

## Philosophical Issues in Quantified Modal Logic

### Handout 7: Problems with Actualism

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It turns out that we can't spend all seminar just discussing the McMichael objection, since it is so straightforward it only takes 10 minutes to discuss. So I want to back up and take the opportunity to review the semester. In particular, I'd like to collect a bunch of concerns about the actualist program.

Actualism: Merely possible objects do not exist.

Serious actualism: Only existents have properties.

Problems with Actualism:

#### (A) Singular propositions only contingently exist.

Problem: If so, then it is not possible for sentences such as "Possibly, Jeff King does not exist" to express truths (Plantinga, "On Existentialism").

Fine's version of Plantinga's argument (from "Plantinga on Possibilist Discourse")

- (1) Possibly, Socrates does not exist.
- (2) Necessarily, if Socrates does not exist then the proposition that Socrates does not exist is true.
- (3) Necessarily, if the proposition that Socrates does not exist is true, then the proposition that Socrates does not exist exists.
- (4) Therefore: It is possible that Socrates does not exist and the proposition that Socrates does not exist does exist.

Response: Truth-in/Truth-at distinction.

But there is here an obvious and immediate objection. One should distinguish between two notions of truth for propositions, the *inner* and the *outer*. According to the outer notion, a proposition is true in a possible world regardless of whether it exists in that world; according to the inner notion, a proposition is true in a possible world only if it exists in that world....

Now if truth bears the inner sense, the third premiss holds and the second fails; while if truth bears the outer sense, the second premiss holds and the third fails. There is, however, no single sense of truth for which both premises hold. The argument rests on a fallacy of equivocation. (Fine, p. 194)

As we have seen, Plantinga argues that premise (3) is entailed by serious actualism. If so, then the notion of 'truth at', or 'outer truth' is inconsistent with serious actualism.

But, as we have seen, Plantinga must reject a very similar principle to (3), namely:

(3\*) Necessarily, if Socrates does not exist, then Socrates exists.

As we have seen, Plantinga's solution is to deny that sentences of the form "Socrates does not exist" are of subject-predicate form; they do not involve ascribing a property to an object.

But then it is open for the defender of the notion of truth-at (outer truth) to deny that predications of truth-at ascribe properties to objects (propositions). In short, the defender of truth-at just says whatever Plantinga says about negation in trying to reject (3\*).

But can we make sense of the truth-in/truth-at distinction? Certainly, the version we saw in Adams was quite unsatisfactory. For example, on Adams's view, ' $p \rightarrow \Diamond p$ ' fails. For example, let  $w$  be a Jeff Kingless world. Then, it is true at  $w$  that Jeff King does not exist. But it is not true at  $w$  that possibly, Jeff King does not exist. The reason Adams gives is that to say that possibly, Jeff King does not exist at  $w$  is to ascribe a property to Jeff King at  $w$ , the property of *possibly not existing*. As far as I can tell, that is Adams's justification for taking all negated possibility statements involving singular propositions to be true. Adams takes a possibility claim about a singular proposition to be a de re proposition *about* that object. This leads him to deny that any such proposition can be true at a world in which that object does not exist. So, relative to a world in which I do not exist, the proposition that possibly, Jason Stanley is human, is false.

There is a good theoretical motivation for Adams's view that "Possibly, Jason Stanley is human" expresses a de re proposition about Jason Stanley. Recall Forbes's definition of a *de re modal formula*: a de re modal formula is one that contains a free variable or a singular term in the scope of a modal operator. By this criterion, "Possibly, Jason Stanley is human" is a de re modal formula. If so, then isn't it a de re claim about Jason Stanley? And if so, doesn't its truth require Jason Stanley to exist?

Unfortunately, this line of reasoning can be parroted with negation. Consider "It is not the case that Jason Stanley is cool." By Adams's clauses, this is true at a world at which Jason Stanley does not exist. But let a *de re negative formula* be a formula that contains a free variable or a constant in the scope of a negation. By this criterion, "It is not the case that Jason Stanley is cool" is a de re negative formula. If so, then isn't it a de re claim about Jason Stanley? And if so, doesn't its truth require Jason Stanley to exist?

In short, Adams treats modal operators fundamentally different from negation. The same reasoning that leads him to deny that modal statements about non-existents at  $w$  can be true at  $w$  could be given to deny that negated statements about non-existents at  $w$  can be true at  $w$ .

Recall Kit Fine's "admittedly absurd" argument for the necessary existence of objects (p. 209, "Plantinga on Possibilist Discourse"):

- (1)  $\Diamond \sim Ea$
- (2)  $\Box (\sim Ea \rightarrow \lambda x (Ex)(a))$

- (3)  $\Box(\lambda x Fx(a) \rightarrow Ea)$   
 (4)  $\Diamond(\sim Ea \ \& \ Ea)$

Premise (2) of this argument construes negation as a property. Adams rejects premise 2, but he accepts a structurally similar principle about possibility:

(Adams)  $\Box(\Diamond Pa \rightarrow \lambda x(\Diamond Px)(a))$

Because he accepts this structurally similar principle about possibility, but rejects it for negation, he is led to counterintuitive results.

So it seems that there are two natural options:

- (a) Accept the principles both for negation and for possibility.  
 (b) Reject the principles both for negation and for possibility.

