

In David Chalmers' new book, based on [his 2010 Locke Lectures](#), he engages in what he calls 'metaphysical epistemology,' which is an,

...unholy stew of epistemology, philosophy of language, metaphysics, and the philosophy of mind, with some philosophy of science and metaphilosophy thrown in along the way. (p xx)

Central to his project is the notion of *scrutability*, which is a matter of whether, given a certain set of truths, one is in a position to know certain other truths. For instance we can put his argument against physicalism by saying that phenomenal truths like 'I am in pain right now' are not scrutable from physical truths all by themselves. As such they would have to be added to the set of base truths if we wanted to know all truths about reality. His central thesis is that there is a relatively 'compact' class of base truths from which all truths could be known a priori.

This highly technical book is densely packed with arguments and is an important addition to the literature. Even if one ultimately disagrees with Chalmers there is much to be gained in his exhaustive study, and he goes out of his way to show how one can accept limited or modified versions of scrutability. It is impossible for me to do justice to his argumentative rigor and comprehensive coverage of possible views in the space I have here. In the end I find much of what Chalmers says convincing but something of a Pyrrhic victory.

That there is knowledge that can be justified independently of experience is among the oldest distinctively philosophical ideas there are. It is also extremely intuitively plausible. For example, what is the shortest distance between two points? It is easy to see that the answer must be 'a straight line'. How could anything that wasn't a straight line be shorter than a direct path? When I know this it would appear that I know something that is necessary, which has to be true, and which tells me the way the world must be. Other candidates include the truths of mathematics and logic. Whatever your views about the a priori are, it seems pretty obvious that this kind of knowledge is different than the kind I get from seeing what shirt you have on today or hearing a musical instrument I have never heard before.

Traditionally this kind of knowledge was thought to be necessary, universal, known by reason alone, and a guide to the ultimate nature of reality in contrast to a posteriori knowledge, which was local and contingent. All of these notions were challenged in the 20th Century.

On the one hand philosophers like Saul Kripke argued that there were a posteriori necessities. For instance it looks like the kinds of identities that science discovers are a posteriori. That lightning is really just electricity was something that we had to discover from experience. But it also looks like it is necessary that this is so. Lightning has to be electricity and was so even back before we knew that it was. If this is true then there are truths that cannot be known on rational reflection (they were discovered by science!) but which are necessary.

Chalmers argues that this is mistaken. It is true, historically, that we came to know that lightning was electricity but we can abstract away from this particular detail and imagine an idealized situation. Let's imagine someone who had knowledge of all of the truths of physics, whatever they actually turn out to be. We can also suppose that this person is competent with ordinary concepts, and so, for instance, knows what lightning is in the ordinary sense. It is plausible that they would be in a position to know that 'lightning is electricity' is true. If so, then even if *we* in fact did not know a priori that lightning was electrical discharge it is in principle knowable by an idealized agent armed only with the appropriate truths and that is what matters.

But are we really sure that this is *a priori* knowledge? Doesn't experience play some role? Chalmers gives several arguments that it is a priori. One of them is the argument from front loading. Suppose that we take the empirical evidence from above and load it into the antecedent of a conditional statement like 'if such and such physics hold and we have such and such evidence then lightning is electrical discharge'. We do have experiential statements in the antecedent but they don't *justify* the conditional. If so then the conditional itself can still be known a priori. Since this can be done for any new evidence we get none of Kripke's cases are a threat to a priori scrutability.

On the other hand there are the well-known arguments of W. V. O. Quine. A large part of Quine's attack was on the notions of definitions and analyticity, which Chalmers explicitly rejects (though he does argue that one can approximate much of the traditional notions of definition and analyticity). Scrutability is cast in terms of what someone could *know* given a set of truths and does not, or need not, invoke any kind of reliance on definitions or analytic truths.

Quine also argued that there were no sentences that were immune to revision given new empirical evidence and that any sentence could be held to be true come what may given one suitably revised other beliefs and claims. For instance, some have thought that developments in quantum mechanics might lead us to revise our belief in the claim that contradictions can't be true. In principle any of our beliefs about the world may have to be revised in light of future experience. If so then there is no hope for what Chalmers calls *conclusive* a priori knowledge. What we think we know a priori may well turn out to be false tomorrow.

Chalmers responds by arguing that Quine's claim is compatible with a priori knowledge. Inspired by Carnap, as well as Grice and Strawson, he argues that any revision in the light of experience will involve either "a failure of ideal reasoning or a change in meaning," of concepts involved. Quine was notoriously suspicious of meanings and so to flesh out the story Chalmers develops an account of intensions. The intension of a concept, or sentence, is a function, or mapping, from possible worlds to truth-values. It is easiest to work with an example so let's take the sentence 'all cats are animals.' Whether or not it is analytically true it is often held

that this is something that could, in principle, be known a priori. The intension of this sentence reflects the way a speaker would be disposed to judge that it is true in various stipulated situations. Putnam famously argued that if we discovered that the things we called 'cats' really were Martian robots then we would judge that it is false that all cats are animals. By systematically going through cases like this we could build up the sentence's intension.

So Chalmers can say that in this kind of case we start with a concept, CAT_A , which is a priori connected to being an animal, and end up with a different concept, CAT_M , which is not so connected. ' $CATSA$ are animals' is a knowable a priori, but ' $CATSM$ are animals' is knowable a posteriori. Since we judge these sentences to be true in different stipulated situations they have different intensions. This gives us a way to test potential challenge cases. If they involve irrationality or conceptual change then they do not show that there is no a priori knowledge at all, only that this or that sentence is really knowable a posteriori.

In order to show that there is no a priori knowledge at all a Quinian would need to argue that any given concept could be revised in light future experience. Chalmers concedes that this 'is not obviously false' (p 215) but argues that it is also possible that some sentences cannot be revised. He cites as one example the kind of conditionals discussed above.

Suppose that one granted this for an idealized reasoner in an idealized situation but what about us now? Chalmers' strategy explicitly entails that the concepts one employs determines what is a priori for one. He also grants that we must do substantial empirical work to acquire certain concepts and adjudicate between rival concepts. And so, for us at least, a priori methods should take a back seat to empirically tractable questions.

For instance, do conceivability arguments show that physicalism is false? Let us grant that if zombies -creatures that are physically and functionally just like us which lack consciousness- are conceivable then physicalism is false. But whether zombies are conceivable depends on the concept of consciousness in play. Chalmers argues that we have a concept of primitive phenomenal properties that we are acquainted with in such a way that transparently reveals their intrinsic nature.

Others have argued that it is exactly this conception of consciousness that is the trouble. For instance, David Rosenthal has spent much of his career arguing that we ought to think of consciousness in terms of mental appearances. A conscious state is just one I am aware of myself as being in. Arguably if one employs this concept of consciousness zombies are inconceivable. If consciousness consists in one being aware of oneself as, say, seeing red, and a creature is correctly described as being in such a state, then it is conscious.

So whether physicalism can be known to be true or false a priori depends on us settling the debate over the right concept of consciousness to employ. And this,

importantly, depends on, what are for us, empirical questions like whether we do in fact make mistakes about our mental reality. Until we have the empirical evidence that will help to settle this dispute a priori arguments can do nothing more than reveal our own allegiances.

This problem generalizes; by the time we settle which concepts to use, and thus what is to be 'front-loaded' (and what is to be excluded), we won't need a priori knowledge! I mean, once we know *everything* then we'll, uh, *know* everything.