

RIGIDITY AND NECESSITY IN KRIPKE

The most striking claim that Kripke makes in "Identity and Necessity" and *Naming and Necessity* is: an identity statement between two rigid designators, when true at all, is necessarily true, even though one may not know it *a priori*.¹ In particular, the following implications of the claim are significant. (a) Metaphysical truths can be discovered empirically.² It was an eye-opener for many working philosophers of Science within the broad framework of Realism and Empiricism. They would now work with more rigour and passion in order to discover the underlying structure of reality. (b) Rightly, this has fascinated many modal logicians. If the claim is correct, they could now derive ' $\Box p$ ' from ' $p \rightarrow \Box p$ ' where ' p ' is true.³

The claim mentioned above is the outcome of Kripke's unique but less familiar notion of a *rigid designator*. In brief, what he understands by a rigid designator is a term that designates the same object in all possible worlds.⁴ This does not imply "that the object referred to necessarily exists," but "in any possible world where the object in question *does* exist, in any situation where the object *would* exist, we use the designator in question to designate that object."⁵ We can, Kripke contends, replace 'counterfactual situation' or 'possible state of the world' or 'possible history of the world' for 'possible world' in understanding the notion of a rigid designator if that would be less misleading.⁶ Natural kind terms such as "water", "gold", certain terms belonging to the realm of experience such as

“ pain, ” certain terms in Science such as “ heat, ” “ H_2O ” and proper names are clear cases of rigid designators for Kripke.

Kripke identifies four types of identity statements. (1) Contingent identity statements involving definite descriptions, such as, “ The first postmaster general of the United States is the inventor of bifocals. ” (2) Identity statements between names, for example, “ Tully is Cicero. ” (3) The type of identity statements which come from Scientific theory, such as, “ Heat is the motion of molecules. ” And finally, (4) Statements involved in formulating what is known as ‘ identity thesis. ’ An example of this kind is: “ Pain is just a central material state of the brain or of the body. ”⁷ Of these, the last three are of relevance to Kripke’s thesis. They are *necessary*, if they are true. The form of the arguments in favour of his said thesis is the same in all the three cases of proper names, statements of theoretical identification in Science and statements pertaining to inner experiences. He summarizes his general argument in the following manner :

Let ‘ R_1 ’ and ‘ R_2 ’ be the two rigid designators which flank the identity sign. Then ‘ $R_1 = R_2$ ’ is necessary if true. The references of ‘ R_1 ’ and ‘ R_2 ’, respectively, may well be fixed by nonrigid designators ‘ D_1 ’ and ‘ D_2 ’, in the Hesperus and Phosphorus cases these have the form ‘ the heavenly body in such-and-such position in the sky in the evening (morning) . ’ Then although ‘ $R_1 = R_2$ ’ is necessary, ‘ $D_1 = D_2$ ’ may well be contingent, and this is often what leads to the erroneous view that ‘ $R_1 = R_2$ ’ might have turned out otherwise.⁸

For simplicity and convenience, we shall discuss identity statements between names and theoretical identity statements in Science in detail. If the main arguments in this paper succeed, Kripke’s general thesis about rigid designators cannot be true in

the case of proper names and theoretical identity statements in Science. However, still his thesis may be true in the case of inner experiences, as in those cases there would be no need of a criterion to fix the reference according to Kripke.

The general plan of the paper is the following. In *Section I*, we explicitly state three conditions that one has to meet prior to making use of Kripke's concept of a rigid designator. After examination of these three conditions, we find that these conditions are too wide. We show how even a Cluster theorist can deduce the so-called metaphysical statements by following Kripke. We are forced to conclude that an obvious contingent identity statement is necessary if we accept Kripke's conditions. *Section II* is devoted to Kripke's notion of a 'counterfactual situation.' After extensive discussion on the issue, we conclude that the notion should be taken to be an epistemic device engineered to sharpen our epistemology. Secondly, we find that in Kripke's formulation of rigid designators, the relationship between language and reality assumes undue importance. We feel the need to project the relationship in a more flexible manner. Our *Section III* deals with Kripke's notion of metaphysical necessity as opposed to the traditional notion of necessity. We conclude that even if we accept Kripke's thesis, it is futile as it fails to answer a sceptic. Secondly, we show how in exceptional cases Kripke has to treat the words "true" and "necessary" as synonymous and lose all the advantages of invoking the notion of a rigid designator. Kripke's notion of a rigid designator is re-defined in what we think to be a more acceptable form in *Section IV*. It turns out to be a notion which belongs exclusively to a theory of language. When viewed from this perspective, certain important issues emerge, and they are discussed in brief in the remaining pages.

I

To begin with, let us see how vulnerable Kripke's position is. If Kripke is right, given a contingent identity statement, even a child can produce a metaphysical statement. All that the child has to do, is to name things. "The man who invented bifocals was the first postmaster general of the United States" is a contingent identity statement for Kripke as in a counterfactual situation or in a possible world the one who invented bifocals could be a different person than the first postmaster general of the United States. Any one of the phrases taken individually, namely, "the inventor of bifocals" or "the first postmaster general of the United States" can serve as a criterion to fix the designator of a name.⁹ Let 'Benjamin' be the name of the person who invented bifocals, and let 'Franklin' be the name of the first postmaster general of the United States. If we do not insist on treating the names as synonymous with their criteria, which of course one can easily grant (as child is yet not an obsessed philosopher), one can have the metaphysical statement "Benjamin is Franklin". 'Benjamin' being a name of a person, and names being rigid designators, the word would designate the person in all possible worlds or counterfactual situations wherever he exists, and the same being true of the name 'Franklin', and given the fact that they are names of one person in our world, there would be no possible world or counterfactual situation where Benjamin would exist, but Franklin would not. And hence the identity statement between the two names would be true in every possible world or counterfactual situation where the referent exists given the fact that in our world these two are the names of the same person and the identity statement between these two is true.

