[*JSRNC* 12.2 (2018) 232-235] JSRNC (print) ISSN 1749-4907
http://doi.org.10.1558/jsrnc.32767 JSRNC (online) ISSN 1749-4915

Book Review

Benjamin C. Jantzen, *An Introduction to Design Arguments* (Cambridge: Cambridge University Press, 2014), 347pp., $29.95 (pbk), ISBN: 978-0-52-118303-1.

It is surprising, in retrospect, that a book such as Benjamin C. Jantzen's *An Introduction to Design Arguments* was not already in existence. After all, design arguments—those that infer the existence of God from phenomena in the natural world—are a staple in the philosophy of religion, with a distinguished historical mêlée of proponents, from Plato through Aquinas to Paley, and opponents, including Hume. And they retain a high degree of popular appeal: a public opinion survey conducted in the United States in 1998 asked respondents, 'In your own words, why do you believe in God, or why don't you believe in God?' and found that the most frequent answers, among the believers, involved good design, natural beauty, and/or the perfection and complexity of the universe (Shermer 2003). Yet, as Jantzen observes, no comprehensive survey and assessment of design arguments seems to have appeared since the geologist Lewis Ezra Hicks's *A Critique of Design-Arguments* in 1883.

A comprehensive survey and assessment of design arguments is precisely what Jantzen offers to supply in his book, the purpose of which, as he explains, is to provide 'a neutral philosophical reconstruction and analysis of the entire field of design arguments advanced from the rise of Western philosophy in ancient Greece to the present day' (p. xiii). About half of the book, Chapters 3 through 10, is devoted to presenting the history of design arguments from antiquity to the Victorian age, while chapters 11 through 18 are devoted to analyzing contemporary design arguments, especially those of intelligent design and fine-tuning. Throughout, the envisioned audience is twofold: while Jantzen seeks to educate readers unfamiliar with philosophy (by, e.g., allocating a chapter to explaining philosophical terminology pertaining to arguments), he also aspires to provide information and insights that will interest philosophers.

A preliminary chapter helpfully suggests, albeit with minimal reference to the relevant psychological and anthropological literature, that there are three principal types of intuition that underlie design arguments: purpose, form, and conspiracy. Design arguments that invoke the adaptive features of organisms, for example, appeal to the purpose intuition, while design arguments that highlight such features as simplicity, order, or complexity appeal to the form intuition, and design arguments that highlight the ways in which features of the natural world appear to be arranged just so appeal to the conspiracy intuition. A series of useful case studies is presented. It is slightly unhelpful that the terminology is not entirely consistent—Jantzen later refers to the argument from providence, rather than the argument from conspiracy—and that it is unclear why conspiracy is not simply a subtype of purpose.

Acknowledging the existence of design arguments in the ancient Greek literature (and referring appropriately to David Sedley's authoritative *Creationism and its Critics in Antiquity* [2008]), Jantzen nevertheless does not start his history in earnest until Cicero's *De natura deorum*, which he describes as 'the oldest surviving [work] to gather together and assess the full crop of ancient design arguments' (p. 29), including the arguments from order, purpose, and providence in embryo. A subsequent chapter entitled 'Medieval Arguments' concentrates on Aquinas's Fifth Way, which is accused of relying on a quantifier shift fallacy. Unfortunately, Jantzen neglects possible rescues of the Fifth Way involving resources from Aquinas's metaphysics not explicitly invoked in the snippet he quotes from *Summa Theologica* (e.g., Feser 2013).

The golden age of natural theology, according to Jantzen, was more or less from 1650 to 1850, and four chapters of the book are consequently devoted to tracing the ascendancy of design arguments during the Scientific Revolution. He discusses design arguments to be found in Boyle, Bentley and Newton, Nieuwentyt, and Ray and Derham, showing their increasing popularity, sophistication, and proliferation. It is both refreshing and valuable that he casts his net widely, also including in his catch what he terms 'unusual' design arguments—Berkeley's from the linguistic character of vision, Reid's and Whewell's from the direct perception of design, and Hutcheson's from beauty—showing how the argument flowered in surprising ways.

