

**Philosophical Issues in Quantified Modal Logic**  
Handout 8: Williamson on Necessary Existence  
Prof. J. Stanley

The argument:

- (1) Necessarily, if I do not exist then the proposition that I do not exist is true.
- (2) Necessarily, if the proposition that I do not exist is true then the proposition that I do not exist exists.
- (3) Necessarily, if the proposition that I do not exist exists then I exist.

So:

- (4) Necessarily if I do not exist then I exist.
- (5) So, necessarily, I exist.

Justification for the first premise:

‘Standard characterization’ of propositional truth:

- (1) The proposition that p is true if and only if p.

This is presumably necessarily true, since it is the characterization of the meaning of “is true”:

(1+) Necessarily, the proposition that p is true if and only if p.

(1) follows from (1+), where p is the proposition that I do not exist.

Williamson gives a series of arguments designed to show that (1+) is linked to many aspects of our use of the notion of propositional truth.

First argument Williamson gives for (1+): “Without (1+), we have no obvious reason for using a notion of a valid argument as one in which the truth of the premises necessitates the truth of the conclusion...thus our ordinary way of thinking about the validity of arguments assumes the correctness of (1+).” (pp. 5-6)

Williamson’s thought: If I want to show that P entails Q, by the standard characterization, this requires showing that P couldn’t be the case without Q also being the case. But the standard characterization of validity is that an argument is valid iff necessarily, if the premises are true, then the conclusion is true. Connecting the standard characterization of validity with ‘P entails Q’ and ‘P couldn’t be the case without Q also being the case’ requires (1+), since this allows us to move from ‘Necessarily, if p is true then q is true’ to ‘Necessarily, if p then q’.

Second argument: "...what would it have been like had all Napoleon's (actual) hopes come true? He hoped that Russia would be conquered, so in the relevant circumstances Russia is conquered. But that assumes that, in the counterfactual circumstances in which all his hopes come true, the proposition that Russia is conquered is true iff Russia is conquered."

Now on to the second premise of Williamson's argument, which follows from:

(2+) Necessarily, if the proposition that P is true then the proposition that P exists.

It is here that Williamson begins his discussion of the truth-in/truth-at distinction (which Williamson calls the distinction between "truth in" and "truth of", and Kit Fine calls the distinction between "inner truth" and "outer truth").

The advocate of the distinction between truth-in and truth-at argues that our notion of truth is ambiguous. The intuition that (2+) is valid comes from our notion of truth-in-a-world. But (1+) is false, where "true" is *truth-in*. Relative to a certain possible world *w* in which my parents never met, I do not exist. But it doesn't follow that the proposition that I do not exist is true *in* that world. It is only true *at* that world. As Fine writes in "Plantinga on Possibilist Discourse" (p. 194), "Now if truth bears the inner sense, [(2+)] holds and [(1+)] fails; while if truth bears the outer sense, [(1+)] holds and [(2+)] fails. There is, however, no single sense of truth for which both premises hold. The argument rests on a fallacy of equivocation."

Williamson's arguments against the truth-in/truth-at distinction all are attempts to show that acceptance of the distinction leads to some kind of modal realism –or at the very least acceptance of the notion of a possible world as a primitive element in our ontology.

One way to think of Williamson's replies to the truth-in/truth-at distinction is that they stem from his adherence to a doctrine similar to what we have been calling *modalism*.

Kit Fine defines modalism as follows ("Prior on the Construction of Possible Worlds and Instants"):

Modalism: The ordinary modal idioms (necessarily, possibly) are primitive.

I'm not sure if Williamson accepts modalism. He may be attracted to a view that we might call *counterfactualism*:

Counterfactualism: The ordinary counterfactual locutions are primitive.

But both the modalist and the counterfactualist share the view that talk of possible worlds is *not* primitive, and is to be explained away in terms of more primitive modal locutions. I think that it is helpful to think of Williamson's objections to the truth-in/truth-at distinction in terms of his rejection of the view that talk of possible worlds is primitive (whether this rejection comes from modalism or counterfactualism).

Replacement of our ordinary notion of validity: An argument is valid iff the conclusion is true of any possible world of which the premises are true.

First argument against the truth-in/truth-at distinction: Threat of circularity.

