Richard T.W. Arthur. *Monads, Composition, and Force. Ariadnean Threads Through Leibniz's Labyrinth*. Oxford: Oxford University Press, 2018. Pp. xv + 239. Cloth, \$80,00.

Leibniz describes the problem of the composition of the continuum as one of the two famous labyrinths of the human mind. (The other concerns freedom.) The problem in brief is that matter and motion appear to be continuous and thus would seem to be composed of an infinity of spatial or temporal points, which is absurd. Leibniz's strategy for escaping from this labyrinth involves distinguishing the realm of the real or actual from that of the ideal. In the former, there is composition from parts but no continuity: everything is discrete, even though divided to infinity. In the latter, there is genuine continuity but no composition, the whole being prior to the parts. Since the two realms are disjoint, there is never any continuum composed of points.

Leibniz maintains that this solution requires us to think very differently about the nature of space, time, bodies, and substances, and in particular to posit an infinity of *simple* substances or monads. The main aim of this historically rich and interpretively provocative book is to explain why Leibniz says such things by examining his purported solution and how he arrived at it. Each of the book's seven chapters focuses on a different "Ariadnean thread" that supposedly helped Leibniz find his way out of the labyrinth. They concern the themes of "composition, aggregation, atoms, forms, motion, substance, and continuation in existence" (6).

A central theme of the book is that Leibniz should be viewed as a realist about bodies rather than an idealist. On Arthur's reading, bodies are (in themselves) phenomena in both a synchronic (or Democritean) sense, according to which they lack true unity at any given moment, and a diachronic (or Platonic) sense, according to which no body remains precisely the same being for more than a moment. But they are not phenomena in the sense of having their being in perceptions: to the contrary, they have a real, extramental existence. Every body is either an organic body or composed of organic bodies. Each organic body in turn has a substantial form or dominant monad, which makes it actual, though without unifying its parts into a substantial whole at any one time. The composites of these two—organic body and dominant monad—are identified as corporeal substances, and on Arthur's view Leibniz steadfastly affirms their existence throughout his mature period.

As to why Leibniz's solution to the problem of the composition of the continuum requires positing monads, Arthur offers two reasons. As I

understand them, both hinge on the claim that matter and motion, being real, must be actually divided into parts, this being what makes them discrete rather than continuous. Leibniz holds that the actual divisions in matter must result from different motions within it. These motions in turn presuppose motive forces and ultimately what he calls primitive active force, which can be found only in simple substances. So the actual divisions in matter presuppose monads. Furthermore, it is because of the discrete or actually divided nature of matter and motion that bodies do not strictly speaking persist for more than a moment, and thus that accounting for the enduring nature of the corporeal substance requires positing some indivisible (i.e., simple) principle of diachronic unity, some principle that "constitutes a [corporeal] substance as the same substance through time despite the fact that its body is not precisely the same body from one moment to another" (69).

Arthur criticizes the idealist reading for being unable to explain why Leibniz's solution to the continuum problem requires monads. One might wonder, however, why a suitably nuanced version of the idealist view could not readily accommodate something like Arthur's own explanation. Even if bodies have their being only within perceivers, they could still be actually divided into parts by different motions within them. These motions could still be caused by motive forces that likewise have their being in perceivers. And these phenomenal forces could still be supposed to require a foundation and thus to presuppose the primitive forces in monads. Similarly, even if organic bodies have their being only in perceivers, they could still be considered to endure through countless changes in virtue of being founded (in part) on some one dominant monad.

More generally, I find Arthur's criticisms of the idealist reading to be a bit too quick and dismissive, and his characterizations of that view at times tendentious, as for example when he portrays it as supposing that bodies are "eliminatively reduced" (228, 285, 291) and do not actually exist (2, 17). The fact nonetheless remains that this book contains much of value. It should be essential reading for anyone interested either in Leibniz's thinking about the continuum or in the origin and development of his metaphysics.

STEPHEN PURYEAR

North Carolina State University