concerned, but has encouraged philosophical pseudo-problems and misleading pictures.

designator rigidly designates a certain object if it designates that object wherever the object exists; if, in addition, the object is a necessary existent, the designator can be called *strongly rigid*. For example, 'the President of the U.S. in 1970' designates a certain man, Nixon; but someone else (e.g., Humphrey) might have been the President in 1970, and Nixon might not have; so this designator is not rigid.

In these lectures, I will argue, intuitively, that proper names are rigid designators, for although the man (Nixon) might not have been the President, it is not the case that he might not have been Nixon (though he might not have been called 'Nixon'). Those who have argued that to make sense of the notion of rigid designator, we must antecedently make sense of 'criteria of transworld identity' have precisely reversed the cart and the horse; it is *because* we can refer (rigidly) to Nixon, and stipulate that we are speaking of what might have happened to *him* (under certain circumstances), that 'transworld identifications' are unproblematic in such cases.¹⁶

The tendency to demand purely qualitative descriptions of counterfactual situations has many sources. One, perhaps, is the confusion of the epistemological and the metaphysical, between a priority and necessity. If someone identifies necessity with a priority, and thinks that objects are named by means of uniquely identifying properties, he may think that it is the properties used to identify the object which, being known about it *a priori*, must be used to identify it in all possible worlds, to find out which object is Nixon. As against this, I repeat: (1) Generally, things aren't 'found out' about a counterfactual situation, they are stipulated; (2) possible worlds

¹⁶ Of course I don't imply that language contains a name for every object. Demonstratives can be used as rigid designators, and free variables can be used as rigid designators of unspecified objects. Of course when we specify a counterfactual situation, we do not describe the whole possible world, but only the portion which interests us.

need not be given purely qualitatively, as if we were looking at them through a telescope. And we will see shortly that the properties an object has in every counterfactual world have nothing to do with properties used to identify it in the actual world.¹⁷

Does the 'problem' of 'transworld identification' make any sense? Is it *simply* a pseudo-problem? The following, it seems to me, can be said for it. Although the statement that England fought Germany in 1943 perhaps cannot be *reduced* to any statement about individuals, nevertheless in some sense it is not a fact 'over and above' the collection of all facts about persons, and their behavior over history. The sense in which facts about nations are not facts 'over and above' those about persons can be expressed in the observation that a description of the world mentioning all facts about persons but omitting those about nations can be a *complete* description of the world, from which the facts about nations follow. Similarly, perhaps, facts about material objects are not facts 'over and above' facts about their constituent molecules. We may then ask, given a description of a non-actualized possible situation in terms of people, whether England still exists in that situation, or whether a certain nation (described, say, as the one where Jones lives) which would exist in that situation, is England. Similarly, given certain counterfactual vicissitudes in the history of the molecules of a table, *T*, one may ask whether *T* would exist, in that situation, or whether a certain bunch of molecules, which in that situation would constitute a table, constitute the very same table *T*. In each case, we seek criteria of identity across possible worlds for certain particulars in terms of those for other, more 'basic', particulars. If statements about nations (or tribes) are not *reducible* to those about other more 'basic' constituents, if there is some 'open texture' in the relationship between them, we can hardly expect to give hard and fast identity criteria;

¹⁷ See Lecture I, p. 53 (on Nixon), and Lecture II, pp. 74-7.

nevertheless, in concrete cases we may be able to answer whether a certain bunch of molecules would still constitute *T*, though in some cases the answer may be indeterminate. I think similar remarks apply to the problem of identity over time; here too we are usually concerned with determinacy, the identity of a 'complex' particular in terms of more 'basic' ones. (For example, if various parts of a table are replaced, is it the same object?¹⁸)

Such a conception of 'transworld identification', however, differs considerably from the usual one. First, although we can try to describe the world in terms of molecules, there is no impropriety in describing it in terms of grosser entities: the statement that *this table* might have been placed in another room is perfectly proper, in and of itself. We need not use the description in terms of molecules, or even grosser parts of the table, though we may. Unless we assume that some particulars are 'ultimate', 'basic' particulars, no type of description need be regarded as privileged. We can ask whether Nixon might have lost the election without further subtlety, and usually no further subtlety is required. Second, it is not assumed that necessary and sufficient conditions for what kinds of collections

¹⁸ There is some vagueness here. If a chip, or molecule, of a given table had been replaced by another one, we would be content to say that we have the same table. But if too many chips were different, we would seem to have a different one. The same problem can, of course, arise for identity over time.

