In this book Hendricks undertakes the honorable task of bringing together both mainstream and formal approaches to the theory of knowledge. His discussion is unified by the concept of *forcing*, which he shows all approaches employ in one way or other to defeat the skeptic.

After priming the pump in Chapters 1 and 2, Chapters 3-6 discuss mainstream epistemologies, in particular Goldman's epistemic reliabilism, Nozick's counterfactual epistemology, and Lewis' contextual epistemology. The discussion focuses on the definition of knowledge and the skeptical challenge. Hendricks argues convincingly that these three approaches try to defeat the skeptic by what he calls *forcing*: 'whenever skeptics cite possibilities of error as arguments against knowledge claims, the strategy is to show that, although they are possibilities of error, they fail to be *relevant* possibilities of error' (2). Epistemic reliabilism forces by requiring the method of belief acquisition to be merely reliable (in a stochastic sense) rather than infallible. Counterfactual epistemology forces by requiring that truth is tracked only in worlds close to the actual one rather than in all possible worlds. Contextual epistemology forces by properly ignoring possibilities that do not fit the context. In addition, these chapters illustrate the difference between a first-person and a third-person perspective on inquiry.

The chapters on counterfactual and contextual epistemology refer to various principles of epistemic logic, which is dealt with in Chapter 6. Hendricks gives an informed overview of the field since the time Hintikka first brought logic to bear on epistemology in the 1960s. By showing how the accessibility relation on possible worlds limits the scope of the knowledge operator, and thus forces the skeptic, Hendricks develops his main theme. Autoepistemic logic, as introduced by the computer scientist R.C. Moore in the 1980s, serves as an example of how mainstream epistemology -- in this case G.E. Moore's autoepistemology -- can fruitfully bear on formal epistemology, and *vice versa*.

Agency is another important theme. The epistemic agents who have knowledge are inactive in first-generation epistemic logic which is based on alethic modal logic. 'They serve as indices on the accessibility relation between possible worlds ... [which] ... will not suffice for epistemological ... pertinence simply because there is nothing particularly epistemic about being indices' (101). And another one of the many crispy lines: 'What bakes the epistemological noodle ... is *how* the agent has to *behave* in order to gain the epistemic strength that he has' (101-2).

This brings Hendricks to Chapter 7 and computational epistemology, which is based on Kelly's formal learning theory. While the business of mainstream, as well as logical, epistemology is largely conceptual analysis, computational epistemology is a formal account of normative or means-ends epistemology. Rather than appealing to intuitions in order to test various proposals for a definition of knowledge, computational epistemology investigates whether or not a particular method reliably solves a given problem in a certain sense. For instance, consider the method that conjectures that all ravens are black as long as only black ravens are observed, and otherwise conjectures that some ravens are white. This method reliably answers the question whether all ravens are black when the background knowledge is restricted (thus witnessing the forcing relation!) to worlds consisting of sequences of observations of black and white ravens. The sense in which the method reliably solves the problem is called *stabilization to the correct answer*. If all ravens are black, the method will eventually start to conjecture that all ravens are black, and will continue to do so forever. If not all ravens are black, the method will eventually start to conjecture that not all ravens are black, and will continue to do so forever. Whether the method's conjectures are intuitively appealing is irrelevant for its justification. Rather, the method is justified relative to the goal

of reliably answering the question because it furthers that goal. This clearly illustrates that the justification of a norm is a relation between the norm and a goal that holds to the extent the norm furthers the goal.

Chapter 8 contains Hendrick's own epistemology. 'Modal operator epistemology is a model of inquiry obtained by mixing alethic, tense and epistemic logics with a few motivational concepts drawn from computational epistemology ... It was developed to study the acquisition and subsequent validity of limiting convergent knowledge' (130). In addition to these formal ingredients from logical and computational epistemology, modal operator epistemology employs the first- versus third-person distinction that is in play in many mainstream epistemologies. The tripartite definition of knowledge is turned into the following proposal: A method, δ, '*may know h in the limit iff there exists a possible world that validates δ's knowledge of h. In other words: 1. h is true, and 2. δ conjectures h after some finite evidence sequence has been read and continues to conjecture h in all future*' (139). One of the properties a discovery method, δ (that actively outputs hypotheses on the basis of finite initial segments of evidence streams), may possess is to have consistent expectations. Roughly, if a possible world (μ, k) (consisting of an infinite data stream, μ, and a state coordinate, k, specifying the age of the world) is consistent with what δ conjectures on the basis of the first n items of the data stream, ε, then μ and ε share the first n items and k does not lie in the past (139). Thus such a method δ conjectures only hypotheses that are consistent with what has been observed so far. Based on these notions Hendricks is able to prove that '[*i*]*f knowledge is defined as limiting convergence, then knowledge validates **S4** iff the discovery method has consistent expectations*' (141).

Results like these are important components of 'plethoric' epistemology, a programmatic view Hendricks puts forth in the concluding Chapter 9. The idea seems to be that plethora builds bridges between mainstream and formal epistemologies and, or so I would like to add, between conceptual analysis and normative epistemology. Hendricks has a section on conceptual analysis (151-4) and is well aware of the distinctive features of normative epistemology (Chapter 7). Unfortunately the comparison between these two epistemological enterprises remains on a general level. Indeed, given Nozick's and Lewis' quasi-formal mainstream epistemologies, as well as Hendrick's quasi-mainstream formal epistemology, one starts to wonder whether it is the mainstream/formal distinction that divides contemporary epistemology, or whether it is the distinction between conceptual analysis and normative epistemology. Still, Hendrick's book is a must read for both mainstream and formal epistemologists.

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