



CARTESIAN
METAPHYSICS

The Scholastic Origins
of Modern Philosophy

JORGE SECADA

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Cartesian Metaphysics

This is the first book-length study of Descartes's metaphysics to place it in its immediate historical context, the Late Scholastic philosophy of thinkers such as Suárez against which Descartes reacted. Jorge Secada views Cartesian philosophy as an 'essentialist' reply to the 'existentialism' of the School, and his discussion includes careful analyses and original interpretations of such central Cartesian themes as the role of scepticism, intentionality and the doctrine of the material falsity of ideas, universals and the relation between sense and understanding, causation and the proofs of the existence of God, the theory of substance, and the dualism of mind and matter. His study offers a picture of Descartes's metaphysics that is both novel and philosophically illuminating.

Jorge Secada is Associate Professor of Philosophy at the University of Virginia. He has published a number of articles on the history of early modern philosophy.

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*The Late Scholastic Origins of Modern
Philosophy*

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University of Virginia



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In memory of
Carmen Koechlin Meyans,
Narda Koechlin Meyans
and
Carlos Secada Mas

There is no life in thee, no, except that rocking life imparted by a gently rolling ship; by her, borrowed from the sea; by the sea, from the inscrutable tides of God. But while this sleep, this dream is on ye, move your foot or hand an inch; slip your hold at all; and your identity comes back in horror. Over Cartesian vortices you hover.

H. Melville

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Preface

I began writing this book about twelve years ago, after finally abandoning the revision of my doctoral dissertation and deciding to instead start anew and write a fresh account of the Cartesian metaphysics. I had basically finished what you now have in your hands by 1994. At that point I still thought that it would contain a fourth part exploring the origins and development of idealism. However, I have recently come to realize that the present essay is complete as it stands and that that final part is in fact an independent project which will see the light in its own time.

In writing this essay I have incurred many debts, too many to recall and properly acknowledge here. I beg the forgiveness of those institutions or persons to whom I am obliged but whom I have failed to mention.

Some of the research which I did in the early eighties has found its way into this essay particularly in chapters 7 and 8. I thank the generosity and kindness of the Master and Fellows of St John's College, Cambridge for the opportunity to carry it out in a most congenial and intellectually stimulating environment. Some sections of chapter 5 were written in one of the most beautiful urban settings in the world while on a visiting appointment at the University of British Columbia in the autumn of 1991; I thank the Philosophy Department there, and especially Paul Russell, for that opportunity. Some other parts, particularly in chapters 1 and 3, were composed in Quito in 1993; I thank FLACSO-Ecuador and my good friends Alonso Zarzar and Heraclio Bonilla for making that wonderful time up in the Andes possible. Preparation of the final production copy took place while on a most enjoyable NEH appointment at Potsdam College of SUNY; I thank all who had a hand in bringing about that visit, particularly Joseph DiGiovanna and Philip Tartaglia. I also wish to thank my numerous friends at the Departamento de Humanidades of the Pontificia Universidad Católica del Perú for selflessly providing me over the years with the facilities with which to carry out my work while in Lima. Finally, I thank the O'Reilly Memorial Library of Christendom College at Fort Royal in Virginia for allowing me to consult their rare books collection.

The Corcoran Department of Philosophy and the College of Arts and Sciences at the University of Virginia have given me invaluable encour-

agement and support during the last fifteen years, for which I am deeply grateful.

Among the many persons with whom I have had profitable conversations on Descartes and on other philosophical topics, or who have provided me with specific comments or criticisms on some parts of the ensuing text, or from whom this book has benefited in some other way, are Elizabeth Anscombe, Renford Bambrough, James Cargile, Roque Carrión Wam, Edwin Curley, David Curry, Dan Devereux, Cora Diamond, Willis Doney, James Doyle, Juan Bautista Ferro, Javier Herrero, Amy Karofski, Salomón Lerner, Cocó Mancini, John Marshall, Karen Paz Bachrach, Peter Remnant, Richard Rorty, Joshua Tonkel, Isa Wiener, Bernard Williams and the anonymous readers for Cambridge University Press. I am also grateful to my countless students who over the years have allowed me to test out my views on early modern philosophy in many tutorials, seminars and courses.

Much of this book was written during yearly trips to Perú. The cool, grey sky of ‘tearless Lima’ provided an ideal backdrop for my work. I will never be able to thank sufficiently the extraordinary hospitality of Narda Koechlin, who made it possible and pleasant for me to work there. I am grateful also to Ivy Arbulú, who has known this book from its inception, nurtured its development, and lived with the pains of its delivery.

I should finally mention that parts of chapters 1 and 4 have appeared in print as, respectively, ‘Descartes y la escolástica’ in *Areté* 7 (1995), pp. 301–30, and ‘Las ideas de Descartes’ in *Archivos de la Sociedad Peruana de Filosofía* 7 (1996), pp. 180–91.

Note about citations and translations

I refer to repeatedly cited works using the listed abbreviations. References for quotations from such works are given in parentheses within the text. No references are given when they would repeat those of the last citation. In the case of the writings of Descartes in the Adam and Tannery edition, or in the English translations by Cottingham, Stoothoff and Murdoch, or by Cottingham, Stoothoff, Murdoch and Kenny, references are to volume and page numbers. In the case of other repeatedly cited works, references are usually only to standard internal divisions. In the case of Suárez’s *De Anima*, I indicate whether the reference is to sections and questions from Disputations or to sections and chapters from Book IV, as this determines the edition used. When it is necessary to provide more exact references to facilitate finding the cited passage, as may be the case with Pedro de Fonseca’s *Principles of Logic* or *Commentaries on Aristotle’s Metaphysics* and Francisco Toledo’s *Commentaries on Aristotle’s Posterior Analytics*, I add volume and page numbers in the cited edition after the reference

to the internal divisions. The editions cited are indicated in the list of abbreviations.

Other references in the endnotes and elsewhere use an abbreviated nomenclature which is given in complete form in the References.

Though I have typically quoted from the indicated translations, I have also changed and altered them as I saw fit. Where divergence in the translation is of some hermeneutical consequence, this has been usually indicated in the endnotes.