Where the identity relation is vague, it may seem intransitive; a chain of apparent identities may yield an apparent non-identity. Some sort of 'counterpart' notion (though not with Lewis's philosophical underpinnings of resemblance, foreign country worlds, etc.), may have some utility here. One could say that strict identity applies only to the particulars (the molecules), and the counterpart relation to the particulars 'composed' of them, the tables. The counterpart relation can then be declared to be vague and intransitive. It seems, however, utopian to suppose that we will ever reach a level of ultimate, basic particulars for which identity relations are never vague and the danger of intransitivity is eliminated. The danger usually does not arise in practice, so we ordinarily can speak simply of identity without worry. Logicians have not developed a logic of vagueness.

of molecules make up this table are possible; this fact I just mentioned. Third, the attempted notion deals with criteria of identity of particulars in terms of other *particulars*, not qualities. I can refer to the table before me, and ask what might have happened to it under certain circumstances; I can also refer to its molecules. If, on the other hand, it is demanded that I describe each counterfactual situation purely qualitatively, then I can only ask whether *a table*, of such and such color, and so on, would have certain properties; whether the table in question would be *this table*, table *T*, is indeed moot, since all reference to objects, as opposed to qualities, has disappeared. It is often said that, if a counterfactual situation is described as one which would have happened to Nixon, and if it is not assumed that such a description is reducible to a purely qualitative one, then mysterious 'bare particulars' are assumed, propertyless substrata underlying the qualities. This is not so: I think that Nixon is a Republican, not merely that he lies in back of Republicanism, whatever that means; I also think he might have been a Democrat. The same holds for any other properties Nixon may possess, except that some of these properties may be essential. What I do deny is that a particular is nothing but a 'bundle of qualities', whatever that may mean. If a quality is an abstract object, a bundle of qualities is an object of an even higher degree of abstraction, not a particular. Philosophers have come to the opposite view through a false dilemma: they have asked, are these objects *behind* the bundle of qualities, or is the object *nothing but* the bundle? Neither is the case; this table is wooden, brown, in the room, etc. It has all these properties and is not a thing without properties, behind them; but it should not therefore be identified with the set, or 'bundle', of its properties, nor with the subset of its essential properties. Don't ask: how can I identify this table in another possible world, except by its properties? I have the table in my hands, I can point to it, and when I ask whether *it* might have been in

another room, I am talking, by definition, about *it*. I don't have to identify it after seeing it through a telescope. If I am talking about *it*, I am talking about *it*, in the same way as when I say that our hands might have been painted green, I have stipulated that I am talking about greenness. Some properties of an object may be essential to it, in that it could not have failed to have them. But these properties are not used to identify the object in another possible world, for such an identification is not needed. Nor need the essential properties of an object be the properties used to identify it in the actual world, if indeed it is identified in the actual world by means of properties (I have up to now left the question open).

So: the question of transworld identification makes *some* sense, in terms of asking about the identity of an object *via* questions about its component parts. But these parts are not qualities, and it is not an object resembling the given one which is in question. Theorists have often said that we identify objects across possible worlds as objects resembling the given one in the most important respects. On the contrary, Nixon, had he decided to act otherwise, might have avoided politics like the plague, though privately harboring radical opinions. Most important, even when we *can* replace questions about an object by questions about its parts, we *need* not do so. We can refer to the object and ask what might have happened to *it*. So, we do not begin with worlds (which are supposed somehow to be real, and whose qualities, but not whose objects, are perceptible to us), and then ask about criteria of transworld identification; on the contrary, we begin with the objects, which we *have*, and can identify, in the actual world. We can then ask whether certain things might have been true of the objects.

Above I said that the Frege-Russell view that names are introduced by description could be taken either as a theory of the meaning of names (Frege and Russell seemed to take it this

way) or merely as a theory of their reference. Let me give an example, not involving what would usually be called a 'proper name,' to illustrate this. Suppose someone stipulates that 100 degrees centigrade is to be the temperature at which water boils at sea level. This isn't completely precise because the pressure may vary at sea level. Of course, historically, a more precise definition was given later. But let's suppose that this were the definition. Another sort of example in the literature is that one meter is to be the length of *S* where *S* is a certain stick or bar in Paris. (Usually people who like to talk about these definitions then try to make 'the length of' into an 'operational' concept. But it's not important.)

