Indian Philosophical Quarterly, Vol. XI, No. 3, *July* 1984

THE *De Re* MODALITY AND ESSENTIALISM[1]

The critics of quantified modal logic are not willing to accept it even when it is shown that quantified modal logic is not at least logically impossible. For quantified modal logic, even if it is possible, leads to essentialism. According to some, the doctrine of essentialism is a quite troublesome doctrine. However, we can see that this notion of essentialism is rather ambiguous. The critics who bring the charge of essentialism against quantified modal logic are not always clear as to what they mean by essentialism and how does it come into quantified modal logic. While discussing quantified modal logic we can notice that the charge of essentialism actually has arisen against quantified modal logic from two different considerations.

Quantification into a modal context is possible only if necessity is *de re*. But there cannot be any *de re* necessity unless a thing can be said to possess a property necessarily. To say that a thing possesses a property necessarily or essentially is to be involved in essentialism.

Again the charge of essentialism may be brought against quantified modal logic from some other considerations. One way to make *de re* modality intelligible is by providing a semantics of possible worlds. This semantics of possible world raises fascinating questions of trans-world identity. This problem of trans-world identity has been sought to be resolved by appealing to the notion of essence. This, we may say, is the second possible way in which essentialism comes into quantified modal logic. In this paper, I will discuss mainly the first type of essentialism that is involved in *de re* modality and try to defend *de re* modality against Quine's attacks.

Now let us discuss that first type of essentialism and try to see how it comes into quantified modal logic. To say, '($\exists$ x) (x is necessarily greater than 7)' is to suppose *x*, i.e. 9, has necessary greaterness than 7 independently of any particular mode of charac-

terisation. When we say that an object *x* is such that, whether we describe it as this or that, it is necessarily possessed of a particular property, we say that this property is the essence of the object concerned. Let us suppose that 9 is an object which is necessarily possessed of the property of being greater than 7. Now, if it is necessarily possessed of the property of being greater than 7, whether we describe 9 as the successor of 8 or as the number of planets, we can say that 9 is necessarily greater than 7 independently of any mode of characterisation, or that 9 has some essence. Since it is an essence of 9, the object, to be necessarily greater than 7, we can substitute the term '9' by the term 'the number of planets', and, in that case, the application of the principle of existential generalisation does not present any problem. If '($\exists$ x) (x is necessarily greater than 7)' is true, then there is at least one object of which it is true that *it* is necessarily greater than 7. And if we admit that 9 has some essence, then 9 can be such an object whose name can be written in the place marked by 'x' in 'x is necessarily greater than 7'. But Quine considers this to be too high price that one has to pay for quantified modal logic. Quine is very much opposed to such a point of view as this which supposes that an object can have a necessary property independently of any specification, for, he feels, this leads to the metaphysical jungle of Aristotelian essentialism.[2] According to Quine, being necessarily so-and-so and possibly so-and-so are not any characteristics of any object itself. It is not a necessary property of 9 itself that it is greater than 7. Because if 'being greater than 7' were a necessary property of 9, it would have remained a necessary property throughout. But when we refer to the same object not as 9 but as the number of planets, Quine maintains, we can no longer say that it is a necessary property of the number of planets to be greater than 7. That the number of planets is 9 is one of the contingent facts regarding celestial bodies.

One of Quine's main argument against essentialism is that it is full of contradictions and therefore, it is a philosophically unacceptable doctrine.

Quine[3] invites us to imagine a person who is *both* a mathematician and a cyclist and to see the bewilderment that is the outcome of essentialism. Let us suppose that there is a mathematician.

We can say that a mathematician is necessarily rational but not necessarily (i.e. is only contingently) two-legged. Again suppose there is a cyclist· We can say that a (well-formed) cyclist is necessarily two-legged but not necessarily (i.e. is only contingently) rational. Now, let us suppose that there is a person whose name is Paul K. Zweir[4], who is both a mathematician and a cyclist. Which attribute of this individual is to be considered as necessary and which one as contingent in this case ? This presents a problem. For we know,

1. All mathematicians are necessarily rational but not necessarily two-legged.
2. All (well-formed) cyclists are necessarily two-legged but not necessarily rational.

Now, since Paul K. Zweir is both a mathematician and a cyclist we may infer the following :

3. Paul K. Zweir is necessarily rational but not necessarily two-legged, and
4. Paul K. Zweir is necessarily two-legged but not necessarily rational.

From 3 and 4 by the rules of simplification and adjunction we obtain two contradictory propositions.

5. Paul K. Zweir is necessarily rational and not necessarily rational.
6. Paul K. Zweir is necessarily two-legged and not necessarily two-legged.

