

Philosophical Issues in Quantified Modal Logic
Handout 4: Plantinga on Actualism
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I. The Canonical Conception of Possible Worlds

The Canonical Conception of Possible Worlds: The actual world is one among many possible worlds. Associated with each possible world w is a set of individuals or objects: the domain of w . The members of the domain of w are the objects that *exist in w*; and of course different objects may exist in different worlds.

According to Plantinga, the Canonical Conception of Possible Worlds “suggests that there are things that do not exist.” Let U be the union of the domains of all possible worlds.

...surely there are possible worlds in which you and I do not exist. These worlds are impoverished, no doubt, but not on that account impossible. There is, therefore, a possible world W in which you and I do not exist; but then the domain of w is not identical to U . So if w had been actual, U , the set of possible objects, would have had some members that do not exist; there would have been some nonexistent objects. You and I, in fact, would have been just such objects. The canonical conception of possible worlds, therefore, is committed to the idea that there are or could have been nonexistent objects.

The Canonical Conception views propositions and properties as follows:

On the Canonical Conception, furthermore, propositions are thought of as set-theoretical entities—sets of possible worlds, perhaps, or functions from sets of worlds to truth and falsehood. If we think of propositions as sets of worlds, then a proposition is true in a given world W if W is a member of it. Still further, the members of U are thought of as having properties and standing in relations in possible worlds. Properties and relations, like propositions, are set-theoretic entities: functions, perhaps, from possible worlds to sets of n -tuples of members of U . If, for simplicity, we ignore relations and stick with properties, we may ignore the n -tuples and say that a property is a function from worlds to sets of members of U . A property P , then, has an *extension* at a given world W : the set of objects that is the value of P for that world W . An object has a property P in a world W if it is in the extension of P for W ; and of course an object may have different properties in different worlds.

So the property of *being human* is a function from a possible world to a set of humans, intuitively the set of humans existing at that world. This set is the extension of that property at that world. Since a property is a function from worlds to extensions, the property itself is a set of ordered pairs of worlds and sets:

$\{ \langle w, S \rangle, \langle w_1, S_1 \rangle, \langle w_2, S_2 \rangle, \dots \}$

II. Actualism

Actualism is the view that there neither are nor could be any nonexistent objects.

Let's think about the consequences of adopting actualism for the Canonical Conception of Possible Worlds, and the attendant Kripke semantics.

First, the canonical conception has other possible worlds and domains of other possible worlds. We cannot appeal to such entities if we are actualists. So the actualist will have to come up with some surrogate of the canonical conception's possible worlds. These surrogates have to be things that exist in every possible world.

Secondly, we cannot appeal to the canonical conception's view of properties as functions from possible worlds to domains of objects.

Plausible claim: a set only exists at a world if its members exist at that world.

...if Quine had not existed, neither would any set that contains him. Quine's singleton, for example, could not have existed if Quine had not.

But on the canonical conception, properties are sets. A property is a set of ordered pairs of possible worlds and domains. Now, suppose that Quine does not exist at a certain world w . Then neither does any set S containing Quine. But the property of being human is a set of ordered pairs of worlds and sets. Since Quine exists at the actual world A , the property of being human contains the ordered pair $\langle A, S \rangle$, where S contains Quine. So the property of being human contains an ordered pair that contains as one of its constituents a set containing Quine. But the ordered pair $\langle A, S \rangle$ presumably does not exist at w , since Quine does not exist at w , and so S does not exist at w , and so (by the same reasoning), the ordered pair $\langle A, S \rangle$ does not exist at w (ordered pairs are simply certain kinds of sets). But if the ordered pair $\langle A, S \rangle$ does not exist at w , then no set containing $\langle A, S \rangle$ exists at w . But the property of being human is a set containing $\langle A, S \rangle$. Therefore, the property of being human does not exist at w . This is an unacceptable result.

As Plantinga writes:

As actualists, then, we must reject the canonical conception of properties; a property is not a function or indeed any set whose transitive closure contains contingent objects.

(The transitive closure of a function is the union of its range)

Here is another problem with the Canonical Conception:

On the canonical scheme, each world W has a domain: the set of objects that exist in W . And though it is seldom stated, it is always taken for granted that a possible world W with domain $\psi(W)$ has essentially the property of having $\psi(W)$ as its domain. Having $\psi(\alpha)$ as domain is essential to α ; had another world been actual, other individuals might have existed, but $\psi(\alpha)$ would have been the domain of α .