What are the conditions that should be met prior to our deducing the metaphysical statement "Benjamin is Franklin"

from a contingent identity statement? The first condition seems to be that the contingent identity statement should involve definite description which help us to fix the referents of names effectively. Naming is possible in a genuine way only if there is a criterion to fix the reference of a name. Ordinarily, we take any contingent property of the object that distinguishes the object from the rest of the things around as a criterion. We cannot talk of any property other than the definite description in the identity statement for fixing the referent of a name, as that involves knowledge of the referent independent of the criterion for the purpose of naming. That would be a situation where we have not deduced the metaphysical statement from contingent identity statement alone. The second condition seems to be that we should be willing to treat a criterion as a contingent property of the object, and should not treat the names and their criteria as synonyms. If we fail to meet this condition, the proper names would be nothing but disguised descriptions. This would lead us to the situation where we shall have to maintain that the criterion is an essential part of the meaning of the name. By making the criterion as essential property of the object, we land in an absurd position of claiming that Aristotle would not have been Aristotle if he were not the teacher of Alexander. This second condition must be met by us in naming any object, as names are rigid designators, and names would not be rigid designators if we fail to meet this condition while naming.

The second condition, if adhered to, seems to produce miraculous results for Kripke. For example, consider the identity statement "Light is a stream of photons." Originally, we identified light by the characteristic internal visual impressions it can produce in us, that make us able to see. This served us as a criterion to fix the referent of the word 'light'. And now if we treat the criterion as contingent property of light and do not

treat it as part of the meaning of the term 'light', we can claim that the truth value of the identity statement remains unaltered even in the following situation.

Perhaps we can imagine that, by some miracle, sound waves somehow enabled some creature to see. I mean, they gave him visual impressions just as we have, may be exactly the same color sense. We can also imagine the same creature to be completely *insensitive* to light (photons). Who knows what subtle undreamt of possibilities there may be? Would we say that in such a possible world, it was sound which was light, that these wave motions in the air were light? It seems to me that, given our concept of light, we should describe the situation differently.¹⁰

If the criterion is taken to be synonymous with 'light', then the identity statement "Light is a stream of photons" is false as in this counterfactual situation it is the wave motions in the air that made us able to see.

If we are open-minded like Kripke, we would not say that the counterfactual situation has falsified our claim that light is a stream of photons, but we would describe the situation as "a situation in which certain creatures, maybe even those who were called 'people' and inhabited this planet, were sensitive not to light but to sound waves, sensitive to them in exactly the same way that we are sensitive to light." This is so because "once we have found out what light is, when we talk about other possible world we are talking about *this* phenomenon in the world, and not using 'light' as a phrase *synonymous* with 'whatever gives us the visual impression—whatever helps us to see.'"

This brings us to the third crucial condition which has to be fulfilled before deducing a metaphysical conclusion from a con-

tingent identity statement. We should use words in our language with "our meanings and our references" while talking about counterfactual situations.¹¹ We cannot use a word as a homonym¹² and claim it to be a rigid designator. If we insist in the above counterfactual situation that it is sound which is light as people in that counterfactual situation could see by perceiving sound waves exactly the way we perceive colours, then we are using the word 'light' as a homonym. 'By 'light' on the one hand we mean 'stream of photons' in our world, on the other, 'sound wave' in the counterfactual situation. Thus, the counterfactual situation described above does not falsify the identity statement "Light is a stream of photons" if we carefully distinguish the two *senses* of the word 'light' here. We have failed to keep the meaning and referent of the word 'light' in tact in describing the counterfactual situation.

Of course, we can meet all these three conditions in order to deduce a metaphysical statement from a contingent identity statement without much difficulty. The second and the third conditions are relatively simple to meet; they are matters pertaining to our attitudes¹³ and language. We can easily grant that the criteria which are used for fixing the refernces of words are contingent properties of objects, and without much difficulty we can describe counterfactual situations in our language¹⁴ with our meanings and our references. It may not always be possible to meet the first condition, namely the contingent identity statement should involve a definite description which would help us in naming. However, all those contingent identity statements between two definite descriptions would meet this condition, and at least in those cases we can deduce one metaphysical statement for every contingent identity statement.

Excited by the idea of deducing metaphysical statements from contingent identity statements, we can be brave now, and deduce

more significant metaphysical statements. Consider the statement "The first postmaster general of the United States is Franklin". Can't this be proven to be necessary if it is true? I think, we can. We should follow Kripke's guidelines strictly, and meet all the conditions stated above, especially the third one. We need a criterion to fix the reference of the phrase "the first postmaster general of the United States". Of course, the definite description "the inventor of bifocals" can serve our purpose of a criterion to fix the reference of this phrase. We should treat the property of being the inventor of bifocals as a contingent property of the referent of "the first postmaster general of the United States". That we can grant easily by claiming that in a possible world the first postmaster general need not be the inventor of bifocals. So far we have taken care of the first two conditions of Kripke. Now we should show that in every counterfactual situation the statement "The first postmaster general of the United States is Franklin" is true if the statement is true in our world. This we do by insisting that every one should speak in English with the same meanings and reference of the phrase "the first postmaster general of the United States" and the name "Franklin". Ask the question, could it be the case that someone else other than Franklin is the first postmaster general of the United States in a counterfactual situation? If any one thinks that in a counterfactual situation Franklin lacked the quality of being the first postmaster general of the United States, we should point out to him that in that counterfactual situation, he has used the phrase "the first postmaster general of the United States" with two references, in our world it was Franklin who was the referent of the phrase, and in the counterfactual situation it is altogether someone else, or no one. Thus, we can point out to him that has not fully met Kripke's third condition. Given the fact that it is Franklin who was the

first postmaster general of the United States, we cannot stipulate a *single* counterfactual situation where the first postmaster general of the United States would not be Franklin if we are to use the phrase and the name with *our* meanings and *our* references. In every counterfactual situation or possible world where the referent of the phrase "the first postmaster general of the United States" exists at all, it would be Franklin. Suppose, one maintains that in a counterfactual situation Franklin exists but there is no postal service. This would be a genuine counterfactual situation, where the identity statement "The first postmaster general of the United States is Franklin" would be false. But, following the Cluster theory of meaning¹⁶, we can say that the meaning of the term 'Franklin' has not remained unchanged. According to the Cluster theory, the important attribute of Franklin is that he was the first postmaster general of United States, and an important attribute of a person is part of the name of that person. Thus, if we admit that the above counterfactual situation is a genuine one, we have changed the meaning¹⁶ of the name 'Franklin' in counterfactual situation and we have changed the referent of the phrase "the first postmaster general of the United States". Having explained away the counterfactual situation as not genuine one, we can safely conclude that the identity proposition in question is necessary. Having shown this we can undertake to prove that the statement "The inventor of bifocals is Benjamin" is necessary by modifying our argument suitably. We can deduce now from the three necessary statements, namely, "Benjamin is Franklin" "The first postmaster general of the United States is Franklin" and "The inventor of bifocals is Benjamin", the statement "The first postmaster general of the United States is the inventor of bifocals" and this statement is necessary as it is deduced exclusively from necessary statements.

