

David Chalmers

Constructing the World.

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David Chalmers' latest book, *Constructing the World* (CS), is intentionally misnamed in tribute to Rudolf Carnap. Chalmers writes: "The title should be heard as self-consciously absurd. I am not really constructing the world." But the aim is to "specify the structure of the world in the form of certain basic truths from which all truths can be derived. To do this, one has to expand Carnap's class of basic truths and change the derivation relation, just as we had to for Laplace" (xviii). Perhaps CS could have been titled "Resurrecting Laplace" for Chalmers begins with Laplace and arguably continues in his spirit (xiii-xvii and 109). Indeed, those interested in ontological relations of dependence often complain that Laplace mixed epistemology and ontology in some unsavory soup. Chalmers writes "I am doing a sort of metaphysical epistemology (or should that be epistemological metaphysics?): roughly, epistemology in service of a global picture of the world and of our conception thereof" (xx).

CW is an impressive and formidable tome: eight chapters and seventeen technical asides (labeled excurses) of varying importance, adding up to 470 pages of dense, detailed, and rather abstract argument. Stylistically, the book is awkward to read: Chalmers delivers his summation on page 430, for instance, despite leaving the reader with a further 36 pages of technical and speculative discussion. But CS is extensive in its scope. The discussions range over a large territory spanning informal and formal epistemology, philosophy of science, philosophy of mind, philosophy of language, and modal metaphysics. Those not previously initiated in these disciplines will find themselves in a wilderness of technical terms and unfamiliar "English" expressions.

Chalmers is thus up to date: as in in affirmation of this, he replaces Laplace's supernatural imagery with some popcorn science fiction imagery with "the Cosmoscope." Its purpose, Chalmers tells us, "is simply to make vivid what an idealized reasoner who entertained the hypothesis of PQI would be able to do" (116). Here, P is the set of all macrophysical and microphysical truths, including laws and counterfactuals, Q is phenomenal truths, and I is the necessary indexical truths, all three classes of which serve as the base facts from which all other facts, M, are "scrutable." Chalmers also adds in a "that's all" clause, T. The cosmoscope allows one to zoom in on a physical scene, much like Google Maps.

Chalmers' project is to analyse several notions of scrutability and then to apply these notions to a variety of debates in philosophy. But a scrutability thesis must also assume a base of facts from which other facts are scrutable. Carnap was open to a physical base to replace the more audacious phenomenal base that he had argued for in print. Carnap's official phenomenalism was very ambitious and this brings out the point that the more substantive the base, the less interesting any scrutability thesis becomes. Chalmers begins with a generous base in order to lend motivation to the scrutability thesis.

Chalmers distinguishes several scrutability theses: the definitional (which he drops), the conditional, the inferential, and the a priori. All are defined in terms of knowledge, so that

S is inferentially scrutable for subject s if and only if, if s were to come to know C, s would be in a position to know S. S is conditionally scrutable from C for subject s iff, s is in a position to know that if C, then S. S is a priori scrutable for s iff s is in a position to know a priori that if C, then S. (40)

Scrutability theses are implausible for the average person since many people cannot remember the facts they have been presented with, and worse, they indulge in fallacious reasoning. Thus Chalmers' scrutability theses involve idealizations for the subject. The idealizations involve increased storage capacity, using the correct concepts, avoiding mistakes in reasoning and utilizing whatever counts as correct reasoning (i.e. future developments in logic.) The idealized subject can also think whatever thoughts there are, even if they are too difficult or too time-consuming for the average finite mortal.

