

Chalmers, David J., *Constructing the World*, Oxford: Oxford University Press, 2012, pp. xxvi + 494, £30.00 (hardcover).

In this highly ambitious, important, and useful book, David Chalmers sets out to accomplish some of the tasks that Carnap, in *Der Logische Aufbau der Welt*, aimed at, but, according to most current sensibilities, failed to carry out. Carnap wanted to show that all concepts can be analysed by means of logical concepts and a single non-logical one, that of similarity between momentary slices of the total stream of consciousness—and perhaps even dispensing with the latter. If this could be achieved, a *scrutability* thesis would thereby be established: a thesis according to which all truths could be known, once a basic set of truths is known.

Chalmers's book deeply and compellingly explores scrutability theses less ambitious than Carnap's, but still substantive, at the very least in so far as they exclude currently influential views. The book dwells on matters of central importance in epistemology, metaphysics, the philosophy of language and the philosophy of mind. It develops conceptual tools that can be profitably used by writers pursuing a range of philosophical projects. Last but not least, Chalmers is comprehensive and ecumenical, exploring ways of approaching his topics from various alien perspectives. I, thus, expect the book to be widely read, as it deserves to be, and to have a profound impact in the discipline. It is long, but the material is presented in a way that allows for explorations at different levels. More technical detailed discussions are left for seventeen excursions, which make up about one third of the book. A related meta-philosophical chapter, with a few more excursions, appears in an extended web edition. Suggestions for shorter engagements are provided at the outset.

As Chalmers puts it in the introduction, Carnap is committed to a *definability* thesis, according to which 'there is a compact class of primitive expressions such that all expressions are definable in terms of that class' [3]. Given some assumptions, this leads to the *scrutability* thesis that 'there is a compact class of truths from which all truths are definitionally scrutable' [5], and, on the further assumption that definitions are *a priori*, to the *a priori scrutability* thesis that 'there is a compact class of primitive expressions from which all expressions are *a priori* scrutable'. In these claims, 'compact' means that the base uses a small number of 'families' of expressions intuitively sharing a subject matter, and excludes trivializing mechanisms that would make the claim obvious and uninteresting [20–1].

In the first chapter, Chalmers discusses the main objections on account of which today Carnap's project is considered to have failed. Some of them merely affect Carnap's choice of primitive vocabulary, and can be dealt with by enlarging it to include, say, expressions for specific phenomenal properties, or using instead a physicalist basis including spatiotemporal expressions or expressions for causal or nomic relations—something to which Carnap himself would not have been unsympathetic. More serious are objections to the philosophical programme of providing definitions, or conceptual analyses, for interesting notions—older ones by Waismann, Wittgenstein and Quine, or more recent ones in the work of Kripke, Putnam, Burge and others.

Unlike Frank Jackson, his co-author in an important article that is a precursor for this book ('Conceptual Analysis and Reductive Explanation', *Philosophical Review* 110, 2001, 315–61), Chalmers is sympathetic to the scepticism towards definitions and analysis that these criticisms raise. He argues, however, that it should not extend to the *a priori*. A main consideration against definitions (as traditionally understood) is the existence of *counterexamples* to any purported conceptual analysis—actual or possible cases to which the original notion applies but the analysis does not, or *vice versa*. However, by examining Gettier's famous counterexample to the traditional

definition of knowledge as justified true belief [13–15], Chalmers argues that counterexamples are usually provided by means of *a priori* reasoning about actual or imaginary scenarios described without using the notion at stake. This suggests that an *a priori scrutability* thesis is not only not questioned, but in fact presupposed. Quine's influential arguments in 'Two Dogmas of Empiricism' are indeed a serious threat, which Chalmers confronts later in the book. Assuming it can be properly answered, rewards such as Carnap expected to derive from the *Aufbau* could be gained, including the following ones: a response to scepticism; accounts of modal epistemic notions, of meaning, and of mental content; and curbs on disproportionate ambitions in metaphysics and philosophy in general.