We began with the supposition that the statement "The man who invented bifocals is the first postmaster general of the United States" is contingent, but we ended making the claim to the contrary. Of course, Kripke would never agree that it is a necessary statement. He would, perhaps, find fault with us on one count. He would maintain that a definite description can never be a rigid designator. A definite description is a description after all, and it describes a quality of an object; while a name is not a description; it does not refer to a quality, but refers to a substance. We can answer this objection in the following manner. A definite description makes use of a quality of an object in order to refer to that object uniquely, while, we do not need to use a quality of an object in order to refer to an object in the case of names. This difference between a definite description and a name is in their *mode of reference* in the Fregean terminology. The choice of a mode of reference is ours, and hence this should not have much to do with metaphysics. Kripke has maintained that the name 'Hitler' would refer to Hitler even in a counterfactual situation where Hitler had never been born.¹³ In a counterfactual situation if a name can refer to an object which does not exist, surely a definite description could refer to an object in a counterfactual situation where the object exists but the quality which is used in the mode of reference is absent in the object. Our linguistic preference to use a particular mode of reference, namely, that of description or of names should not make any difference to the metaphysical truths.

Kripke seems to be obsessed by the metaphysical idea that everything is what it is. The third condition that we have discussed above in the context of deriving a metaphysical statement from a contingent one, is the outcome of this obsession. He wants to retain the meaning, and referent of a word in its original form even in a counterfactual situation. He writes :

If names are rigid designators, then there can be no question about identities being necessary, because 'a' and 'b' will be rigid designators of a certain man or thing *x*. Then even in every possible world, *a* and *b* will both refer to this same object *x*, and to no other, and so there will be no situation in which *a* might not have been *b*. That would have to be a situation in which the object which we are also now calling 'x' would not have been identical with itself. Then one could not possibly have a situation in which Cicero would not have been Tully or Hesperus would not have been Phosphorus.¹⁸

It is very obvious in the passage above why Kripke thinks that Cicero has to be Tully even in a counterfactual situation. If Cicero is not Tully in a counterfactual situation, it is a violation of the law of identity for Kripke, given the fact that Cicero is Tully in our world. It is this obsession that has led him to conclude that the following is not a relevant counterfactual situation which, to our mind, obviously is :

For example, it could have been the case that Venus did indeed rise in the morning in exactly the position in which we saw it, but that on the other hand, in the position which is in fact occupied by Venus in the evening, Venus was not there, and Mars took its place. This is all counterfactual because in fact Venus is there. Now one can also imagine that in this counterfactual other possible world, the earth would have been inhabited by people and that they should have used the names 'Phosphorus' for Venus in the morning and 'Hesperus' for Mars in the evening. Now this is all very good, but would it be a situation in which Hesperus was not Phosphorus?¹⁹

Of course, Kripke's favourite answer to this question is that it is not.

It would have been less objectionable if he had only one obsession. Along with this obsession about the law of identity, he also has an obsession about language. Note what he writes further in discussing the example above :

Of course, it is a situation in which people would have been able to *say*, truly, "Hesperus is not Phosphorus;" but we are supposed to describe things in our language not in theirs. So let us describe it in our language. ... We might say that under such circumstances, we would not have called Hesperus 'Hesperus' because Hesperus would have been in a different position. But that still would not make Phosphorus different from Hesperus; ...³⁰

A language spoken in a counterfactual situation by those people who exist in that counterfactual situation is not the language we speak according to Kripke. The people in the counterfactual situation, even if they seem to speak English, do not speak English, but a language which phonetically overlaps with English, as they do not use the words with our meanings and our references.³¹

It is difficult to understand Kripke's notion of rigidity without giving special attention to the way we talk about counterfactual situations. It is important to note that the relationship between language and reality has to remain in tact while the talk about counterfactual situation goes on. Note the importance of language in describing a counterfactual situation in the following passage :

...when we speak of a counterfactual situation, we speak of it in English, even if it is part of the description of that counterfactual situation that we were all speaking German in that counterfactual situation. We say, 'suppose we had all been speaking German' or 'suppose we had been using English in a nonstandard way.' Then we are describing a

possible world or counterfactual situation in which people, including ourselves, did speak in a certain way different from the way we speak. But still, in describing that world, we use *English* with *our* meanings and *our* references. It is in this sense that I speak of rigid designator as having the same reference in all possible worlds. ”

If we have understood Kripke fully, we should not say that “Tully is Cicero” is false in a possible world where people, who speak a language which phonetically overlapped with English, maintain rightly that in their world “Tully” and “Cicero” referred to two different people. In a possible world, we, as part of the possible world speaking English with different designators associated with these two words “Tully” and “Cicero,” would not be uttering a true statement in English; even if, in that possible world according to us, we have uttered a true statement “Tully is not Cicero” in English, this statement is not in fact a true statement.

Perhaps, a clarificatory note in favour of Kripke should be added here. It is possible to argue that although Aristotle would be Aristotle in all counterfactual situations or possible worlds even if he lacks his most important attributes in these counterfactual situation or possible worlds. However, this would not be true of languages. ‘English’ for example, is considered as a name of a language, but this is not a name of substance. Hence ‘English’ cannot behave like a proper name of a substance. All names of persons and places, or that of natural substances are rigid designators, but a language does not fall in this category.

