



Yiftach Fehige. *Thought Experiments, Science, and Theology*. The Netherlands: Brill, 2024, 246 pp.

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Yiftach Fehige's new book provides a theologically-informed examination of thought experiments in the sciences and a comparison with their use in theology. The main claim of the book is that the practice of thought experimentation reveals something important about the intersection of science and religion – namely, that both practices are inherently pluralistic. Given its scope and thesis, the book is appropriately wide-ranging, including a lengthy discussion of the Bohr-Einstein debate (the clock-in-a-box thought experiment) and a sampling of other influential cases. In addition to classic examples like Galileo imagining objects of different weights dropped from a tower, Fehige considers Darwin's use of thought experiments to describe natural selection. He also discusses philosophical thought experiments at length, which is surprisingly uncommon in contemporary debates; many leading scholars instead treat thought experiments in the sciences as mainstream and their philosophical application as derivative. The author's expertise and experience working across traditional disciplinary boundaries enhance the book immensely. Experts in philosophy of science or theology will find the arguments substantive, yet anyone new to these fields should still find the book accessible and informative. That balance is difficult to achieve in a work of this scope, but I think Fehige fully succeeds.

The book's scope works in its favor in other ways as well. The placement of the book at the intersection of theology and science allows Fehige to raise topics that are not often discussed in either discipline on its own, such as Galileo's view of the role of the Bible and his criticisms of its treatment as science, or the question of whether science existed before the Fall (p. 125). While it is never overly technical, the book may be of most interest to those with an existing foothold in theology or philosophy of religion, since the book engages thinkers such as John Polkinghorne and John Hick who are less well-known to philosophers outside the study of religion. For those with a strong background in religion but less familiarity with thought experiment as a method, the book would be an excellent introduction to contemporary debates about thought experiments in philosophy and the sciences. Fehige surveys solutions to standard problems such as whether thought experiments are arguments and whether the knowledge they provide is empirical. Moreover, as an established historian of the concept of thought experiment, Fehige is able to provide an in-depth account of the history of the term (Ch. 2). These discussions would serve as excellent foundations for

anyone unfamiliar with recent debates on thought experiment as a method and practice.

As with any book worth reading, readers will disagree with some of its claims. For example, the book challenges existing narratives of the origin of the term “thought experiment.” I appreciate Fehige’s alternative to the widespread view that Ernst Mach’s essay “On Thought Experiments” was the first significant influence on present-day practices. Instead (and in keeping with the book’s pluralistic thesis), Fehige discusses a variety of sources for the concept of thought experiment, including G. C. Lichtenberg and H.C. Ørsted, suggesting Mach’s influence may be overestimated (pp. 60–61). I personally welcome a more open retelling of the history of the concept in the 19th and early 20th centuries, and Fehige’s work adds important nuance to contemporary accounts. (For my own account of Ørsted’s role, see *Kierkegaard and the Structure of Imagination*, forthcoming with Cambridge University Press.)

Fehige also recounts in detail some recent events in the history of the philosophy of thought experiment, including a conference organized by Tamar Horowitz and Gerald Massey in April 1986. In a book section titled “The Year 1986” (pp. 62–67), Fehige describes the views put forward at this event, later published as conference proceedings (1991). A primary outcome of the conference was a recognized tension between John Norton’s empiricist approach and James Brown’s rationalist one, further delineated in 2004 by a pair of essays titled “Why Thought Experiments Transcend Empiricism” (Brown) and “Why Thought Experiments do *Not* Transcend Empiricism” (Norton). Fehige’s discussion provides a valuable record of this conference and the evolution of the study of thought experiment as a distinct research field.

To my mind, however, pinpointing a conference as the foundation of the field singles out one of many ways that philosophical questions about thought experiments can be framed. As Fehige notes, the philosophy of thought experiment was already at least 175 years old by the 1980s (p. 62). Moreover, Fehige wants to move beyond the dichotomy between rationalism and empiricism, raising that traditional dichotomy as a problem for Brown and Norton (p. 82). Making so much of a single conference further establishes that set of views as canonical, even if their content is challenged.