Abbreviations

- AT *Oeuvres de Descartes*, ed. Charles Adam and Paul Tannery (Paris: J. Vrin, 1996), 11 vols.
- CM Pedro de Fonseca SJ, *Commentaries on Aristotle's Metaphysics*, cited from Fonseca (1615–1619).
- CSM *The Philosophical Writings of Descartes*, ed. and trans. John Cottingham, Robert Stoothoff and Dugald Murdoch (Cambridge: Cambridge University Press, 1984–1985), 2 vols.
- CSMK *The Philosophical Writings of Descartes: The Correspondence*, ed. and trans. John Cottingham, Robert Stoothoff, Dugald Murdoch and Anthony Kenny (Cambridge: Cambridge University Press, 1991).
- DA Francisco Suárez SJ, *Commentaries on Aristotle's De Anima*, cited from Suárez (1978–1981), for texts up to Disputation Seven, and Suárez (1856), for texts from Book IV.
- DV St Thomas Aquinas OP, *Disputed Questions On Truth*, cited from Aquinas (1925), vol. I.
- ID Pedro de Fonseca SJ, *Principles of Logic*, cited from Fonseca (1964).
- MD Francisco Suárez SJ, *Metaphysical Disputations*, cited from Suárez (1614), Suárez (1960–1966), Suárez (1982), and Suárez (1983).
- PA St Thomas Aquinas OP, *Commentaries on Aristotle's Posterior Analytics*, cited from Aquinas (1882).
- SG St Thomas Aquinas OP, *Summa contra gentiles*, cited from Aquinas (1918–1930) and from Aquinas (1975).
- ST St Thomas Aquinas OP, *Summa of Theology*, cited from Aquinas (1964–1980).
- TPA Francisco Toledo SJ, *Commentaries on Aristotle's Posterior Analytics*, cited from Toledo (1616).

Prologue

Descartes's philosophy has been the subject of intense study.¹ Much is now known about its structure and content, about the details of his arguments and the spirit in which they were conceived and deployed and about the influences to which he was subject and the influence which he exercised upon his contemporaries and successors. There is, of course, no shortage of dispute about questions of detail and about overall interpretation. But the controversies are focused, and they are built on the considerable knowledge that has been gained through philosophical reflection and historical research. This book does not seek to engage systematically in that discussion, nor to provide a sustained examination of the whole of his main work, the *Meditations on First Philosophy*, let alone of the entire corpus of his writings. Its aim is more modest. It seeks to offer a unified reading of Descartes's metaphysics against the background of Scholastic philosophy.

Descartes moved within the world of Late Scholastic thinking. Even in his writings on natural science, where he was undoubtedly in profound disagreement with the Aristotelians, he constantly expressed awareness of this opposition. He saw himself as presenting a new philosophy, both natural and metaphysical, to take the place of Aristotle's and St Thomas Aquinas's. Since he wanted to take their place in the School, he was careful to avoid alienating the Scholastic establishment. Nonetheless, he did not distort or hide his diverging views, views which were cast in concepts and terms borrowed from the Aristotelians and which were in no small measure motivated by their problems. Reluctantly but inevitably, Descartes even entered into Scholastic theological disputes about the Eucharist and about the relation of will and intellect in God.

To structure the comparison between Cartesian and Scholastic metaphysics I use a general and fundamental contrast to which Descartes himself appealed on several occasions. The contrast concerns the order of knowledge of essence and of existence. What I shall call 'existentialism' affirms the priority of knowledge that a substance exists over knowledge of its nature or essential definition; 'essentialism', on the other hand, names the view that knowledge of the essence of a substance is prior to knowledge of its existence. The

articulation of these opposing doctrines as they appear in Descartes and in his Scholastic contemporaries and predecessors, particularly Aquinas and Francisco Suárez, provides a framework from which to approach the Cartesian texts.

As we shall see, Cartesian essentialism and Scholastic existentialism presuppose a common background. Unlike later empiricists, Descartes and the Scholastic existentialists whom he opposed shared the ideal of a true science of being and its causes. Both conceived this science as articulated around the fundamental and traditional division between God and creatures. Consequently, they held in common substantial beliefs about causation and the dependence of effects. Furthermore, Descartes and Suárez espoused similar views regarding the nature of existence and its relation to essence, the reality of merely possible essences, and the Divine underpinnings of necessity in nature. When Descartes put forward his innovative doctrine of ideas, he cast it in the terminology of the School. Already in the *Rules for the Direction of the Mind*, he was consciously presenting solutions to problems which the Scholastics had addressed but failed to solve. In his opposition to his predecessors, Descartes was engaging them on common ground, sharing with them many questions and also fundamental insights which constrained his answers.

I do not see myself as contributing to a debate about whether Descartes's essentialism is the central aspect of his thought (as opposed, say, to his conception of mind as a thinking substance, or to his scientific programme). For one thing, I do not believe that there is one such central aspect. Nor do I think that there is a single key to the interpretation of the Cartesian philosophy. And anyhow, the issue is obscure. For it is unclear what one such fundamental characteristic would reveal. Does it owe its status to facts about Descartes's inclinations and psychology? Or is some conceptual truth being uncovered? Or are we rather making claims about the significance of his influence and effects on subsequent thinkers? No: the aim of this essay is simply to articulate the relation between Descartes and the Scholastics through the contrast between essentialism and existentialism, not because that is *the* key to anything, but because it offers one fertile and historically accurate way of doing it.

I do not maintain even that metaphysical concerns in general had a central or particularly privileged place within Descartes's own thinking. I am interested in his metaphysics because I have an interest in metaphysics. So even if there were no direct historical connection, as in fact there is, it makes good philosophic sense to relate his views to those of the great Scholastic metaphysicians who preceded him, particularly the views of those who, like Aquinas and Suárez, have independent interest for the philosopher. In effect, it is both on historical and on philosophical grounds that I propose this reading of Descartes from the perspective of his relation to Aquinas and his Late Scholastic followers.

One unusual feature of my interpretation of the Cartesian philosophy is its deemphasis on epistemology. Finding epistemic foundations and defeating scepticism will be deemed important concerns of Descartes by most of my readers. But, precisely, I wish to look at Descartes's thought from its own context and circumstances. This essay does not answer the following questions: how did Descartes's philosophy come to be seen as chiefly (and sometimes even exclusively) concerned with epistemological foundations? How did scepticism acquire the role in philosophical reflection which it has for us now and which it did not have in the eyes of Descartes? How indeed did epistemology come to dominate philosophy? But, hopefully, by the end of the book the reader will acknowledge that these questions are pertinent and significant, not just historically but philosophically.

