According to Peter King's entry on Abelard in the *Stanford Encyclopedia of Philosophy* (https://plato.stanford.edu/entries/abelard), "Abelard . . . devised a purely truth-functional propositional logic . . . and worked out a complete theory of entailment . . . (which we now take as the theory of logical consequence)." This description, however, is not entirely correct. Unlike later medieval logicians—for example, Walter Burley and William Ockham—Abelard did not systematically investigate the logic of the propositional connectives of negation, conjunction, disjunction, implication, and equivalence. Furthermore, for Abelard, some of these connectives are modal or "intensional" operators and not just "extensional," truth-functional operators. Yet, as Binini emphasizes, Abelard's theory of conditionals constitutes "one of his most important logical results" (309). Unfortunately, her exposition of this theory remains fragmentary. She only mentions the distinction between two kinds of implications (or "two senses of necessity," 226) but remains silent on the question of whether Abelard's introduction of a natural implication, which was meant to avoid the paradoxes of strict implication, was eventually successful or not. Similarly, Binini does mention Abelard's distinction between "extinctive" and "separative" negation (161), but she fails to discuss whether there is a real logical or semantic difference between them. This failure also has a negative impact on her exposition of Abelard's theory of opposition (of the categorical forms). Following a proposal by Christopher Martin ("Logic," in *The Cambridge Companion to Abelard*, ed. Jeffrey Brower [Cambridge: Cambridge University Press, 2004], 168), Binini arrives at a revised "*square* of opposition" (146), while Abelard's views are better represented by an *octagon* of opposition (as it had first been suggested by Pieter Seuren, "Does a Leaking O-Corner Save the Square?," in *Around and Beyond the Square of Opposition*, ed. Jean-Yves Béziau and Dale Jacquette [Basel: Springer, 2012], 129–38). In light of these deficiencies, the reader of Binini's book must not expect a complete picture of Abelard's modal logic. Fortunately, details of Abelard's "normal" logic can be gathered from another book that happened to be published almost simultaneously with Binini's: Wolfgang Lenzen, *Abaelards Logik* (Paderborn: Brill/Mentis, 2021).

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Matthew Homan. *Spinoza's Epistemology through a Geometrical Lens*. London: Palgrave Macmillan, 2021. Pp. xv + 256. Hardback, €114.39.

Like most, if not all, of his contemporaries, Spinoza never developed a full-fledged philosophy of mathematics. Still, his numerous remarks about mathematics attest not only to his deep interest in the subject (a point that is also confirmed by the significant presence of mathematical books in his library), but also to his quite elaborate and perhaps unique understanding of the nature of mathematics. At the very center of his thought about mathematics stands a paradox (or, at least, an apparent paradox): Mathematics provides Spinoza with an epistemic model. Mathematical knowledge is certain (Spinoza, *Opera*, ed. Carl Gebhardt [Heidelberg: Carl Winters UniversitätsBuchhandlung, 1925], referred to as G and cited by volume.page.line number; G II.138.9 and II.138.9), clear (G IV.261.8), and free from teleological thinking (G II.79.33), but the objects of mathematical knowledge—namely, mathematical entities—are nothing but "*auxilia imaginationis* [aids of the imagination]" (G IV.57.16 and II.83.15; citations are from *The Collected Works of Spinoza*, trans. Edwin Curley, 2 vols. [Princeton, NJ: Princeton University Press, 1985–2016]), entities that are not real and merely assist the imagination in carving up the world in a manner that is suitable to our limited and distortive cognitive capacities.

Matthew Homan's new book is a study of Spinoza's epistemology "based on an interpretation of the epistemic and ontological status of mathematical entities in Spinoza" (4). The book has many virtues. It is well written, clear, and highly informed by the secondary literature. For the most part, Homan defends his claims through serious engagement and

consideration of objections and alternatives to his reading. The book is also quite ambitious in its scope as it describes Spinoza's response to skepticism, his view of the ontology of mathematics, his scientific methodology, his understanding of essence, and the notion of *scientia intuitiva*, the highest kind of cognition in Spinoza's epistemology. It is impossible to do justice to such a book in a brief review. For this reason, I will focus my discussion here on two critical points: one related to Spinoza's understanding of mathematics, the other to his understanding of the proper order of philosophizing.

According to Homan, Spinoza is a (weak) *realist* about mathematics and mathematization. He defines this notion of realism as the thesis "that all finite bodies in nature are geometrical inasmuch as they have some figure—whether circular, triangular, or what have you—just by virtue of being spatially extended" (8). Thus, to count as a genuine realist it would suffice to assert that "bodies must have one kind of shape or another" (9). This radically relaxed definition of mathematical realism includes even views that assert that mathematical entities "exist [only] as properties of bodies" (8), as long as these entities (or properties) are mind-independent (views of this latter kind Homan calls "*weak* realism" [8]). According to Homan, the category of weak realism encompasses not only the views of Aristotle and his followers, but also those of Pierre Gassendi, Thomas Hobbes, and even Spinoza (9).

One might question the analytical benefit of employing such a deflationary definition of mathematical realism (few philosophers will count as nonrealist under this definition), but for my part, I was still unsure whether Spinoza would count as a realist even under Homan's permissive definition. In one of his late letters, Spinoza notes that geometrical shapes are just "beings of reason, and not real beings" (G IV.335.4). Addressing this passage, Homan suggests that Spinoza might be referring in this passage only to shapes that are abstracted from concrete bodies, while shapes that are embedded determinations of concrete bodies are—so claims Homan—real (148; cf. 70). Unfortunately, Homan provides hardly any textual support for the suggestion that Spinoza draws such a distinction between different conceptions of shape. Moreover, one may wonder in what sense embedded shapes are the objects of mathematics (prima facie, geometrical proofs seem to be indifferent to the fact that a shape is embedded in this rather than that body).