Possible worlds are maximally consistent sets of propositions. Consistency is explained in terms of *validity*: a class X of propositions is consistent if and only if for every pair of contradictory propositions p and  $\sim p$ , there is not both a valid argument from X to p and a valid argument from X to  $\sim p$ . Completeness is also explained in terms of validity: X is complete if and only if for every pair of contradictory propositions p and  $\sim p$ , there is either a valid argument from X to p or a valid argument from X to  $\sim p$ .

“Thus the concept of a possible world is explained in terms of the concept of validity. But, on the envisaged view, the concept of validity is explained in terms of the concept of a possible world!”

So the basic idea here is that there is threat of circularity if we define possible worlds in terms of validity, and then validity in terms of truth and necessity, and then necessity in terms of truth at a possible world.

Williamson’s modalism (or counterfactualism) tells him that possibility and necessity should be more primitive than the notion of a possible world. So, modalism suggests that the direction of explanation starts with modal notions and a non-relative notion of truth, and then proceeds to build up the notion of validity and finally the notion of a possible world from them. But this doesn’t seem consistent with defining validity in terms of possible worlds, which seems required by the truth-in/truth-at distinction (since validity will be defined in terms of truth-at).

Robert Stalnaker, in his forthcoming paper “Merely Possible Propositions”, suggests a way out of this dilemma: define “truth-at” in terms of entailment and propositions. A possible world is a maximal consistent set of propositions (one that entails, for every proposition, either it or its negation). A proposition p is true *at* a world w if and only if w entails p; A proposition p is true *in* a world w if and only if it is either entailed by w or is a member of w. Then one can define truth-of in terms of entailment.

How does Stalnaker understand the notion of entailment here employed? I think as follows: consider a world in which my parents never met. Such a world is one in which I don’t exist. It doesn’t *logically* follow from a set of propositions that includes the proposition that Manfred and Sara never met that Jason doesn’t exist. But presumably it is necessary that if Manfred and Sara had never encountered one another, then Jason wouldn’t have existed. In short, the notion of entailment used in this definition is metaphysically necessary truth-preservation.

Problem (raised in correspondence from Williamson to Stalnaker): But this notion of entailment is not *analyzable* in terms of necessity and truth. In particular, p entails q is not analyzable in terms of the claim that necessarily, if p is true then q is true. If entailment is supposed to explain ‘true at’, then “is true” in the definition of entailment must be some other notion of truth. But it can’t be truth-in, because then the equivalence will fail, because p could entail q, even though there are some worlds that contain p but not q.

Stalnaker: don’t say that the required equivalence between entailment and necessary truth-preservation is an *analysis*.

The second objection Williamson gives is also in this vein. More specifically, the second objection is that the notion of truth-at requires modal realism; according to it, only the modal realist can make sense of it.

Here is how I understand Williamson’s objection. On pp. 10-11 Williamson writes (in addressing another point):

We can grasp a distinction between truth in a world and truth of a world for utterances. An utterance of the sentence ‘There are no utterances’ in this world is true of a world in which there are no utterances. For the way the utterance says things to be is the way they are in that world. But that is just a notational variant of the point that the utterance actually expresses a proposition which would be true if that world obtained; in other words, the proposition is true in that world.

Here, Williamson reveals something about his view about what it is to say that a proposition is true in a world: it is to say that that proposition would have been true, if that world had obtained. Suppose a possible world is a way in which this world could have been. Then a proposition p is true at a world w if and only if *p would have been true, if things had been w-ish*. On this characterization, there is no appeal to a relative truth-predicate, “true at a world”. My interpretation of Williamson’s second objection is that there is no way of ‘de-relativizing’ the notion of “truth-at”.

Consider the contingently true proposition that Blair was Prime Minister in 2000. It is supposed to be true of the actual world @ and false of some other possible world w. On the model, the sentence contains a tacit variable; if @ is assigned to the variable, a truth results, if w is assigned, a falsehood. But that does not make the resulting propositions contingent. There is genuine contingency in how things are only if, once values have been assigned to *all* variables, the resulting proposition could still have differed in truth-value.

So, Williamson somehow thinks that the defender of ‘truth-at’ is committed to a fundamentally relative truth-predicate. For example, the defender of ‘truth-at’ certainly cannot define truth-at-w as ‘p would have been true, if things had been w-ish’, where ‘true’ is *truth-in*, or some notion that carries the commitments of truth-in.