Aristotle recommended the study of past philosophers 'in order that we may profit by whatever is sound in their suggestions and avoid their errors'.² This is a well-known justification for the study of the history of philosophy. It embodies substantial assumptions about the continuity and identity of philosophical reflection in time: that there are common questions, that there is a shared structure of soundness and error, that past reasons can engage the reason of the present. This book partakes of those assumptions; yet it is inspired also by Charles Taylor's remark that 'historical retrieval is . . . important' when we want to free ourselves from some 'picture', some forgotten and 'unquestionable background assumption' that has become 'the organizing principle for a wide range of the practices in which we think and act and deal with the world'.³ By approaching the Cartesian metaphysics as it was conceived of by Descartes – as, that is, an essentialist response to the existentialism of the School – we stand to gain historical knowledge and also to profit from an increased understanding of ourselves.

I am in fact unconvinced by the alleged and recently advertised opposition between historical and philosophical reconstructions.⁴ One should no doubt be aware of the dangers of both anachronism and antiquarianism. But to claim that the historian of philosophy must choose between historically accurate or philosophically valid interpretations is to suppose rational discontinuities in the development of the subject. Perhaps it is simplistic and even absurd to speak of the same great questions occupying the minds of philosophers throughout the millennia. But does it not make sense to speak of a common inquiry, a common pursuit of understanding? Radical conceptual revolutions occur against massive unchanging backgrounds common to any two human beings. It is against such shared understanding, the expected result of a shared nature placed in a shared world, that differences of culture, let alone speculative theory, can take place.

Historiographers should exercise care when making claims about what could or could not be understood by some past philosopher. Assuming that

there are such counterfactual truths, is one to suppose this is so even given exposure, on the part of the past thinker, to however long a conversation and to whatever experiences and educational processes? And if so, why? But we must let go. Unfortunately, although these are interesting and important issues, we cannot explore them here. I have already made explicit my historiographical presuppositions, even if, as is appropriate in a prologue to the study of a specific author, I have done so concisely. We should now move on to our main and proper subject: Descartes's essentialist metaphysics in its Late Scholastic context.

Chapter I may serve as an introduction to this whole book. There I articulate the distinction between the essentialism of Descartes and the existentialism of Aquinas, Suárez, and his other Late Scholastic predecessors and contemporaries. This contrast guides the discussion undertaken in the rest of the book. In the first chapter I use it to introduce the main themes. In doing so, I lay out the plan of this essay. Accordingly, I hope the reader who is seeking an introductory summary will allow me to refer her to that initial chapter.

Part I

The unity of Cartesian metaphysics

1 Descartes's essentialist metaphysics

Cartesian essentialism and Scholastic existentialism

Descartes believed that knowledge of a thing's nature is prior to knowledge of its existence. In his replies to Johannes Caterus, the Scholastic author of the First Objections to the *Meditations*, he stated that 'according to the rules of true logic we must never ask whether something exists [*an est*] unless we already know what it is [*quid est*]' (AT, VII, 107–8). The same year he wrote to Father Marin Mersenne deprecating 'theologians who, following ordinary logic, ask whether God exists before asking what His nature is' (AT, III, 273).

Historians of philosophy have granted little attention to these and similar passages. Some have noted that here Descartes is opposing 'the School'.¹ But then they have discarded the texts without further consideration, or they have discussed them in passing and exclusively with reference to proofs of God's existence.² In either case we have been left without a proper account of their meaning or of their place within the Cartesian corpus.

This neglect is unjustified and needs to be redressed. The view expressed is quite general, neither absurd nor uninteresting, and central to Descartes's metaphysics. The opposite claim that in the order of knowledge existence is prior to essence was indeed one of the most widely and firmly established of Scholastic doctrines. An examination of this matter provides us with a valuable tool for the understanding of Descartes's thought and for the elucidation of its complex relationship to the Aristotelian philosophy, a relation of appropriation and of rejection, of submission and overcoming.³

Paraphrasing Aristotle in the *Posterior Analytics*, St Thomas wrote that 'whoever knows the nature of man, or of any other thing, must know that the thing exists' (*PA*, II, 6, 2).⁴ Still closely following Aristotle's text he explained:

Since there is no essence or quiddity of a non-being, no one can know the nature of what does not exist; but one may know the meaning of a name, or know an account composed from several names: thus one can know what is the meaning of the name ... 'goat-stag' ... but it is impossible to know the essence of a goat-stag, for there is nothing of such kind in reality.

Aquinas held that knowledge of existence is prior to knowledge of essence. In this he was followed by mainstream Scholasticism around Descartes's time. Pedro de Fonseca wrote in his *Principles of Logic*: 'first we show that a thing exists, next what it is' (*ID*, VII, 40; see also V, 8; II, p. 606 and I, p. 314). Cardinal Francisco Toledo, in his *Commentaries on Aristotle's Logic* noted: 'if these questions are asked of the same thing, they must follow this order: first, "is it?"; second, "what is it?"' (*TPA*, II, 1; II, p. 412a). Suárez, in the *Metaphysical Disputations* stated: 'the question "what is it?" presupposes the question "is it?"' (*MD*, XXIX, 2, 1).⁵

The issue concerns the order of knowledge of essence and knowledge of existence. What is in dispute is whether one can know the nature or essential definition of a substance without knowing whether it exists and, conversely, whether one can know whether a substance exists without knowing its nature. Descartes, Aquinas, and the Late Scholastics shared an ontology of substances. For them, '*quid est?*' inquires after a substantial nature; it asks for the essential definition of a substance.⁶ 'Existentialism' affirms the priority of knowledge of the existence of a substance over knowledge of its nature; 'essentialism', on the other hand, is the view that knowledge of the essence of a substance is prior to knowledge of its existence.⁷

One could of course deny the priority both of knowledge of essence and of knowledge of existence. One could hold that essence and existence can each be known independently of the other, or that neither can be known without the other. Hence, essentialism and existentialism must each involve two theses. I will call the first the *dependence* thesis and the second the *independence* thesis. Essentialism (existentialism) is the doctrine, first, that one cannot know the existence (essence) of any substance without knowing its essence (existence), and secondly, that one can know the essence (existence) of some substance without knowing its existence (essence). The order in question is logical. The essentialist affirms what the existentialist denies, that knowledge of existence entails knowledge of essence; and he denies what the existentialist affirms, that knowledge of essence entails knowledge of existence.

