

SOME REFLECTIONS ON KRIPKE

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The aim of this paper is to discuss the view of Kripke as formulated in his articles on «Naming and Necessity»⁽¹⁾ and «Identity and Necessity»⁽²⁾. Kripke's discussion, according to our view, can be classified in the following way:

(a) His criticism of philosophers like Frege, Russell, Wittgenstein, Searle and Strawson.

His positive theses can be classified into two groups.

(b) The views which are not different from some other philosophers, and

(c) The views which are different from other philosophers.

In our discussion we shall see how far his view is different from other philosophers, and we shall also examine his positive thesis which he claims to be different from other philosophers.

Before we start our discussion we would like to mention three more points.

(i) One of the aims of Kripke is to draw a distinction between «a priori» and «necessary». He claimed that most philosophers have made a confusion between these two concepts. From time to time he also discusses the relation between «analytic», «a priori» and «necessary». This discussion reminds us of Kant's discussion between dichotomies such as analytic – synthetic, a priori – a posteriori, necessary – contingent. In this context we would like to mention that in addition to these dichotomies there are many more which are closely related to them. The following may be cited as examples.

1. Universal - particular; 2. essential - accidental; 3. formal - material; 4. actual - potential; 5. clear & distinct - confused; 6. activity - passivity; 7. thought - experience; 8. understanding - sense; 9. conception - perception; 10. rational - irrational; 11. linguistic - non-linguistic truths; 12. reality - appearance.

Under certain interpretations most of the members on the lefthand side of the dichotomies can be said to be co-extensive, and the same

⁽¹⁾ KRIPKE (1972).

⁽²⁾ KRIPKE (1977).

will be true of the members on the righthand side. For various reasons we do not intend to discuss the relation between the members of these dichotomies in this paper. At the end of the paper we will discuss only the relation between necessity and universality, which has not been made distinct in the Kripkian type of semantics.

(ii) There is some problem about Kripke's positive thesis. One might say that he has no thesis or theory. In order to substantiate this claim one might quote a passage where he is discussing the cluster concept theory of names. Kripke says:

«It is wrong. You may suspect me of proposing another theory in its place; but I hope not, because I am sure it is wrong too if it is a theory.»⁽³⁾

As against this criticism of other philosophers one might claim that those theories have limited applications. The same thing might be said with respect to the view of Kripke. We shall see whether his view, even if it is not a theory, is wrong or had a limited application or coincides with the view of some other philosophers.

(iii) Most of the things Kripke has said in these papers rest on a distinction between the attributive and the referential use of definite descriptions. Keith Donnellan in his paper on «Reference and Definite Descriptions»⁽⁴⁾ has drawn a distinction between the two uses of a definitive description. He says, «To illustrate this distinction, in the case of a single sentence, consider the sentence, «Smith's murderer is insane». Suppose first that we come upon poor Smith foully murdered. From the brutal manner of the killing and the fact that Smith was the most lovable person in the world, we might claim, «Smith's murderer is insane». I will assume, to make it a simpler case, that in a quite ordinary sense we do not know who murdered Smith (though this is not in the end essential to the case). This, I shall say, is an attributive use of the definite description.

The contrast with such a use of the sentence is one of those situations in which we expect and intend our audience to realise whom we have in mind when we speak of Smith's murderer and, most importantly, to know that it is this person about whom we are going to say something.

⁽³⁾ KRIPKE (1972), P. 280.

⁽⁴⁾ DONNELLAN (1977).

For example, suppose that Jones has been charged with Smith's murder and has been placed on trial. Imagine that there is a discussion of Jones's odd behaviour at his trial. We might sum up our impression of his behaviour by saying, «Smith's murderer is insane». If someone asks to whom we are referring, by using this description, the answer here is «Jones». This, I shall say, is a referential use of the definite description.»⁽⁵⁾

In addition to this example sometimes another example from Donnellan is cited to illustrate the referential use of a definite description. The person who utters the sentence «The man over there with the champagne in his glass is happy», intends to refer and does refer to a person he thought had champagne in his glass, although in fact he had water in his glass. The audience also might succeed in singling out this person. In this case the description does not fit the person fully. The person in question partially satisfies the description in the sense that he is holding a glass. Now the question is whether this use of a definite description can single out an object which does not satisfy the description at all. In other words, whether the above description can single out a person who is not even holding a glass in his hand, or can single out an object which is not even a person. If it were so, then the content of a descriptive expression does not play any role in singling out a person. The expression ' $(\lambda x)Fx$ ' is used not as a description, but as a name, perhaps as a logically proper name. If it were so, then the Russellian distinction between a logically proper name and a definite description can take care of Donnellan's distinction between the attributive and the referential use of a definite description.

