A Companion to David Lewis

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Reply to Dana Scott, "Is There Life on Possible Worlds?"[1]

DAVID LEWIS

The triumphal advance of the beings from logical space seems less formidable from the inside. Some of those who served the cause best a few short years ago have turned away. Others fight on, but take care to keep open a line of retreat. Now and then they rest from their labors to say that possible worlds are, after all, only a metaphor or a useful fiction. A few (Carnap, Adams) then say what they take to be the literal non-fiction – fair enough! But others keep their real views very much to themselves. Others stick to the pure and safe model theory of possible- worlds semantics, never quite speaking of possible worlds but only of an index set *I* which may be regarded as the set of possible worlds. And then there's the second front: how shall we deal with those enthusiasts who are even now preparing to bring on the *im*possible worlds? But enough grumbling – to work.

What are the alternatives to realism about possibles? How about taking modality as primitive? I said that would be no theory at all, but abstinence from theorizing. I've been quite properly scolded, on this and other occasions, for seeming to suggest that there's no way ever to theorize about something without reducing it to something else. That's false: set theory, for instance, is an illuminating but non-reductive way of theorizing about sets. Still, I don't think I was so wrong about this case. Taking modality as primitive has led, in practice, to trial-and-error modal logic. Theses do not a theory make, not even when they're neatly organized in a formal deductive system; explanatory power also is needed. I have no analysis of explanatory power to offer, but I think that I know it when I see it, and I miss it when I don't. Consider the problem of explaining why some superficially plausible modal inferences are fallacious. In trial-and-error modal logic, the game is to issue provisional decrees: thou shalt not infer according to rule XYZ in modal contexts! You win if you stop all the paradoxes so far discovered. But don't ask why you should give up rule XYZ, which still seems as if it ought to be truth-preserving. The only answer is that it seems somehow to get you into trouble. That's what I call abstinence from theorizing. I much prefer the way possible-world semantics has handled the same problem. Hypotheses are put forward, under which the modal fallacies turn out to be instances of more general fallacies that we already understood. We know just why rule XYZ let us down; and, as a bonus, we know just what repaired version would escape the trouble.

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Pure model-theory, I think, cannot perform this service. It can very well show us how an inference fails in a certain class of interpretations. But unless it is at least hinted that the actual interpretation falls within that class, I don't see how anything whatever has been done to explain the actual failure.

Fortunately, trial-and-error modal logic is not the only way to take modality as primitive. There is also the option of reducing possible worlds to maximal consistent "books" of propositions. As a reductive proposal this is circular, because "consistent" had better mean "compossible." As a non-reductive way of theorizing about modality, however, it may have merit. The books may be enough like possible worlds so that at least some of the explanatory power of possible-worlds semantics carries over – my guess would be that there is explanatory power for matters of *de dicto* modality, but not for those areas of *de re* modality that my favorite form of possible-worlds semantics either explains or mis-explains, as the case may be. But is this reductive option credible? I find it absolutely incredible that our actual world is a maximal consistent book of propositions! When I wrote *Counterfactuals* I thought that was enough to settle the matter; but Hartry Field and Robert Adams and someone I believe to have been David Kaplan have led me to think again. What you must do to maintain the reduction of worlds to books is, I think, to declare that the actual world is not a possible world. There are the possible worlds, and they are books of propositions, and one of them is the actual possible world, and it is the book made entirely of true propositions; but the actual world itself is something else again. I have argued elsewhere that the actual world should not be regarded as different in kind from the otherworlds, on pain of making it mysterious how we know that we are actual or (alternatively, according to a suggestion of Robert Adams) on pain of denying that it is a contingent matter which world is actual. The reply could be that that's right as applied to the actual possible world, i.e. the actual book; but wrong as applied to the actual world itself. I see no reason to prefer this position to my own, but also no knock-down argument against it.

I move on, now, to Professor Scott's misgivings on another score: *license to metaphysical creation*. I really must insist, at the outset, that to hypothesize that there are *X*s is not to create them! I don't suppose Scott would ever confuse hypothesizing that there are Reds under beds, or perfect squares with an odd number of factors, or quanta of gravitational interaction, or God, with creating any of these things! Yet the dangerous metaphor of hypothesizing as creating pervades his paper, and sometimes I find it hard to see the literal meaning behind the metaphor. For instance when he says "It looks to me that the totality of propositions is only a very potential one" I'm pretty sure he doesn't mean that we can go on creating more and more propositions forever with nothing to stop us; but what does he mean? And what is he getting at when he says that my reliance on belief (i.e. my appeal to naive opinion as a reason for believing that there are possible worlds) somehow goes against my assertion that the possible worlds I believe in are not creatures of my imagination?

So much for the creativity – now what about the license? I take it that if you want to advance metaphysical theories at all, not just sit back and play the skeptic, then it is a good idea to try to find credible theories. I take it also that if you want a credible theory, you'd better try to avoid conflict with your own firmly held naive opinions, so far as the countervailing desiderata of strength and explanatory power and the requirement of consistency permit it. Call your opinions "linguistic intuitions" if you'd like to lend them some extra authority – personally, I'd rather not. Whatever we call them, the method of theorizing that balances them against systematic power and consistency seems pretty generally practiced, and I see no need to apologize for following it myself.