Let us say that to know an essence is to know that a substance, A, is essentially F, where 'F' is a more or less complex expression of A's essence; and let us agree also that S is any inquirer. Essentialism is constituted by:

The dependence of knowledge of existence. It is not possible that S knows that A exists and that S does not know that A is essentially F.⁸

The independence of knowledge of essence. It is possible that S knows that A is essentially F and that S does not know that A exists.

Existentialism comprises:

The dependence of knowledge of essence. It is not possible that S knows that A is essentially F and that S does not know that A exists.

The independence of knowledge of existence. It is possible that S knows that A exists and that S does not know that A is essentially F.

Descartes was an essentialist: he expressly accepted the essentialist doctrine. The texts quoted earlier establish beyond dispute that Descartes held the essentialist dependence thesis. Similarly, the passages cited from Aquinas, Fonseca, Toledo and Suárez leave little room for doubt that they believed in the existentialist dependence thesis. I take these dependence theses to be universal: they are true for any substitution of 'A'. The textual evidence supports this interpretation. Descartes states that we must 'never' inquire after the existence of 'anything' (*nulla unquam re*) without knowing its essence, and Aquinas writes 'of man or of any other thing'. So the negations of the dependence theses, the independence theses, need be true only for some substitutions of 'A'. Bearing this in mind, it is safe to say that the quoted texts strongly suggest that, as is in fact the case, Descartes subscribed to the essentialist independence thesis and the Scholastics to the corresponding existentialist independence thesis (see also *TPA*, II, 9; II, p. 427a).⁹

The dependence theses are universal. The essentialist affirms that, for any substance, if one knows it exists, then one also knows its essence. The existentialist in turn affirms that, for any substance, if one knows its essence, then one must also know it exists. These two statements are compatible. It is not in virtue of them alone that essentialism and existentialism are in opposition, but rather in virtue of them together with the independence theses, which amount to no more than the denial of the corresponding dependence thesis. Consequently, the independent theses are particular and need apply only to some substances. The essentialist maintains that one can know the essence of at least one substance without knowing whether it exists, while the existentialist maintains that there is a substance such that one can know its existence and ignore its essence. Essentialist and existentialist could therefore agree that in the case of a certain substance knowledge of its essence and knowledge of its existence cannot be had one without the other. We shall see later that this is perhaps true of Descartes and Suárez regarding God.

Descartes was an essentialist in the further sense that in his own inquiry he followed the essentialist order: in the *Meditations*, the canonical presentation of his metaphysics, Descartes never establishes the existence of a substance while being ignorant of its nature, and in at least one case he displays knowledge of a substantial essence without knowing whether a substance with that essence exists in reality. I do not mention the *Meditations* to imply that elsewhere Descartes was inconsistent with his professed essentialism. On the contrary, it is my view that on this matter he never wavered: by consciously following the essentialist order of inquiry Descartes was supplementing his opposition to the Scholastics and constructing a philosophy to replace the existentialist metaphysics and epistemology of his predecessors.

This chapter paints a broad picture of the significance of Cartesian essentialism within Descartes's own philosophy and against the Scholastic existentialist background: it introduces the themes for the rest of the book. The next section sketches the grounds of Thomist and Late Scholastic existentialism. Two subsequent sections undertake a quick survey of the rationale of Descartes's essentialism, introducing first his ontology and his doctrine of substance and its essence and properties, and then his views on knowledge and its sources. Finally, I examine the order actually followed by Descartes when acquiring knowledge of the essence and existence of the self, of God, and of material substance.

The rationale of Scholastic existentialism

Descartes did not want to claim merely that to know that something exists one must have some answer, however general, to the question 'what is it that exists?' St Thomas grants that much: 'it is impossible for us to know that a thing exists except through some account of that thing' (*PA*, II, 8, 6). Aquinas accepts that some background understanding is required for knowledge of the existence of a substance, but he denies that this must include the essential definition:

regarding a thing of which we have no account, we cannot know if it exists or not. But there is some other account of a thing apart from the definition: this is either an account which explains the meaning of a name, or an account of the very thing named which, however, is distinct from the definition because it does not express the nature as does a definition, but perhaps some accident.

We need not consider now the distinction between 'an account which explains the meaning of a name' and other accounts. Aquinas's position is clear: we can know the existence of a substance without knowing its nature; though some account of the thing known to exist is needed, the account at hand might be one that does not express its essence.

Prima facie, this looks reasonable. We should allow for non-essential descriptions of a substance; and it seems a substance may be known to exist under such a description. For example, by 'a canary' we may understand 'something small, yellow, winged, feathered and singing'. We could come to know that a canary exists by seeing one, without knowing what its nature is, without even knowing whether it is an animal, a machine, or yet something else. This, most succinctly, is the Thomist rationale for the existentialist independence thesis.

Aquinas wrote that 'whatever is in our intellect must have previously been in the senses' (*DV*, II, 3, *ad* 19). This famous principle was adopted by most Aristotelians and in particular by the Late Scholastics Descartes read and studied at the Jesuit school in La Flèche (see *AT*, VI, 37). Suárez stated that

'all our knowledge originates in the senses'; Toledo, that 'the intellect knows nothing which has not, in some way, fallen under the senses' (*MD*, I, 6, 27; and *TPA*, I, 14; II, p. 369a). Given that he was referring to the Scholastic tradition, Fonseca did not exaggerate when he claimed that 'all philosophers affirm' that 'nothing is grasped by the intellect which was not first known in some way by the senses' (*CM*, I, I, q. 4, 3). The qualification is designed to accommodate the fact that not all things understood 'have been sensorially perceived *per se*'; some, like God, spirits and 'the powers of natural things hidden from our senses', have been sensed 'through their effects'.¹⁰

Aquinas and the Jesuit Late Scholastics allowed that the intellect can conceive what does not exist and has never been perceived either in itself or through its effects. They of course knew that the mind can fashion what has not, in any way, been sensed. But they believed that whatever the intellect conceives is taken from what the senses have provided, either because it is given to the senses in some way or because it is formed by the intellect from what in the end did originate in sensation.

