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Stephen Gaukroger

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## DESCARTES' SYSTEM OF NATURAL PHILOSOPHY

Towards the end of his life, Descartes published the first four parts of a projected six-part work, *The Principles of Philosophy*. This was intended to be the definitive statement of his complete system of philosophy, dealing with everything from cosmology to the nature of human happiness. Stephen Gaukroger examines the whole system, and reconstructs the last two parts, 'On Living Things' and 'On Man', from Descartes' other writings. He relates the work to the tradition of late Scholastic textbooks which it follows, and also to Descartes' other philosophical writings, and he examines the ways in which Descartes transformed not only the practice of natural philosophy, but also our understanding of what it is to be a philosopher. His book is the first comprehensive examination of Descartes' complete philosophical system.

Stephen Gaukroger is Professor of History of Philosophy and History of Science at the University of Sydney. His books include *Explanatory Structures* (1978), *Cartesian Logic* (1989), *Descartes, An Intellectual Biography* (1995), and *Francis Bacon and the Transformation of Early Modern Philosophy* (2001).

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## *Preface*

This book is part of an ongoing project in which my aim is to understand how the process of shaping cognitive values around scientific ones began in the early modern era, and it is in many ways a companion to my *Francis Bacon and the Transformation of Early Modern Philosophy* (Cambridge, 2001). Descartes and Bacon are two of the founders of early modern thought, in many respects *the* founders of early modern thought. Both of them see natural philosophy as the core of the philosophical enterprise, by contrast, on the one hand, with Renaissance humanist philosophers, who saw moral and political philosophy in this role, and, on the other, with late Scholastic philosophers, who saw metaphysics as the core enterprise. They approach their task from different traditions – Bacon from the humanist tradition, and Descartes, at least in the *Principia*, from that of late Scholasticism – but both end up transforming not only natural-philosophical practice but the understanding of what it is to be a philosopher.

Earlier versions of material for the book have been presented at seminars and conferences at the Australian National University, the University of British Columbia, Eötvös University Budapest, the Universities of Chicago, Harvard, Helsinki, Hong Kong, Melbourne, and Ottawa, All Souls College Oxford, the State and Federal Universities of Rio de Janeiro, the Sorbonne, and the Universities of Sydney and Toronto. I am grateful to audiences at these events for some probing questions and fruitful discussion. I have particularly benefited from discussions with Peter Anstey, Roger Ariew, Colin Fowler, Dan Garber, Ettore Lojacono, John Schuster, John Sutton, and Margaret Wilson. The research for the book has been funded by an Australian Research Council Large Grant, which has been invaluable in allowing me significant relief from teaching and enabling travel for research.

## *References to Descartes' works*

Descartes' works are referred to by their original titles, in the original language, with original orthography. References to these works are to the standard edition: Charles Adam and Paul Tannery (eds.), *Oeuvres de Descartes*, 2nd edn (11 vols., Paris, 1974–86). The edition is abbreviated to AT throughout, and reference is made to volume number and page number by roman and arabic numerals respectively: for example, AT IV. 123. In the case of the *Principia* and *Les Passions*, however, references are to Part and Article number, since this is a more convenient way of locating the relevant passage. In chapters 3 to 6, which cover Parts I to IV of the *Principia* respectively, where the reference is to an article in the respective Part, I have omitted the Part number in the reference, so that in chapter 3, for example, a reference to art. 20 refers to Part I art. 20 unless otherwise indicated.

As regards reproductions of Descartes' figures, those that accompanied the 1647 French translation of the *Principia*, which Descartes supervised, have finer detail than those of the original 1644 Latin edition, and for this reason I have reproduced the former. In some cases these figures are mirror images of those in the 1644 edition, but this is irrelevant for the understanding and interpretation of the figures.

The only complete annotated English translation of the *Principia* is V. R. and R. P. Miller, *René Descartes: Principles of Philosophy* (Dordrecht, 1991). Stephen Gaukroger, *Descartes, The World and Other Writings* (Cambridge, 1998) contains full annotated translations of *Le Monde*, *L'Homme*, and a full translation of *La Description du corps humain*. There is a full annotated translation of *Les Passions* in Stephen H. Voss, *René Descartes: The Passions of the Soul* (Indianapolis, 1989). I have often followed these translations, as well as those in John Cottingham et al., *The Philosophical Writings of Descartes* (3 vols., Cambridge, 1984–91).