Hume's critique of design arguments in *Dialogues Concerning Natural Religion* receives its own chapter. Properly wary of claims that Hume demolished design arguments for once and for all, Jantzen reaches the plausible verdict that '[t]here are other types of design argument that, while seriously challenged by Hume, are not obviously defeated by him. In fact, Hume provides some of the most important rebuttals to his own critique, rebuttals that others like Paley will use to keep design arguments alive' (p. 99). Unsurprisingly, Paley's design argument in *Natural Theology* receives its own chapter as well. A particularly appealing feature of the chapter on Paley is the care with which Jantzen distinguishes and assesses different ways of understanding the form of Paley's argument, ultimately reading it as a deductive inference based on premises inductively justified by experience (p. 131).

After Hume and Paley, Darwin. Just two days before the publication of the *Origin of Species*, Darwin confided to a correspondent, 'I do not think I hardly ever admired a book more than Paley's Natural Theology: I could almost formerly have said it by heart'. Yet, as Jantzen meticulously explains, by showing how natural selection unguided by intelligence is capable of producing the adaptive features of organisms, Darwin undermined a key premise in Paley's design argument. And after Darwin there follows a chapter disarmingly entitled 'Loose Ends', which discusses a variety of issues, including attempts to rescue the argument from purpose using teleology, which Jantzen ultimately assesses as unpromising; the limits of what design arguments can tell us about God which broadly agrees with Mill's 'Theism'; and the allegation that Paley plagiarized Nieuwentyt's *The Religious Philosopher*, which Jantzen is inclined to credit.

In what follows, Jantzen turns his attention to contemporary design arguments, starting with the likelihood approach, as influentially discussed by Elliott Sober. A likelihood design argument would claim that the probability of a particular observation is greater given the hypothesis of design rather than a hypothesis not involving design, and conclude only that the observation favors design over the alternative. Like Sober, Jantzen is unimpressed with likelihood arguments, although he is skeptical of

Sober's view that such arguments necessarily fail in cases in which there is no independent evidence about what the goals and abilities of the supposed designer would be.

Three chapters are then devoted to the arguments of the intelligent design movement. Chapter 12 addresses Michael Behe's argument from irreducible complexity. A system that performs a function is irreducibly complex if it would be impossible for it to perform its function if any of its parts were removed; Behe contends that such systems could not have arisen through evolution by natural selection and that they therefore must have been designed. Jantzen convincingly, if unoriginally, argues that the argument founders on the possibility of a shift in function. The chapter ends with a less convincing discussion of falsifiability. Jantzen errs not only in attributing a preoccupation with the issue to Behe, who discussed falsifiability in detail only once, but also in confusing the question of whether claims about irreducible complexity are falsifiable with the question of whether claims about intelligent design as such are falsifiable.

The following chapter discusses William Dembski's arguments from specified complexity, which—as Jantzen ruefully acknowledges—are permeated with ambiguity and confusion, requiring a substantial effort of reconstruction and interpretation before any assessment is possible. Ultimately, the assessment offered is negative. Jantzen proceeds, in Chapter 14, to explore ways in which the modern sciences of complexity might aid the development of design arguments—in particular arguments from order. In the absence of a rigorous and objective definition of complexity appropriate for the purpose of such arguments, the discussion is necessarily impressionistic and speculative, but because complexity turns out often to be the product of simple laws of nature, Jantzen concludes that the prospects are dim—unless, that is, there is a way of arguing that the existence of simple laws of nature that generate complexity itself betokens design.

Following the route thus indicated, Jantzen turns his attention to laws of nature. In Chapter 15, in discussing Del Ratzsch's work, he concludes that the best argument for the existence of a supernatural designer would cite the violation of a law of nature. But he argues, in the style of Reichenbach's vindication of induction, that the strategy of never accepting that a law of nature is violated by a supernatural agent is preferable on pragmatic grounds to the alternative: 'Someone following the second strategy could still be tricked into attributing supernatural agency to the wrong events because she would discontinue the search for better laws too soon' (p. 257). In Chapter 16, he offers a tour of the laws of nature invoked in fine-tuning design arguments, found in classical mechanics, quantum mechanics, special relativity, general relativity, quantum gravity, and quantum field theory.