Consider now, within this Scholastic framework, a claim to knowledge of essence in the absence of knowledge of existence. The essence in question must have been fashioned by the intellect. How, then, is it known that what has been made up by the mind is the essence of a possible substance? Neither for Aquinas, Suárez, Toledo or Fonseca nor for Descartes is this a matter of stipulation. Descartes and these Scholastics shared notions of essential and natural necessity and possibility; for them knowledge of an essence involves knowledge that a substance with that essence is possible and could exist.¹¹

Aquinas wrote, as we have seen, that it is impossible to know the nature of what does not exist because there is nothing with that essence in reality. This might suggest that he believed that one cannot know the nature of what does not exist because there are no possible but non-existent essences. The thesis that one cannot know the essence of a substance and not know its existence would be grounded somehow on this claim that all possible essences are actually instantiated. Something like this is perhaps what Aristotle had in mind in the *Posterior Analytics*, given his doctrine that to be possible is to be actual at some time.¹² Aristotelian exegesis, however, is not our concern; and this was certainly not what the Scholastics held. Suárez and St Thomas believed that there are many kinds and individuals, innumerable in fact, which are possible but forever unrealized, and that these uncreated substances are eternally known by God.¹³ They did not believe that all possible essences exist at some time; but they did believe that humans can know an essence is possible only by knowing it is actual.

Aquinas and Suárez distinguished the accounts of impossible beings from the expressions of real or possible essences. They also distinguished between merely possible essences and actually created ones. And they held that the

only way in which a human being can know that something is a real or possible essence is by knowing that it is actually given in reality. As St Thomas puts it: ‘A thing is not known as potential, but only in so far as it is actual . . . Thus even potentiality itself can be known only through its actualizations’ (*ST*, I, 84, 2). In order to know that A is essentially F one must know that F is a possible essence and in order to know this one must know that something actually is F. It follows that if one knows an essence, one knows also that something with that essence exists in reality.¹⁴

Scholastic knowledge of essence is grounded on sensation in the following ways. First, the conception of an essence is taken from what has been furnished by sensation. Secondly, as we have just seen, knowledge of essence presupposes knowledge of existence; and on their view this is obtained either directly by perceiving the thing in question or through demonstration from perceived effects or causes (see *TPA*, II, 1 and 2; II, pp. 411b and 415a). There is however a third manner, equally germane to our topic, in which Scholastic knowledge of a substantial essence involves sensory perception of a substance with that nature.

The Scholastic philosophers we are discussing all held, with Descartes, that in order to know that F is the essence of a substance it is not enough to know that F is a possible property; one must know also that F stands in a certain relation to the substance. The essence of a substance is a property which the substance itself, however spoken or thought of, must have if it exists. Substances are in a sense constituted by their natures: the essence identifies the substance as what it is; it preserves its identity through change; it brings different properties together under a real unity. Scholastic essences divide reality into species or natural kinds; and natural kinds are not arbitrarily defined classes; nor is the essence of a natural kind, what binds together the members of the species as such, something which they bear on the surface, a property which is immediately recognizable upon perception of a specimen.¹⁵

Discovering the essence of a kind is, for the Scholastics, an empirical matter which requires the examination of actual specimens. That this is so is suggested already by the claim that what a substance is in potency can be known only through its actualizations; it can be appreciated further from the following observations.

An inquirer determines a species or natural kind, whose essence she seeks to discover, by coming across an actual example, identifying it, and, through it, ostensibly defining a kind. She then seeks to know the essence of the species to which this thing belongs. One does not seek the essence of small, yellow, winged, feathered and singing things, but of the species to which belongs some actual entity satisfying that description. And that essence will be the essence of things not satisfying the description and not of other things which do satisfy it. That description, like the classic ‘featherless biped’, does

not define a natural kind, since not everything satisfying it must have the same essence and many things with the same essence as things satisfying it might not satisfy it themselves.¹⁶

An actual substance presents an inquirer with a definite natural kind. None the less, if she is to succeed in determining an object for her inquiry, she must identify the substance through a description that by and large succeeds in picking out members of the natural kind. A canary might belong to the class of things I see in the morning or of creatures living in a certain neighbourhood. To determine the natural kind of canaries we need to come across an actual canary and identify it through a description which succeeds, not in defining the species, but in helping pick out typical members. A description such as 'something small, yellow, winged, feathered and singing' might indeed serve for this purpose.

Once one has determined a kind whose essence one seeks to know, one must still have access to actual specimens in order to examine them and, through careful observation, discover what properties essentially belong to members of the kind, what properties, that is, constitute the members of the kind as what they are. This fundamentally empirical enterprise is the Aristotelian science of the Scholastics. This science, when complete, consists of a classification of essentially defined species together with a syllogistic articulation of the connection between the definitions and the attribution of the other properties which might belong to the members of the species.

Scholastic thinkers combined this empirical understanding of the science of nature with the Augustinian view that there are eternal and immutable essences of things, which are archetypes within God. For Aquinas and the Jesuit Late Scholastics, human beings know this world of eternal forms only sensorially and through its contingent and mutable realization in creatures.

The Scholastic conception of natural kinds and their science which I have sketched above leaves no room for the claim that one might know an essence and be ignorant of the existence of anything with that essence. Here we have, then, the rationale of the Scholastic existentialist dependence thesis.

The rationale of Cartesian essentialism I: the doctrine of substance, essence and mode

We turn now to Descartes's essentialist reply to these Scholastic existentialist considerations.

Let us begin with the Cartesian attack on the view that someone might know that a substance exists without knowing its essence. One relevant disagreement between Descartes and his Scholastic predecessors which can serve to get our discussion started concerns the logical relations between a substance, its essence and its 'intrinsic' accidents, those non-essential properties which inhere in it.¹⁷

Descartes understood inherence as determination, and accidents or modes as ways of being of the one essential attribute of the substance to which they belong. He conceived substances as existing determinable essences, and he took their non-essential real properties to be determinates of these essences: the idea of a mode of a substance involves the idea of its essence as the idea of a determinate involves the idea of its determinable (e.g., as the idea of square involves the idea of figure).¹⁸ According to Descartes, the true attribution of any accident or mode to a substance entails its essential definition, and more to the point, if someone knows the existence of a substance described through its intrinsic properties, then *ipso facto* he also knows its essence. We have knowledge of the essence of a substance in a measure corresponding to our understanding of its real properties: ‘the more properties of a given substance we know, the more perfectly we understand its nature’ (AT, VII, 360).¹⁹

All substances are, for Descartes, of one of two classes, mental or bodily (see AT, VIII–1, 23). The essence of a substance of the first class is thought or consciousness; and its modes are doubt, desire, understanding, knowledge, sensation, feeling, and the other determinations of thought. The essence of body is extension conceived as size, shape, and movement or rest; and its accidents are determinate sizes, shapes and amounts of motion.

