Descartes, Spinoza, Leibniz: The Concept of Substance in Seventeenth-Century Metaphysics. R. S. Woolhouse. London: Routledge, 1993. £11.99. ISBN 0-415-09021-0, ISBN 0-415-09022-9 pb.

This useful book brings together discussions of substance scattered through the writings of Descartes, Spinoza and Leibniz. The author claims (p. 2) that Descartes's account of substance, provides the conceptual framework for the various seventeenth-century discussions; Leibniz and Spinoza in one way or another were reacting to Descartes. Given this strategy of pursuing Cartesian lines in seventeenth-century philosophers, it is not obvious why the important Cartesian, Nicholas Malebranche, is largely ignored. Besides discussing substance, the book also contains informed discussions of causation, occasionalism, the laws of motion, and the existence of God. The book is lucidly written, well structured and reliable, suitable both for undergraduates, but also for scholars who will be interested in Woolhouse's original stance on some issues (e.g. the discussion of motion).

Woolhouse distinguishes two separate questions about substance: (a) What general theory of substance does a particular philosopher hold?, and (b) What particular entities does each thinker identify as substances? Woolhouse begins with a thumbnail sketch of Aristotle's notion of primary and secondary substance, which provided the background to seventeenth-century metaphysics. A substance for Aristotle (in the *Categories*) is a subject of predication and is not itself the predicate of anything else (p. 8). In the *Metaphysics* there are also conceptions of substance as ultimate subject and as form. Distilling from Aristotle, the general notions of substance as substratum and as being in itself are preserved in Descartes and his followers.

In the Principles, Descartes says that, strictly speaking, only God completely satisfies the criteria for being a substance, since only God is truly independent of everything else. God aside, Descartes says that, by analogy, things that need nothing other than God to exist, and which have independent existence in themselves, may be called substances. Substances are to be differentiated from modes and attributes. Modes and attributes depend on substances but not vice-versa (p 18), although all substances are in some mode, not all modes are always instantiated (e.g. walking and running are two modes of a human being, in order for there to be walking there must be a substance but the substance need not necessarily be walking at any particular time). We never grasp substances in themselves but know them only through their attributes. Thus, for Descartes, immaterial substance is grasped through the principal attribute of thinking and extended substance through the attribute of extension. Both thinking and extension themselves have many modes. Thinking, for example, can be in the mode of imagining, believing, remembering and so on. Quite properly, Woolhouse recognises the importance of Descartes's distinction in the Principles between substances,

modes and attributes or qualities, and he also notes Descartes's important distinction between real, conceptual and modal distinctions (p. 18). Woolhouse's discussion of mode and attribute looks forward to how Spinoza and Leibniz will interpret these crucial notions. Woolhouse could have provided more of the scholastic background to these distinctions (e.g. in Suarez) and he plays down Descartes's irritating habit of providing diverse and often inconsistent accounts of his own distinction. The crucial concept of mode surfaces at various stages in Woolhouse's account (e.g. p. 18; p. 90) but receives no extended treatment. This is unfortunate as 'mode' is arguably the most important and multifaceted technical term in seventeenth-century philosophy. It is a more difficult and ambiguous notion than Woolhouse seems to suggest, and deserves more careful scrutiny in Descartes, Spinoza, Malebranche and even Locke, than it has been given by recent commentators. With the notion of mode seventeenth-century metaphysicians were trying to adapt a medieval technical term (modus) in order to express a new kind of real relation with substance - a mode is not just an attribute but is the whole substance itself expressed in a particular manner.