Wittgenstein says something very puzzling about this. He says: 'There is one thing of which one can say neither that it is one meter long nor that it is not one meter long, and that is the standard meter in Paris. But this is, of course, not to ascribe any extraordinary property to it, but only to mark its peculiar role in the language game of measuring with a meter rule.'¹⁹ This seems to be a very 'extraordinary property,' actually, for any stick to have. I think he must be wrong. If the stick is a stick, for example, 39.37 inches long (I assume we have some different standard for inches), why isn't it one meter long? Anyway, let's suppose that he is wrong and that the stick is one meter long. Part of the problem which is bothering Wittgenstein is, of course, that this stick serves as a standard of length and so we can't attribute length to it. Be this as it may (well, it may not be), is the statement 'stick *S* is one meter long,' a necessary truth? Of course its length might vary in time. We could make the definition more precise by stipulating that one meter is to be the length of *S* at a fixed time t_0 . Is it then a necessary truth that stick *S* is one meter long at time t_0 ? Someone who thinks that everything one knows *a priori* is necessary might think: 'This is the *definition* of a meter. By

¹⁹ *Philosophical Investigations*, § 50.

definition, stick *S* is one meter long at t_0 . That's a necessary truth.' But there seems to me to be no reason so to conclude, even for a man who uses the stated definition of 'one meter'. For he's using this definition not to *give the meaning* of what he called the 'meter', but to *fix the reference*. (For such an abstract thing as a unit of length, the notion of reference may be unclear. But let's suppose it's clear enough for the present purposes.) He uses it to fix a reference. There is a certain length which he wants to mark out. He marks it out by an accidental property, namely that there is a stick of that length. Someone else might mark out the same reference by another accidental property. But in any case, even though he uses this to fix the reference of his standard of length, a meter, he can still say, 'if heat had been applied to this stick *S* at t_0 , then at t_0 stick *S* would not have been one meter long.'

Well, why can he do this? Part of the reason may lie in some people's minds in the philosophy of science, which I don't want to go into here. But a simple answer to the question is this: Even if this is the *only* standard of length that he uses,²⁰ there is an intuitive difference between the phrase 'one meter' and the phrase 'the length of *S* at t_0 '. The first phrase is meant to designate rigidly a certain length in all possible worlds, which in the actual world happens to be the length of the stick *S* at t_0 . On the other hand 'the length of *S* at t_0 ' does not designate anything rigidly. In some counterfactual situations the stick might have been longer and in some shorter, if various stresses and strains had been applied to it. So we can say of this stick, the same way as we would of any other of the same substance and length, that if heat of a given quantity had been applied to it, it would have expanded to such and such a length. Such a

²⁰ Philosophers of science may see the key to the problem in a view that 'one meter' is a 'cluster concept'. I am asking the reader hypothetically to suppose that the 'definition' given is the *only* standard used to determine the metric system. I think the problem would still arise.

counterfactual statement, being true of other sticks with identical physical properties, will also be true of this stick. There is no conflict between that counterfactual statement and the definition of 'one meter' as 'the length of *S* at t_0 ', because the 'definition', properly interpreted, does *not* say that the phrase 'one meter' is to be *synonymous* (even when talking about counterfactual situations) with the phrase 'the length of *S* at t_0 ', but rather that we have *determined the reference* of the phrase 'one meter' by stipulating that 'one meter' is to be a *rigid* designator of the length which is in fact the length of *S* at t_0 . So this does *not* make it a necessary truth that *S* is one meter long at t_0 . In fact, under certain circumstances, *S* would not have been one meter long. The reason is that one designator ('one meter') is rigid and the other designator ('the length of *S* at t_0 ') is not.

What then, is the *epistemological* status of the statement 'Stick *S* is one meter long at t_0 ', for someone who has fixed the metric system by reference to stick *S*? It would seem that he knows it *a priori*. For if he used stick *S* to fix the reference of the term 'one meter', then as a result of this kind of 'definition' (which is not an abbreviative or synonymous definition), he knows automatically, without further investigation, that *S* is one meter long.²¹ On the other hand, even if *S* is used as the standard of a meter, the *metaphysical* status of '*S* is one meter long' will be that of a contingent statement, provided that 'one meter' is regarded as a rigid designator: under appropriate stresses and strains, heatings or coolings, *S* would have had a length other than one meter even at t_0 . (Such statements as 'Water boils at 100°C at sea level' can have a similar status.) So in this sense, there are contingent *a priori* truths. More important for present purposes, though, than accepting this

²¹ Since the truth he knows is contingent, I choose *not* to call it 'analytic', stipulatively requiring analytic truths to be both necessary and *a priori*. See footnote 63.

example as an instance of the contingent *a priori*, is its illustration of the distinction between 'definitions' which fix a reference and those which give a synonymy.