If someone knows that a doubting substance exists, he thereby knows that a thinking substance exists. To understand doubt is to understand thought or consciousness. Of course, we may know ‘a doubting substance exists’ without it being true *thereby* that we know ‘a doubting substance is a thinking substance’; for we might not know the meaning of the word ‘thinking’. Still, in knowing doubting thought we know thought, as we know colour and figure when we know the colour red and the square figure.

Scholastic accidents, on the other hand, do not stand in a similar relation to the essences of the substances to which they belong; they are not determinates of a determinable nature. That something is a featherless biped does not entail that it is a rational animal. We could understand the property of being a featherless biped without understanding rational animality. Thus, on the Scholastic view, we can know that a featherless biped exists, one who is in fact a human being, without it being true that we thereby know its nature. Descartes would disagree, yet his views on substance and its properties seem counter-intuitive, far removed from common sense and the Aristotelian Scholastic doctrines built around it. For instance, it is a consequence of Descartes’s claims that substances with different essences cannot share an accident or mode. Against the belief that a certain horse and cow are essentially different substances with the common accident of each having four legs, Descartes would contend that a horse and a cow are not two substances with different natures and that, if they were, they could not both have four legs.²⁰

None the less, Descartes's doctrine of substance, essence and mode can afford but a partial grounding of his essentialist dependence thesis. There are other non-essential descriptions of a substance apart from those cast in terms of its intrinsic accidents or modes (for example, descriptions taken from the extrinsic relations in which a substance stands to other substances). So it could be argued that we can succeed in referring to a substance without determining what its essence is.

To begin justifying an essentialist dependence thesis along the lines discussed we would have to establish that *any* description of a substance which leaves its essence undetermined (e.g., 'the substance about which X thinks', or simply 'a substance') is such that the substance cannot be known to exist only under such a description. (Even if this were granted, it would not be enough on its own to validate the essentialist dependence thesis in this stronger formulation: if someone knows 'A exists' then she or he must know also 'A is essentially F'.) Fully to appreciate the rationale of Descartes's essentialism we must turn to his views on knowledge and its intellectual origins, and to the function which he assigned to sceptical considerations in the construction of a true science of being.

The rationale of Cartesian essentialism II: knowledge, scepticism and the critique of the senses

Scholastic reliance on sensation is manifest in the treatment of the acquisition of knowledge that a substance exists. Toledo notes 'that we do not ask of everything whether it exists, but of things which do not fall under the senses; of those which are perceived sensorially, nobody asks, "are they?"' (*TPA*, II, 1; II, p. 411a). When we do ask whether something exists, we seek a demonstration that it is or that it is not. We must then have some account of that after whose existence we inquire, an account which, as St Thomas indicates, 'either . . . explains the meaning of a name' or is 'an account of the very thing named . . . distinct from the definition' (*PA*, II, 8, 6; see also *ID*, V, 2–4; I, pp. 287–95). This account will introduce the middle term of a syllogistic deduction. Toledo points out that there are four genera of middle terms in proofs of existence: effects, final, material and efficient causes (*TPA*, II, 2; II, p. 415a). For example, if food is something required for the sustenance of life, then from the existence of living animals we can demonstrate that there is food. The middle term need not refer to *actual* effects, causes or properties. Thus, if 'vacuum' means 'a place lacking body', then from the fact that there is no instantaneous motion we can prove that a vacuum does not exist, since if a place lacked body, movement would happen in an instant (*TPA*, II, 2; II, p. 415a and b; contrast *AT*, VIII–1, 49. See also *ID*, VII, *passim*; II, pp. 454–624; on instantaneous motion see *AT*, VIII–1, 64 and XI, 45.)

Scholastic demonstrations of existence require an existential premiss. Ultimately they rely for this premiss not on further demonstration leading to a never-ending regress but on direct sensory perception. This has an effect on the responses to scepticism with regards to the senses which are open to a Scholastic philosopher.

The Aristotelian thinkers with whom we are concerned were not ignorant of the fact that humans sometimes perceive illusions and are the victims of hallucination. (In the next chapter we will see that Suárez even considered the possibility of an angel forcing the intellect to assent to what is false.) The interesting and pertinent issue is not whether Aquinas and his Jesuit followers allowed for the failure of sensation to represent actual things, but how they dealt with this fact. They did not admit proofs of existence independent of the sensory perception of actual substances; they needed to dispose of sceptical considerations without giving up on the notion that the senses give access to a world of real and truly existing things. This is radically different from the way in which Descartes incorporated scepticism with regards to the senses within his philosophy.

Descartes's essentialism is linked to an intellectual conception of knowledge and the view that understanding is autonomous relative to sensation. One of the main purposes, if not the main purpose, of Cartesian scepticism is to draw the mind away from the senses and towards the intellectual grasp of essences existing within it. For Descartes knowledge of existence is built upon the intellectual perception of essence. We can know that a substance exists in one of two ways: first by direct intellectual apprehension of an actually existing essence in self-consciousness; or secondly by a proof of existence which relies solely on premisses independent of sensation. Proofs of existence include statements of the essence of the substances whose existence they demonstrate. These essential definitions are the result, on the Cartesian view, of the autonomous intellectual perception of essences existing not in reality but within the mind.