With his scrutability theses defined, Chalmers argues for the truth of his scrutability theses. He offers three arguments for inferential and conditional scrutability: the cosmoscope argument, the elimination argument, and the knowability argument. Then, assuming his success, he extends his arguments to support a priori scrutability. Using his fictional device, the cosmoscope, he offers the following argument for inferential and conditional scrutability:

1. All ordinary truths are scrutable from a Cosmoscope.
2. If a truth is scrutable from a Cosmoscope, it is scrutable from PQI [therefore]
3. All ordinary truths are scrutable from PQI. (119)

In chapter four, Chalmers argues for a priori scrutability. He offers two arguments, the argument from suspension of belief and the front-loading argument. Even if we suspend belief in empirical existence we can still hold on to the conditional: $PQTI \rightarrow M$, thus revealing that the conditional can be known a priori. According to the frontloading argument, any empirical information E, held to be supportive of $PQTI \rightarrow M$, can be loaded into the antecedent. Thus we get a revised claim $PQTI + E \rightarrow M$, and this inference now seems a priori. Thus he takes it that if we have accepted conditional scrutability, we can support a priori scrutability.

In chapter five, Chalmers offers an account of when conceptual change occurs in order to rebut Quinean worries concerning the a priori. He advocates a Bayesian account of conceptual change such that the agent, with the suitable idealizations in place, would change their credence for a sentence given hypothetical evidence E, if there were conceptual change. Conceptual stability would require the ideal agent to maintain their credence. Like in the previous chapters, he discusses numerous possible objections and offers replies.

Chapter six deals with the hard cases, though Chalmers admits that his account, like Carnap's, is rather comical in its brevity (259). Gödel's theorem may show there to be unprovable a priori truths; many people also don't think that they can know the moral truths of a situation merely from specifying all of the non-moral truths. Chalmers is not moved by these cases, noting that: "the fact that a statement is not provable from the Peano axioms does not

entail that it is not knowable a priori” (261.) Regarding moral truths Chalmers cheerfully asserts that we can know moral truths if we know all the non-moral truths (265). The “hard line” moral realist view that holds that we cannot know moral truths from the non-moral truths “is unattractive” (266). Chalmers writes: “The best reason for being a moral realist stems precisely from our apparent knowledge of moral truths. If that knowledge is denied, moral anti-realism seems much more the natural option” (266). But a moral realist could well think that moral truths *are* known and known from other known moral truths, just not from non-moral truths, like PQTI, alone. But Chalmers notes he could concede these points and expand the scrutability base to include normative expressions.

Having dealt with the hard cases Chalmers discusses various methods by which the scrutability base can be shrunk utilizing various heuristic devices. For example, Chalmers argues that microphysical terms (e.g., ‘electron’) can mostly be eliminated by Ramseyfying the theories in which they appear, thus leaving us with a more minimal base of causal/functional roles. But Chalmers does not think that laws of nature can be scrutable from non-nomic properties alone, as a Humean about laws would hope, so he accepts into his scrutability base laws of nature.

The last chapter, although not the last word of discussion, is entitled “The Structure of the World”. The aim here is to look for some principles to guide us with regard to what is found in the scrutability base. Carnap’s principle for the minimal scrutability base was to allow only those expressions in the truths that are objective and communicable. Russell’s principle was to allow only truths that contained expressions we are directly acquainted with. Chalmers defends structural scrutability theses where the base truths consist of only structural expressions. However, Chalmers does not attempt to define what counts as a structural expression, though he follows Carnap in allowing only those expressions that are objective and communicable to be structural. The exception to this structuralism is the phenomenal properties.

I have barely touched the surface of *Constructing the World*. Chalmers’ discussions are wide-ranging; impressively, he offers extensive replies to many objections. But, returning to Chalmers’ cosmoscope argument, I admit I must have missed something, for if we drop the technical terms in favor of their definitions we appear to get:

1*All ordinary truths are knowable (scrutable) for the agent who uses the cosmoscope, i.e., the agent who knows the Physical, Qualitative, and Indexical truths (PQI) and makes no mistakes in reasoning.

2*. If a truth is knowable for the agent who knows PQI and makes no mistakes in reasoning then it is knowable (scrutable) from PQI.

Therefore:

3*. All ordinary truths are knowable from PQI

I don’t see the difference between premise 1* and 3* which indicates, of course, that Chalmers’ *Constructing the World* was not quite scrutable *to me*.

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