My own hypothesis is that increased interest in thought experiments as a method is due at least in part to the proliferation of their use in philosophy around the same time. Examples include Bernard Williams, *Problems of the Self* (1973) and *Utilitarianism* (1976); Derek Parfit, *Reasons and Persons* (1984); and Judith Jarvis Thomson, “The Trolley Problem” (1985). Several now-canonical thought experiments appeared around this time, including Alvin Goldman’s Fake Barn (1976), Frank Jackson’s Mary’s Room (1982), John Searle’s Chinese Room (1980), and Gregory Kavka’s Toxin Puzzle (1983). Critiques of that proliferation, predictably, emerged soon after (Wilkes, 1988; Johnston, 1987). Other relevant work appeared in the 1980s, such as Martha Nussbaum on literature as a source of knowledge (1985). While the Brown-Norton debate is undeniably significant for the explicit identification of “philosophy of thought experiment” as a field of study, it is important to recognize ongoing work that grew up in relation to other kinds of philosophical problems – i.e., beyond the question of their valid use in the sciences.

Fehige’s book serves as a helpful reminder that the study of thought experiments is by nature interdisciplinary, and would-be scholars do well to read widely and across

disciplinary boundaries. Toward that end, Fehige's book improves the overall scholarly situation with the inclusion of a wider historical and disciplinary framework. By turning attention to how thought experiments work in theology, he implicitly shows that the Brown-Norton debate is one part of a wider story. Fehige wants to replace debates on empiricism vs. rationalism with a more "nuanced naturalism" he attributes to Catherine Elgin and Elke Brendel (see pp. 86–95). What mattered most about the Brown-Norton debate, he argues, was a pluralistic explosion of new views, many of which were inspired by Thomas Kuhn (p. 67). Whereas before Kuhn the progress of science had seemed like a search for unity (with later theories having greater explanatory power than preceding ones), scientists came to accept in the 1970s that science had no overarching method (p. 78). Fehige extends this observation into a wider argument against monism in theology. He argues instead for endless exploration (p. 215) and a pluralism of approaches and theological languages (p. 223). Near the end of the book he includes a thought experiment he attributes to Scott Adams in *God's Debris*, about two bees peering into a synagogue through stained glass windows, each looking through glass of a different color. Fehige claims the view would not be much different could they enter the synagogue: their perceptions would remain perspectival and incommensurable, colored by the particular language and concepts they bring with them.

While I agree with Fehige on the importance of disagreement and debate, I do not see that the evidence presented supports the ontological conclusion Fehige draws. As Socrates points out in *Meno*, the reality we live in would feel phenomenally the same whether (a) there are Forms we do not (yet) know or (b) there are no Forms. In either sort of reality, the world we inhabit day by day will be characterized by uncertainty and shifting opinions. Fittingly, Socrates makes this point in the *Meno* dialogue with a thought experiment: whether a traveler reaches their intended destination by chance or by knowledge of the route, they end up at the same place. The *Meno* dialogue ends in aporia, but rather than drawing a metaphysical conclusion, Socrates recommends meeting the next day and trying again from a different starting point. I personally retain Socrates's optimism and find it compatible with the use of thought experiments as a method, just as Socrates himself obviously did.

As a further point of disagreement, Fehige surprisingly attributes the frequent use of thought experiments in ethics to moral limitations that prevent ethicists from "carrying out some of their imagined scenarios" on humans (p. 27). But it does not seem likely to me that enacting a real-life trolley problem (for example) would give researchers more ethical insight than contemplating it. (It would certainly offer less time for deliberation!) Fehige's suggestion reinforces an empiricist assumption latent in many accounts of thought experiment – namely, that physical enactments are preferable. By contrast, I think there is not any obvious value added by enacting philosophical thought experiments, so I found Fehige's comment puzzling.

Lastly, in an otherwise expansive book, Fehige moves quickly past the similarity between his view and accounts of imagination and belief put forward by phenomenologists such as Edmund Husserl and Jean-Paul Sartre. He mentions that in the founding debates, J. N. Mohanty described thought experiments as the central method of phenomenology, but that Horowitz and Massey, the editors of the conference proceedings, found Kuhn's work more directly influential (p. 62). Fehige

does not comment on the similarity between contemporary discussions of unobservable beliefs (pp. 86–87) and phenomenologists' emphasis on the foreground and background of conscious awareness. I suggest his omission narrows the focus too soon, precluding valuable contributions that happen to fall outside of a discipline's current bounds.

On the whole, I agree with the author that there is always more to be debated and more work to be done. That remains the case even after a work as comprehensive and interdisciplinary as this one. My overall assessment is that the book would serve as an excellent starting point for someone new to the study of thought experiments or anyone open to expanding and challenging their existing understanding of how thought experiments work.

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