Let me now move to the issue of the order of philosophizing. According to Homan, Spinoza follows a philosophical method comprised of two main moves: "We begin with ideas that have . . . all the intrinsic characteristics of true ideas, but whose actual correspondence with real objects in nature is dubitable. On the basis of these first true ideas . . . , we proceed as quickly as possible to attain knowledge of God. Upon attaining knowledge of God, we have touched ground (or made contact), as it were, have no further doubts about the truth of our ideas" (36–37). Homan characterizes this method as exhibiting "a distinctly Cartesian dynamic" (36), and indeed, commentators who read Spinoza as a more-or-less Cartesian philosopher tend to offer a similar picture. The problem with this picture is that it is hard, perhaps impossible, to reconcile with Spinoza's own claims about the "proper order of philosophizing" in part II of the *Ethics*. In this crucial text, Spinoza does not mince words in criticizing those who "believe that the divine nature—*which they should have contemplated before all else* (*because it is prior both in knowledge and in nature*)" should be contemplated after other things (*E* IIP10s, emphasis added). Arguably, for Spinoza, it is impossible to know anything before knowing God (here, I suspect Homan would agree with me), and if one directs one's mind toward the knowledge of other things—whether this is the *cogito* or knowledge of the senses—and only then contemplates divine nature, the unavoidable result is a failure to achieve knowledge of both God and everything else (*E* IIP10s, G II.93.34–94.4). For all I can tell, Descartes is at least one of the targets of this criticism (*E* IIP10; the proposition of this scholium seems to be targeting Descartes's claim that the human mind is a substance). It would have been interesting to see how Homan responds to this passage, but regrettably—and unlike his typically thorough discussion of other issues—he does not address it at all.

I have some other disagreements with Homan's interpretation, but this is undoubtedly a serious, substantial, and excellent work, and a very valuable contribution to the study of Spinoza. I have benefited much from engaging in the study and consideration of Homan's innovative interpretation, and I would highly recommend the book.

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Diego Lucci. *John Locke's Christianity.* Cambridge: Cambridge University Press, 2020. Pp. 244. Hardback, $99.99.

Diego Lucci's *John Locke's Christianity* is a fabulous work of scholarship—meticulously researched, well argued, and judicious. It should be required reading for everyone interested in John Locke's thought.

In the introduction, Lucci aligns himself with John Dunn (*The Political Thought of John Locke: An Historical Account of the Argument of the "Two Treaties of Government"* [Cambridge: Cambridge University Press, 1969]), John Colman (*John Locke's Moral Philosophy* [Edinburgh: Edinburgh University Press, 1983]), and Victor Nuovo (*John Locke: The Philosopher as Christian Virtuoso* [Oxford: Oxford University Press, 2017]), who believe that Locke was a "*Christian* philosopher" whose "theological concerns, interests, and ideas indeed pervade his philosophical, political, and moral thought" (5, emphasis in the original). *John Locke's Christianity*, however, is not a book that defends that thesis. It is much more focused and does, basically, just what its title advertises—it provides a systemic and detailed analysis of Locke's core Christian beliefs, and a very excellent one at that.

The book is structured around two pillars. The first, consisting of chapters 1–3, involves a contextualized analysis of Locke's theological writings, particularly *The Reasonableness of Christianity* and *Adversaria Theologica.* This analysis is then used to reconstruct Locke's conception of the fundamentals of Christianity. The second pillar, consisting of chapters 4–6, then uses this reconstruction to explain puzzling features of Locke's engagements with personal identity, the Trinity, and religious toleration. Lucci's reconstruction of the fundamentals of Locke's Christian beliefs are novel, interesting, and compelling. Furthermore, he uncovers details that materially affect the interpretations of Locke's philosophical accounts of persons and religious toleration, so much so that many popular interpretations begin to look strained after reading Lucci's analysis. Philosophers unaccustomed to considering the theological basis of Locke's account of persons or the Christian significance of religious toleration will now need to engage with Lucci's accounts.

Locke famously offered a succinct conception of Christianity: to be a Christian is to believe that Jesus was the Messiah. Lucci shows that this conception, though economical, was by no means thin. At its core was the idea of a moralist soteriology. The promise of eternal life for those who accepted Jesus as the Messiah (and who also strove to follow the law of nature) was vital to morality, in Locke's eyes, because it was only with such an inducement that depraved humans would have firm reason to try to follow the law of nature. In Locke's eyes, Christianity, and only Christianity, offered this inducement to followers of the laws of faith and the laws of nature because of the resurrection of Christ. Lucci's moralist soteriological understanding of Locke's conception of the fundamentals of Christianity differs significantly, for example, from Nuovo's presentation of it ("Locke's Christology as a Key to Understanding his Philosophy," in *The Philosophy of John Locke*, ed. Peter Anstey [London: Routledge, 2003], 129–53), which Nuovo identifies Locke's Christology as "the central and organizing principle of his theology" (129).

Lucci also provides an excellent answer to one of the enduring questions about Locke's Christianity: was he a Socinian or an Arminian? Against the common view that he is somewhere between the two by being a bit of both, Lucci argues that Locke was in fact neither a Socinian nor an Arminian; Locke rather maintained a unique, irenic position