In the case of names one might make this distinction too. Suppose the reference of a name is given by a description or a cluster of descriptions. If the name *means the same* as that description or cluster of descriptions, it will not be a rigid designator. It will not necessarily designate the same object in all possible worlds, since other objects might have had the given properties in other possible worlds, unless (of course) we happened to use essential properties in our description. So suppose we say, 'Aristotle is the greatest man who studied with Plato'. If we used that as a *definition*, the name 'Aristotle' is to mean 'the greatest man who studied with Plato'. Then of course in some other possible world that man might not have studied with Plato and some other man would have been Aristotle. If, on the other hand, we merely use the description to *fix the referent* then that man will be the referent of 'Aristotle' in all possible worlds. The only use of the description will have been to pick out to which man we mean to refer. But then, when we say counterfactually 'suppose Aristotle had never gone into philosophy at all', we need not mean 'suppose a man who studied with Plato, and taught Alexander the Great, and wrote this and that, and so on, had never gone into philosophy at all', which might seem like a contradiction. We need only mean, 'suppose that *that man* had never gone into philosophy at all'.

It seems plausible to suppose that, in some cases, the reference of a name is indeed fixed *via* a description in the same way that the metric system was fixed. When the mythical agent first saw Hesperus, he may well have fixed his reference by saying, 'I shall use "Hesperus" as a name of the heavenly body appearing in yonder position in the sky'. He then fixed the reference of 'Hesperus' by its apparent celestial position. Does it follow

that it is part of the *meaning* of the name that Hesperus has such and such position at the time in question? Surely not: if Hesperus had been hit earlier by a comet, it might have been visible at a different position at that time. In such a counterfactual situation we would say that Hesperus would not have occupied that position, but not that Hesperus would not have been Hesperus. The reason is that 'Hesperus' rigidly designates a certain heavenly body and 'the body in yonder position' does not—a different body, or no body might have been in that position, but no other body might have been Hesperus (though another body, not Hesperus, might have been called 'Hesperus'). Indeed, as I have said, I will hold that names are always rigid designators.

Frege and Russell certainly seem to have the full blown theory according to which a proper name is not a rigid designator and is synonymous with the description which replaced it. But another theory might be that this description is used to determine a rigid reference. These two alternatives will have different consequences for the questions I was asking before. If 'Moses' means 'the man who did such and such', then, if no one did such and such, Moses didn't exist; and maybe 'no one did such and such' is even an *analysis* of 'Moses didn't exist'. But if the description is used to fix a reference rigidly, then it's clear that that is *not* what is meant by 'Moses didn't exist', because we can ask, if we speak of a counterfactual case where no one did indeed do such and such, say, lead the Israelites out of Egypt, does it follow that, in such a situation, Moses wouldn't have existed? It would seem not. For surely Moses might have just decided to spend his days more pleasantly in the Egyptian courts. He might never have gone into either politics or religion at all; and in that case maybe no one would have done any of the things that the Bible relates of Moses. That doesn't in itself mean that in such a possible world Moses wouldn't have existed. If so, then

'Moses exists' means something different from 'the existence and uniqueness conditions for a certain description are fulfilled'; and therefore this does not give an analysis of the singular existential statement after all. If you give up the idea that this is a theory of meaning and make it into a theory of reference in the way that I have described, you give up some of the advantages of the theory. Singular existential statements and identity statements between names need some other analysis.

Frege should be criticized for using the term 'sense' in two senses. For he takes the sense of a designator to be its meaning; and he also takes it to be the way its reference is determined. Identifying the two, he supposes that both are given by definite descriptions. Ultimately, I will reject this second supposition too; but even were it right, I reject the first. A description may be used as synonymous with a designator, or it may be used to fix its reference. The two Fregean senses of 'sense' correspond to two senses of 'definition' in ordinary parlance. They should carefully be distinguished.²²

²² Usually the Fregean sense is now interpreted as the meaning, which must be carefully distinguished from a 'reference fixer'. We shall see below that for most speakers, unless they are the ones who initially give an object its name, the referent of the name is determined by a 'causal' chain of communication rather than a description.

In the formal semantics of modal logic, the 'sense' of a term *t* is usually taken to be the (possibly partial) function which assigns to each possible world *H* the referent of *t* in *H*. For a rigid designator, such a function is constant. This notion of 'sense' relates to that of 'giving a meaning', not that of fixing a reference. In this use of 'sense', 'one meter' has a constant function as its sense, though its reference is fixed by 'the length of *S*', which does not have a constant function as its sense.