In addition to these two uses of definite descriptions there is a third use of a definite description, which has not been discussed at all by these philosophers. This use of a definite description plays an important role in the Vedanta philosophy where a description might play the role of a pointer. This use of a definite description cannot be classified either as attributive or referential. A discussion on this third use of a definite description is beyond the scope of this paper.

With this introductory note let us introduce our discussion of Kripke.

(⁵) DONNELLAN (1977), pp. 46-47.

I

According to Kripke, both Frege and Russell have equated the meaning or the sense of a name with the sense or the meaning of a definite description. According to Russell names like 'Socrates' are descriptions in disguise. According to Frege also the sense of the name 'Aristotle' might be the same as the sense of 'the teacher of Alexander the Great' or 'the Stagirite teacher of Alexander the Great'. Frege admits the fluctuation in the sense of a name. In any given context the sense of a name might be equated with the sense of some definite description. According to Kripke many philosophers who claim to reject the theory of Frege-Russell end up with a similar theory of names. It is claimed that according to Wittgenstein the meaning of a name is a family of descriptions. In order to substantiate this claim the paragraph 79 from Wittgenstein's *Philosophical Investigations* has been quoted by Kripke. It is doubtful whether this type of theory can be attributed to Wittgenstein. Barring this disputed question one might develop a similar theory of names. As a matter of fact, according to Searle the referent of a name is determined not by a single description, but by some cluster or family of descriptions. This theory, according to Kripke, can be formulated in the following way:

«(1) To every name or designating expression 'X', there corresponds a cluster of properties, namely 'the family of those properties Φ such that A believes ' Φ X'.

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

(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'.

(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⁾

The thesis (1) is a definition of the cluster theory of names. By citing counterexamples to (2) - (6) Kripke claimed that they are false. The

⁽⁶⁾ KRIPKE (1972), P. 285.

thesis (2) fails when «we say Feynman is a famous physicist without attributing anything else to Feynman.»⁽⁷⁾

A man in the street uses the name 'Feynman' to refer to Feynman without associating the sense of a definite description to it. With respect to thesis (3) he said that even if most of the Φ 's are satisfied by a unique object that object might not be the referent of a name. He says, «Columbus was the first man to realize that the earth was round. He was also the first European to land in the Western hemisphere. Probably none of these things are true, and therefore, when people use the term 'Columbus' they really refer to some Greek if they use the roundness of the earth, or to some Norseman, perhaps, if they use the 'discovery of America'. But they don't. So it does not seem that if most of the Φ 's are satisfied by a unique object y , then y is the referent of the name. This seems simply to be false.»^(8,9)

As regards thesis (4) he said that even if the vote yields no unique object it does not follow that the name does not refer. Even if all our beliefs about the referent of a name are false and no one else satisfies those beliefs, then also it does not follow that a name does not refer to something.

With respect to thesis (5) he claimed, «Even when Theses (2) - (4) are true, Thesis (5) is usually false; the truth of These (3) and (4) is an empirical 'accident', which the speaker hardly knows *a priori*. That is to say, other principles really determine the speaker's reference, and the fact that the referent coincides with that determined by (2) - (4) is an 'accident', which we were in no position to know *a priori*.»⁽¹⁰⁾

Thesis (6) is also false, because the referent of a name might not satisfy most of Φ 's. If properties like being the teacher of Alexander the Great and being the author of such and such books are attributed to Aristotle, it does not follow that if Aristotle exists, then he satisfies most of the properties in all possible worlds. It is not a necessary truth that Aristotle has the properties commonly attributed to him. He might have existed without satisfying those properties. Hence thesis (6) is false. According to Kripke the above theories of names are false

⁽⁷⁾ KRIPKE (1972), p. 292.

⁽⁸⁾ KRIPKE (1972), P. 295.