Descartes acknowledged that apart from providing him with an opportunity for their refutation, the introduction of sceptical arguments in the *Meditations* served him 'partly . . . to prepare my readers' minds for the consideration of the things of the intellect . . . and partly . . . to show the firmness of the truths which I propound' (AT, VII, 171–2). These two aims are not independent: the certainty which attaches to the truths of the Cartesian metaphysics is the result of a purely intellectual exercise, where the mind disregards sensation as a source of knowledge and relies solely on its clear and distinct intellectual apprehension. It is Descartes's view that the whole of human knowledge and understanding is based on intellectual foundations.²¹

This Cartesian intellectualism is compatible with assigning some role to the senses in the acquisition of knowledge. In fact, it is compatible with

Descartes's claim that '[a]ll the conduct of our life depends on our senses' (AT, VI, 81). First, being modes of thought, sensations are the objects of clear and distinct intellectual self-awareness. But their proper objects, 'pain and pleasure, light, colours, sounds, smells, tastes, heat, hardness and the other tactile qualities', are grasped clearly and distinctly by the mind only as objects of sensation and never as 'things, or affections of things' having perhaps 'some existence outside our thought' (AT, VIII-1, 23 and 22; and IX-2, 45).²²

Secondly, sensations are causally responsible for knowledge of matter, as they arise from the 'close and intimate union' of mind and body (AT, VIII-1, 23). Consider a feeling of pain. From such feeling the mind knows that the body is in a certain state. Though the pain does not represent the state the body is in, it is an effect of the bodily state. Descartes argues that the sensation of pain which is thus occasioned is itself the occasional cause of a clear and distinct belief concerning the body. He maintains that this belief is true, and that it amounts to knowledge about material substance as it exists in reality. A similar situation arises when we deal with sensation of objects common to the intellect and the senses, objects which, like size, shape and movement, may be both sensed and understood. Descartes stresses that even in such cases the material properties which are causally linked to the sensory acts need not be like the properties, existing within the mind, which these acts apprehend, nor these properties like those which the mind thereby comes to know are in the material substance existing outside it (see AT, VIII-1, 32-9 and 315-29).

Throughout his writings Descartes adheres to the notion that all knowledge is the result of clear and distinct intellectual perception and that none of its content is properly sensorial. He credits the senses, as occasional causes, with the determination of the intellect. This is enough to make sensation necessary for human knowledge of corporeal substance. Without experiment, the Cartesian science of nature cannot progress beyond the merely possible at a general level. All the same, the senses remain external participants in what is properly the work of the intellect.

The knowledge to which sensations give rise is either of the mind itself that has them when they are clearly and distinctly perceived in self-awareness, or of a body which is in some fashion causally linked to the mind. In the latter case, the proper objects of sensation do not figure in the content of the knowledge of the body, and sensation serves as the mere occasion for clear and distinct intellectual perceptions to take place.

The senses can play even this reduced part in the acquisition of knowledge only if validated through an argument which depends solely on what is clearly and distinctly perceived by the intellect. It is from the resources of its intellect alone that the mind knows how, from its own acts of sensation, it can obtain knowledge about a substance other than itself. In Descartes's

refutation of the sceptical arguments, the intellect validates itself and assigns to the senses their correct epistemic function. Scepticism serves the double purpose of drawing the mind away from the senses and of directing it towards pure intellectual perception, with which it can uncover the clear and distinct grounds of all knowledge.

The Cartesian way to knowledge starts with the unveiling of a world of essences which exists within the mind and which the intellect alone can perceive clearly and distinctly. This is so whether we look at the *Discourse on the Method* or the *Meditations*, at the *Principles of Philosophy* or *The Search for Truth*. It is true even of the ‘Arguments . . . arranged in a geometrical fashion’ appended at the end of the Second Replies. Here Descartes does not deploy his famous method of doubt: there is no mention of a deceiving demon or of the supposition that our perceptions might all be like dreams.²³ Instead, under the heading ‘Postulates’ he lists a series of requests which he makes of his readers (AT, VII, 162–4). The first is that by reflecting on ‘how feeble are the reasons that have led them to trust their senses’, they ‘acquire the habit of no longer placing too much trust in them’. Descartes stresses that ‘this is a prerequisite for perceiving the certainty that belongs to metaphysical things’. The second request, following upon the first, is that ‘they reflect on their own mind, and all its attributes’. Next, he asks that they ‘ponder on those self-evident propositions that they will find within themselves’. ‘In this way’, he adds, ‘they will be exercising the intellectual vision which nature gave them, in the pure form which it attains when freed from the senses.’ His fourth request moves on to the contemplation of the essences found within the mind; he asks that his readers ‘examine the ideas of those natures which contain a combination of many attributes, such as the nature of a triangle, or of a square, or of any other figure, as well as the nature of mind, of body, and above all the nature of God’. He points out that ‘whatever we perceive to be contained in these natures can be truly affirmed of them’.

In these succinct statements Descartes displays the first foundations of his science and metaphysics. In the *Meditations* and in the *Principles*, the appeal to sceptical arguments, his method of doubt, serves the same function of guiding the mind along the path to certain and indubitable knowledge by directing it towards itself and its contents. From our point of view, interested as we are now in the rationale of Cartesian essentialism, the first thing to remark upon is that for Descartes all knowledge of existence is grounded on the intellectual perception which the mind has of itself and of the natures which exist within it. The mind knows its own existence by a clear, distinct and unmediated perception of itself as an essentially thinking substance existing in reality. It knows God’s existence through demonstration grounded on the understanding of His nature.²⁴ Finally, to know the existence of corporeal substance the mind relies on an argument that involves the intellectual

apprehension of the essence of matter. Hence, unless an inquirer follows the clear and distinct route of intellection and so grounds his awareness of the existence of a substance on the grasp of its essence he will not have 'true knowledge, since no act of awareness that can be rendered doubtful seems fit to be called knowledge' (AT, VII, 141). This, then, is the rationale of the Cartesian essentialist dependence thesis.

We can now sketch a Cartesian answer to the considerations with which Scholastics supported their existentialist dependence thesis. For Descartes, knowledge of whether a certain property is part of the essence of a possible substance or not is the result of purely intellectual inspection of objects existing within the mind. The inner furnishings of the soul provide what is needed to know the essence of all the natural kinds which humans can know. Since in some cases knowledge of the existence of a substance is obtained by relatively complex demonstration from premisses which include a statement of its nature, it is possible, at least in principle, to know an essence and not know whether there is anything with that essence outside the mind. Here we have, then, the rationale of the Cartesian essentialist independence thesis.

Over the last few pages we have covered a considerable terrain. In later chapters we will explore it more carefully. To complete our immediate propaedeutic discussion we still need to discuss the order in which, in actual practice, Descartes purportedly attained knowledge of the essence and existence of substances. Was Descartes a consistent and practising essentialist? In the following section I present the general outline of my affirmative answer.