If we treat ‘English’ as a rigid designator, then we would be saying that it is English that the people speak in a counterfactual situation even if that language lacks the most important

properties of the English language. We would be forced to maintain that in the counterfactual situation where people refer to Mars by the word 'Hesperus' and to Venus by the word 'Phosphorus', they truly claim that "Hesperus is not Phosphorus." But I think that we cannot save Kripke's thesis in this fashion. If we are to speak on the analogy of objects, we can imagine people speaking English in all possible worlds or counterfactual situations. Even if some people in that possible world did not have the word "Aristotle" as he does not exist in that possible world, we maintain that people in that possible world spoke English. Many of us do not know fine shades of meaning of many English words; still we are said to be teaching in English. Moreover, some of us do not know who Einstein is, and some of us think that he is the inventor of atom bombs which he was not, and still we are said to be speaking English.

Accepting Kripke's picture of language leads to certain fundamental difficulties. Consider for example, the fact that long ago scientists had thought that water was an element, but later, they modified their view and considered water as a compound. This involved a change of the meaning of the term "water". They preferred their technical term "Hydroxide" as it is Hydrogen and Oxygen elements that come together to form water. Technically, the term "Hydroxide" has a different meaning, and a different referent. Water is never said to be pure, there is always some element of other organic compounds, minerals dissolved in it. While "Hydroxide" or " H_2O " refers to pure water, and we get no pure water in nature. Thus, speaking in strict terms, we do not refer to the same liquid by the two terms "water" and " H_2O ", and thus following Kripke we should conclude that scientists do not speak English.

A scientific theory which is internally consistent cannot be proven to be false if we follow Kripke's notion of a language.

This is because, one has to provide evidence against a self-consistent system, from outside to prove a part of it or the whole of it to be false. Thus, Newtonian mechanics which is internally consistent could not have been proved to be false if Kripke were correct. Einstein is said to have proved the limitation of Newtonian theory as he could provide a new definition of an 'object'. In his new definition, he added a fourth dimension to the Newtonian notion of a three dimensional object. This has enabled him to formulate laws regarding fast moving distant objects. Following Kripke, a Newtonian can still maintain that the situation where Newton's theory is said to have failed is not a genuine one, as the meaning and referent of the word "object" has not remained the same. And any observation made on the basis of Einstein's theory of relativity cannot be counted as 'fact' disproving Newton's theory.

A natural language is a living thing. It changes every day. New words are added, and old ones are modified to suit the need of the people and culture. Kripke's philosophical language would be like a calculus. It would include even the referents or the objects as part of the language. Such a difficult language is ineffective for any meaningful activity.

In the absence of a clear theory of meaning, it is difficult to imagine what Kripke would have counted as a case of change in meaning of a word. However, without waiting for his well-defined theory, it is enough if we point out that for more reasons than one, we could count that the above case of water is a case of change in meaning and referent of the term "water". If he insists on maintaining that water has remained water in spite of our change in perspective, and therefore as a name the term "water" continues to refer to water and means water whenever we use the word, by any stretch of imagination we cannot understand his notion of 'meaning' and 'referent'.

II

We need to examine Kripke's notion of a 'counterfactual situation' or a 'possible world' if we are to understand his notion of a rigid designator. Ask the question: What would be a counterfactual situation to the fact that Benjamin Franklin is the inventor of bifocals? The answer is very simple: A situation where Benjamin Franklin is not the inventor of bifocals. But such situation could vary. Broadly, they can be classified into the following categories: (a) No one has yet invented bifocals. Or, (b) No one existed with the name 'Benjamin Franklin', Or, (c) Someone else invented bifocals, say, Ronald. Strictly speaking, situation (a) would not constitute a counterfactual situation for Kripke. The situation where no one has yet invented bifocals would be a situation where we cannot use this property to fix the reference of Benjamin, for that is not an attribute of anyone. Similarly, in situation (b) where no one existed having the name 'Benjamin Franklin', the name could not be a rigid designator, as it is not a name all. (For our discussion fictional names are not relevant.) Only the situation (c), namely, where someone other than Benjamin Franklin invented bifocals would be a proper counterfactual situation, for it is *in fact* Benjamin Franklin who invented bifocals.

One might think that "the simple fact that two people can have the same name refutes the rigidity thesis".²⁸ But this does not pose any serious problem for the rigid designation theory. If we wish, we can have the convention of not naming two objects with the same word. However, in most of the cases it does not lead to any problem of ambiguity of reference; hence we do not bother to name each object differently. We cannot talk of counterfactual situation or possible world by using such cases. 'John' would be, perhaps, the name of a thousand persons, but we cannot point to a man and utter that the statement

"John is the president of the United States" and hence it is counterfactual to the statement "John was never a president" if Mr. John whom we have in mind here is a different person from John F. Kennedy.

The counterpart theory also does not challenge the rigid designation theory. The question of transworld identification arises only if we accept the Counterpart theory. For the Counterpart theory, the major problem is that of identifying the counterpart of Aristotle in a possible world who most closely resembles Aristotle in his most important properties in the actual world.²⁴ However, this also does not prove that one can work out a counterfactual situation to Aristotle, as counterparts of Aristotle are not Aristotle himself.

Do we use a rigid designator rigidly in a counterfactual situation or a possible world where the referent does not exist? "If you say 'suppose Hitler had never been born' then 'Hitler' refers here, still rigidly, to something that would not exist in the counterfactual situation described."²⁵ If 'Hitler' does not refer to Hitler rigidly, by looking at a counterpart of Hitler, we might have concluded that Hitler exists in such a counterfactual situation. We are able to say that Hitler does not exist in this counterfactual situation because we use the name 'Hitler' rigidly.