Hence Quine finds that the talk of necessary and contingent attributes is futile without reference to some background grouping. From all these observations follow the most important tenet of Quine's that no variable occurring inside an opaque construction can be found by a quantifier from outside.

To decide how far Quine's objection can be justified we have to start where Quine stops. We cannot accept Quine's contention that since quantified modal logic is involved in essentialism, it is worse for it. We shall try to show here how *de re* modality can be defended against Quine's objections.

One way is to show that essentialism is not troublesome, i.e., to show that a thing can be said to be necessarily so-and-so independently of any specification without raising any problem.

Another alternative way is to show that even if a thing is necessarily so-and-so only under some specification, the modality may still be *de re*.

Let us consider very briefly how far the first approach to the said objection can be successful. In fact, in usual discussions of essentialism several issues are confused. I do not think that here it would be out of place to mention the names of some philosophers who tried to show that Quine's objection is unacceptable R. B. Marcus in her paper, "Essential Attribution" tries to sketch out certain salient features of the doctrine of Aristotelian essentialism. A more formal account of essentialism can be given following Marcus[5] and T. Parsons.[6] These authors focus on the point that Quine's characterisation of essentialism is not adequate. Further we can show that Quine is wrong in supposing that essentialism involves a contradiction. In this respect names of Marcus[7] and Plantinga[8] are worth-mentioning, people who show by purely logical considerations that there is no real contradiction in the case of quantified modal logic. We have already discussed the example of a mathematician cyclist to show how contradiction may be supposed to arise in the case of quantified modal logic. The argument that is presented by the anti-essentialists involves this following important step :

1. Cyclists are necessarily two-legged.
2. a is a cyclist.
3. Therefore, a is necessarily two-legged.

The first premise of this argument, however, is ambiguous. That this proposition, 'Cyclists are necessarily two-legged' can be read either *de dicto* or *de re*, seems to have been overlooked by the anti-essentialists. In its first interpretation, i.e. if the premise is read *de dicto*, stands as follows :

1A. Necessarily, all cyclists are bipedal.
2. a is a cyclist.
3. Therefore, a is necessarily bipedal.

This first premise, viz., 'Necessarily all cyclists are bipedal' is equivalent with a proposition of the form '$A \supset B$'. But there is no

rule of inference like, 'A ⊃ B', A, and therefore B', though an analysis of the above step in the anti-essentialists' argument shows that it proceeds by some such rule of inference. It is this which shows that the anti-essentialist argument is invalid.

On the alternative reading of the first premise of the argument which presents it as a *de re* statement, the argument stands as follows :

1B. All cyclists are necessarily two-legged. a is a cyclist. therefore, a is necessarily two-legged.

Thus understood the first premise of this argument is doubtful for the essentialists find it difficult to accept this premise. For, the essentialists do not mean to say that whatever is a cyclist is necessarily two-legged. For, we cannot say of any particular individual that he is necessarily two-legged or anything else. Such assertions, which have a tone of fatalism, is not exactly what the modal logicians want to make. It is essential in the sense that if a particular individual is once a cyclist it is impossible that he should not be two-legged.

Apart from these formal considerations, certain informal philosophical arguments can be put forward to show that there is no contradiction in essentialism[9]. Let us consider the following propositions :

1. Z is necessarily bipedal and Z is not necessarily bipedal. This proposition can be shown to be logically equivalent with the following proposition :
2. Z is necessarily possessed of the property of being bipedal and is not necessarily possessed of the property of being bipedal.

Now, the question is whether there is any actual contradiction in 1. There can be a contradiction in 1, if and only if there is a contradiction in 2, for 1 is equivalent to 2. Again this proposition, 'Z is necessarily possessed of the property of being bipedal and z is not necessarily possessed of the property of being bipedal', is comparable with the following proposition :

3. A resembles B and A does not resemble B.

Apparently, the above mentioned proposition involves a contradiction. But if we carefully analyse the implicit suggestions of this proposition, no such contradiction arises. To make it evident that there is no contradiction in this case we are to draw a distinction that exists between two types of predication, of which one may be called an 'absolute predication' and the other a 'relative predication'. A predication can be said to be absolute when it is about the subject absolutely without reference to anything else. This proposition, 'A resembles B' appears to be an instance of absolute predication. But actually it is not so, and the problem is really due to this misunderstanding of the nature of the predication. We do not, in fact, mean to say that A resembles B *simpliciter*. What we really mean is that A resembles B *in some respect*. So what we have here is not an instance of absolute predication, rather it is an instance of relative predication. Similarly, when we say that A does not resemble B, what we mean to say is that A does not resemble B *in some respect*. Supposing there are two balls, of which one is red and the other is blue. Looking at these balls, one may remark, 'The first ball resembles the second ball, and also the first ball does not resemble the second ball.' No doubt this also appears to involve a contradiction. But if we carefully notice the type of predication that has actually been made in this case, we find that the contradiction vanishes. For in this case, what we really mean to say is that the first ball resembles the second ball so far as the shape is concerned, and the first ball does not resemble the second ball so far as the colour is concerned. Thus we see that there is no real contradiction. When this sentence is properly and unambiguously analysed all chances of contradiction do vanish. Apparent contradiction ceases to exist when it is made clear that a predication is neither an absolute predication nor a relative predication in the *same respect;* it is a relative predication about an object in different respects.