The second chapter articulates in detail different scrutability theses. Chalmers is mostly interested in *a priori scrutability*, which uses this notion: a sentence *S* is *a priori* scrutable from *C* for *s* iff *s* is in a position to know *a priori* that if *C*, then *S*. However, he also considers two other notions, useful for stating theses that are good bridging points in his arguments for *a priori* scrutability in the following chapters, *inferential scrutability* (if *s* were to come to know *C*, *s* would be in a position to know *S*) and *conditional scrutability* (*s* is in a position to know that if *C*, then *S*). *Conclusive* variants replace 'know' with 'know with certainty', the latter understood as possessing *rational degree of belief* 1; Chalmers in fact wants to argue that the *a priori* scrutability that can be established in many interesting cases is of such a kind, and he has a point that claims involving the stronger notion sometimes stand a better chance against sceptics.

The above definitions delineate epistemic relations between subjects and sentences, types and tokens. The justification and explanation of this, together with the account of the ancillary notions of *a priori knowledge* and *being in a position to know* in the main text and accompanying excursions are outstanding exemplars of the useful tools that this book provides to philosophers of different persuasions. Chalmers's key idea is to explain the epistemic status of a sentence in terms of the epistemic properties of the thoughts that the sentence is canonically apt to express. In this way, he circumvents disputes regarding the nature of propositions. For his goals, he needs finer-grained propositions than possible-worlds or Russellian propositions; but merely appealing to a Fregean notion would be objectionable to those who reject them, and in any case the main application that Chalmers wants to make of his scrutability claims lies precisely in defining intensions that can play the role expected of Fregean senses and narrow mental contents [69].

Being in a position to know is first explained in modal terms: it is a matter of what a subject could know under relevant idealizations [40–1]. Chalmers discusses in detail the idealizations and their perils [62–71], and in an excursus [92–100] explores an interesting alternative account in terms of the existence of a *warrant*—a sort of *propositional* (as opposed to *doxastic*) justification. When it comes to *a priori* knowledge (knowledge with justification independent of experience) Chalmers provides a useful elaboration of a distinction that fellow rationalists such as Burge or Peacocke have made between a *justificatory* and a merely *enabling* or, as Chalmers prefers to put it, *causal* role that experience can play in the constitution of a knowledgeable thought, compatible with its *a priori* character [168–9, 195].

Chapters 3 and 4 make the case for *a priori* scrutability for any ordinary subject (normal adults with normal capacities and background knowledge) and all ordinary truths, relative to a compact base *PQTI* including four families of truths: physical truths (P), phenomenal truths (Q), indexical truths (I), and a negative 'that's all' truth (T). Chalmers argues first for inferential scrutability, then (in part on its basis) for conditional scrutability, and finally for *a priori* scrutability also in part on the basis of the latter. To make his case, Chalmers appeals first to a thought-experiment

involving a fancy imaginary contraption, a *Cosmoscope*—a virtual reality device that stores all the information in *PQTI* and makes it usable, by doing complex computations and providing convenient phenomenally rich displays. He argues first that the very nature of the device makes it plausible that all ordinary truths are scrutable (in any of the three senses) from it, and hence from *PQTI*. Then he develops two arguments, an *argument by elimination*, on which the *PQTI* information provided by the *Cosmoscope* is used to eliminate hypotheses on which the relevant ordinary truth is false, and an argument from knowability, on which ordinary truths that a subject can know are argued to be scrutable from *PQTI*, and then those that are unknowable (about remote spatiotemporal locations, etc.) are argued to be similarly scrutable from *PQTI*.

A problematic class are Fitchian truths—those such as *P* and *P* is not known, for an arbitrary actually unknown *P*—which are such that properly investigating their truth-value will change it; but Chalmers points out that they force a restriction only on inferential scrutability, not on conditional or *a priori* scrutability [50–3, 134–8]. Perhaps more convincing than these abstract considerations are the examination of alleged concrete counterexamples, involving truths established by high-level recognitional capacities (for things such as chairs and trees), counterfactuals, or the huge parade of ‘hard cases’ that Chalmers goes through in detail in Chapter 6: philosophical truths, normative truths, social truths, intentional truths, modal truths, etc. In all these cases, Chalmers either makes a good case that the truths in question can after all be known on the basis of *PQTI*, or that they are not truths at all, or (in a very limited number of cases) that they can be handled by expanding the base. Once conditional scrutability has been thereby established, Chalmers provides two considerations for *a priori* scrutability: first, the arguments appear to work equally well if one engages in a Cartesian suspension of empirical belief; second, any empirical information on which the arguments might rely could be ‘frontloaded’—added to the antecedent, so that the resulting conditional is known *a priori*.