Some philosophers have thought that descriptions, in English, are ambiguous, that sometimes they non-rigidly designate, in each world, the object (if any) satisfying the description, while sometimes they rigidly designate the object actually satisfying the description. (Others, inspired by Donnellan, say the description sometimes rigidly designates the object thought or presupposed to satisfy the description.) I find any such alleged ambiguities dubious. I know

I hope the idea of fixing the reference as opposed to actually defining one term as meaning the other is somewhat clear. There is really not enough time to go into everything in great detail. I think, even in cases where the notion of rigidity versus accidentalness of designation cannot be used to make out the difference in question, some things called definitions really intend to fix a reference rather than to give the meaning of a phrase, to give a synonym. Let me give an example. π is supposed to be the ratio of the circumference of a circle to its diameter. Now, it's something that I have nothing but a vague intuitive feeling to argue for: It seems to me that here this Greek letter is not being used as *short for* the phrase 'the ratio of the circumference of a circle to its diameter' nor is it even used as short for a cluster of alternative definitions of π , whatever that might mean. It is used as a *name* for a real number, which in this case is necessarily the ratio of the circumference of a circle to its diameter. Note that here both ' π ' and 'the ratio of the circumference of a circle to its diameter' are rigid designators, so the arguments given in the metric case are inapplicable. (Well, if someone doesn't see this, or thinks it's wrong, it doesn't matter.)

Let me return to the question about names which I raised. As I said, there is a popular modern substitute for the theory of Frege and Russell; it is adopted even by such a strong critic of many views of Frege and Russell, especially the latter, as

of no clear evidence for them which cannot be handled either by Russell's notion of scope or by the considerations alluded to in footnote 3, p. 25.

If the ambiguity does exist, then in the supposed *rigid* sense of 'the length of S ', 'one meter' and 'the length of S ' designate the same thing in all possible worlds and have the same (functional) 'sense'.

In the formal semantics of intensional logic, suppose we take a definite description to designate, in each world, the object satisfying the description. It is indeed useful to have an operator which transforms each description into a term which rigidly designates the object *actually* satisfying the description. David Kaplan has proposed such an operator and calls it 'Dthat'.

Strawson.²³ The substitute is that, although a name is not a disguised description it either abbreviates, or anyway its reference is determined by, some cluster of descriptions. The question is whether this is true. As I also said, there are stronger and weaker versions of this. The stronger version would say that the name is simply *defined*, synonymously, as the cluster of descriptions. It will then be necessary, not that Moses had any particular property in this cluster, but that he had the disjunction of them. There couldn't be any counterfactual situation in which he didn't do any of those things. I think it's clear that this is very implausible. People *have* said it—or maybe they haven't been intending to say that, but were using 'necessary' in some other sense. At any rate, for example, in Searle's article on proper names:

To put the same point differently, suppose we ask, 'why do we have proper names at all?' Obviously to refer to individuals. 'Yes but descriptions could do that for us'. But only at the cost of specifying identity conditions every time reference is made: 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).²⁴

Such a suggestion, if 'necessary' is used in the way I have been using it in this lecture, must clearly be false. (Unless he's got some very interesting essential property commonly attributed to Aristotle.) Most of the things commonly attributed to Aristotle are things that Aristotle might not have done at all. In a situation in which he didn't do them, we would describe that as a situation in which Aristotle didn't do them. This is not a distinction of scope, as happens sometimes in the case of

²³ P. F. Strawson, *Individuals*, Methuen, London, 1959, Ch. 6.

²⁴ Searle, op. cit. in Caron, *Philosophy and Ordinary Language*, p. 160.

descriptions, where someone might say that the man who taught Alexander might not have taught Alexander; though it could not have been true that: the man who taught Alexander didn't teach Alexander. This is Russell's distinction of scope. (I won't go into it.) It seems to me clear that this is not the case here. Not only is it true of the man Aristotle that he might not have gone into pedagogy; it is also true that we use the term 'Aristotle' in such a way that, in thinking of a counterfactual situation in which Aristotle didn't go into any of the fields and do any of the achievements we commonly attribute to him, still we would say that was a situation in which *Aristotle* did not do these things.²⁵ Well there are some things like the date, the period he lived in, that might be more imagined as necessary. Maybe those are things we commonly attribute to him. There are exceptions. Maybe it's hard to imagine how he could have lived 500 years later than he in fact did. That certainly raises at least a problem. But take a man who doesn't have any idea of the date. Many people just have some vague cluster of his most famous achievements. Not only each of these singly, but the possession of the entire disjunction of these properties, is just a contingent fact about Aristotle; and the statement