⁽⁹⁾ It is not clear how in such cases there is a unique y satisfying most of the Φ 's. In Kripke's example both the descriptions seem not satisfied by the unique y .

⁽¹⁰⁾ KRIPKE (1972), P. 290.

because the supporters of those theories did not realise that proper names are rigid designators. A name is a rigid designator if in any possible world it designates the same object. The name 'Aristotle' designates Aristotle even if all the properties usually ascribed to Aristotle are not satisfied by Aristotle. The root cause of the above theories is that they equate the sense of a name with the sense of a definite description or with a cluster of descriptions.

Now let us discuss whether Kripke is justified in criticizing the sense theory of Frege.

Frege's method of determining the referent of a name is a cognitive determination. A cognitive determination is a mode of presentation of the object, which determines the referent of a name. Frege's thesis can answer the question how the different users of a name can determine its referent. A name or a term by itself does not perform the referring function. We use a term to refer to something. Now in order to refer to something, that thing must be presented in a certain way. The mode of presentation constitutes a cognitive state which must be expressible in the form of a judgement or proposition. As a judgement or a proposition can be analysed into a subject and a predicate, so can the epistemic counterpart of it. The subject-predicate relation at the epistemic level might be called the 'qualificand-qualifier' relation. We cannot refer to something without a qualifier which is an epistemic element or a mode of presentation. So Frege's sense is to be understood as an epistemic element of a judgement or proposition. Moreover, from Frege's theory of sense it does not follow that a mode of presentation must be an essential property of the object. According to Frege the property corresponding to a sense of a name belongs to the object. But according to Kripke a name refers to an object. Kripke is not concerned with the problem how a user of a name determines its referent, while Frege is mainly concerned with this problem. So if we give an epistemic interpretation to Frege's theory and if Kripke's theory of name is treated as an ontological or semantic theory, then Kripke's criticism from the ontological standpoint might not be considered as an internal criticism of Frege's theory.

Certain alternatives to Frege's theory might be formulated in the following way: (1) It might be suggested that we can refer to an object without having any mode of presentation or without any knowledge about that object. Now if we take this alternative, then we cannot

distinguish the referent of 'a' from that of 'b', because we do not know anything about a or b. (2) It might be suggested that we can refer to an object by a name provided we are acquainted with the object. This acquaintance does not involve any mode of presentation, and the cognitive state of this acquaintance does not take the form of a qualificand - qualifier relation. Since this acquaintance does not involve any qualificand-qualifier relation it cannot be expressed in the form of a judgement or proposition. There is no harm in having a cognitive state or knowledge by acquaintance of this type. The problem arises when we want to distinguish the objects of such acquaintances. This cannot be done without introducing a qualifier at epistemic level, which is nothing but Frege's sense. So the Frege's theory of sense as a way of determining the referent at the cognitive level cannot be replaced by some other theory without some absurdity. But it is this epistemic thesis of Frege which Kripke claims to reject.

Kripke also rejects the claim that the sense of a designator or a name is expressible by a definite description, and he has attributed this thesis to Frege. We shall see whether this thesis follows from the sense-theory of Frege.

If we accept the meaning-reference dichotomy and claim that the meaning of a designator is an epistemic concept, then we have to explain the meaning of a designator by reference to what happens when one understands an expression. Frege's explanation of this meaning is in terms of sense. From Frege's explanation of sense it does not follow that the sense of a designator must always be expressible by a definite description. Since the sense of a designator is a mode of presentation, it might not be always expressible by a definite description. The sense of a designator, say 'a', might be expressible by the expression 'a man'. Now what follows from this view is that one might not be able to determine or recognise the unique object, i.e. the referent of a designator or name; but from this view it does not follow that an indeterminate sense of a term is not a sense. An indeterminate sense which is expressible by an indefinite description might be considered as an incomplete or partial sense of a designator. Following Frege one might develop three different types of sense of a designator. (1) Incomplete Sense: an incomplete sense of a name is expressible by an indefinite description. (2) Partially

complete sense: this type of sense would be sufficient for a particular user of a name to identify the referent of a name in a particular world or a possible world. (3) Semi-complete sense: this type of sense would be sufficient to identify an object in any possible world. The epistemic counterpart of an essential and a unique property of an object would be a sense of this type. What belongs to an object is not a sense, but a property corresponding to a sense. If we can cognise an object under the mode of an essential and a unique property of an object, then we can identify it in any possible world. The term 'complete sense' is reserved for all possible modes of presentation of an object. But a finite human being cannot grasp all possible modes of presentation of an object. Frege has admitted it in the following passage:

«A complete knowledge of the nominatum would require that we could tell immediately in the case of any given sense whether it belongs to the nominatum. This we shall never be able to do.»⁽¹¹⁾

If we try to understand Frege's theory of sense in the light of our above remarks, then some of the remarks or the counterexamples of Kripke are either false or wide of the mark. Kripke's example 'Feynman was a famous physicist'⁽¹²⁾ does not constitute a counterexample to Frege's theory of sense. According to Frege's thesis the mode of presentation of Feynman in this case would be an incomplete sense.

Secondly, Kripke's method of fixing the referent of a name in terms of a referential definite description does not constitute a counterexample to Frege's theory of sense. A referential definite description, according to Frege, would be a partial sense of the name or the designator. Frege would not equate the meaning or the sense of 'Aristotle' with the sense of the definite description 'the teacher of Alexander the Great', if the latter expression is used to fix the referent of Aristotle. The latter expression simply expresses one of the modes of presentation of Aristotle and this mode of presentation is sufficient to determine the referent of 'Aristotle' in this world.

Thirdly, if the referent of a name is fixed in terms of an essential and a unique property of the referent, then also it does not constitute a counterexample to Frege. If a name designates the same object in all

⁽¹¹⁾ FREGE, 'On Sense and Nominatum', Feigl and Sellars (1949), p. 86.

⁽¹²⁾ KRIPKE (1972), P. 299.

possible worlds, then the mode of presentation of the referent would be an epistemic counterpart of an essential and a unique property of the referent. This mode of presentation will constitute a semi-complete sense of Frege.

II

Now let us discuss Kripke's distinction between proper names and descriptions in modal contexts. According to Kripke a modal context makes the distinction between a proper name and a description transparent. A definite description is capable of scope distinctions in modal contexts, while a proper name is not. The name 'Aristotle' cannot be equated with 'the teacher of Alexander'. It is true to say that the teacher of Alexander might not have taught Alexander, but it is not true to say that Aristotle might not have been Aristotle. The former sentence can be symbolized in the following way:

- (1) $(\exists x) (Tx \cdot (y) (Ty \supset x = y) \cdot \Diamond \sim Tx)$, where
'Tx' means 'x taught Alexander'.

In this context it is to be noted that (1) does not mean the same as 'It is possible that the teacher of Alexander did not teach Alexander'. The latter sentence can be symbolized in the following way:

- (2) $\Diamond (\exists x) (Tx \cdot (y) (Ty \supset x = y) \cdot \sim Tx)$

Kripke claimed that (2) is not what is intended when it is said that the teacher of Alexander might not have taught Alexander. Now let us discuss why, according to Kripke, the sentence 'Aristotle might not have been Aristotle' is false. This sentence might be symbolized in the following way:

- (3) $\Diamond \text{Aristotle} \neq \text{Aristotle}$

Now (3) is false, not because Aristotle is a name, but because 'Aristotle exists' is defined in terms of identity and identity statements of the form ' $a = a$ ' are taken as logical truths. If singular existential statements are considered as contingent statements, then it makes perfect sense to say that Aristotle might not have been Aristotle, and this simply means that Aristotle might not have existed. A similar

argument has been put forward by G.E. Moore as a criticism of Russell in the context of the discussion whether 'this might not have existed' makes sense or not.⁽¹³⁾ So if we treat 'exists' as a predicate and do not define it in terms of identity, then an interpretation similar to sentences containing definite descriptions can be given to sentences containing proper names. The sentence 'Aristotle might not have been Aristotle' might be symbolized in the following way:

- (4) $Ea \cdot \Diamond \sim Ea$, where 'Ea' means 'Aristotle exists'.

In a many sorted logic which does not treat 'exists' as a predicate, the sentence, 'Aristotle might not have been Aristotle' can be symbolized in the following way:

- (5) $(\exists_1 x) (\forall_2 y) (x \neq y \cdot \Diamond \text{Aristotle} = x)$, where ' \exists_1 ' signifies the 'non-existential' use of the quantifier and ' \forall_2 ' signifies the 'existential' use of the quantifier.

