Notre Dame Journal of Formal Logic
Volume XX, Number 4, October 1979
NDJFAM

KRIPKE ON CONTINGENT A PRIORI TRUTHS

SITANSU S. CHAKRAVARTI

*In a previous paper [1] I attempted to show that the difference between *rigid* and *non-rigid designators* does not hold the way Kripke would like to have it. In this paper we see how Kripke's claim that there are contingent a priori truths fares if there are no *non-rigid* definite descriptions. Kripke's thesis is based on his distinction between *rigid* and *non-rigid designators* pertaining to proper names and definite descriptions. So one might think that if the distinction does not hold, Kripke could not prove his thesis. Let us, however, make a detailed analysis of

(1) S is one meter long at t_0

which Kripke claims to be an example of an a priori contingency ([3], pp. 273-275). 'S' is the name of the standard bar in Paris with reference to which the concept of a meter has been defined. The definition is as follows:

(2) X is one meter long at $t =_{df} X$ has at t the length of S at t_0.

Now, because statement (2) holds by definition, any substitution instance of it is known a priori. Thus,

(3) S is one meter long at $t_0 =_{df} S$ has at t_0 the length of S at t_0,

which is known a priori. Now, if (3) is known to be a priori, whatever is entailed by it is also known to be a priori. The following is entailed by (3):

(4) S has at t_0 the length of S at $t_0 \supset S$ is one meter long at t_0,

and is known to be true a priori. But the antecedent of (4) is known to be a priori; therefore, its consequent is a priori. But (1), which is the consequent of (4), is not necessary for the simple reason that there is a possible world where S is not one meter long at t_0. Thus, (1) is shown to be a contingent a priori truth.

It seems to me, however, that if (1) is an instance of contingent a priori truth, then so is the antecedent of (4), viz.,

(5) S has at t_0 the length of S at t_0.

---

*I am indebted to Thomas McKay for his comments on an earlier draft of the paper.

Received May 29, 1976

The reason is as follows. One meter is a definite length, and it is this definite length that definition (2) fixes. The fact that S has at t_0 the length of S at t_0 in a possible world other than the actual where the length of S is not the same as its length in the actual world,does not entitle us to say that S is a meter long, either in the actual world or in that possible world. Thus, if the expression 'one meter' is to be given a fixed reference, the definite description 'the length of S at t_0' in the *definiens* of (2) is to be taken as having a fixed reference.

Next, we must consider the specific use of 'the length of S at t_0' with respect to the specific use of definition (2) in order to fix the reference of 'one meter' [6]. Here the definite description should be taken as having the same reference as 'the length of S at t_0 in the actual world'. The latter is what the definite description in (5) comes to after explicitly mentioning the 'points of reference' (to borrow an expression of Dana Scott; see [4], p. 144 and [5], p. 385) that reflect the specific use under consideration of the definite description in (5). The points of reference need not always be mentioned explicitly, but they should always be kept in mind insofar as the definite description concerned is used to make a specific reference, that is, is used to perform a specific ancillary speech-act of reference. Kripke's mention of 'a fixed time t_0' in order to 'make the definition more precise' ([3], p. 274) is a mention of the point of reference of the temporal dimension. Possible worlds constitute still another dimension of points of reference.

As to the specific use of the definite description in (5), (5) is contingent, for S does not have the specific length under consideration in all possible worlds. It is contingent in the concrete situation of a speech-act that fixes the reference of the expression 'one-meter'. (So far we have been saying that it is a sentence that is contingent, or necessary, or a priori, or a posteriori. Strawson, however, will object to such a way of speaking, for he argues that it is a statement or an assertion made with the use of a sentence that can have the above-mentioned properties. It seems to me that we could continue attributing the properties of a sentence *in the context of a specific speech-act*.)

So far I have tried to show that it is not the difference between *rigid* and *non-rigid designators* that accounts for the possibility of a contingent a priori truth. For as I tried to show in [1], proper names are as much *rigid designators* as are definite descriptions.

If it is objected that what I tried to show in [1] was that the distinction between *rigid* and *non-rigid designators* does not obtain, and therefore it is incorrect to call definite descriptions *rigid designators*, I am afraid I have been misunderstood. My point was that if proper names are *rigid designators*, then definite descriptions are also *rigid designators*. And, as I find no fault in calling proper names *rigid designators*, I call definite descriptions *rigid designators* also.

