On Methods, Volume 1: Books I–II. Jacopo Zabarella. Ed. John P. McCaskey. The I Tatti Renaissance Library 58. Cambridge, MA: Harvard University Press, 2013. xxvi + 324 pp. \$29.95.

On Methods, Volume 2: Books III–IV; On Regressus. Jacopo Zabarella. Ed. John P. McCaskey. The I Tatti Renaissance Library 59. Cambridge, MA: Harvard University Press, 2013. 470 pp. \$29.95.

This book is an edition and translation into English of Jacopo Zabarella's works *De Methodis* and *De Regressu*. In the introduction, the editor offers some biographical information on Zabarella, a summary of the contents of the four books into which *De*

Methodis is divided, and a summary of De Regressu. Finally, a brief section of the introduction is devoted to "Zabarella's opponents and spirit" (xxiv). The potential audience of this book is the cultured general public, college students, and scholars who do not have access to Zabarella's original writings in Latin.

In the introduction, McCaskey points out, correctly I believe, that the philosophical debates raised by Zabarella's works have been hindered by a general lack of texts, and that the present edition will offer an opportunity for historians and philosophers to address this serious lacuna. Indeed, some scholars have seen the natural philosopher Giacomo Zabarella (1533–89) as a precursor of Galileo, and his logical theories as an anticipation of modern scientific method (J. H. Randall Jr., *The School of Padua and the Emergence of Modern Science* [1961]). Others, on the other hand, have insisted that Zabarella's logical methodology never foreshadowed the physical-mathematical methodology of the Galilean New Science, with its emphasis on controllable experiment, let alone the so-called modern scientific method, a framework of concepts, ideologies, and practices that was forged in the nineteenth century.

There are scant notes to the translations and a very succinct bibliography. The notes do not offer much in terms of philosophical and historical commentary. In the introduction, McCaskey suggests that if "Zabarella anticipates any major figure in the emergence of modern science, it is Descartes. For both, scientific knowledge can be obtained only by deductive inference from premises made clear and distinct using only cognitive reflection and insight" (xxiv). In my view, in his practice of natural science Zabarella achieved a lucid separation between allegiance to reason and allegiance to Aristotle's authority, within the constraints of the Christian-Aristotelian framework of thought. Zabarella realized that he could practice natural science (scientia naturalis) according to Aristotle's mind (ad mentem Aristotelis), suspending the question of whether Aristotle's pronouncements could be reconciled with the truth of the matter, de facto weakening the concern with truth that had been operative until then in the late medieval philosophical tradition. This opening of a novel space for reason, or scientia, while the question of truth has been suspended, was a significant departure from the tradition of Christian scholarly exegesis on the Aristotelian corpus that had prevailed until the sixteenth century in Europe. Zabarella thinks that "in our time everybody seems to have agreed on this opinion, that body, in its broadest meaning, i.e., such that it comprises all things both celestial and sublunary, in so far as it is natural, that is, in so far as it has in itself a nature which is defined as a principle of motion, is the general subject of all natural science" (De Rebus Naturalibus, In Aristotelis Libros de Anima [1606-07], 3).

It was the emergence in Western Europe of the religious denominations that led to the disintegration of the medieval Christian unity and that thus created the social-psychological conditions for the possibility of calling into question the meaning of philosophical truth. The practice of allegiance to a denominational credo as a manifestation of religious orthodoxy and normality interrupted the epistemic stance of allegiance to truth per se that was available to earlier commentators such as Thomas Aquinas. Zabarella's works on logic and his natural-philosophical treatises should be seen

against the background of cognitive indeterminacy, indeed healthy disorientation, as to the question of truth that had ruptured the continuity of a Greco-Christian tradition in which philosophical inquiry was equated with inquiry about truth.

The overemphasis laid by twentieth-century scholars on Zabarella's theory of regressus as a precursor of modern scientific method, on which McCaskey's introduction draws attention, is rooted in the cognitive obsession with method, both as disciplinary and authoritarian constriction of the space of reason, that followed the disintegration of the European Christian unity in the aftermath of the Protestant and Catholic Reformations. Zabarella's own predicament throughout the *De Methodis* is above all a concern with the structure and phenomenology of a space in which scientia need not be equated with truth. I am not suggesting that this concern is necessarily reflected in conscious, programmatic statements by Zabarella that can be neatly framed and expunged from the overall context of his writings. I am rather suggesting that it can be recovered and belatedly put to work, here and now, in the twenty-first century, by following a hermeneutic pathway that recognizes the startling originality of Zabarella's mind as a manifestation of a life world torn asunder by genuine doubt — not so much the skeptical doubt of literary, disputatious Scholasticism, so much as the real fragmentation of conscience that devoured the European individual caught in the maelstrom of a mortal struggle for his or her own eternal salvation.

We might say that Zabarella has a notion of the operative truth of logical instruments, the tools that logic prepares for scientific investigation to be carried out. No matter how complex a logical instrument is, such as *regressus*, it cannot be true except in the sense of being operatively true. Its truth is warranted by the so-called first notions, or things, which are covered or veiled by it, but its range of applicability can only be determined empirically, exploring the domain in which the instrument's efficacy can be put to the test. Unlike a screwdriver, a logical instrument has an operative truth that is to a certain extent indeterminate. While a screwdriver is applicable to screws of a determinate type only (unless used improperly), for it fits certain screws but not others, a tool crafted by the logician just veils the things to which it is applicable. It does not fit them, that is, but has a domain of applicability that is not completely predetermined, for the functionality of the tool must be circumscribed empirically by putting the tool to the test.

In the course of the mental examination, the crucial stage of the workings of *regressus*, we encounter a violation of the rules that we are normally supposed to follow in syllogistic demonstrations because the mental examination that Zabarella theorizes transgresses the boundaries of both *demonstratio quod* and *demonstratio propter quid* (the only two types of syllogistic demonstration allowed by Zabarella). This sophisticated logical instrumentalism does not lead the radical Zabarella, who demolished Aristotle's pious demonstration of the eternal motor in the eighth book of *Physics*, to regressivism. On the contrary, it pushes him on to the threshold of a space of reason that modernity, the physical-mathematical and experimental project inaugurated by Galileo, would renounce. This project has never negated the Greco-Christian equation of truth and philosophical inquiry, but has brought Western civilization to embrace genocidal

technologies, to experiment with colonialism, and finally to wishfully hope for a technological solution to the ecological crisis. Perhaps the time is ripe for a moratorium on this fantasy. We must be grateful to the editor of this book for bringing to our attention one alternative worldview that Zabarella could still contemplate.

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