

Konrad Moll, *Der junge Leibniz III. Eine Wissenschaft für ein aufgeklärtes Europa: Der Weltmechanismus dynamischer Monadenpunkte als Gegenentwurf zu den Lehren von Descartes und Hobbes*. Stuttgart - Bad Cannstatt: Frommann-Holzboog, 1996, 301 pp.

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Depending on one's point of view, Leibniz's early philosophy can either be regarded as preparing the conceptual foundation for the development of the later theory of monads or as an intellectual period in its own right, fascinating in itself, since Leibniz here probably more than later allows the free run of his genius. Irrespective of approach, it has, however, to be said that up to recently this period in Leibniz's thought has not received the attention it deserves.

A notable exception to this is the seemingly tireless work on the young Leibniz carried out by Konrad Moll since the publication of the first volume of *Der junge Leibniz* in 1978. The second volume, focussing on the young philosopher's relation to Gassendi, appeared in 1982, and now the long-awaited third and final volume has finally been published. It is simply with the third volume that this review is concerned.

There are two central aspects to this thought-provoking book. Firstly, Moll seeks to show how Leibniz, when correctly understood, can provide an alternative model of science to that of Descartes, whose dualism permitted the growth of a purely pragmatic scientific ideal, lacking in ethical—and by implication—ecological considerations. Secondly, and this is potentially equally controversial, he presents an interpretation of Leibniz's early philosophy in which the roots of the latter are traced back to Pythagoras and the neo-platonic commentator Proclus—claiming that their influence played a decisive role in his understanding and reformation of concepts found in Hobbes, Kepler, and Cavalieri. The philosophy of the young Leibniz appears thus as a crucial stage on the path leading up to the development of the mature position in the sense of the *Monadology*. In the following I shall discuss these aspects separately.

Although Moll, as he emphasizes, does not seek to push back science, he views its current state with deep pessimism. The potential dangers represented by genetic manipulation and ecological destruction he regards as being a direct consequence of the success of the Cartesian *Weltbild* in the seventeenth century. Dualism effectively enabled the mind to be taken out of nature, allowing scientific activity to be pursued along purely pragmatic lines. This in turn has led to what Moll calls

the “Balkanization” of science, that is to say the disconnection of disciplines, and correspondingly the loss of unity.

Leibniz, according to Moll, stands for a contrastingly different tradition, namely one in which ethical and scientific considerations are closely intertwined—an “integrated scientific ethos” or a “universalistic approach,” as he variously calls it (p. 58, 64). And whereas this can easily be overlooked in respect of his mature thought, in the philosophy of the young Leibniz there is an unmistakable mutual penetration of philosophical and scientific considerations (p. 16).

It is this which in Moll’s view makes Leibniz’s early thought so significant for the current debate on scientific practice. All the more so, since science today would again appear to be in a Kuhnian pre-revolutionary phase, as characterized by its lack of conceptual definition. Reflexion on Leibniz’s thought can provide orientation in the search for a new paradigm, thereby effecting—this is Moll’s hope—the ethical recovery of science and the return of a sense of responsibility.

Already in this respect Kepler emerges as a significant figure, as a scientist who, like Leibniz later, thought intensively about the relationship between science and ethics (p. 40). Indeed, he is seen as having had a deep influence on the author of the *Theoria motus abstracti* either directly or through the lectures and writings of Erhard Weigel, under whom Leibniz studied for a while in Jena. The connection between Weigel and Leibniz was the focal point of the first volume of *Der junge Leibniz*, but it is a topic to which the author since then has repeatedly returned. In particular, Moll argues that Kepler, who himself is shown to have been imbued with important elements of neo-platonic and Pythagorean thought from Proclus, provided inspiration for the dynamization (*Dynamisierung*) which so strongly distinguishes Leibniz’s concept of substance from that of Descartes. He also represents the source of a concept of mathematics into which metaphysical and religious aspects are integrated and whose demise in favour of a mathematics based on “optimal exactitude” likewise contributed to the modern neutralization of ethical considerations.

Now all this is clearly well-intentioned and admirable, but against it I would maintain that neither for Descartes nor for Leibniz were ethical considerations in the sense proposed by Moll authoritative in respect to the application of science, the importance of which is stressed equally by both philosophers. Of course one could point out that in the case of Leibniz, application is couched in terms of the ensuing benefit for mankind, but I do not regard this as being sufficient for Moll’s purpose. Furthermore, I know of no evidence—and Moll himself does not supply any—which shows that Leibniz subscribed to the metaphysically-impregnated math-

ematics the author suggests, although he certainly did emphasize applicability in the context of mathematical practice. And again, I have to admit that I am far from convinced that the blame for the particularization of science—assuming blame is to be apportioned at all—can be placed quite so squarely at the door of Descartes. The loss of scientific unity which began to take effect already in the late seventeenth century represents the quasi-emancipation of science from philosophy and this had its roots surely in the fact that disciplines were able to define standards of truth increasingly on their own terms, and that is to say largely through their very success. Nevertheless, if science has indeed reached a juncture of the kind Moll refers to, clearly philosophy can again provide an important point of reference.