So we suggested two alternative symbolizations for sentences of the form 'Aristotle might not have been Aristotle.'

Now let us discuss the causal or historical explanation theory of names which is attributed to Kripke. At least Kripke claimed that this is what most of us do. He says:

«Someone, let's say, a baby, is born; his parents call him by a certain name. They talk about him to their friends. Other people meet him. Through various sorts of talk the name is spread from link to link as if by a chain. A speaker who is on the far end of this chain, who has heard about, say Richard Feynman, in the market place or elsewhere, may be referring to Richard Feynman even though he can't remember from whom he first heard of Feynman or from whom he ever heard of Feynman. He knows that Feynman was a famous physicist. A certain passage of communication reaching ultimately to the man himself does reach the speaker. He then is referring to Feynman even though he can't identify him uniquely.»⁽¹⁴⁾

What Kripke is saying can be expressed in the following way. After the initial baptism the subsequent users of a name, say 'Feynman', refer to the same person even if they cannot identify that person or

⁽¹³⁾ MOORE (1959), p. 126.

⁽¹⁴⁾ KRIPKE (1972), pp. 298-299.

even if they cannot remember from whom they have heard of the name 'Feynman'. Again Kripke says:

«On our view, it is not how the speaker thinks he got the reference, but the actual chain of communication, which is relevant.»⁽¹⁵⁾ «... it's in virtue of our connection with other speakers in the community, going back to the referent himself, that we refer to a certain man.»⁽¹⁶⁾

So Kripke repeatedly claimed that a chain of communication will lead us to the referent of a name even if the users of a name cannot identify the referent of that name. This theory does not rule out the possibility of using the same name to refer to different persons or objects. The difference can be explained in terms of initial baptism and the causal link which connects a name with a person or an object. In Kripke the causal chain plays the role of identification. The different referents of the name 'Feynman' might be distinguished in the following way:

- (a) The person who is connected with the causal chain Φ such that after the initial baptism the name was passed on to such and such a person *via* A, B, C etc.
- (b) The person who is connected with causal chain ψ such that after the initial baptism the name was passed on to such and such a person *via* D, E, F etc.

Now this causal chain which ultimately links a name with its referent cannot be considered as a substitute for Frege's sense theory. The sense theory also tries to link a name with its referent *via* its sense. The former cannot be taken as a substitute for the latter, because the former is a semantic or an ontological theory, while the latter is an epistemic theory. Frege's theory is concerned with the question how the user of a name can identify its referent. The identification cannot be achieved without the sense of a name. Since Kripke is not concerned with this question, his criticisms of Frege from the ontological or semantic standpoint are wide of the mark. Secondly, Kripke claimed that this is how most of us fix the referent of a name. But this is not what most of us in fact do. We can hardly go back to the initial baptism *via* the chain of communication which is

⁽¹⁵⁾ KRIPKE (1972), P. 300.

⁽¹⁶⁾ KRIPKE (1972), P. 301.

necessary for explaining the different uses of a name. This theory can work only if we had a complete history of all the names used in our language. Since we do not have such a history, this theory does not seem to be a plausible theory of names. Moreover, since there is no history for all the names used in our language, sometimes we do not know whether such and such a person existed.⁽¹⁷⁾

III

In this section we would like to introduce Kripke's discussion of 'a priori' and 'necessary'. According to Kripke *a priori* and *a posteriori* are epistemic concepts, but *necessary* and *contingent* are metaphysical concepts. Moreover, *necessary* and *a priori* are not co-extensive concepts. Hence we can have *a priori* contingent and *a posteriori* necessary statements. His discussion on *a priori* starts with Kant's conception of *a priori*, which he states in the following way: «*a priori* truths are those which can be known independently of any experience.»⁽¹⁸⁾ Kantian scholars might not accept this as a view of Kant. According to Kant *a priori* truths are not derivable from experience. Since necessity and universality are not derivable from experience and since necessity and universality are marks of a priority, the *a priori* truths are not derivable from experience. These truths are dependent on experience in the sense that they cannot be known without experience, but their necessity and universality are not dependent on experience.