It is worth noting that Kripke maintains that in practice we cannot describe a complete counterfactual course of events and have no need to do so. A practical description of the extent to which the 'counterfactual situation' differs in the relevant way from the actual facts is sufficient; the 'counterfactual situation' could be thought of as a *miniworld* or a *ministate*, restricted to features of the world relevant to the problem at hand. This in-

volves less idealization both as to considering entire world histories and as to considering *all* possibilities.²⁶

'Possible worlds' are *stipulated*, not *discovered* by powerful telescopes.²⁷ Generally, things are not 'found out' about a counterfactual situation, they are stipulated. The problem of identifying a table in a possible world does not arise, as such a possible world does not exist. "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 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."²⁸

Metaphysically speaking we cannot talk of possible world or counterfactual situations. Metaphysical statements cannot be probable, nor can they be conditional. They are necessarily true and there is no 'possible world' in metaphysics. What exists is actual, and only actual exists. If anything that does not exist but, we humans think that it exists, then we are mistaken; and if something that exists but appears to be different, then we humans are not able to know the reality as it is, but know the reality as it appears. Thus, the counterfactual situations or the possible worlds are human constructs; rightly they are said to be 'stipulations'. We use this 'possible world' argument to know the metaphysical truths; this has to be language-independent, at least in the sense in which logic is language-independent. A counterfactual situation should be worked out to know whether we have any epistemic bias in claiming a statement to be true. This epistemic bias, of course, would include even the cultural and linguistic aspects. Any statement that turns out to be false

in a counterfactual situation where such an epistemic bias does not exist, has to be counted as a contingent truth.

Our ability to work out counterfactual situation is in a sense directly proportional to our knowledge of the attributes of an object. If we know many attributes of an object, we can construct many counterfactual situations varying the attributes of the object. However, at no stage a human being would know all the properties of even one object. That is to say, he cannot stipulate all the counterfactual situations to come to the conclusion as to whether an identity statement between names would be true in all those counterfactual situations given the fact that the statement is true in the actual world. This forces us to talk of *relevant* counterfactual situations. However, this is a hard decision to make, especially in the case of theoretical identifications. For example, "light" is defined in different manners depending on the theory one holds. Even a counterfactual situation like the one Kripke describes where one has vision due to sound waves might be a relevant counterfactual situation. If we are so sure of the nature of light, that it is a stream of photons, there is no need to work out a counterfactual situation. If we know for sure that the nature of reality is such that light is a stream of photons, we cannot work out a counterfactual situation falsifying it, as it would be a metaphysical truth. However, one who does not know for sure it is a metaphysical truth would tend to construct counterfactual situations to establish the necessity of the statement. We know that the first postmaster general of the United States is Benjamin Franklin, but still we talk of this property of him in a counterfactual situation in order to know whether the statement "The first postmaster general United States is Benjamin Franklin" is necessary, as there is an epistemic possibility that we have wrongly taken Benjamin Franklin to be the first postmaster general of the Uni-

ted States. Therefore it is apt to treat 'counterfactual situations', and 'possible worlds' as epistemic devices to achieve metaphysical truths

Having said that a 'possible world' has to be always taken in an epistemic sense, and there is no metaphysical sense of 'possible' involved here, we need to re-examine some of Kripke's arguments. It seems to be possible to refute Kripke's claim that identity statements are necessary if they are true by de-linking language from reality. It seems obvious that we could state metaphysical truths in any language. Language cannot be a hindrance to our philosophical activity of stating metaphysical truths. This being so, we need to carefully examine all the counterfactual situations where Kripke has insisted that we should describe the counterfactual situation only in our language with our meanings and our references. Consider the example of a counterfactual situation where Venus and Mars are named as 'Phosphorus' and 'Hesperus' respectively by the people who lived in that counterfactual situation. In this counterfactual situation, people truly said "Hesperus is not Phosphorus". This is a genuine counterfactual situation if we de-link language and reality in the following manner. We first grant that the statement "Hesperus is Phosphorus" can be expressed in any language, English or German or any other language. And the language that we use in a counterfactual situation also is English in the above context. The difference between our English in the actual world and the English in the possible world, lies not in the language, but outside it: words do not refer to the same object in the two worlds. It is we who speak English who constructed the counterfactual situation where this identity statement is shown to be false, for a person in the counterfactual situation does not speak any language as he does not 'exist' in the normal sense of the term. This indicates the characteristic use of our words. What object a word should refer to is determined by us. And

following rigid designation theory if we decide to use a word in a certain fashion, that certainly would bring some change in our way of using words as it is a prescription and not a description. The advantages that we would have by resolving to use one word for one referent even in a counterfactual situation would be linguistic. And we took advantage of this in our first section in deducing the so-called metaphysical statements from contingent ones.

III

It is important to distinguish what Kripke calls 'an epistemic' sense of necessity from 'metaphysical' sense of necessity. Sometimes, 'necessity' is used in an epistemological way. For example, all *a priori* statements are necessary in this sense. But Kripke is not interested in such statements. We ask sometimes whether something might have been true. If something is false, obviously it is not necessarily true. If a statement is true, one should ask the question: might it have been otherwise? If the answer is 'no,' then this fact about the world is a necessary one.²⁹

There are situations where we are unsure of the truth value of a statement. In such situations we say 'it might turn out either way.' For example, the four colour theorem might turn out to be true or false. "Obviously, the 'might' here is purely 'epistemic' - it merely expresses our present state of ignorance or uncertainty."³⁰

If the identity statement "Hesperus is Phosphorus" is claimed to be true, it is on the basis of some epistemic evidence that the statement is claimed to be true. However, in a counterfactual situation, one might be in a qualitatively identical epistemic situation. On the basis of qualitatively identical epistemic evidence, one might conclude in that counterfactual situation that

the identity statement "Hesperus is Phosphorus" is false as they do not have the same referent. Of course, even this does not prove the identity statement to be false in the counterfactual situation for Kripke. At least one of those stars or heavenly bodies in the counterfactual situation should not be Venus; otherwise the identity statement could not have found to be true in our actual world.³¹

The question is not: if something is true, whether it would be simultaneously false? In fact, when we stipulate a counterfactual situation, we suspend our knowledge of the truth value of the statement. When I ask the question "Could Aristotle not be a philosopher in a possible world or a counterfactual situation?" I suspend my knowledge about Aristotle that he is a philosopher. This is essential to the talk of counterfactual situations and possible worlds, otherwise, we have to answer like a fatalist or a determinist responding to the question of human freedom: given the causes, he could not have acted differently. Similarly, when we have to work out a counterfactual situation for an identity statement between names, we have to suspend our knowledge of the truth value of the identity statement and answer the question "Could morning star be different from evening star in all possible worlds?" And if the answer is in the positive, it is not a metaphysical statement, and if the answer is in the negative it is.