The question remaining is this: although the explanation of a priori contingency does not depend on the distinction of all proper names being rigid designators and not all definite descriptions being so, still, has

Kripke succeeded in showing that statement (1) is a case of a priori contingent truth? Let us first consider statement (5) which, we saw, is contingent under the intended interpretation. 'X is contingent' means 'X is not necessarily true', that is, X is not true in all possible worlds. But although meaning is a function of a sentence, truth is a function of the use of a sentence, that is, truth is a function of a statement or assertion made with the use of the sentence ([6], pp. 61-69). A sentence is neither true nor false *simpliciter*. If it is said to be true or false, it is only in the context of an intended interpretation that mirrors a specific use of the sentence. And that specific use of the sentence is a function of the specific uses of the expressions occurring in the sentence, including a definite description such as 'the length of S at t_0'. Under the intended interpretation, (5) is true, but is not true necessarily. For, as we saw, S does not have the length of S at t_0 in all possible worlds, under the intended interpretation of 'the length of S at t_0' involved in the intended interpretation of (5).

Let us see if (5) is known to be true a priori under the intended interpretation. The answer seems to me to be 'No'. Suppose there is a TV show in the actual world of a possible world other than the actual. One of the viewers says, 'Look, S does not have the same length of S at t_0' while another retorts, 'No, it has', while both of them use the definite description to refer to the length that S has in the actual world. It is not impossible to have some empirical evidence to decide whether the one is correct or the other is, that is, whether or not S has at t_0 in that possible world the length of S at t_0 in the actual world. Uttered in the actual world statement (5) is known to be true a priori insofar as the further point of reference involved in the assertion, in the actual world, is kept in mind. Explicitly stated, it is:

(5′) S has at t_0 in the actual world the length of S at t_0 in the actual world,

which is both a priori and necessary. Thus, with respect to this further point of reference involved in attributing the specific length of S with reference to the actual world, (5) is both necessary and a priori.

In a similar way, statement (1) is known to be true a priori insofar as the corresponding point of reference to the actual world is involved with the use of (1). But to that extent (1) is necessary too.

The sentence 'The present King of France is bald' is true, false, or without any truth value depending on the context of its use. Here the context is the time of the utterence of the sentence. However, once we have possible worlds, they also come into play in determining the truth value of a sentence. Thus Stalnaker writes, ". . . both contexts and possible worlds are determinants of the truth value of what is expressed by a sentence. One might merge them, considering a proposition to be a function from context-possible worlds (call them points of reference) into truth values" ([5], p. 385).

I am, of course, not pleading for the thesis that there cannot be any a priori contingent truths. In fact, on a priori considerations it seems to me that it is quite possible there are such truths, since once it is accepted

that there are necessary a posteriori truths, the claim that there are contingent a priori truths is not an impossible claim. If, however, statement (1) is cited as an example of a contingent a priori truth, then no less contingent a priori is (5). And the reason for contingent a prioricity is not that all proper names are *rigid designators*, whereas all definite descriptions are not.

On the basis of the considerations outlined above it can be shown that no other examples given by Kripke support his thesis that there are contingent a priori truths.

REFERENCES

[1] Chakravarti, S., "A note on Kripke's distinction between *rigid* and *non-rigid designators*," *Notre Dame Journal of Formal Logic*, vol. XX (1979), pp. 309-313.

[2] Chakravarti, S., *The Problems of Failures of Substitutivity: An Approach from the Point of View of Speech-acts*, Ph.D. dissertation, Syracuse University, 1977.

[3] Kripke, S., "Naming and necessity," in *Semantics of Natural Language*, ed. by Donald Davidson and Gilbert Harman, pp. 253-355 and 763-769, D. Reidel Publishing Co., Dordrecht, Netherlands, 1972.

[4] Montague, R., "Pragmatics and intentional logic," in *Semantics of Natural Language*, pp. 142-168.

[5] Stalnaker, R. C., "Pragmatics," in *Semantics of Natural Language*, pp. 380-397.

[6] Strawson, P. F., "On referring," *Mind*, vol. 50 (1950), pp. 320-344.

Syracuse University
Syracuse, New York