Barring the question whether Kripke's interpretation of the term 'a priori' represents Kant's conception of *a priori*, let us discuss whether Kripke's example, 'One meter is the length of a stick S in Paris at t_0 ', represents an *a priori* contingent truth. First of all, Kripke in order to substantiate his thesis that it is an example of an *a priori* contingent truth has criticised Wittgenstein. Wittgenstein says,

«There is *one* thing of which one can say neither that it is one meter long nor that it is not one metre long, and that is the standard metre in Paris. But this is, of course, not to ascribe any extraordinary property

⁽¹⁷⁾ DUMMETT has also raised several objections against this theory of names. DUMMETT (1973); pp. 147-51.

⁽¹⁸⁾ KRIPKE (1972), P. 260.

to it, but only to mark its peculiar role in the language-game of measuring with a metre-rule.»⁽¹⁹⁾

On commenting on this passage of Wittgenstein, Kripke says, «This seems to be a very 'extraordinary property', actually, for any stick to have. I think he must be wrong.»⁽²⁰⁾

This remark of Kripke is based on a misunderstanding of Wittgenstein. What Wittgenstein is saying can be explained in the following way: Let us say, *a*, *b*, *c* are objects. If they satisfy the standard *S*, they will have the property Φ . Now if we claim that *S* is Φ , then some other standard is to be satisfied, and this process goes on ad infinitum. If we say that *S* is not Φ , then also we face a similar problem. To say that *S* is not Φ is to say that there is a standard which *S* has not satisfied, and this process goes on ad infinitum. In order to avoid the question whether *S* is or is not Φ , our language-game, according to Wittgenstein, is such that the standard cannot be said either to have or not to have Φ . In this context we are simply saying that Kripke's comment on Wittgenstein is not justifiable. Secondly, Kripke claimed that the phrase 'the length of the stick *S* at t_0 ' is used to fix the reference of the term 'one metre'. The phrase 'one meter' is meant to designate rigidly a certain length in all possible worlds, but in the actual world it happens to be the length of the stick *S* at t_0 . The expression 'the length of the stick *S* at t_0 ' is not a rigid designator. Since in some possible world the length of the stick *S* might have been longer than or shorter than what it is at t_0 , this phrase cannot be considered as a rigid designator. Kripke claimed that this holds good wherever a definite description is used to fix the referent of a term and the description is satisfied by the referent.

The above example of Kripke is used to prove that there are contingent *a priori* statements. The statement 'stick *S* is one meter long at t_0 ' is considered as *a priori* by someone who has fixed the referent of 'one meter' by using the referential description 'the length of the stick *S* at t_0 '. «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⁾ But

⁽¹⁹⁾ WITTGENSTEIN, P.I., Section 50.

⁽²⁰⁾ KRIPKE (1972), P. 274.

⁽²¹⁾ KRIPKE (1972), P. 275.

the metaphysical status of 'stick S is one meter long at t_0 ' is contingent, because S might have been longer or shorter than what it is at t_0 .

This example of Kripke has been criticised by Dummett. He says, «... if someone has no idea at all what length a metre is, save for knowing that it is the length of some rod in Paris which he has never seen, he may still know *a priori* that the metre rod is 1 metre long, but, in an intuitive sense, he does not know how long the metre rod is, and hence does not give expression, by his remark, to knowledge of any contingent fact.»⁽²²⁾

It seems to me that Dummett is right in claiming that the person who is not acquainted with the length of a metre does not express a knowledge of a contingent fact when he makes the statement that S is one metre long at t_0 . Since he does not know the length of the stick, the statement does not express a contingent *a priori* truth. From this criticism of Kripke I do not want to conclude that there is no *a priori* contingent truth. I simply want to point out that Kripke's method of proving a contingent *a priori* truth is not justifiable.

IV

Now let us discuss whether there are necessary *a posteriori* truths. According to Kripke all identity statements of the form ' $a = b$ ', where ' a ' and ' b ' are rigid designators, are necessary, if true. If an identity statement of this form is false, then it is necessarily false. In the case of theoretical identifications such as heat = the motion of molecules, identity statements are necessary if true, and knowledge of such statements, according to Kripke, is *a posteriori*. This leads us to a discussion on identity.

