Ideal Code, Real World resulta numa combinação rara de concisão, acessibilidade e inovação científica. Em virtude das duas primeiras características, o livro pode ser utilizado proveitosamente mesmo em disciplinas de ética de uma licenciatura. Em virtude da terceira, tornou-se já uma referência incontornável na literatura de ética normativa. Uma leitura complementar imprescindível é a colecção de ensaios *Morality, Rules, and Consequences* (Edimburgo: Edinburgh University Press: 2000), organizada por Brad Hooker, Elinore Mason e Dale E. Miller. Este livro inclui diversos ensaios que criticam a teoria desenvolvida em *Ideal Code, Real World*, bem como uma resposta do próprio Hooker às objecções.

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***Defending Science — Within Reason*: Between Scientism and Cynicism, by Susan Haack.** Amherst, NY: Prometheus Books, 2003, 411 pp., $28.00.

Susan Haack's latest book promises 'a new, and hopefully a true understanding of what science is and does' (p. 9). Haack seeks to chart a middle way between what she calls the 'old deferentialism' of the logical positivists, Popperian falsificationists, and Bayesians, and the 'new cynicism' of a variety of social constructivists, irrealists, proponents of the strong programme in the sociology of science, anthropologists of science, and feminist science critics. Haack aims to present a realistic view of science, in the ordinary, non-philosophical sense of 'realistic.' Contrary to the old deferentialists, she argues that questions about the goodness of scientific evidence cannot be answered with the resources of logic and probability theory alone, that there is no such thing as *the* scientific method, and that there is room for a fruitful collaboration between epistemologists and sociologists of science. Contrary to the new cynics, she contends that science is a rational and progressive enterprise, insists that evidence can be objectively better or worse, and defends a version of scientific realism.

entitled to place in any given crossword entry is partly a matter of how well the entry fits the relevant clue (i.e., partly a matter of foundations), and partly a matter of how well it interlocks with other entries in the puzzle (i.e., partly a matter of coherence). Haack then shows how her own account of epistemic warrant can help to cut through some old puzzles about scientific confirmation, such as the raven paradox and the new riddle of induction. She argues that these problems resulted from the narrowly logical approach to the epistemology of science favored by the old deferentialists.

Haack is so enthusiastic about the crossword puzzle analogy, and so confident of its aptness, that she returns to it time and again, as in the following passage:

> Picture a scientist as working on part of an enormous crossword puzzle: making an informed guess about some entry, checking and double-checking its fit with the clue and already-completed intersecting entries, of those with their clues and yet other entries, weighing the likelihood that some of them might be mistaken, trying new entries in the light of this one, and so on. Much of the crossword is blank, but many entries are already completed, some in almost-indelible ink, some in regular ink, some in pencil, some heavily, some faintly. Some are in English, some in Swahili, some in Flemish ... Now and then a long entry, intersecting with numerous others which intersect with numerous others, gets erased by a gang of young turks insisting that the whole of this area of the puzzle must be reworked ... (pp. 93-4).

Now, Haack recognizes that this analogy has its limits. For example, she acknowledges that in science, there is nothing corresponding to the answer key to the crossword that will be published in the next day's newspaper. Nevertheless, she is right that the analogy does help us to see how science can be a rational and progressive enterprise and how there can be better or worse evidence, even though it is at the same time 'messy, fallible, and fumbling' (p. 9). And interestingly, she resists certain conclusions that the analogy might seem to support. For example, one reason why Kuhn likened normal scientific research to puzzle-solving was to suggest that scientists are not necessarily motivated by a concern for truth; instead, they are more like puzzle addicts who take pleasure in a certain sort of intellectual exercise. Haack warns us not to draw this Kuhnian conclusion from her crossword metaphor. The purpose of that metaphor, after all, is to help us

> But though my realism is extensive, it is not extreme; in fact, it is very modest. Our sensory organs put us in touch with things and events in the world, but our senses are limited, imperfect, and sometimes distorted by our expectations; and there is no cleanly identifiable class of purely observational statements, or of observable things. There are real kinds; but this is only to say that some knots of properties are held together by laws. There are objective truths, and the sciences sometimes succeed in discovering some of them; but truth is not transparent, and progress is not guaranteed (p. 124).

This makes me wonder who Haack thinks the guilty realists are. She says that the problem with other forms of scientific realism is that they are guilty of 'indefensible ambition' (p. 124). But I cannot think of any leading scientific realists—Richard Boyd, Michael Devitt, Jarrett Leplin, or Stathis Psillos—who would go so far as to claim that progress in discovering objective truths is guaranteed, and those philosophers, I imagine, would look favorably on Haack's description of modest realism in the passage just quoted. Since she never says explicitly how her view differs from the views of the philosophers I just mentioned, it seems a little unfair of her to imply that they are guilty of some philosophical offense that her view does not commit. If anything, Haack seems guilty of helping herself at times to the notion of approximate truth as if such a notion were unproblematic. Other proponents of scientific realism have gone to great lengths to try to spell out that notion.

Hilary Putnam famously claimed that if realism were false, the empirical success of science would be a miracle. Haack indicates on p. 145 that the argument for realism needs to be less ambitious than this; however, the more modest argument she develops there looks a lot like the abductive arguments already spelled out in great detail by Boyd, Leplin, and Psillos. Moreover, it is difficult to tell how much stock she places in the inference to the best explanation of the success of science because she elsewhere (in Chapter 4) proposes a 'multidimensional' explanation of scientific success, not in terms of truth, but rather in terms of the helps to inquiry mentioned earlier. And interestingly, she deploys the following, apparently transcendental argument for the existence of real kinds: Scientists could neither predict nor explain particular things and events unless there were real kinds; but of course they can predict and explain, so there must be real kinds (p. 129). This argument deserves more scrutiny than I can give it here.

plained that the precautionary principle is anti-scientific, and that adherence to it would stifle scientific research. Haack does not discuss the precautionary principle, and I wonder if she would agree with this criticism of it.

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