Melissa Lo, *Skepticism Pictures: Figuring Descartes's Natural Philosophy*. Philadelphia: Penn State University Press, 2023. 230 pp., 70 b&w illustrations. ISBN: 9780271094823.

On page 26, Melissa Lo rewrites a crucial aspect of René Descartes's philosophy, as she deals with his explanation of the rainbow. Historians have traditionally used this case to outline Descartes's success in applying a mathematical model to the knowledge of natural phenomena. Indeed, this interpretation is correct, because Descartes applied trigonometry to the knowledge of this phenomenon, as the table of calculations uncovers. Yet, there is more. Lo shows that Descartes's purely mathematical (or rational) epistemology does not work entirely in explaining the rainbow, and that he needed to combine experimentation with deduction, which he did by combining "multiple graphic strategies for working through natural-philosophical problems" (p. 32). This results in a different picture of Descartes's philosophy, which cannot be reduced to a pure mathematization of nature, nor to a radical suppression of the existing world, as occurring in the "stove-heated room." In this sense, Lo's monograph is an important addition to the recent understanding of Descartes's philosophy, (1) securing epistemological certainty to observation/visualization/imagination as long as it is accompanied by true reason, (2) and revealing his connection to the scientific milieu of the Dutch Republic.

Lo's investigation into Descartes's epistemic uses of illustration outlines a fresh and intriguing way of approaching his philosophy. The author grounds her claim on the accepted thesis that figuration (imaging) was an important epistemic tool in pre-modern science or natural philosophy, and she explores how much this applies to Descartes too, that is, to a rationalistic philosophy of nature. On the one hand, illustrations confirm what natural philosophy was about to become, i.e., a mechanization of nature; on the other hand, illustrations show the general attempt to visualize nature in the age of the crisis of representation, as she suitably calls it. If Descartes was one of the advocates of this crisis (as he rejected the scholastic identification of objects and sensation/imagination), Lo succeeds in revealing the centrality of illustrations in Descartes's whole enterprise—the book collects 70 pictures—therefore smoothing the tension in the seventeenth-century destruction of the epistemological identity between vision and thinking. She analyses Descartes's illustrations in relation to the conflict between words and images, and she goes on to an alternative interpretation, which is epistemically fruitful and helps to shape seventeenth-century natural philosophy.

As Lo shows, Descartes employed illustrations not merely as embellishments of his texts or to assist the reader, but as true epistemic tools. This implies: (a)

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visualising nature and experiments, (b) combining mathematics and experimentation, (c) showing the shortcomings of scholasticism in identifying sensation and object of sensation. Illustrations, therefore, are crucial resources for Descartes's philosophical programme.

The author discloses Descartes's philosophical involvement with illustrations in 5 chapters. In chapter 1, she deals with Descartes's essays, in which a combination between geometry and illustrations clearly surfaces—both the rainbow and the eye show a connection between geometrical diagrams (of moving particles) and a visual representation of nature. More importantly, Lo proposes that Descartes learnt to draw during his first visit in the Netherlands, while he was enrolled as a mercenary in Prince Maurice's army—a letter to Beeckman testifies to this interest (p. 17). In chapter 2, she focuses on Descartes's vortices picture and its legibility, which reveals a fascinating combination of geometry and cosmic geography. Then, Lo deals with Cartesian reception of this feature. In chapter 3, she discusses Jacques Rohault's notational figures, somehow deviating from Descartes's illustrations. In chapter 4, the author explores realistic illustrations in Wolferd Senguer's *Philosophia naturalis* (1685). Finally, in chapter 5, Lo examines Gabriel Daniel's *Voiage du monde de Descartes* (1690), in which the author mocked Cartesian philosophy as a speculation.

In sum, Melissa Lo's book is an important reading for historians of science and philosophy, both undergraduates, graduates, and senior scholars. Besides a few gaps, as there is for example little on Descartes's biomedical manuscripts (which allegedly contain *his own* drawings) and on the *Meditationes*, she has well managed to present Descartes's philosophical illustrations. Indeed, the book (1) attracts the reader's attention in an easy-to-read form—although perhaps illustrations could have put at the end of the text, since she refers to the same picture in multiple parts of the text—(2) goes beyond the recent literature on illustrations in Descartes's philosophy (Bellis, Lüthy, Zittel, and Sepper, among others), and (3) provides a new, fascinating and consistent picture of Descartes's natural philosophy.

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