It is claimed that the notion of contingent identity leads us to a problem in the following way:

- (1) $(x)(y)[(x = y) \supset (Fx \supset Fy)]$ (From the Law of Leibnitz)
- (2) $(x) \Box (x = x)$ (Logical truth)
- (3) $(x)(y)[(x = y) \supset (\Box (x = x) \supset \Box (x = y))]$ (From (1) by substitution)

(22) DUMMETT (1973), pp. 122-123.

- (4) $(x)(y) [(x = y) \supset \Box (x = y)]$ (From (2) and (3))
 (5) $(a = b) \supset \Box (a = b)$ (From (4))

Five reactions to this problem are suggested by Wiggins.⁽²³⁾

(a) Like Quine one might reject *de re* modality and claim that expressions of the form ' $\Box (a = a)$ ' are not well-formed.

(b) If 'a' and 'b' are treated as logically proper names, then no contingent identity statement can be made.

(c) The conclusion can be blocked by giving up Leibnitz's Law.

(d) ' $(=)$ ' cannot be treated as a property-expression.

What can be formed by abstraction of a constant or free variable is ' $(=)$ '. Hence (3) cannot be derived from (1).

(e) One might deny that ' $a = a$ ' is of the same form as ' Φa ' or ' Raa '. Hence (3) cannot be derived from (1).

But Kripke did not follow any of these suggestions. On the contrary he claimed that anyone who accepts (2) is committed to (4). According to him if 'x' and 'y' are rigid designators, then necessarily $x = y$, if it is true. From this it does not follow that all the so-called contingent identity statements are necessary if they are true. The statements like 'The first Postmaster General of the United States is identical with the inventor of bifocals' are contingent identity statements. According to Kripke identity statements of the following form are contingent, if at least one of the designators is non-rigid:

- (1) $(\lambda x)(Fx) = (\lambda x)(Fx)$
 (2) $(\lambda x)(Fx) = (\lambda x)(Gx)$
 (3) $a = (\lambda x)(Fx)$

The contingency of (1) is shown by the example 'The teacher of Alexander might not have been the teacher of Alexander'; the contingency of (2) by the example 'The first Postmaster General of the United States might not have been the inventor of bifocals', and the contingency of (3) by the example 'Aristotle might not have been the teacher of Alexander the Great.'

Moreover, according to Kripke the terms for natural kinds, some mass terms, and some terms referring to natural phenomena are rigid

⁽²³⁾ WIGGINS (1965), pp. 41-42.

designators like proper names. So we get the necessary identity statements of the following type:

- (a) Heat = the motion of molecules.
- (b) Water = H_2O .
- (c) Gold = the element with the atomic number 79.

These identity statements are necessarily true, if true at all, and they are *a posteriori* truths. As regards the demand for a logical proof of his thesis he says, «How can one possibly defend such a view? Perhaps I lack a complete answer to this question, even though I am convinced that the view is true.»⁽²⁴⁾

In addition to the above-mentioned *a posteriori* necessary identity statements Kripke considers statements of the form 'This table is made of wood' as necessary, if they are true, and their truths are known from experience. Given the fact that this table is made of wood, not of ice, he says, «... one cannot imagine that under certain circumstances it could have been made of ice. So we have to say that though we cannot know *a priori* whether this table was made of ice or not, given that it is not made of ice, it is necessarily not made of ice. In other words, if P is the statement that the lectern is not made of ice, one knows by *a priori* philosophical analysis, some conditional of the form «if P, then necessarily P». If the table is not made of ice, it is necessarily not made of ice. On the other hand, then we know by empirical investigation that p, ...»⁽²⁵⁾ So according to Kripke

$$P \supset \Box P$$

P

$\therefore \Box P$, where 'P' is a statement like 'This table is made of wood'.

Let us discuss his second type of necessary *a posteriori* statements. If we accept this thesis, then we cannot make any true counterfactual statement like 'If this table were made of ice, then I would have sold it'. In David Lewis' counterpart theory we can make such counterfactuals true. Now Kripke has to give a theory which will explain what sort of counterfactuals can be made true. He has to say that a counterfactual statement about the essential property of an object

⁽²⁴⁾ KRIPKE (1977), P. 77.