Woolhouse clarifies the nature of Descartes's commitment to dualism. Descartes is a strict dualist in admitting only two kinds of substance and indeed only two attributes of substance, but in fact he believes all extended substance is one, whereas there are many individual thinking substances (individual souls and God). Descartes then is an individual substance pluralist vis-à-vis thinking substance and a monist about extended substance. Descartes never justifies his decision to postulate only two kinds of substance (p. 21). Hobbes, Mersenne and Gassendi all wondered whether extended substance on its own could support thought, a view that Descartes appears to have ruled out for a priori reasons. On the other hand, Leibniz and Berkeley entertained the possibility that extended substance might be only a mode or modification of mental substance. Descartes thinks each soul is an individual substance (Principles, 1.60). On this point Leibniz agreed with him, whereas Spinoza disagreed. What are Descartes's principles of individuation for minds? Martial Gueroult, Descartes' Philosophy Interpreted According to the Order of Reasons, Vol. 2, (trans. R. Ariew, Minneapolis, U. of Minnesota Pr., 1985), p. 263, claims that Descartes never tells us the principle of individuation, and claims that the rational principle is not a principle of individuation but a principle of unification of human beings. As Woolhouse recognises, Descartes did not identify the form as merely the arrangement of matter, as Hobbes did, but saw the mind as the principle of substantial form (p. 151). Woolhouse rather straightforwardly accepts Descartes's account of form, whereas one might refer to Daniel Garber's Descartes' Metaphysical Physics (Chicago, University of Chicago Press, 1992), pp. 94–116, for a more careful account.

Chapter 3 focuses on Spinoza who denies the existence of more than one individual substance. Spinoza agrees with Descartes that individual corporeal bodies are not individual substances, but Spinoza goes further by adding that minds also are not individual substances but 'modes of substance'. According to Woolhouse, Spinoza gives apparently conflicting accounts of substance. For Spinoza, substance is that which exists in itself and which is conceived through itself. Descartes thought a substance is in itself but he denied that it was conceived through itself, since it is always conceived under one of its attributes. For Spinoza to conceive of something through itself is to be able to think of it through its own concept without having to invoke any other concept. Woolhouse does not accept Curley's judgement that Spinoza does not distinguish adequately between attribute and substance, rather he holds that for Spinoza (as for Descartes) a substance is always conceived through an attribute. Spinoza differs from Descartes in attributing an infinite number of attributes to God, only two of which can be conceived by humans, namely, thought and extension.

In Chapter 4 Woolhouse tries to distil Leibniz's view of substance from scattered references in his writings. Tracking Leibniz is particularly difficult not just because of his scattered writings but also because of his own many changes of emphasis and indeed changes of mind. Faced with this complexity, Woolhouse concentrates on the Correspondence with Arnauld and the Discourse on Metaphysics and leaves out discussion of the Monadology on the grounds that it offers no new clarifications to Leibniz's approach to the Cartesian problematic. This is regrettable; the book could have benefited from a more extended treatment of Leibniz. Leibniz's aim, as stated in the Discourse was to articulate the distinction between God and creatures so that the proper sphere of activity of each be properly recognised. Against those who asserted that only God acts, Leibniz argued that created substances also have their own powers of acting. For Woolhouse, Leibniz is a philosopher who follows the individual substance approach. Woolhouse sees Leibniz's revival of the substantial forms doctrine as a purely metaphysical move, whereas Leibniz's physics remained straightforwardly mechanist. As a metaphysical move, Leibniz is open to all the problems one finds in Aquinas – if human person is a substance, how is the separate soul also a distinct substance?

Leibniz regards unity as a fundamental condition of substantiality and denies that extended matter can be a substance in virtue of its extension alone, since extension is infinitely divisible and hence offers no principle of unity. Leibniz also rejected atoms as candidates for substance. Leibniz revives the notion of substantial form as that which gives unity to substances. Humans and animals are distinct substances in their own right, whereas a dead human body is not a substance but is somehow merely an aggregate or a heap. Woolhouse (p. 64) rightly asks the question – a heap of what? and cites Leibniz's troublesome assertion in reply to Arnauld that it is 'an aggregate of substances'. Leibniz is forced to postulate small animated substances, analogous to minds, but non-human minds, as the base from which everything else is made up.

As to what substance is, Leibniz agrees with the view that it is a subject

of properties which is not itself a property of anything else; it is that which has being in itself. But he also states that a substance has its own activity and is the complete concept of a thing. If the substance were fully known all the properties (including incidental properties) would also be known. The activity of substance is central to Leibniz's analysis, his 'complete concept' notion is more original and demanding. Every substance has a primitive active force, and, as Woolhouse notes, Leibniz explained substantial form in terms of this notion of intrinsic force (p. 73). Woolhouse recognises the difficulty of connecting the complete concept idea of substance with the notion of substantial form (p. 67). The complete concept includes past, present and future states of a thing. Woolhouse rejects Russell's timeless truth analysis of this notion and instead suggests that Leibniz postulated substantial forms precisely because they have a temporal dimension. All that has happened and all that will happen to a substance comes 'from its own depths' (p. 68). Extension could never be the essence of a substance since in itself it has no temporal dimensions. The doctrine that substances act from their own depths rules out the possibility that substances interact causally with one another (p. 71). Here Woolhouse takes issue with Ishiguro's interpretation. Woolhouse handles this interesting and complex discussion remarkably clearly and scholars will undoubtedly want to follow up on Woolhouse's conclusions.