A metaphysical statement is necessary only if it is true in all possible worlds or counterfactual situations. Suppose that "the first postmaster general of the United States is the inventor of bifocals" is a metaphysical statement. To claim this is to claim that this statement is true from all perspectives. To justify our claim we adopt the mode of counterfactual arguments or we adopt possible world perspective. Even if we know the truth of a contingent statement, we are not sure whether we are influenced

by a perspective in claiming the truth of the statement. Similarly, unknowingly we could have made a judgement which is erroneous as in the case of optical illusions. Unconsciously we could hate or love some persons or places and that could lead us to make wrong judgements. Given these epistemic limitations of a man, in order to sharpen his epistemic ability to know reality correctly, philosophers have adopted the possible world perspective or that of a counterfactual situation. Quite correctly, Kripke has pointed out that counterfactual situations are stipulated and imagined. Possible worlds do not exist any where and counterfactual situations are not factual situations.

All of us including a skeptic can in principle agree that an identity statement between two rigid designators is necessary if it is true, partly because it is a harmless thesis, and partly because one could never prove any statement to be necessary. In order to prove that an identity statement between two rigid designators is necessary one should prove beyond doubt that it is true in our world. For example, "Light is a stream of photons" is an identity statement and is taken to be true, by some scientists, while others totally disagree with the view. Kripke has to show first that it is true beyond any doubt in our world. And of course, if he can prove that to us, without even counterfactual arguments or arguments from the point of view of possible worlds, we, including all sceptics, would grant the statement the status of a metaphysical truth.

Kripke's thesis is futile for another reason as well. He does not claim that a rigid designator, designates the object in all possible worlds, but in all possible worlds where the object exists. That is to say that a referent of a rigid designator is not a necessary existent. 'Necessity' that he talks of is not the traditional metaphysical notion of necessity. In a traditional sense, a statement, if it is true, is true in all possible worlds and

is false in no possible world. This is not the situation which Kripke is visualizing. He is talking of the truth value of identity statements only in those possible worlds where the designator exists. If the referent does not exist in a possible world, he is unsure of the status of the truth value of such a statement in that possible world. Sometimes he is tempted to go along with Russell and claim that the statement is false. But this temptation is curbed by the fear that then that would go against his rigid designation theory. He then takes the line of Strawson of claiming that the identity statement "Morning star is Evening star" is neither true nor false in a possible world where Venus does not exist. Of course, this would commit Kripke to an absurd position of claiming that his metaphysical statements are true subject to the existence of relevant objects as real.

Kripke can be shown further to be maintaining a trivial thesis. Consider his weak sense of 'necessity.' An identity statement is necessary if it is true in a weaker sense in the following situation. Let us say that Venus exists only in some possible worlds and does not exist in some other possible worlds. Then the identity statement "Hesperus is Phosphorus" is necessary in a weaker sense. But, what would happen if Venus does not exist in any possible world, but only in the actual world? Remember, possible worlds are not 'out there.' Counterfactual situations are stipulated, not factual. Even in such a situation, we need to claim that the identity statement is necessary as it fulfils all the conditions Kripke mentions. The names used in the sentence are rigid designators and in all possible worlds where the objects exist, the statement is true. If the objects do not exist in any possible world, the condition that 'the identity statement must be true in all possible worlds where the designator exists' goes, and we can safely conclude that the identity statement is necessary in the weaker sense. At least in those cases where the

designator exists only in the actual world and in no possible world, Kripke's claim has the form "an identity statement is necessary because it is true." And thus "true" and "necessary" become synonymous, and this amounts to claiming that a statement is true if it is true.

IV

To sum up our discussion so far: (1) Kripke's insistence that we should view counterfactual situations always from our world view in our language with our meanings and references is objectionable. The importance of a counterfactual argument is lost, if we accept what Kripke says. We need to emphasize the fact that we suspend the truth value of a statement while talking about it in a counterfactual situation. If we do not keep this in mind, we shall be unnecessarily doing the exercise of constructing counterfactual situations only to reject them as not relevant ones. (2) We can certainly construct genuine counterfactual situations to most identity statements between rigid designators which are true. "The first postmaster general of the United States" is a contingent statements, so is "Tully is Cicero," even if they are true. This is possible, because, in the same counterfactual situation Tully could lack the property of being an orator, while Cicero might possess this very property. (3) Kripke's notion of metaphysical necessity is a dubious one. This is because, even a metaphysically necessary statement may not have a truth value in a counterfactual situation for Kripke. Where the relevant objects and facts about which the statement in question is made do not exist, in that counterfactual situation the statement lacks the truth value. This takes away all the advantages of counting a statement to be metaphysically necessary as opposed to counting it to be contingent.

Let us now examine whether certain aspects of Kripke's thesis could be maintained as a tenable theory of language. He has

rightly pointed out that a proper name is a rigid designator. We use names as rigid designators, in describing counterfactual situations. Even those worlds that name the substance, which are generally known as natural kind term, are also rigid designators. When we talk of a counterfactual situation, we vary some known properties of the object named, and conceive of it as the same object. Kripke rightly says that "it is *this* very table" that we talk about in a counterfactual situation, when we say that *it* could have been in a different corner of the room. It is also quite correct to claim that we use criteria to *fix* the references, and criteria are contingent properties of the objects referred to. In a counterfactual situation, an object might lack the properties which it has in our world, including the one which we have used as a criterion while naming it.

However, if we try to retain these two aspects of Kripke's rigid designation theory, namely, proper names are rigid designators and criteria are contingent properties of the objects named, rejecting the rest of his thesis, certain problems seem to arise. Let us list some of them now. (1) How is it that "Tully" and "Cicero" are rigid designators, and they are the names of the same person in our world, but name different persons in a possible world? (2) How is it that "Tully is Tully" is not a synthetic and contingent statement, while "Tully is Cicero" is, even if it is true? In other words, why is self-identity not a quality, if identity is! (3) What is the status of Leibniz's law and the law of identity in a counterfactual situation? Would they be valid across the possible worlds? Let us discuss these problems in brief in the remaining part of this essay.

