Transworld Identity, Singular Propositions, and Picture-Thinking*
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Draft 6/06
Forthcoming in On Sense and Direct Reference ed. Matthew Davidson

--A picture held us captive, and we could not get outside it…
Ludwig Wittgenstein, Philosophical Investigations §115

I. Transworld Identity

In the late 1960s, the dreaded "problem of transworld identity" arose within the metaphysics of modality. So, we read David Kaplan in 1967:

I'll even let you peep through my Jules Verne-o-scope [into another possible world G]. Carefully examine each individual, check his fingerprints, etc. The problem is: which one is our Bobby Dylan—of course he may be somewhat changed, just as he will be in our world in a few years…Our problem is [to] locate him in G (if he exists there). The task of locating individuals in other worlds is the problem of determining transworld heir lines. I will flatly assert that this problem is the central problem of philosophical interest in the development of intensional logic.

The clearest statements of the "problem" came from those who thought that, ultimately, there was no problem (or at least that it certainly was soluble). Alvin Plantinga (1973) writes

[T]he problem may perhaps be put as follows. Let us suppose again that Socrates exists in some world W distinct from this one—a world in which let us say, he did not fight in the battle of Marathon. In W, of course, he may also lack other properties he has in this world—perhaps in W he eschewed philosophy, corrupted no youth, and thus escaped the wrath of the Athenians. Perhaps in W he lived in Corinth, was six feet tall, and remained a bachelor all his life. But then we must ask ourselves how we could possible identify Socrates in that world. How could we pick him out? How could we locate him there? How could we possibly tell which of the many things contained in W is Socrates? If we try to employ the properties we use to identify him in this world, our efforts may well end in dismal failure—perhaps in that world it is Xenophon or maybe even Thrasymachus that is Plato's mentor and exhibits the splendidly single-minded passion for truth and justice that characterizes Socrates in this. But if we cannot identify him in W, so the argument continues, then we really do not understand the assertion that he exists there…. In order to make sense of such talk, we must have a criterion or

I would like to thank Tony Roy, Gordon Barnes, Alvin Plantinga, Jay Atlas, and Peter van Inwagen for helpful discussion of these issues.
principle that enables us to identify Socrates from world to world. The criterion must include some property that Socrates has in each world in which he exists…Further, if the property (or property) in question is to enable us to pick him out, it must in some broad sense be "empirically manifest"—it must resemble such properties as having such-and-such a name, address, Social Security number, height, weight, and general appearance in that we can tell by broadly empirical means whether a given object has or lacks it. Now, obviously we do not know of any such property, or even that there is such a property. But then the very idea of transworld identity is not really intelligible…(p. 76). 

Saul Kripke says something similar:

Suppose we have someone, Nixon, and there's another possible world where there is no one with all the properties Nixon has in the actual world. Which of these other people, if any, is Nixon? (1980, p. 42).

It now is generally accepted that there was no problem of transworld identity, or if there was a problem of transworld identity, the situation wasn't as dire as some made it out to be. It was a "problem" that arose from bad picture-thinking about possible worlds.

Plantinga writes,

The first thing to note about the [problem of transworld identity] is that it seems to arise out of a certain picture or image. We imagine ourselves somehow peering into another world…observe the behavior and characteristics of its denizens and then wonder about which of these, if any, is Socrates…. Now perhaps this picture is useful in certain respects; in the present context, however, it breeds nothing but confusion (1973, p. 77).

And Kripke (1980, 43-44),

[T]his depends on the wrong way of looking at what a possible world is. One thinks, in this picture, of a possible world as if it were like a foreign country. One looks upon it as an observer. Maybe Nixon has moved to the other country and maybe he hasn't, but one is given only qualities.

[I]t seems to me not to be the right way of thinking about possible worlds. A possible world isn't a distant country that we are coming across, or viewing through a telescope.

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And Peter van Inwagen (1985, p. 112),

The problem of transworld identity would seem, therefore, to be a deep and intractable problem...As I have implied, however, this seeming is a mere seeming. It is an illusion one falls into as a consequence of thinking about possible worlds with the aid of pictures...drawn according to a convention that represents the *exists-in* relation by the placing of one symbol inside another symbol. This sort of convention encourages one to think of possible worlds as things that have insides, as enormous physical objects. (And if one thinks of possible worlds as enormous physical objects, then one probably will think that 'exists in' means something like 'is located within.') But possible worlds are not enormous physical objects.\(^2\)

To conclude this short piece of recent philosophical history, philosophers, for the most part, have come to realize that the problem of transworld identity arose from bad metaphysical picture-thinking. We might characterize it with the following diagram.