²⁵ The facts that 'the teacher of Alexander' is capable of scope distinctions in modal contexts and that it is not a rigid designator are both illustrated when one observes that the teacher of Alexander might not have taught Alexander (and, in such circumstances, would not have been the teacher of Aristotle). On the other hand, it is not true that Aristotle might not have been Aristotle, although Aristotle might not have been called 'Aristotle', just as 2×2 might not have been called 'four'. (Sloppy, colloquial speech, which often confuses use and mention, may, of course, express the fact that someone might have been called, or not have been called, 'Aristotle' by saying that he might have been, or not have been, Aristotle. Occasionally, I have heard such loose usages adduced as counterexamples to the applicability of the present theory to ordinary language. Colloquialisms like these seem to me to create as little problem for my theses as the success of the 'Impossible Missions Force' creates for the modal law that the impossible does not happen.) Further, although under certain circumstances Aristotle would not have taught Alexander, these are not circumstances under which he would not have been Aristotle.

that Aristotle had this disjunction of properties is a contingent truth.

A man might know it *a priori* in some sense, if he in fact fixes the reference of 'Aristotle' as the man who did one of these things. Still it won't be a necessary truth for him. So this sort of example would be an example where a priority would not necessarily imply necessity, if the cluster theory of names were right. The case of fixing the reference of 'one meter' is a very clear example in which someone, just because he fixed the reference in this way, can in some sense know *a priori* that the length of this stick is a meter without regarding it as a necessary truth. Maybe the thesis about a priority implying necessity can be modified. It does appear to state some insight which might be important, and true, about epistemology. In a way an example like this may seem like a trivial counterexample which is not really the point of what some people think when they think that only necessary truths can be known *a priori*. Well, if the thesis that all *a priori* truth is necessary is to be immune from this sort of counterexample, it needs to be modified in some way. Unmodified it leads to confusion about the nature of reference. And I myself have no idea how it should be modified or restated, or if such a modification or restatement is possible.²⁶

²⁶ If someone fixes a meter as 'the length of stick S at t_0 ', then in some sense he knows *a priori* that the length of stick S at t_0 is one meter, even though he uses this statement to express a contingent truth. But, merely by fixing a system of measurement, has he thereby learned some (contingent) information about the world, some new fact that he did not know before? It seems plausible that in some sense he did not, even though it is undeniably a contingent fact that S is one meter long. So there may be a case for reformulating the thesis that everything *a priori* is necessary so as to save it from this type of counterexample. As I said, I don't know how such a reformulation would go; the reformulation should not be such as to make the thesis trivial (e.g., by defining *a priori* as known to be necessary (instead of true) independently of experience); and the converse thesis would still be false.

Since I will not attempt such a reformulation, I shall consistently use the

Let me state then what the cluster concept theory of names is. (It really is a nice theory. The only defect I think it has is probably common to all philosophical theories. It's wrong. You may suspect me of proposing another theory in its place; but I hope not, because I'm sure it's wrong too if it is a theory.) The theory in question can be broken down into a number of theses, with some subsidiary theses if you want to see how it handles the problem of existence statements, identity statements, and so on. There are more theses if you take it in the stronger version as a theory of meaning. The speaker is *A*.

- (1) To every name or designating expression '*X*', there corresponds a cluster of properties, namely the family of properties ϕ such that *A* believes ' ϕX '.

This thesis is true, because it can just be a definition. Now, of course, some people might think that not everything the speaker believes about *X* has anything to do with determining the reference of '*X*'. They might only be interested in a subset. But we can handle this later on by modifying some of the other theses. So this thesis is correct, by definition. The theses that follow, however, are all, I think, false.

- (2) One of the properties, or some conjunctly, are believed by *A* to pick out some individual uniquely.

This doesn't say that they do pick out something uniquely, just that *A* believes that they do. Another thesis is that he is correct.

- (3) If most, or a weighted most, of the ϕ 's are satisfied by one unique object *y*, then *y* is the referent of '*X*'.

Well, the theory says that the referent of '*X*' is supposed to be the thing satisfying, if not all the properties, 'enough' of them.

term '*a priori*' in the text so as to make statements whose truth follows from a reference-fixing '*a priori*'.

Obviously *A* could be wrong about some things about *X*. You take some sort of a vote. Now the question is whether this vote should be democratic or have some inequalities among the properties. It seems more plausible that there should be some weighting, that some properties are more important than others. A theory really has to specify how this weighting goes. I believe that Strawson, to my surprise, explicitly states that democracy should rule here, so the most trivial properties are of equal weight with the most crucial.²⁷ Surely it is more plausible to suppose that there is some weighting. Let's say democracy doesn't necessarily rule. If there is any property that's completely irrelevant to the reference we can disentangle it altogether, by giving it weight 0. The properties can be regarded as members of a corporation. Some have more stock than others; some may even have only non-voting stock.