Answer to our problem (1) lies very much in our notion of a rigid designator. We remarked earlier that when we talk about counterfactual situations or about possible worlds, we suspend the truth values of the statements made in the actual world. We

treat the statements afresh in a counterfactual situation. Since, we do not hold the view that some of the properties of Aristotle are essential to him, we could vary his properties in a counterfactual situation. Tully might lack the property of being an orator in a possible world w while Cicero might be an orator. This is because, being an orator is not an essential property of Tully. We suspend all our knowledge about the attributes of Tully and Cicero in stipulating a counterfactual situation or a possible world, and we did exactly that in describing Tully and Cicero in the possible world w . If we hold the view that simultaneously, Tully is Cicero and is not Cicero, in the same possible world we are contradicting ourselves. But we have not done anything of that sort, in describing Tully and Cicero in the possible world w . Without contradicting ourselves we could maintain that "Tully" and "Cicero" have been used as rigid designators, even in describing them the way we did in the possible world w . That is possible because, "Tully" referred to Tully in the possible world w , and to no one else; and "Cicero" referred to Cicero and to no one else in the possible world w . We are not bound by the principle that if we vary an attribute in the case of the referent of the name "Tully", we should vary the same attribute in the case of the referent of "Cicero" in a counterfactual situation. If we put such a limitation on ourselves while stipulating a counterfactual situation, we commit ourselves to a form of Aristotelian essentialism; and the essence of Tully and Cicero being the same as it is the same person called by these two names, we would not be able to imagine them of having different attributes in the same counterfactual situation w . Then the rigid designation theory would not be a theory about words and therefore it would not be about language; it would be a theory about the nature of objects in counterfactual situations.

To be more precise, if rigid designation theory is a theory about the attributes of objects in counterfactual situations as opposed to their attributes in our world, then we would have to name these objects along with other things, in each counterfactual situation. On such an interpretation, "Tully" is the name of a person in our world, and the same person might lack this name in a counterfactual situation; instead, he might have the name "Aristotle" in that counterfactual situation. Moreover, if the person has two names, say, "Tully" and 'Cicero' in our world, he might have "Aristotle" and "Plato" as his names in a counterfactual situation or might not have any name at all. This view would commit us to the position that we can talk of an identity statement between names only within a particular world view where an object has at least two names. In brief, on this view names become one of the attributes of things named, and in stipulating possible worlds, we shall have to stipulate whether an object has the same name in that possible world or a different one or none. It is possible then that Venus exists in a counterfactual situation, but the identity statement "Hesperus is Phosphorus" would be false, as in that counterfactual situation Venus does not possess the attribute of being called "Hesperus" and "Phosphorus".

Nonetheless, if we take rigid designation theory as a theory about how objects would be in a counterfactual situation, then Quine's objection is pertinent.³² His demand for a criterion to identify the object in different passible worlds becomes genuine. We should know about whome we are talking in a counterfactual situation: whether it is Tully or someone else who closely resembles him in that counterfactual situation. Thus, if Kripke maintains that rigid designation theory is a theory about objects, then he has to provide a criterion for identifying Tully in different possible worlds in order to talk about Tully in

those possible worlds, which obviously he cannot do. Moreover, it would be misleading to call such a theory as a rigid designation theory, because on such an interpretation, there would be no designator-designated relationship. Thus, it seems to us very reasonable to conclude that rigid designation theory is a theory about how certain words function, or how we use them in counterfactual situations.

Let us now turn to our problem (2). It is claimed that "Everything is what it is", is a substantive metaphysical thesis. If this is so, we can deduce a linguistic thesis from this: every word is what it is. Every word used in an unambiguous manner would have the same meaning and the same referent even if it occurs in different places in a sentence. Thus it follows that "A is A". Given this linguistic *a priori* principle, we need not know what the meaning of a word is and which object the word refers to in order to claim that "A is A" is true. "A is A" is claimed to be expressing self-identity. Frege would take it to be a tautology. On the other hand, it is said that "A is B" is contingent even if it is true. "A is B" is claimed to involve identity. And hence identity is claimed to be a quality as it appears to give some knowledge as is the case of "Morning Star is Evening Star". It was an empirical discovery that Venus is the same planet which is seen in the morning and in the evening. For many philosophers 'self-identity' is not a quality, while, they are unsure whether 'identity' is a quality. Kripke tends to believe that even self-identity is a quality, though a trivial one. Searle is tempted to treat "A is A" as analytic or tautological and "A is B" as synthetic.³³ To begin with, 'A is B' is synthetic, and it becomes analytic subsequently when we know that it is true. But, Kripke would treat identity as a property. He believes that many important discoveries in Science are of this type; for example, light is a stream of photons, heat is due to molecular

agitation, etc. He reduces all identity statements to self-identity statements of the form "A is A" while justifying why identity statements must be necessary, using his thesis of a rigid designator. But, he does not identify self-identity statements with identity statements.³⁴

Consider how we use criteria to fix the reference of a name. For example, assume that I am introduced to Prof. Kripke in a seminar. I go back to my institute and talk about the philosophers who participated in the seminar and papers presented. Let us say that Kripke had presented a paper in that seminar on "Rigidity". Now, I can give this as a criterion for fixing the referent of the name "Kripke". But I may not use this; instead I might choose to use the name of another of his articles, viz. "Identity and Necessity" as a criterion to fix the referent of the name "Kripke". But if the hearer fails to identify the person, I may alternatively say that the person is the one who wrote the book *Naming and Necessity*. If even that does not succeed, I might try something else, including the visual criteria such as a photograph, to fix the reference of the name. The message of this story is this: we discover new criteria to re-fix the name in a new situation. Given a certain amount of knowledge about a situation, we have the ability to find new definite descriptions, ostensibly or otherwise, which help our hearer to fix the reference of the name. That is to say, no criterion is essential to any name, Kripke would not accept this view easily as he appears to believe that only at the initial stage we need criteria to fix the reference; later on only the name is passed on from person to person, and this process forms a causal chain.³⁵ If one who is in the middle of this chain has to fix the reference, he has to trace back this causal chain to reach the first person who baptized the referent.