![Diagram of possible worlds]

If you think of possible worlds as entities with things contained inside them—akin to islands or circles on a blackboard—the problem of transworld identity may seem to have force. But once one realizes that possible worlds are abstract objects, and are not spatially located at all, the problem goes away. People took the metaphor of a "world" too seriously, and this lead to needless confusion. Thanks to the work of people like Plantinga and Kripke, we have seen the error of our ways.

\(^2\) This, of course, won't be true for David Lewis. But I will take possible worlds to be abstract.
Or have we? Most no longer think there is a problem of transworld identity, but the very same sort of picture-thinking which gave rise to the problem of transworld identity can be found in a response to a powerful attack on direct reference (see Plantinga, this volume, and Davidson 2000). The attack, briefly, is this. The direct reference theorist thinks that concrete individuals, like Clinton, can be constituents of propositions. The proposition expressed by "Clinton does not exist" has Clinton as a constituent. It is false (now) in the actual world, and it exists in the actual world. But consider a world W where Clinton does not exist. If there is no Clinton, the proposition expressed by "Clinton does not exist" lacks a constituent and so itself does not exist. So, it is not true in W. But it should be true in W; Clinton does not exist there.

II. Truth and Existence in a World

Before looking at the problem raised in the last paragraph, it is important to note one innocuous sense in which an object may exist in a world or a proposition may be true in a world. These analyses were given by Plantinga (1974), and are very straightforward. We have:

(T_W) Necessarily, a proposition p is true in a world W iff necessarily, if W is actual, then p is true

and

(E_W) Necessarily, an object x exists in a world W iff necessarily, if W is actual, then x exists.

So, if we want to talk about an object existing in a world in the sense of (E_W), then we're fine. (E_W) is easy to understand and unproblematic. Perhaps the terminology here—existence in a world is a bit infelicitous; if one is careless one might stray into thinking that worlds are things with insides and outsides. But so long as we keep Plantinga's
analyses in mind for truth and existence in a world, we should be able to avoid the sort of bad picture-thinking that led to the problem of transworld identity even if we want to talk about objects in possible worlds.

III. Two Sorts of Truth?

Many philosophers working in the metaphysics of modality have maintained that there are two ways a proposition may be true with respect to a world (see Adams 1981; Fine 1977, 1985; Pollock 1984, 1985; Kaplan 1989a this volume, 1989b this volume; Almog 1985; Fitch 1996; Branquinho 2003). According to these philosophers, not only is there truth in a world (in the sense given in our (T), but there also is what Robert Adams calls truth at a world. If a proposition is true in a world, it exists in that world. However, a proposition may be true at a world without existing in that world. Robert Adams writes:

A world-story [possible world] that includes no singular proposition about me constitutes and describes a possible world in which I would not exist. It represents my possible non-existence, not by including the proposition that I do not exist but simply by omitting me. That I would not exist if all the propositions it includes, and no other actual propositions, were true is not a fact internal to the world that it describes, but an observation that we make from our vantage point in the actual world, about the relation of that world-story to an individual of the actual world.

Let me mark this difference in point of view by saying that the proposition that I never exist is (in the actual world) true at many possible worlds, but in none (1981, 22).

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3 I assume here the truth of serious actualism, the claim that necessarily, objects have properties only in worlds where they exist. The term comes from Alvin Plantinga. For discussion of serious actualism see (Plantinga, 1979, 1983 this volume, 1985), Bergmann (1999), and Davidson (2000). and Plantinga 2003.
Kit Fine (1985, 163) talks about an "inner sense" of truth and an "outer sense" of truth. He says

One should distinguish between two senses of truth for a proposition, 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. We may put the distinction in terms of perspective. According to the outer notion, we can stand outside a world and compare the proposition with what goes on in the world in order to ascertain whether it is true. But according to the inner notion, we must first enter with the proposition into the world before ascertaining its truth.

Direct reference theorists take it that singular propositions exist only in worlds where their "subjects" exist. In this way, their ontologies are impoverished with respect to certain possible worlds: Those in which certain entities don't exist. It seems that propositions to the effect that those entities don't exist should be true in those worlds; but, of course, on this view they can't be. So, at this point the direct reference theorist invokes the true in vs. true at distinction. Thus, consider the proposition *Socrates exists*. For a direct reference theorist, it contains the individual Socrates as a constituent. There are possible worlds with respect to which this proposition is false: These will be the worlds in which Socrates does not exist. However, *Socrates does not exist* cannot be true in these worlds, it would seem; Socrates doesn't exist in the world to be a constituent of the proposition.