Stalnaker: define 'truth-at' in terms of a primitive notion of entailment: 'p is true at w' if and only if w entails p. No appeal to a relational notion of truth.

Stalnaker:

“That a proposition is entailed by various maximal propositions, and not by others, does not prevent it from having the monadic property of truth.”

One worry with this is that, according to a standard understanding of Stalnaker, possible worlds are prior to propositions – propositions after all are supposed to be sets of possible worlds for him. If so, then we cannot define possible worlds to be sets of propositions, which is required by this characterization of entailment. So Stalnaker may not be entitled to give this response, but other defenders of the truth-in/truth-at distinction are.

Third point by Williamson: we can make sense of truth-at for utterances. But this understanding depends upon an appeal to the truth-in relation for propositions:

The utterance need not exist in that world in order to be true of it because the proposition which it expresses in this world exists in that one. We need not carry the utterance across from this world to that one precisely because we can carry the proposition across instead. There is the illusion of a distinction between truth in a world and truth of a world for propositions because we appear to be able to model such a distinction on a corresponding distinction for utterances, forgetting that the presence of the latter depends on the absence of the former.

In short, the notion of 'truth at' for utterances depends upon the non-existence of such a notion for propositions.

So: (1+) and (2+) are secure. Williamson justifies (3+) by appeal to various stuff about constituents and singular propositions, as we have previously discussed.

One might think that someone like Stalnaker could reject (3+), because he advocates a coarse-grained notion of proposition, according to which they are sets of possible worlds (or “can be modeled” as sets of possible worlds. But Stalnaker in fact accepts (3+) – he thinks that even according to coarse-grained conceptions of propositions, there is a coherent notion of a singular proposition, one that is ontologically dependent on an object:

But even if one is presupposing, as I am, a coarse-grained conception according to which propositions are individuated by their truth conditions, it seems prima facie reasonable to think that propositions about particular individuals are ontologically dependent on the individuals they are about. A singular proposition, on this conception of proposition, is a proposition that is true if and only if some particular individual or individuals exist and satisfy some condition. The case for the conclusion that such propositions are ontologically dependent on the

individuals they are about is clearest if we consider the possibility of singular propositions about individuals that do not in fact exist.

Delia Graff Fara (p.c.) has raised a problem for this definition of a singular proposition. As she has pointed out, it has unintuitive consequences. Consider the proposition that 2 is Bill's favorite number, and the proposition that the predecessor of 3 is Bill's favorite number. Intuitively, the former proposition is a singular proposition about 2, and the latter is a singular proposition about 3 (and not a singular proposition about 2). But given that it is necessarily true that 2 is the predecessor of 3, it follows on Stalnaker's characterization that these are one and the same proposition. It is a singular proposition both about 2 and 3. That is a somewhat counterintuitive result.

O.k., now on to Williamson's positive view.

According to Williamson, in the "logical sense of 'exists'", everything exists necessarily. But what is the "logical sense" of "exists"?

We can therefore symbolize 'x exists' by the familiar formula  $\exists y x = y$ , where the quantifier is not restricted to any particular kind of thing. In particular, it must not be restricted merely by definition to what has spatial or temporal location. Call that the *logical sense* of 'exist'.

Bernard Linsky and Ed Zalta, "The Simplest Quantified Modal Logic"

Linsky and Zalta argue that the simplest QML is one that accepts both the Barcan Formula and its converse. For the sake of argument, they adopt an actualist perspective, and argue that the best way to accommodate actualism is by accepting the 'fixed domain' metaphysics that comes with BF and CBF.

They object to Kripke Models for three reasons:

- (1) The thesis of actualism fails for Kripke's metalanguage
- (2) One must either eliminate terms or abandon classical quantification theory (and e.g. replace it with free logic).
- (3) The thesis of serious actualism fails.

Problems with other versions of actualism:

- (a) Standard problems with Plantinga's translation schema (essences can't exist unexemplified)
- (b) McMichael problem, which shows that the idea of having true quantified statements in a world with no witnesses to their truth is problematic.
- (c) No way of rescuing classical logic when one add terms and has varying domains.

Conclusion: The actualist should accept a fixed-domain metaphysics. All objects exist; some are merely abstract.