It is true that we need a non-circular criterion to fix the referent of a name, and the criterion is always a contingent property of the object named; we need two such criteria in those cases where we have two names for the same object. Of course, if we know already one name of the object and want to name it again with another word, we do not need an additional criterion. But in such a situation, the identity statement between these two names would follow analytically. In the case of nick-names, for example, we do not need additional criteria to fix the referent of the nick-name. However, in the following situation where we know two names, and we have independent criteria to fix the references of these names as was the case with 'Morning star' and 'Evening star,' it would not follow that the identity statement between the names is analytic. "Morning star is Evening star" has the form of "A is B." Now, imagine that we are able to see Venus continuously from one evening to the next morning. This gives a common criterion to fix or re-fix the names "Morning star" and "Evening star."

An identity statement between any two designators is true, if we can provide a common criterion to fix or re-fix the references of both the designators simultaneously. That is to say, any criterion, if it fixes an object for the use of a word as a name, would do the same in the case of another word as well. This would be true even in a counterfactual situation. If the two names "Tully" and "Cicero" have a common criterion to fix the references of these names, obviously the criterion would fix one and only one person as the bearer of these names, and the identity statement between the two names would be true in that counterfactual situation.

It is not far from true to maintain that we always discover the truth of an identity statement between names by discovering a common criterion to fix or re-fix the referents of both the

names. Since a criterion is a contingent property of the object named, it provides us synthetic knowledge. We discovered a new criterion, other than the one we used earlier for fixing the references of the names "Hesperus" and "Phosphorus" when we discovered that "Hesperus is Phosphorus" is true. The syntheticity of the statement lies in our discovery of a common criterion for re-fixing the referents of these two names. Moreover, since a criterion is a contingent property of the object named, in the absence of such a common criterion in a counterfactual situation, we cannot maintain that the identity statement would be true even if it is true in our world due to the presence of a common criterion in our world.

Our problem (3) is regarding Leibniz's law, Leibniz's law does not hold across possible worlds in the following situation. Consider the identity statement between names "Tully is Cicero." Now, if this identity statement is true, then all the properties of Tully have to be the properties of Cicero. However, suppose that Cicero is in our world and Tully is in a possible world; Cicero is an orator, while Tully need not be one, even if the identity statement "Tully is Cicero" is true in that possible world. That is to say, Leibniz's law is applicable in our world, or in a possible world, but not across the possible worlds.

Now Leibniz's law can be applied to the names "Tully" and "Cicero" and it can be claimed that whatever is true of Tully is true of Cicero. However, we cannot apply Leibniz's law in a counterfactual situation, without having the same criterion or some other criterion common to both the names to fix or re-fix the references in that counterfactual situation. Cicero might lack the property of being a good orator in a counterfactual situation and Tully might not. Only under such circumstances in a counterfactual situation where both the names "Tully" and "Cicero" have one and the same criterion to fix or re-fix the reference of

the names in that counterfactual situation or possible world, the Leibnizian law would hold.

It is not difficult to see that the same analysis would hold for the law of identity. Consider for example, the true statements, "Water is H_2O " and " H_2O is Hydroxide". In a possible world, however, we can say that "Water is not Hydroxide" if in that world the two terms "Water" and "Hydroxide" are not co-referential. Therefore, we cannot say that water in our world is identical to Hydroxide in the possible world. However, this is not to say that water is not water in a possible world if "water" is taken to be a rigid designator. Thus the law of identity holds valid in our world, and in a possible world taken individually; but not across possible worlds.

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NOTES

1. S. Kripke, "Identity and Necessity" in Stephen P. Schwartz ed. *Naming, Necessity, and Natural Kinds* pp. 72-77 and 89. Also see *Naming and Necessity* by the same author, Basil Blackwell 1980 pp. 99-108.
2. "Identity and Necessity" p. 76 (Henceforth I & N). And also see *Naming and Necessity* pp. 110, 128-138. (Henceforth NN).
3. I & N, p. 88.
4. I & N, p. 78 and NN, pp. 48-49
5. I & N, p. 79 and NN, p. 78.
6. See I & N, pp. 80-82. Here Kripke claims that people have taken 'possible world' as a foreign country or a distant planet. Also see NN pp. 15, 43-53.
7. I & N, p. 76, also see NN, pp. 99-100.
8. NN, pp. 143-144.

9. These definite descriptions meet the noncircularity condition of Kripke for effective fixing of reference. *NN*, pp. 68-73.
10. *NN*, p. 130.
11. *NN*, pp. 77-78. Also see *I & N*, pp. 90-91.
12. *NN*, pp. 7-9.
13. See W. V. Quine's article "Reference and Modality" in *Reference and Modality* ed. L. Linsky, (Oxford University Press, 1971) p. 30. Here Quine maintains that certain properties of object follow from our ways of specifying them.
14. If the language used in stating an identity statement is English, we should describe the counterfactual situation in English. If the language used in stating an identity statement is German, the counterfactual situation should be described in German.
15. The cluster theory as depicted by Kripke is the one which maintains that the meaning of a name is determined by the important properties of the object it refers to. Searle and Wittgenstein are said to have maintained this view. See *NN*, pp. 30-38, 60-61.
16. Kripke has never made it clear as to what would constitute the meaning of proper names. But he openly criticizes the Cluster theory of meaning.
17. *NN*, p. 78.
18. *I & N*, p. 89.
19. *I & N*, p. 91
20. *I & N*, pp. 91-92. Also see *NN*, pp. 57-68.
21. *I & N*, p. 78.
22. *NN*, pp. 77-78.
23. *NN*, p. 7
24. *NN*, p. 76. Also see *I & N*, pp. 80, 82.
25. *NN*, p. 78.
26. *NN*, p. 18.
27. *NN*, p. 27.
28. *NN*, pp. 52-53.
29. *NN*, p. 36.
30. *NN*, p. 103.
31. *NN*, pp. 103-104.
32. See Kripke's formulation of Quine's objection. *NN*, pp. 42-53.
33. See J. R. Searle on "Proper Names", *Mind*, Vol. 67 (1958), See pp. 166-173.
34. See *Preface to Naming and Necessity*, p. 20.
35. *NN*, pp. 91-97.