

*Science and Ethics in Leibniz. A reply to Philip Beeley's  
review of "Der junge Leibniz III"*<sup>1</sup>  
by Konrad Moll

One of the merits of the review of the third and final volume of my "Der junge Leibniz"<sup>2</sup>, which Philip Beeley published in this journal two years ago [*Leibniz Society Review* 6 (1996): 155-59], is that it has provided a good platform for further discussion. In this short reply, I should like to focus on those points where we appear to differ in our interpretations of Leibniz's early philosophy: First, Leibniz's opposition to Descartes with regard to the nature of scientific activity, whereby the French philosopher's approach can be seen as having had disastrous consequences in the development of the sciences. Second, the question of whether science and ethics are fundamentally connected in Leibniz's thought. And finally, the historical origins and significance of the concept of the flux of points.

1. *Leibniz versus Descartes*. This can be regarded as one of the most basic problems in modern scientific historiography. Without doubt, on numerous occasions in the later writings of Leibniz, statements can be found in which he expresses his appreciation of the achievements of Descartes. Nevertheless, at other times he points to fundamental weaknesses—as he indicates for example with his *ceterum censeo*: that, in effect, Descartes made a good start, but never followed this up; he remained in the *antechambre* of philosophy, not least on account of his failure to develop dynamics (see III, 33f., 99). What lies behind this? Leibniz's criticism reflects his unhappiness at Descartes' destruction of basic anthropology and ontology by establishing what was indeed an extremely effective dualism—effective precisely because it made scientific activity easier. There is of course no doubt that despite Leibniz's objections to this dualism, an impressive scientific development took place in Europe on its very basis. I regard this success as being the product of an approach to science guided only by pragmatic considerations.<sup>3</sup> This was in many ways the easier approach: the disadvantage with the opposing Leibnizian philosophy is quite simply its complexity.

In my opinion A. R. Hall was right, when he attacked the pre-eminence of simpler philosophical solutions:

It was in a sense a bargain, attested by Descartes, that nature and the animals should be handed over to mechanistic science while God and the soul and all the ultimates rested with philosophers and divines. The intellectual world was carved into two provinces [...] it seemed no more that a corollary of the ancient distinction between matter and spirit.[...] Autonomy was restricted by

*Leibniz Society Review*, Vol. 8, 1998

the very purpose of natural philosophy [...] these limits were the product of an illusion.<sup>4</sup>

That sort of particularism could not work indefinitely, even if it did form the basis of rational scientific development for centuries. In addition, the Cartesian approach has been seriously called into question by discoveries in natural science itself, especially by the progress of quantum theory since Heisenberg. The late German physicist A. M. Klaus Mueller stated, with a view to reaching a new quantumtheoretical level of explanation (*Erklärungsplateau*), that scientists “should not close their eyes to the fact that science needs to be treated as an art, insofar as it should not irreparably predetermine the structure of the model of the system through perception and analysis.[...] When in a certain epoch there is a deformation of truth this can often only be corrected once its consequences have become overly threatening.”<sup>5</sup>

Miller was convinced that we were in our time reaping the consequences of unsolved problems which Descartes and his successors had sowed. I agree with him on this.

That is the main reason why in my opinion we are becoming increasingly aware of the need to adopt a holistic approach and at the same time to reject Cartesian dualism. This is part of the current importance of Leibniz. Here Mueller and I find ourselves in the good company of 20th century English authors such as A. N. Whitehead, who tells us that “Wir sehen, wie Descartes sich auf das Fundament seines eigenen Geistes stellt [...] Da sind Aarons Stab und die Schlangen des Magiers, und die einzige Frage für die Philosophie ist: wer verschlingt wen? Falls sie nicht—wie Descartes meinte—alle glücklich zusammenleben.”<sup>6</sup>

Or let us recall Leroy Loemker’s words on Descartes and Malebranche: “Descartes’ dualism is [...] not ultimate, but Malebranche’s passivism is also wrong.”<sup>7</sup> And one of his conclusions is surely correct, too: “Leibniz’s thought was largely ignored in the popularizing, pragmatically-oriented ‘Age of Reason’ of the 18th century.”<sup>8</sup> But now, he continues, “if the restoration of science to its proper place in a humanistic and moral culture is our chief problem, Leibniz, who sought the common principles underlying the realms of nature and grace [or as one may say, freedom—K.M.], is our man.”