But, as Plantinga points out, this entails that possible worlds could only exist in worlds in which their domains exist. So if a possible world α has a domain that includes some objects that do not exist in β , then α does not exist in β ! But this is bad, since we want possible worlds to exist necessarily.

Plantinga conceives of possible worlds as *complete* or *maximal* states of affairs. States of affairs are abstract objects that exist necessarily. States of affairs that are actual are said to *obtain*. Something is a possible but not actual state of affairs iff it doesn't actually obtain, but could have obtained.

A state of affairs S *includes* a state of affairs S^* if it is not possible that S obtain and S^* fail to obtain. A state of affairs S *precludes* S^* if it is not possible that both obtain.

A *maximal state of affairs* is one that for every state of affairs S , either includes or precludes S .

[Obviously, this is modeled after the idea of a maximal consistent set of sentences]

Propositions are true and false in possible worlds. On the canonical conception, a proposition p is true at possible world w if and only if w is in p . Truth for propositions is a relative notion; truth is relative to possible worlds. Actual truth is explained as truth relative to the actual world (a special world).

In contrast, for the actualist, "Truth is not to be explained in terms of truth-in-the-actual-world, or truth-in- α ; the explanation goes the other way around. Truth-in- α , for example, is to be defined in terms of truth plus modal notions."

(True-in- α) A proposition p is true-in- α iff had α been actual, p would have been true.

Equivalently:

(True-in- α) A proposition p is true-in- α iff it is not possible that α be actual p false.

Note that the actualist does not regard truth-in- α as a species of relative truth. There is only the non-relative truth-predicate. Truth-in- α is defined in terms of absolute truth together with modal notions.

This is an important point in today's context, given the existence of fans of relative truth.

III. Essences and Truth-Conditions

Among the properties essential to an object, there is one (or some) of particular significance; these are its *essences*, or individual natures, or, to use Scotus' word, its haecceities.

We will say that an essence of an object o is a property that o has essentially, and in no possible world w , is there something that has that property and is distinct from o .

[Plantinga goes on a digression here about world-indexed properties; they too are essences. He then briefly defends the view that names are synonymous with world-indexed definite descriptions – so called “actualized definite description theory”. Some of this discussion, e.g. of Donnellan, is confused]

Essences are properties, which are, for Plantinga, entities that necessarily exist. So, while Jeff King does not necessarily exist, his haecceity, Jeff Kingieness, exists necessarily.

Plantinga uses essences to get around many troubles with actualism.

Take Plantinga's (27):

(27) There could have been an object distinct from each object that actually exists.

It seems that (27) is obviously true. Yet the actualist maintains that there could not be non-existent objects. How can the actualist account for the intuitive truth of (27)?

Easily enough; he must appeal to essences. Socrates is a contingent being; his essence, however, is not. Properties, like propositions and possible worlds, are necessary beings. If Socrates had not existed, his essence would have been unexemplified.

Corresponding to each possible world W , is *the set of essences exemplified in W* . This set plays the same role for Plantinga as the domain of W plays on the canonical conception. The set of essences that are exemplified in W is essential to W in the same way in which the set of objects existing in W is essential to W on the canonical conception.

U_E is the union of $\psi_E(w)$ for all worlds w . All the members of U_E exist at every world.

“Properties exist in every world; so, therefore, do sets of them; and hence essential domains are necessary beings.”

Using the apparatus of essences and facts about exemplification, Plantinga provides an actualist translation schema for Quantified Modal Logic (QML).

(1) $\exists x \diamond Fx$

(2) $\diamond \exists x Fx$

Example (2) is true according to this semantics if and only if there is some essence that in some world is co-exemplified with Fness. Example (1) is true according to this semantics if and only if some exemplified essence is such that it could be co-exemplified with Fness, i.e. there is some possible world in which it is co-exemplified with Fness.

Singular propositions are translated in terms of essences as well. For example, consider:

(1) Ford is ingenuous.

The singular proposition expressed by (1) is true with respect to a world α if and only if Ford's essence is co-exemplified at α with being ingenuous.

Returning to Plantinga's (27), the actualist translation schema can render it true. It is true if and only if there is an essence that isn't exemplified, but could have been.

In the coming weeks, we will investigate the viability of Plantinga's actualist translation scheme.