It is at this point that the concept of truth at a world arrives to save the day. *Socrates does not exist* is true in no worlds. Yet, in some sense "with respect to" worlds where Socrates doesn't exist, there is a strong intuition that *Socrates does not exist* is true. So, a weaker sense of truth with respect to a world than is involved in \((T_i)\) is employed: *Socrates does not exist* is true at every world in which Socrates does not exist. So, "truth-
at" is an attempt to rescue the "truth" of a proposition which otherwise couldn't be true due to an impoverished ontology.

We see this clearly in David Kaplan, the consummate direct reference theorist (1989b, p. 613) this volume, p.

I see...the importance of a central distinction that I have tried to build into my very nomenclature, the distinction between what exists at a given point and what can be 'carried in' to be evaluated at that point, though it may exist only elsewhere. My 'Circumstances of Evaluation' evaluate contents that may have no native existence at the circumstance but can be expressed elsewhere and carried in for evaluation.

Once again we are given a metaphysical picture involving possible worlds. It is something like this:

![Diagram of possible worlds]

So far, we have one well-defined, pellucid notion of truth with respect to a world, (T1)—truth-in. It is roughly entailment; a possible world is something like a maximal state of affairs or proposition, and a proposition will true in this maximal entity iff it is entailed by the maximal entity. It isn't motivated by or based on any sort of metaphysical picture. (Don't let the preposition "in" fool you; the analysis is not motivated by a view where a proposition sits "inside" a world. As I said earlier, Plantinga could have used a different preposition in the place of "in.")
Truth at, however, looks to be based on an incoherent metaphysical picture. Indeed, it is based on the same sort of picture on which the problem of transworld identity is based. Again, we think of worlds as objects with insides and outsides. However, again, worlds are abstract, and it is incoherent to think of a world as having an "inside" and an "outside." Also, propositions are abstract objects, and can't be "carried" anywhere. Nor can they sit outside (nor inside) possible worlds. This is significant, for truth-at is doing important philosophical work for certain ontologically-impoverished philosophers (or, strictly, philosophers whose views are ontologically impoverished) like typical direct reference theorists. Indeed, its apparent ability to bring semantic wealth to the ontologically indigent is the main (if only) reason why this notion has gained any purchase in the philosophical literature. If we consider worlds where Socrates doesn't exist, *Socrates does not exist* ought to be true "with respect to" these worlds. But it can't be true *in* the worlds. Socrates does not exist in those worlds. *Socrates does not exist* is true in no worlds where it exists, if it exists in any world at all. Since we can't use our well-defined notion of truth-in in this case, we employ another concept, truth-at, so that the proposition might be true in *some* sense.

Indeed, we might set up conditions such that propositions which need to be true with respect to a world W, but can't be true *in* W, wind up true *at* W. Suppose that negative existential propositions like *Socrates does not exist* are the only such propositions we have to worry about; they certainly are an important class of propositions which cause problems (see Plantinga 1983*this volume*, Crisp 2002, Davidson 2000). So, we could set up conditions that allowed all of these propositions to be true at worlds where the relevant entity doesn't exist. Indeed, some have set up conditions for truth at a
world in just this manner. For instance, Robert Adams, the most articulate expositor of this sort of view (1981, 23) sets up conditions such that if \( l p l \) is an atomic singular proposition about \( x \), and \( x \) does not exist in a world \( W \), then \( l \sim p l \) is true at \( W \).

But have we gained any deeper understanding if we do this? I don't think we have. Imagine the following dialogue between P, someone who understands truth-in and who seeks to understand truth-at. Let A be someone who is a proponent of truth-at, and suppose A is motivated (as all truth-at theorists I know of are) in virtue of his belief that singular propositions exist contingently.  

P: Now, A, it seems to me that you have a problem, for *Socrates does not exist* should be true in any world \( W \) where Socrates does not exist. You can't account for this.

A: You're right to say that I can't say that *Socrates does not exist* is true in any world where Socrates does not exist. But I have this other surrogate relation, *truth-at* which alleviates the problem. We may hold to the claim that this proposition is *true* with respect to \( W \), it's just true with respect to \( W \) in a different manner than propositions that are merely true *in* \( W \).

P: I'm suspicious. What precisely is *truth at* a world? What is truth with respect to a world if it's not truth *in* a world? And how truth at a world help with your problem?