In France, too, we find an increasingly critical treatment of Descartes, for example in a recent book by Pierre-Alain Cahné.<sup>9</sup> He puts forward there a conception of truth which is directed by the human longing for more power—a concept which is not far from the philosophical—or, as I see them, non-philosophi-

cal—sentences of Friedrich Nietzsche. Another aspect of the discussion is found in Julián Pacho's *Ontologie und Erkenntnistheorie* (Munich, 1980), where he puts forward the thesis of unjustified ontological presuppositions in Descartes. In *Der junge Leibniz* I also quote the profound view of Martial Gueroult in respect of Leibniz and Descartes when talking about the question of *vis mortua* and *vis viva* in connection with problems on statics and dynamics (III, 84, 87f., 108f.). All this is in my view sufficient reason for maintaining the thesis in question. In short, I think that the state of science today presents us with an alternative: the facts of our scientifically-guided life on the one side and Leibniz's philosophical impulses on the other should compel us to rethink our Cartesian way of splitting reality into active subjects and passive objects—instead of the interaction of all with all, as Leibniz saw it.

2. Beeley maintains that neither for Descartes nor for Leibniz were ethical considerations decisive in respect of the application of science in the way that I have proposed. Indeed, I think it is a modern approach to focus on the ethical implications of science and to be less interested in the basic value of science as science. The sort of question I was addressing in regard to Leibniz was different from that on which Beeley has focussed. Nevertheless I would agree with regard to the position of Descartes. He is much more in harmony with our modern scale of splintered values. But, as I read Leibniz, he is obviously much too rooted in Platonism to be able to be able to step out of the Platonic tradition. And this tradition consists since Pythagoras in an axiomatic connection of science and ethics in the sense that wrong science brings forth wrong ethics. I think there is sufficient evidence in Leibniz's letters to show that he was passionately interested in strengthening ethics by science, and conversely, science by ethics. Theological motives are also involved here, for example in his *Confessio naturae contra atheistas* (1668). In this respect he was a life-long disciple of his (supposedly Kepleran) master at Jena, Erhard Weigel (see I, 77-9, especially for the connection between ethics, mathematics, and theology). In volume three of *Der junge Leibniz* I have tried to explain this ethical understanding of science in Leibniz which plays an important role in his correspondence with Duke Johann Friedrich of Brunswick-Lueneburg (III, 241ff.). Leibniz points out that science, understood philosophically, illuminates human life, showing that acting with love as a just human being is in the long term always useful—on account of the harmony of the world. This is truly utilitarianism to the highest degree ( III, 241 ff.). We find here the core of Leibniz's ethics—if we take his view seriously that every man who is illuminated in recognizing the all-

supporting cosmic reality of the world will be a mirror of this world's harmony. The more learned, the better. Perhaps this is not our view, but the fact is that Leibniz had this vision of science. I therefore continue to assert the “metaphysically impregnated mathematics” of which Beeley is somewhat doubtful. Then Leibniz's enthusiasm for his *Theoria motus abstracti* (1671), expressed so manifestly in the letters of the early seventies, show us clearly that mathematico-geometrical considerations led him to his *Panarithmicon*. And this is as important in a mathematical as it is in a metaphysical sense, though he confesses that there are no directly applicable values in that sort of discovery (III, 216ff.). This shows us that Leibniz, avoiding the basic Cartesian disjunction of mind and matter, had instrumentalized geometry to give an answer to the metaphysical question of the very genesis of corporeal things—something which, as the comparison makes clear, was done in the footsteps of the mathematico-philosophy of Proclus (cf. III, 91ff.). When we deny this heritage we cannot explain Leibniz's strong leaning to Pythagoras: “Maxima apud me Pythagorae existimatio est, et parum abest, quin ceteris veteribus Philosophis potiore credam, cum et Mathesin et Scientiam incorporalium [...] fundarit...” (cf. III, 174, note 165).