⁽²⁵⁾ KRIPKE (1977), P. 88.

cannot be made true, because an object cannot lack its essential property in any possible world. So in saying that this table is made of wood, not of ice, what in fact we are saying is that this table is necessarily made of wood. Now if this statement implies the statement that it is necessary that this table is made of wood, then *de re* modality implies *de dicto*, which is not what Kripke would like to say. What Kripke would like to say is that if the table exists, then it is necessary that it is made of wood provided being made of wood is an essential character of this table. This is a valid argument. But to say this is not equivalent to what he is saying in the formula ' $P \supset \Box P$ '. Secondly, Kripke has criticized a lot of philosophers on the ground that they have confused epistemic issues with metaphysical issues. But is he not himself confusing these issues by using the term 'imaginable' in the context of counterfactual situations when he said «One cannot imagine that under certain circumstances it (this table) could have been made of ice»?⁽²⁶⁾

Thirdly, Kripke's thesis that ' $a = b$ ' is necessary if true is not something new. It has been said by Russell that ' $a = b$ ' is analytic if ' a ' and ' b ' are treated as logically proper names. Since the meaning of a logically proper name is its referent, once we know that they refer to the same thing we know that the corresponding identity statement is necessary. A distinction between Russell and Kripke might be brought by introducing the concept of possible worlds. The referent of a logically proper name, according to Russell, is an object of our acquaintance, while the referent of Kripke's rigid designator might not be an object of our acquaintance.

A rigid designator refers to the same thing in any possible world. Both Russell and Kripke have taken a denotative view of such terms. Kripke's use of the term 'rigid designator' is much wider than Russell's 'logically proper name'. It includes ordinary proper names also. In this respect Kripke's thesis might be considered as an extension of Russell's thesis.

⁽²⁶⁾ KRIPKE (1977), P. 88.

V

Kripke repeatedly claimed that the concept of necessity is a metaphysical concept. By a metaphysical concept we mean a concept which tries to capture or explain a mode of being as opposed to a mode of knowing. As an explanation of this concept Kripke repeatedly claimed that a statement is necessary iff it is true in every possible world. It seems to us that this explanation does not give any reason for the necessity of a mode of being.

The term 'necessary' can be used in different senses depending on the context. In one of its senses it can be contrasted with 'accidental', and both the terms 'necessary' and 'accidental' can be used to characterise the properties of objects. We might say that a property *F* is an accidental property of an object *a* if there is *no reason* for its having that property. Similarly, the property *F* might be an accidental property of *a* even if in all possible worlds it has the property *F* provided *no reason* is given for having the property *F*. The examples from mathematics might be used to illustrate this point. The statement 'The number 4 is divisible by 2 in all possible worlds' is an example of a universal statement. This statement would be necessary if we explain why 4 would be divisible by 2, or if we give reason for having the property *being divisible by 2*. Hence a property *F* is a necessary property of an object *a* iff the occurrence of *F* in *a* or the characterisation of *a* by *F* is justifiable by reason.⁽²⁷⁾

The justification by reason might take different forms. One way of justification is to show that *a* is what it is by virtue of *F* if *F* is a necessary property of *a*. Aristotle's concept of form, and Kant's concept of categories or the Categorical Imperative in moral contexts might be considered as necessary in this sense. Kant's Categorical Imperative is necessary for moral judgements.

Wherever there is moral judgement, there is categorical Imperative; but the Categorical Imperative is more than universality. It explains why the moral judgements have the forms they do have.

Hence it is necessary as well. Similarly, an object *a*'s having the

⁽²⁷⁾ WALSH in his book *Reason and Experience* has developed this point. I came across this point in the thesis of Dr A. GOSWAMI who worked with Professor S. BHATTACHARYA.

form F in all possible worlds does not make the form F a necessary property of a . But if the form F explains why a is what it is, then the form F becomes a necessary property of a .

Our above definition of necessity emphasizes the nature of the relation between a quality and a particular, or the nature of the relation between different judgements, or the nature of the relation between different particulars related by a relation.

When this relation is not intelligible or it does not explain why something is what it is, then it cannot be considered as necessary even if it is present in the relevant objects in all possible worlds. So the concept of necessity cannot be equated with the concept of universality. The distinction between these two concepts has been emphasized by a lot of classical philosophers. So Kripke who has accused other philosophers of making a confusion between necessary and *a priori* has not realized the importance of the distinction between necessary and universal truths.

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