One way of going with option (a) is to reject the variable-domain semantics, and argue that everything exists necessarily. I think this is a coherent way of going with option (a).

One way of going with option (b) is to reject both principles. I think this is the way Jeff King goes, in Chapter 3 of The Nature and Structure of Content.

What about if we treat negated formula as truth-valueless when they contain non-referring terms? How should we treat ‘ $\Diamond$ ’?

- (1) We can treat ‘ $\Diamond p$ ’ as truth-valueless when p contains a non-referring term.  
 (2) We can treat ‘ $\Diamond p$ ’ is true at w if and only if p is not false at some world (the ‘weak’ sense of possibility at issue in Prior’s system Q).

[If I continue thinking about this option, I’ll miss seeing Carmelo Anthony come back to rescue Denver in the second quarter]

### **(B) The problem of incompleteness(Lewis)**

We actually have spoken about this a great deal, when we spoke of Kripke’s “merely possible die” example.

“If we build ersatz worlds out of actual things, linguistically or otherwise, how can we represent possibilities that involve extra individuals?” (p. 158, On the Plurality of Worlds)

For reasons involving Lewis’s specific metaphysics – he rejects haecceities – he phrases the problem ultimately in terms of *properties* rather than individuals:

Some of our linguistic ersatz worlds should be Ramsified; so that they say by quantification, if not by name, that there are extra nameless properties, alien to our world, which have instances distributed in so-and-so way and which play

such-and-such nomological role. Then we have ersatz worlds according to which there are extra, alien properties. Thereby we acknowledge the possibility. What more could I ask?

Well I could ask not only that possibilities not be omitted, but also that different possibilities not be conflated. When that unfortunate philosopher in his simpler world constructs Ramsified ersatz worlds using the limited resources at his disposal, every world is at least partially described by one of them. But I say that the worlds with the alien properties – I mean worlds with natural properties that are alien to *him*, for instance our world – are described incompletely. He has said what roles for properties are occupied, but he has not said – and he could not possibly say – which properties occupy which roles. Here we are, with names for properties that he cannot name. We can distinguish our world from one in which, say, one of the quark colours has traded places with one of the flavours. The two possibilities are isomorphic, yet different. There are more ways than one to make one of his Ramsey sentences, or one of his Ramsified ersatz worlds, come out true. Therefore such an ersatz world does not describe any of the relevant possibilities completely. (Ibid. p. 162)

Let's make the point with individuals, rather than properties. Recall Kripke's case, where there are two merely possible die, A and B. We want to distinguish the possibility in which A is 6 and B is 5 from the possibility in which A is 5 and A is 6. According to the actualist, these are not two distinct possibilities; there is only one way this world could have been, a purely general way: there could have been two dice that totaled 11.

Lewis's point is that the purely general way is an incomplete description of modal space. There really are two distinct ways this world could have been; one in which dice A is 6, and dice B is 5, and the other isomorphic possibility in which dice A is 5, and dice B is 6.

The actualist would respond that these two different ways this world could have been. They aren't really distinct possibilities.

But Lewis challenges this response as follows:

In arguing that a Ramsified ersatz world made from the resources of the simple world can come true in more ways than one, I have again spoken as the modal realist that I am. But I have not been begging the question against the modal ersatzer. He should agree with me that such an ersatz world, though it is the very best that could be made by the philosopher in the simpler world, is incomplete. For it conflates possibilities that even an ersatzer can distinguish, if he has the luck to live at this world. It conflates different ones of the richer ersatz worlds that we can make, therefore it is incomplete. (Ibid., p. 163)

In short, Lewis is saying this. Suppose that dice A and dice B exist in our world. Suppose that both dice are actually 2. Surely, we recognize that there are two distinct possible ways this world could have been, one in which dice A is 6, and the other in which dice B

is 5, and the other in which dice A is 5 and dice B is 6. These are two genuinely distinct ways this world could have been. But now consider another possible world  $w$  in which dice A and dice B do not exist. From the perspective of that world, there is only one way things could have been: a purely general way. But from our perspective, we can see that this purely general way is clearly an incomplete description of modal reality. In short, “it conflates possibilities that even an ersatz can distinguish, if he has the luck to live at this world.”

In general, the idea of “two distinct ways” in which a general possibility could be true of this world seems to be difficult to understand (*pace* Kripke and Stalnaker). But if the distinct ways in which a general way this world could have been are in fact distinct possible situations, then actualism is false.

### (C) Iterated Modalities

As we saw last class, actualism represents the fact that there could have been things that don't actually exist in terms of worlds at which there are existentially general truths, even though there are no true instants of them.

The McMichael Problem:

- (1) It is possible that there be a person  $X$  who does not exist in the actual world, and who performs some action  $Y$ , but who might not have performed  $Y$ .
- (2)  $\diamond \exists x (\text{Actually}(\sim \exists y (y = x)) \ \& \ Fx \ \& \ \diamond \sim Fx)$

It's not clear how the actualist can give a semantics to (1) and (2) that makes them true (think of the Tarski semantics for existential quantification). It seems that we need to track merely possible objects across worlds, and it's not at all clear how to do that with only actualist resources.