Emphasizing the distance between Leibniz's and the French philosopher's thought turns out to be crucial to the second aspect of Moll's book, which indeed is introduced as "an alternative to Descartes" (p. 83). Centre stage thereby is the Leibnizian concept of substance, which is interpreted as combining both neo-platonic and mechanistic elements. The key to this interpretation is the ancient concept, quoted often by Leibniz, that a line is generated by the flux of a point, a plane by the flux of a line, and so on. By drawing on Proclus, Moll believes he is able to give added significance to the references Leibniz makes. In the *Commentary on the First Book of Euclid's Elements*, we learn that the flux involved "expresses the result, whereas the generating force, which stretches over all extension and yet remains unchanged, provides the divided things with their being" (quoted p. 96). Interpreted in the light of this concept, points in Leibniz's early philosophy are seen to be dynamically expanding in space. In this way points represent the "starting-point" of all bodies: without points neither the beginning nor the end of movement or body could be conceivable. Kepler is for Moll possibly the mediator of this concept, since he speaks similarly of the line as "the basic element of corporeal form," and holds that "the original bodies result from the movement of point" (quoted p. 164).

What however makes Leibniz's concept of point unique is, according to the author, the fact that it involves a reformed, probably Hobbesian (although other sources are considered) concept of conatus. Indeed it is through conatus, for the understanding of which Moll regards Leibniz's liberal interpretation of the geometrical method of Cavalieri to be important, that the dynamization of points in the young Leibniz is explained. And on account of the significance of conatus for the early concept of mind, we see at the same time a spiritualization of being, enabling conatus to function as a forerunner to the dynamic individual of the later metaphysics. In this way it is argued that analysis of movement, conatus, and point leads to

the unity-creating monad of the mature period.

At the same time, Moll is able to provide a new interpretation of the *mens momentanea* concept found for example in the *Theoria motus abstracti*: “The conatus movements (*Regungen*), as the mental beginnings of all being form the basis of everything. If an infinitely small, non-spatial mental entity moves into the dimensionality of space, it becomes a bodily entity” (p. 199). Thus, the determination of the ontological difference between mind and body, together with the conception of mental activity through the realization of harmonies out of numerous conatus, are described as being the two fundamental data in respect of later developments in the philosopher’s thought (p. 257).

There are, it seems to me, serious difficulties with this reading of Leibniz. The *mens momentanea* interpretation assumes that conatus by its very nature is a mental thing, but if this were the case then the mind-body problem which Leibniz believes he has been able to solve—and simpler interpretations make this understandable—would return with full force. More basically, I find little if no support in the texts for a neo-platonic interpretation of points. Analysis of scholastic writings on the topic shows us that authors like Suarez, Oviedo and Arriaga were able to distinguish different types of point, but the concept of an actually divided point with *partes indistantes* as its parts, which Moll tentatively ascribes to Kepler, would appear to be an invention of Leibniz. He could otherwise scarcely have made such extravagant claims as he did about the results it was able to achieve to scholars who after all would probably have been acquainted with the earlier discussions. In addition, I question the assumption that the flux of a point has systematic importance for Leibniz. It would appear more likely that the references reflect the currency, even in the second half of the seventeenth century, of the debate concerning the *Quaestio de certitudine mathematicarum*. Indeed, Leibniz quotes the concept in his correspondence with Thomasius precisely in the context of this *Quaestio*.

Leibniz, in contrast to many of his contemporaries, was open to the wealth of ideas handed down by various schools. He read profusely from ancient, medieval and modern texts, but the extent to which he actually took the ideas of others on board is highly debatable. I confess I have difficulties with the sort of approach adopted by Moll. It seems to be based on the tacit assumption that an idea, even if it might seem novel, must have its sources in the literature available or in thought current at the time. Now Leibniz’s early solution to the mind-body problem was in my opinion highly innovative; it was conceived particularly as an answer to Hobbes and represented in effect a reversal of the latter’s materialism, by defining body in terms of mind. Nevertheless it failed, since mind and body were still very much on the

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same ontological plane. Leibniz was still a long way from his mature concept in which the essence of being is defined through force, as well as from the theory that metaphysically an individual corresponds uniquely to a complete concept.

In spite of these reservations over a number of aspects, there can, I feel, be no doubt that Konrad Moll, through his latest investigation, has made an important contribution to our understanding of Leibniz before his stay in Paris. Both in the text itself and in often long and highly detailed footnotes we find numerous acute and valuable observations on the interrelationships between science and philosophy and on the significance of neo-platonism in seventeenth-century thought. Clearly there are sides to the young Leibniz still to be discovered. Whether the neo-platonic connection can be further substantiated is something which future discussion will show. That a lively discussion will follow from this book is something that can be taken as assured.