- (4) If the vote yields no unique object, '*X*' does not refer.
 (5) The statement, 'If *X* exists, then *X* has most of the ϕ 's' is known *a priori* by the speaker.
 (6) The statement, 'If *X* exists, then *X* has most of the ϕ 's' expresses a necessary truth (in the idiolect of the speaker).

(6) need not be a thesis of the theory if someone doesn't think that the cluster is part of the meaning of the name. He could think that though he determines the reference of 'Aristotle' as the man who had most of the ϕ 's, still there are certainly possible situations in which Aristotle wouldn't have had most of the ϕ 's.

As I indicated, there are some subsidiary theses, though I won't go into them in detail. These would give the analyses of singular existential statements like, "'Moses exists'" means

²⁷ Strawson, *op. cit.*, pp. 191-92. Strawson actually considers the case of several speakers, pools their properties, and takes a democratic (equally weighted) vote. He requires only a sufficiently plurality, not a majority.

"enough of the properties ϕ are satisfied". Even the man who doesn't use the theory as a theory of meaning has some of these theses. For example, subsidiary to thesis 4, we should say that it is *a priori* true for the speaker that, if not enough of the ϕ 's are satisfied, then X does not exist. Only if he holds the view as a theory of meaning, rather than of reference, would it also be *necessarily* true that, if not enough of the ϕ 's are satisfied, X does not exist. In any case it will be something he knows *a priori*. (At least he will know it *a priori* provided he knows the proper theory of names.) Then there is also an analysis of identity statements along the same lines.

The question is, are any of these true? If true, they give a nice picture of what's going on. Preliminary to discussing these theses, let me mention that, often, when people specify which properties ϕ are relevant, they seem to specify them wrongly. That's just an incidental defect, though it is closely related to the arguments against the theory that I will give presently. Consider the example from Wittgenstein. What does he say the relevant properties are? 'When one says "Moses does not exist", this may mean various things. It may mean: the Israelites did not have a *single* leader when they withdrew from Egypt—or: their leader was not called Moses—or: there cannot have been anyone who accomplished all that the Bible relates of Moses. . . .' The gist of all this is that we know *a priori* that, if the Biblical story is substantially false, Moses did not exist. I have already argued that the Biblical story does not give *necessary* properties of Moses, that he might have lived without doing any of these things. Here I ask whether we know *a priori* that if Moses existed, he in fact did some or most of them. Is this really the cluster of properties that we should use here? Surely there is a distinction which is neglected in these kinds of remarks. The Biblical story might have been a complete legend, or it might have been a substantially false account of a real person. In the latter case, it seems to me that a scholar

could say that he supposes that, though Moses did exist, the things said of him in the Bible are substantially false. Such things occur in this very field of scholarship. Suppose that someone says that no prophet ever was swallowed by a big fish or a whale. Does it follow, on that basis, that Jonah did not exist? There still seems to be the question whether the Biblical account is a legendary account of no person or a legendary account built on a real person. In the latter case, it's only natural to say that, though Jonah did exist, no one did the things commonly related to him. I choose this case because while Biblical scholars generally hold that Jonah did exist, the account not only of his being swallowed by a big fish but even going to Nineveh to preach or anything else that is said in the Biblical story is assumed to be substantially false. But nevertheless there are reasons for thinking this was about a real prophet. If I had a suitable book along with me I could start quoting out of it: 'Jonah, the son of Amittai, was a real prophet, however such and such and such'. There are independent reasons for thinking this was not a pure legend about an imaginary character but one about a real character.²⁸

²⁸ See, for example, H. I. Ginsberg, *The Five Megilloth and Jonah*, The Jewish Publication Society of America, 1969, p. 114: "The 'hero' of this tale, the prophet Jonah the son of Amittai, is a historical personage . . . (but) this book is not history but fiction." The scholarly consensus regards all details about Jonah in the book as legendary and not even based on a factual substratum, excepting the bare statement that he was a Hebrew prophet, which is hardly uniquely identifying. Nor need he have been called 'Jonah' by the Hebrews; the 'J' sound does not exist in Hebrew, and Jonah's historical existence is independent of whether we know his original Hebrew name or not. The fact that we call him Jonah cannot be used to single him out without circularity. The evidence for the historicity of Jonah comes from an independent reference to him in *II Kings*: but such evidence could have been available in the absence of any such other references—e.g., evidence that all Hebrew legends were about actual personages. Further, the statement that Jonah is a legend about a real person might have been *true*, even if there were no evidence for it. One may say, 'The Jonah of the book never existed', as one may say, 'The Hitler of Nazi propaganda never existed.' As the quotation above shows, this usage

These examples could be modified. Maybe all we believe is that *the Bible relates of him* that such and such. This gives us another problem, because how do we know whom the Bible is referring to? The question of our reference is thrown back to the question of reference in the Bible. This leads to a condition which we ought to put in explicitly.