Jantzen's discussion of fine-tuning design arguments is brief but excellent. He offers expositions and critiques of a representative handful of fine-tuning design arguments from Paul Davies, William Lane Craig, and Robin Collins, finding none to be convincing. He then turns to consider criticisms of the very idea of fine-tuning, addressing mathematical concerns, observational selection effects, and the important, usually neglected, point that it presupposes a substantial and contentious view of the laws of nature. Appropriately, there is no definitive verdict offered here: 'The purpose', Jantzen explains, 'is not to motivate dismissing the question of fine tuning, but rather to clarify the sorts of commitment that come along with answering it' (p. 310).

There are ways in which the historical ambitions of the book are not fully realized. Jantzen inaccurately describes Berkeley's idealism as holding that 'only ideas exist' (p. 80), misspells Alfred Russel Wallace's middle name (p. 138), and misdates the earliest claim of Paley's plagiarism (p. 168). While no errors seem to have resulted, it was disconcerting to see a plethora of references to Frederick Copleston's half-century-old *A History of Philosophy*. And it is disappointing that there is no bibliography of further reading: a reader hoping for a modicum of guidance to, say, modern defenses of the Fifth Way, Kant's reaction in the *Critique of Pure Reason* to what he called the physico-theological argument, Lawrence Henderson's early fine-tuning classic *The Fitness of the Environment* (1913), Richard Taylor's revival of Berkeley's design argument, or the substantive body of literature critical of the intelligent design movement is doomed to disappointment.

The reliance on Copleston's history and the lack of a bibliography of further reading is unsurprising, though, because Jantzen's approach throughout the book is resolutely philosophical. Even when he takes a stand on a historical matter, his treatment is limited. In crediting the accusation that Paley plagiarized Nieuwentyt's *The Religious Philosopher*, for example, Jantzen fails to observe that Paley was accused of plagiarism at least twice during his lifetime, to consider the possibility of different sources (such as Derham's *Physico-Theology* and Howe's *The Living Temple*, both of which were cited in similar accusations against Paley), or to address the idea that Paley's originality consisted in constructing a design argument particularly suitable for the ongoing Industrial Revolution. The comparatively ahistorical approach of Jantzen's book is a limitation, to be sure, but it is emphatically not a failing.

Indeed, despite the carps and cavils offered here, *An Introduction to Design Arguments* succeeds admirably in its aim of presenting a comprehensive survey and assessment of design arguments. With his predecessor Lewis Ezra Hicks, writing *A Critique of Design-Arguments* in 1883, Jantzen might have announced, 'Instead of constructing a new design-argument, or revamping an old one, I have assumed the task of the reviewer and critic. Instead of heaping new material upon the mass, I have undertaken to sort out and label the elements of the heap which has already accumulated'. And like Hicks he would have been justified in claiming a complete success. Throughout the book, Jantzen's prose is clear, his explanations are cogent, his arguments are judicious, and his examples are not only helpful but also engaging. For tyro and for specialist alike, *An Introduction to Design Arguments* is a book that it would be hard to read without intellectual benefit.

Glenn Branch
National Center for Science Education
branch@ncse.com

References

Feser, Edward. 2013. 'Between Aristotle and William Paley: Aquinas's Fifth Way', *Nova et Vetera* 11.3: 707-49.

Henderson, Lawrence. 1913. *The Fitness of the Environment* (New York: Macmillan).

Hicks, Lewis Ezra. 1883. *A Critique of Design-Arguments* (New York: Scribner's Sons).

Sedley, David. 2008. *Creationism and its Critics in Antiquity* (Berkeley: University of California Press).

Shermer, Michael. 2003. *How We Believe* (New York: Henry Holt).