A: Well, a proposition will be true at a world \( W \) if it doesn't exist in a world, but should be true in \( W \), or so you claim. In fact, I can lay out formal conditions such that whenever you say a proposition should be true in a world \( W \), I can say that it is true *at* \( W \). Indeed, we may take the disjunction of these sufficient conditions to be a necessary condition on a proposition's being true at a world. A proposition may also be true *in* \( W \), but even if it's not, it can be true *at* \( W \), and thus true with respect to \( W \).

P: You still haven't told me what this relation, *truth at* is. I understand *truth in*. It's analyzed in terms of truth *simpliciter* and entailment. All you've told me is that there is this other relation which, if you'll permit the colloquial speech,

\[\text{\footnotesize \textsuperscript{4} Direct reference theorists who are presentists arguably will encounter similar issues with singular propositions}
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\[\text{\footnotesize \textsuperscript{5} I recognize that normally *being true in* \( W \) is sufficient for *being true at* \( W \), but this doesn't affect the point here.}\]
happens to come to your rescue whenever I say that a proposition $p$ is true in a world $W$, and your metaphysics won't allow you to agree with me. It is like having a physical theory which physicists agree predicts a particle will have spin. It turns out that the particle doesn't have spin. "That's OK," you say. "I have this other property, schwinn, and anything with spin has it, and this particle also has it. I can give you conditions under which a particle is schwinn, in fact. They will be such that any time a particle has spin, the particle will have schwinn; and any time the particle is predicted to have spin, but lacks it on my theory, it has schwinn. And, the fact that the particle has schwinn is good enough for the purposes of testing my theory, even if it doesn't have spin." This is not the way of true science. If "schwinn" isn't given a reductive analysis such that we understand what it is, simply coming up with such a predicate and claiming that the theory is safe because the particle satisfies this other predicate (via stipulation) won't save the original theory. Indeed, we can see how much work a picture involving propositions existing inside and outside worlds is doing for the truth-at theorist: When one constructs an analogous case which isn't bolstered by false pictures, the invocation of surrogate concepts which allow one to hold on to a theory (verbally, at least) seems, at best, bizarre.

A: Perhaps this will help. Imagine the following. You have a possible world, and it's full of entities--propositions, concrete individuals, and the like. But it doesn't contain Socrates does not exist. But sitting outside the world is the proposition Socrates does not exist. Only propositions inside the world can be true in that world. But if a proposition sits outside the world in the right sort of way, it may be true at the world. And, although Socrates does not exist is true in no worlds, it's true at all sorts of them—indeed, at each world where you say it ought to be true in that world. And truth-at is truth enough; I give you truth-at, and your insistence that propositions like Socrates does not exist be true in some worlds thus is seen to be question-begging.

P: But possible worlds don't have insides and outsides. How can a proposition sit outside a possible world? Surely you can't take what you've just said to give the sober metaphysical truth of the matter.

A: Well, I don't. But you asked for help understanding truth-at, and truth-at is at its core based on this sort of picture.

P: At its core it's based on an incoherent metaphysical picture?

A: A picture motivates the thinking, but that's not all there is to it. There are the conditions I gave you before.

P: But even with the picture, and the conditions, things still are murky. Or, perhaps this is a better way of putting my concern. You give me conditions for a proposition's being true at a world (conditions which are generated from a false picture, mind you). OK. To this end, I have some sort of a grasp of the relation.
But of what relevance is this to the metaphysical questions at hand? How does truth-at help with the fact that it clearly is the case that not only is it true with respect to W (whatever precisely this means), a world in which Socrates does not exist, that \textit{Socrates does not exist}; but it's true \textit{in} W? Surely, if W obtained, \textit{Socrates does not exist} would be true and hence exist. I know your theory won't allow you to say this, but the proper response isn't to produce a made-to-order relation which will allow you to affirm the truth of certain sentences like "\textit{Socrates does not exist} is true with respect to W."

It seems to me that P is exactly right in the above dialogue. It is difficult to see truth-at as anything more than a concept based on a false metaphysical picture (again, one very much like the one which gave rise to the supposed problem of transworld identity, and this connection should raise eyebrows) that exists solely to rescue the truth of some sentences (e.g. sentences of the form \textit{lp is true with respect to W}).

Although the problem of transworld identity may be (for the most part) dead, the thinking that motivates it is not. We see it in the notion of truth-at. It is important to note the etiology of these concepts, I think. Once the origin of the problem of transworld identity was noted, it was seen to be a pseudo-problem. Similarly, I think, once we note the same sort of picture-thinking in the genesis of ideas like truth-at; we may see that this notion, like the problem of transworld identity, does not reflect the sober metaphysical truth of the matter. Hence, it cannot be used to save the direct reference theorist from attacks like that of Plantinga's in "On Existentialism."

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