(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 a way that it is ultimately impossible to eliminate.

Let me give an example where the noncircularity condition is clearly violated. The following theory of proper names is due to William Kneale in an article called 'Modality, De Dicto and De Re'.²⁹ It contains, I think, a clear violation of non-circularity conditions.

Ordinary proper names of people are not, as John Stuart Mill supposed, signs without sense. While it may be informative to tell a man that the most famous Greek philosopher was called Socrates, it is obviously trifling to tell him that Socrates was called Socrates; and the reason is simply that he cannot understand your use of the word 'Socrates' at the beginning of your statement unless he already knows that 'Socrates' means 'The individual called "Socrates"'.³⁰

Here we have a theory of the reference of proper names. 'Socrates' just means 'the man called "Socrates"'. Actually, of course, maybe not just one man can be called 'Socrates', and

need not coincide with the historian's view of whether Jonah ever existed. Ginsberg is writing for the lay reader, who, he assumes, will find his statement intelligible.

²⁹ In Ernest Nagel, Patrick Suppes, and Alfred Tarski, *Logic, Methodology and the Philosophy of Science: Proceedings of the 1960 International Congress*, Stanford University Press, 1962, 622-33.

³⁰ *Loc. cit.*, pp. 629-30.

some may call him 'Socrates' while others may not. Certainly that is a condition which under some circumstances is uniquely satisfied. Maybe only one man was called 'Socrates' by me on a certain occasion.

Kneale says it's trifling to tell someone that Socrates was called 'Socrates'. That isn't trifling on any view. Maybe the Greeks didn't call him 'Socrates'. Let's say that Socrates is called 'Socrates' by us—by *me* anyway. Suppose that's trifling. (I find it surprising that Kneale uses the past tense here; it is dubious that the Greeks *did* call him 'Socrates'—at least, the Greek name is pronounced differently. I will check the accuracy of the quotation for the next lecture.)

Kneale gives an argument for this theory. 'Socrates' must be analyzed as 'the individual called "Socrates"', because how else can we explain the fact that it is trifling to be told that Socrates is called 'Socrates'? In some cases that's rather trifling. In the same sense, I suppose, you could get a good theory of the meaning of any expression in English and construct a dictionary. For example, though it may be informative to tell someone that horses are used in races, it is trifling to tell him that horses are called 'horses'. Therefore this could only be the case because the term 'horse', means in English 'the things called "horses"'. Similarly with any other expression which might be used in English. Since it's trifling to be told that sages are called 'sages', 'sages' just means 'the people called "sages"'. Now plainly this isn't really a very good argument, nor can it therefore be the only explanation of why it's trifling to be told that Socrates is called 'Socrates'. Let's not go into exactly why it's trifling. Of course, anyone who knows the use of 'is called' in English, even without knowing what the statement means, knows that if 'quarks' means something then 'quarks are called "quarks"' will express a truth. He may not know what truth it expresses, because he doesn't know what a quark is. But his knowledge that it expresses a truth

does not have much to do with the meaning of the term 'quarks'.

We could go into this actually at great length. There are interesting problems coming out of this sort of passage. But the main reason I wanted to introduce it here is that as a theory of reference it would give a clear violation of the noncircularity condition. Someone uses the name 'Socrates'. How are we supposed to know to whom he refers? By using the description which gives the sense of it. According to Kneale, the description is 'the man called "Socrates"'. And here, (presumably, since this is supposed to be so trifling!) it tells us nothing at all. Taking it in this way it seems to be no theory of reference at all. We ask, "To whom does he refer by "Socrates"?" And then the answer is given, 'Well, he refers to the man to whom he refers.' If this were all there was to the meaning of a proper name, then no reference would get off the ground at all.

So there's a condition to be satisfied; in the case of this particular theory it's obviously unsatisfied. The paradigm, amazingly enough, is even sometimes used by Russell as the descriptive sense, namely: 'the man called "Walter Scott"'. Obviously if the only descriptive senses of names we can think of are of the form 'the man called such and such', 'the man called "Walter Scott"', 'the man called "Socrates"', then whatever this relation of *calling* is is really what determines the reference and not any description like 'the man called "Socrates"'. .