Chapter 5 brings together the views of all three philosophers on extended substance, while Chapter 6 discusses the mechanical principles which these philosophers developed to explain the nature of the interrelation of corporeal bodies in this extended domain. All three philosophers are anti-atomist and accept that the physical world is 'an infinitely divisible material plenum' (p. 78). All explain reality in terms of matter and motion. Leibniz adds the notion of force. For Descartes, the impenetrability of bodies is a consequence of their extendedness (p. 81). He denies a vacuum and sees motion as movement within a plenum. In fact this motion individuates bodies within the plenum. Motion is not an attribute of extension, it is actually a mode of extension, a separate feature added by God (*Principles*, 2.36).

Spinoza repeats this Cartesian view: extension is the principal attribute of matter and bodies are individuated by their motions, an individual is 'a certain proportion of motion and rest' (p. 89). Bodies are 'finite modes of substance'. As Spinoza sees extension as a divine attribute, it is as this divine being that God produces motion in matter, whereas Woolhouse argues, Descartes would see motion as added to matter by God as thinking substance. Furthermore, Descartes allows God to insert motions after the initial stage of the world, whereas for Spinoza all present motions are consequences of the original motion (p. 90).

Woolhouse covers a remarkable amount of ground in a clear, informative and balanced manner. Anyone seeking a convenient source of seventeenth-century conceptions of substance will find this book a reliable guide. But Woolhouse has gone further – and particularly in his discussion of Leibniz

- drawn attention to tensions in Leibniz's different accounts of substance. Woolhouse's strategy of portraying Leibniz and Spinoza as attempting to sort out metaphysical problems inherited from Descartes is clearly successful. This book is to be recommended to everyone interested in seventeenth-century metaphysics.

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Descartes et Regius. Autour de l'Explication de l'Esprit Humain. Edited by Theo Verbeek. Studies of the History of Ideas in the Low Countries. Rodopi, Amsterdam-Atlanta, 1993, pp. 114 \$23.50 pb. ISBN 90-5183-375-X

This collection presents the papers of five scholars at the first Franco-Dutch conference of the Centre franco-neerlandais des recherches cartésiennes held in 1991 and which centred on Descartes's Notae in Programma quodam. In his Preface Professor Verbeek points out that the work gives us a better approach to problems like the soul as substance, the existence of the external world, the status of physics as science, and more, and leaves aside prejudices or partial judgements, like Baillet's very negative judgement on Regius in his biography of Descartes. For Verbeek the controversy between Descartes and Regius has to be read not only in terms of their differing temperaments but much more specifically because of their different conceptions of method and the possibility of reaching truth. For Regius, in contrast to Descartes who looked for definitive judgements, it was always provisional.

In April 1641 Regius sent Descartes his Disputationes Medicae de Physiologia Sive Cognitione Sanitatis. This text has particular importance since, as Verbeek tells us, the Fundamenta Physices that Regius finally published in 1646 recaptures it, practically in its entirety. Descartes's main objection to the Disputationes was to the chapter on man (de homine) because he could not conceive that anybody could hold that the soul is a mode of the body rather than a complete substance. Verbeek tells us that Regius suppressed everything of his Fundamenta with which Descartes did not agree. But after all the accusations Regius was to use the publication of the Programma as an occasion to make patent his loyalty to Descartes up until their quarrel. To substantiate his claims Verbeek gives us a detailed and accurate account of the historical context as well as an analysis of the documents and dates to give a better interpretation of the events than has hitherto been available.

Professor Geneviève Rodis-Lewis's 'Problèmes discutés entre Descartes et Regius: l'ame et le corps' deserves special mention. Her main point is that