The lesson that we derive from 3 can be carried over to 2. Similar considerations will help us to dissolve the apparent contradiction in 2. In fact, we can see that there is no absolute predication in 2 but only a relative predication. Let us consider the first half of 2, viz., 'Z is necessarily possessed of the property of being bipedal'. What we mean to say here is : 'Z is necessarily possessed of the property of being bipedal in some respect.' And

what we mean to assert in the second half, viz., 'Z is not necessarily possessed of the property of being bipedal' is 'Z is not necessarily possessed of the property of being bipedal in some other respect'. To put it more elaborately, the whole sentence stands as follows :

'Z is necessarily possessed of the property of being bipedal in so far he is a cyclist and z is not necessarily possessed of the property of being bipedal in so far he is a mathematician (and not a cyclist)'.

Hence we see in this case that there is no contradiction at all. And we have already pointed out that 2 is logically equivalent to 1. So it is clear that if there is no contradiction in 2, there is also no contradiction in 1.

But one may object that this is coming back to Quine. Quine himself said again that we cannot talk about necessity without reference to some background grouping. But there is an important difference between Quine's approach and that of ours, which we proceed to explain now. Let us suppose, 'A is necessarily O relative to its specification as Z.' Can we infer from this : 'A is not necessarily O?' Quine appears to infer just this. But this sort of argument cannot be correct. From 'Z is necessarily bipedal relative to his specification as a cyclist' it does not follow that z is not necessarily bipedal.

The underlying presumption here seems to be that a speification of an object as such and such distorts the real nature of the object. Actually, however, there need not be any gulf between being specified as a cyclist and being a cyclist. 9 specified as the successor of 8, is necessarily greater than 7. It would be entirely wrong to argue, '*Since* 9 is necessarily greater than 7, as specified as the successor of 8, therefore, 9 cannot *be* necessarily greater than 7'.

The difference between our point of view and Quine's is, thus, this : Quine believes that if something necessarily has a property relative to a certain specification then it does not really have that property necessarily. We want to maintain that if a thing necessarily has a property relative to a certain specification, then unless the specification distorts the nature of the thing, the specification is

made in terms of a real aspect of the thing, and if the thing necessarily has a property in that respect, then there is no reason why the thing itself should not really have that property.

The important point that emerges from the above discussion is that absolute predication is not necessary for *de re* modality. Quine is wrong in supposing that there is an opposition between a relative predication and *de re* modality. Modality does not cease to be *de re* when it is relativized.[10] This doctrine of relative predication enjoys a double benefit for it explicitly avoids the supposed contradiction of essentialism and at the same time saves *de re* modality.

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NOTES

1. This paper forms a part of my Ph. D. dissertation entitled, *Some Philosophical Problems of Quantified Modal Logic*. However, some minor alterations and modifications have been made in this paper. Here I am especially eager to express my gratitude and indebtedness to Pranab Kumar Sen of the Department of Philosophy, Jadavpur University.
2. W. V. Quine, 'Three Grads of Modal Involvement', *The Ways of Paradox and Other Essays*, Harvard University Press, 1976; p. 176.
3. W. V Quine, *Word And Object*, The M.I.T. Press, p. 199.
4. This name is due to Alvin Plantinga. See his *The Nature of Necessity* Oxford University Press, 1974; p. 24.
5. R. B. Marcus, 'Essentialism in Modal Logic', *Nous*, I. 1; March, 1967; pp. 91-96.
6. T. Parsons, 'Essentialism and Quantified Modal Logic', in *Reference and Modality*, Ed. L. Linsky, Oxford University Press, 1974; p. 75.
7. *Ibid*, R. B. Marcus 'Essentialism in Modal Logic' pp. 92-93.
8. *Ibid*, Alvin Plantinga, *The Nature of Necessity*, pp. 23-26.
9, 10. This is suggested by Pranab Kumar Sen.