Chapter 5 deals with the Quinean challenge. In response, Chalmers develops a strategy suggested by Carnap himself, and by other writers that have previously confronted Quine’s arguments. The strategy is to argue that the potential belief revisions that appear problematic for claims of *a priori* knowledge in fact involve conceptual change and hence do not pose any problem. Developing the themes of this chapter in two important excursuses, Chalmers invokes a generalized *a priori* scrutability thesis, on which truths about all possible scenarios are also *a priori* scrutable from a compact base, to define an epistemic modal space and intensions capable of playing the roles of Fregean senses corresponding to the primary intensions of his well-known work on Two-Dimensional Semantics. Chalmers announces that these themes in semantics and psychosemantics will be further developed in a forthcoming companion volume, *The Multiplicity of Meaning*, and of course they have been explored in detail in his earlier work.

The demise of verificationist views held not only by Carnap, but also by Quine himself, effected mostly through the influence of the work of Kripke, has brought back all kinds of metaphysical speculation, including the sort that Carnap’s enlightenment meant to cast aside with his strong form of scrutability. Another way of bringing Chalmers’s abstract claims to earth is to consider views that his weaker scrutability theses suffice to rule out. This is a salutary consequence that indirectly speaks in their favour, in my own view, even if Chalmers’s open-mindedness to philosophical conjectures makes him present them as somehow worrying. Thus, for instance, under a natural interpretation, Williamson’s epistemic view of vagueness envisages truths that cannot be known with *a priori* justification on the basis of *PQTI*. The more plausible one takes *a priori* scrutability from this basis to be, the

less sympathetic one should be to the view [289, 299], and *vice versa*. The same applies to Tye's, and Byrne & Hilbert's claims about *true blue* (see *Analysis* 2006 and 2007). Of course, a few of us hold similar attitudes regarding the view of consciousness that Chalmers favours, envisaging, for instance, subjects in the same brain state with qualitatively different visual experiences who are perceiving physically identical objects under physically identical conditions, and some have tried to develop non-verificationist considerations congenial to scrutability theses to put pressure on them. In Chapter 7, Chalmers explores different ways of narrowing the base, including those favoured by philosophers with alternative views on consciousness; I lack the space to launch a critical discussion here.

The main worry I had regarding Chalmers's main claims in this book as they were presented in his earlier work were also the reasons for preferring something closer to Carnap's own proposals: one would like to have an explanation of *a priori* scrutability, worrying, among other things, that without the kind of foundation that conceptual analysis and analyticity claims provide, bare appeals to justification independent of experience would fail *vis-à-vis* objections like those cleverly raised recently by Williamson, even acknowledging the ingenuity of Chalmers's replies [194–8]. From that point of view, this book (and the related material in the online extended edition) is a welcome move forward. In Chapter 8, Chalmers examines *principled* versions of scrutability claims, which constrain what can be in the basis for philosophical purposes—as in Carnap's constraint that the basic vocabulary should be objective and communicable, or Russell's that it should signify objects of direct acquaintance. There he develops notions of definitions, conceptual analysis and 'analytic' scrutability capable of withstanding the challenges to the traditional accounts. He then uses those notions to speculatively suggest in the seventeenth excursus an explanation of scrutability that can be counted as a 'moderate rationalist' proposal on the explanation of the *a priori* along the lines of Peacocke's *metasemantic* view. Even if speculative, Chalmers's suggestions and the conceptual tools he deploys to present them contribute to elaborating and clarifying that sort of proposal substantially. This is one more reason for strongly recommending this book, whose richness and rewards this review has barely scraped over, to anybody interested in philosophy.

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Coady, David, *What To Believe Now: Applying Epistemology to Contemporary Issues*, Malden, Massachusetts: Wiley-Blackwell, 2012, x + 202, US \$93.95 (hardback).

Like much work in epistemology, *What To Believe Now* looks at how we ought to go about forming beliefs and acquiring knowledge. However, unlike most epistemologists, David Coady does not address these questions in a purely theoretical and ahistorical way. Instead, he focuses on practical dilemmas about belief formation and knowledge acquisition that each of us faces in our daily lives. For instance, should we trust what scientific experts tell us about climate change? Should we believe the rumours and conspiracy theories that we find on the internet? More generally, can we trust any of the information that comes to us through social media, or should we rely only on more conventional sources?