3. Beeley finds serious difficulties in my interpretation of Leibniz's understanding and reconciliation of ancient (Plato, Euclid, Proclus) and modern (Cavalieri, Hobbes, Kepler) traditions concerning the correct notion of what a point is and how this leads to the notion of a monad. He notes also the absence of references to scholastic authors like Suárez or to the discussion on the *Quaestio de certitudine mathematicarum*. Furthermore, he is doubtful about the systematic importance of the flux of points in Leibniz's early metaphysics. Here I should like to point out that the question I was concerned with—even if the notion itself does not appear until the 1690s—was a historical one: How did Leibniz develop his conception of the monad? When looking at the early Leibnizian texts, I did not find a discussion on a scholastic level or ultimately based on scholastic views. What I did find was a very intensive discussion on the main positions from classical antiquity. Now, I admit that this problem leads all readers into a monstrous labyrinth—as Leibniz described his own labours. But finally there emerged, as he tells us, a thread of Ariadne: his new conception of force, at first variously called *mens*, *Gemüt*, *Kern der Substanz*, *Fons vitae*, *Flos substantiae* or *Centrum seminale* (III, 173, 182ff.) and later on *monad*. The Hobbesian notion of *conatus* or endeavour allowed the introduction of momentum of force (somewhat similar to the Aristotelian concept of *entelechia*) into the basic discussion of the notion of point.

From here he was able step by step to arrive at his mature position, connecting the notions of eternal mind and eternal force to an integral concept of monad. Entering into this “labyrinth” with the Hobbesian notion of infinitesimally small force (*conatus*) and being well acquainted with the Aristotelian “labyrinth of the continuum” as well as with mathematical-Platonic discussions on the indivisible, he was through Herculean efforts able to conceive a new notion of the indivisible as an indestructible and therefore eternal point. The flux of points appeared to me as something which geologists call a *Leitfossil*, allowing us to follow the various strata in Leibniz’s labyrinthian development and at the same time representing a key notion for understanding the identification of point, force, and substance in Leibniz’s monads.

It is therefore my view that in his early texts Leibniz displays an astonishing ability to take up Platonic traditions of nearly all centuries, be they classical Platonic or Neoplatonic, in order to resolve crucial problems. He was not afraid to fall back on a heritage that seemed helpful in reaching solid ground—ground which was firmer than atomism and at the same time “geometrically demonstrated”.

Certainly, this interpretation of monads needs to be critically discussed and I hope that we can proceed to do this, comparing and analysing different readings of the texts in question in regard to the evidence they provide. Philip Beeley has himself provided the basis for such a discussion in the final chapter of his impressive book on *Kontinuität und Mechanismus (Studia Leibnitiana Supplementa*, vol. 30, Stuttgart 1996, especially pp.351ff.), where he deals with the notion of *conatus* and Leibniz’s “geometrical conception of mind”.

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*Notes*

<sup>1</sup>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 1996.

<sup>2</sup>Quoted here by volume, followed by page number. The preceding volumes dealt with Leibniz’s relation to Erhard Weigel, specifically in the context of *scientia generalis* (volume I), and Leibniz’s relation to Gassendi in respect of mechanism, atomism, and Aristotelianism (volume II).

*REPLY TO BEELEY*

<sup>3</sup>See my paper “Überlegungen zur Aktualität von Leibniz angesichts der Krise der europäischen Wissenschaften” in: *Leibniz und Europa, VI Intern. Leibniz-Kongress 1994*, vol I, p.487ff.

<sup>4</sup>A. R. Hall, *From Galileo to Newton*, London 1963, p. 340f. Cf. III, 44.

<sup>5</sup>A.M. Klaus Müller, *Das unbekannt Land. Konflikt-Fall Natur*, Stuttgart 1987, p. 166.

<sup>6</sup>A. N. Whitehead, *Wissenschaft und moderne Welt*, Zurich 1949, p. 184.

<sup>7</sup>I. Leclerc (ed.), *The Philosophy of Leibniz and the Modern World*, Nashville 1973, p. 35.

<sup>8</sup>*Ibid*, p. 9.

<sup>9</sup>P.-A. Cahné, *Un autre Descartes*, Paris 1980.