Must we then make consistent sense of every (grammatical) piece of metaphysical talk? Could we not regain naive set theory, for instance, by following my preaching and my example? Not quite. What we could regain is a defeasible presumption in favor of naive set theory. Defeasible – and now well and truly defeated. But worth regaining nonetheless. I think it is a real error to claim that iterative set theory gives us all we ever really wanted. It wasn't just *Frege's* naive set theory that fell; it was *ours*. What makes the paradoxes serious is that it is so very easy to recognize Frege's theory as

a codification of what we half-believed all along. Certainly we were wrong. But I don't think we understand yet what our mistake was. Certainly tria1-and-error ways of keeping out of trouble are a lot better than nothing, but I don't think we should lose sight of the problem that is still with us.

How do we know that possible worlds, or propositions for that matter, form a set? I don't suppose we have conclusive reasons to think they do or they don't. Scott mentioned proofs by diagonalization, and those, if produced, might be conclusive. It would presumably depend on the vulnerability of their premises. But let's cross that bridge if we come to it.

An inconclusive reason that has influenced me is as follows. There are unproblematic mathematical entities that can be regarded as representing distributions of matter in space–time, and thereby as representing the possible worlds where matter is so distributed. An account is to be found in Quine's "Propositional Objects." According to classical mathematics, these representatives do form a set. If every difference between worlds was reflected in a difference between their representatives, and if no worlds were unrepresented, then the worlds would correspond one-to-one with their representatives, which means that the worlds would themselves form a set. Now I don't suppose, and neither does Quine, that his system of representation is complete in either of the required ways. But there's enormous room for generalizing and enriching the system, and I do find it plausible as a working hypothesis that some or other improved version would do the trick. I don't know which improved version, exactly, and I don't even know that there's any way to find out which; but that's no argument that none will do. The field of candidates is very rich.

If the worlds do form a set, in the image of the set of their appropriate representatives, then so also do the sets of worlds. These I have called the propositions, conceiving of propositions simply as regions of logical space. But propositions are sometimes conceived differently, as language-independent entities that nevertheless have something analogous to syntactic structure. I would indeed question whether there is a set of all propositions under this second conception. It would be natural to suppose, for instance, that for any set *S* there is a proposition to the effect that the set *S* is self-identical; and that for any two sets the two such propositions are different. Then there is no set of all propositions. There may or may not be a problem here for a theorist who both wants to reduce worlds to books of propositions and prefers the second conception of propositions to the first. I don't see that there's a problem here for me.

I have long intended my realism about possible worlds to be a close imitation of commonplace realism about the entities of classical mathematics. Scott has suggested, and I think he may very well be right, that the two realisms are linked by more than imitation. I would be very interested to know whether the two must stand or fall together; but if so, I do not therefore conclude that they fall.

Some of Scott's further misgivings concern the idea of *comparative overall similarity* between worlds or between their inhabitants (his further misgivings about the uses I make of this idea will not concern us tonight). I usually explain overall similarity as a resultant, determined by the balance of very many similarities and dissimilarities in many respects, of which some weigh more heavily than others. It will be instructive to ask how much he is worried about the balancing, and how much he is rather worried about the host of similarities and dissimilarities in various respects that get balanced.

One way to worry about the balancing is to wonder how determinate are the relative weights of the various respects of comparison. I have myself insisted that they are determinate only within a fuzzy range, that this fuzzy range itself is not permanently fixed, and that any further determinacy would be arbitrary. I have insisted on this not by way of concession, but rather to claim an advantage of my approach over rivals that deny themselves the means to explain the observed shiftiness and indeterminacy of counterfactuals and *de re* modality. But I don't think it is the indeterminacy of the weights that bothers Scott; his worry seems to be not about selecting among an overabundance of similarity relations but rather about supposing there is even one. Perhaps the trouble is rather this.

Suppose, let us say, that there are countably many independent respects of similarity that each contribute to similarity with a weight of +1; and countably many respects of dissimilarity that each contribute with a weight of -1. The case confronts us with an insoluble problem in infinite arithmetic. Fair enough; I suppose such cases might arise, and might contribute to the indeterminacy and arbitrariness of comparative similarity. Especially so, perhaps, when we look at far-fetched possibilities, comparing two rival counterparts both very different from the original in very different directions; and, sure enough, questions about especially far-fetched possibilities do seem especially indeterminate and arbitrary. But I think Scott may think that such cases are all-pervasive, and I don't see why he should think so. I can certainly think of ways of weighting the respects of comparison that do make the problem all-pervasive, but that just shows that those ways aren't the right ones.

Maybe instead, or maybe also, Scott is worried about the respects of comparison themselves. I do think of possible worlds as unblurred and fully detailed; except in some very special cases, I take it that it would be an infinite task to describe a single possible world in full. So what? Scott asks *how we know that the world can be grasped in complete detail*. I suppose I know for sure that it *can't* be, at least if grasping is supposed to be something like having a fully detailed mental image or verbal description. Possible worlds are not meant to be mental representations, and to *be* is not to be *grasped*. If hypothesizing were creating, and if worlds couldn't be created many at a time, then I suppose only the graspable ones could get created. But hypothesizing isn't creating.

Note

1 Given at the Philosophical Society, Oxford, May 15, 1975. Scanned, tidied up, and conformed to the original typescript by Stephanie Lewis, August 23, 2003.