The essentialist order of the *Meditations*

Let us, then, address this second aspect of Descartes's essentialism, that in actual practice he abided by the essentialist order. This in turn involves two claims: first, that when Descartes professes to know that a substance exists, he always professes also to know its essence; and second, that at least in the case of one substance he professes to know its essence while maintaining that he is ignorant of its existence. A different question arises if we ask whether Descartes had any right to make these claims. In this case we would need to find out not just what Descartes took himself to be doing, but what, under a sympathetic interpretation, he could have done if certain other of his claims and ends were to be respected and met. I address here the first issue. As to this other question, I answer it only indirectly. I offer a sympathetic reading of Descartes which satisfies the essentialist precepts. But I myself think essentialism cannot be right. So I do not think Descartes could actually succeed in doing what he proposed to do. This still leaves room for the idea that Descartes's arguments were designed to observe the essentialist order.

The matter before us concerns knowledge of the existence of the corporeal world, of God, of the self and other minds. Following Descartes's own example, I will remain mostly silent about knowledge of the existence of souls other than the self. Though I will keep other texts in mind, I shall refer more closely to the *Meditations*. We will begin with some remarks about the order and structure of this work and consequently of the Cartesian metaphysics.

Descartes starts by propounding a sceptical reflection designed to lead the mind away from the senses and towards the intellectual contemplation of itself and of truths and essences within itself. Having deployed the sceptical arguments in the First Meditation, Descartes proceeds to do two things in the Second Meditation. He provisionally establishes his nature and existence; and he isolates, secures and exercises the clear and distinct intellectual perception which he conceives to be the key to certain knowledge. He achieves these ends in parallel. After a first consideration of his nature, towards the beginning of the Meditation, he introduces the claim 'I am, I exist'.²⁵ But he warns that the claim is not secure unless we acquire a firmer grasp of the nature of the 'I'. In what follows, guided only by what he understands clearly and distinctly, Descartes examines first, the self, and then within the self, the objects of its acts of understanding and of sensation. The upshot is that at the start of the Third Meditation Descartes is ready to confront the sceptical arguments and establish his fundamental metaphysics and ontology. In that and the following Meditations, starting from the distinct grasp of essences within the mind, Descartes proves the existence of God and, finally, of matter.

The *Meditations* begin by leading the mind towards the clear and distinct contemplation of its own existing nature and of the real essences which are found within it; once in that position, the mind is led to the discovery of the actual existence of substances with those essences. The structure of the *Meditations* makes manifest the essentialist character of the Cartesian philosophy.

Let us turn towards the individual cases: first, extended substance. In the Fifth Meditation Descartes claims to possess knowledge of the essence of matter. He displays some of this knowledge by referring to geometrical truths. Later, at the beginning of the Sixth Meditation, he maintains that this knowledge assures him of the possibility of the existence of extended substance or body. Finally, he establishes that there actually exists a material substance through an argument that involves reference to God's existence and nature, to the natural inclinations of the self, and to sensory perceptions. This procedure clearly satisfies the essentialist independence thesis: at the start of the Sixth Meditation the inquirer knows the essence of a possible substance while in ignorance as to whether it actually exists. The essentialist dependence thesis is also obviously respected: the inquirer knows the existence of matter in the Sixth Meditation only on the assumption that he has clearly and distinctly understood its essence in the Fifth.

In the *Meditations* Descartes uses three arguments for the existence of God, two causal arguments in the Third Meditation and the ontological argument in the Fifth Meditation. Two of these arguments patently abide by the essentialist dependence thesis. The ontological proof requires inspection of God's nature, for it argues that necessary existence is entailed by God's essence. The first proof in the Third Meditation is based on the principle that the total cause of an idea must account for the object or content of the idea (AT, VII, 40–2). The argument invokes the existence of a 'sufficiently' clear and distinct idea of an infinite being (AT, VIII–1, 12; see also AT, VII, 45 and 152). It then proceeds to the conclusion that God, an essentially infinite being, exists, by holding that nothing else could causally account for the object of such idea (AT, VII, 45–7). In both these cases there is a direct appeal to the understanding of God's nature (as far as this is attainable by humans) in order to establish His existence.

The second causal proof, on the other hand, follows a pattern of argument closely similar to that of Aquinas's Second Way. Using certain principles of causality, Descartes argues from the existence of a substance, the self, through the impossibility of an infinite regress in the series of its causes, to the existence of God (AT, VII, 47–51). Descartes's departures from Aquinas are significant, though not without precedent. Following a line of thought that went back to John Duns Scotus, Suárez had argued that the Thomist arguments needed to be supplemented by an *a priori* investigation of God's nature. Suárez recognized the implications of this view for his Thomist existentialism, but he dismissed them pointing out that 'in God these questions ["is it?" and "what is it?"] cannot be entirely separated' (*MD*, XXIX, 3, 2).

Historical and philosophical considerations support placing Descartes within this Scholastic tradition. He offers two reasons to show that any causal proof of God requires knowledge of His essence. The first is that without knowledge of the possibility of a necessary being we cannot know that the series of causes is not infinite. The second reason merely repeats Suárez and others in the School: without knowledge of God's essence we cannot know that it is God whom we have shown to exist (AT, IV, 112; see *MD*, XXIX, 2 and 3).

This last point may be put as follows. Suppose we know that an F exists, where 'F' is some description which happens to apply to God but which could be true also of finite and mutable things. We do not know God exists unless we know that an infinite and supremely perfect being exists; and this is just the definition of God. If we prove that an F exists, then we know that a being exists which, for all we know, could be finite and mutable. But that is not to know that God exists. A demonstration that an F exists is not a demonstration that God exists, even if the only F there exists is God.

Thomist existentialism requires that there be a gap between an initial account of the meaning of a name and the final essential definition of its

existing referent; and it meets this requirement through its empiricist understanding of science. The existentialist needs an account of how we initially identify God through some possibly non-essential description, and how our coming to know His essence supposes that He exists.

The difficulties are apparent, for God is not an object of empirical science. A Thomist will hold that we cannot know that an infinite and supremely perfect being is possible unless we also know that such a being exists; but he has nothing to say in support of the existentialist independence thesis. The essentialist doctrine, found in Descartes, Suárez and Duns Scotus, is that there is an *a priori* understanding of God which constitutes knowledge of His essence and which fixes the relevant meaning of the word 'God'.²⁶

Descartes maintained that it is from mere and pure intellectual inspection that we establish the possibility of an infinite and supremely perfect being. But it is a consequence of his ontological argument that understanding God's nature involves grasping that He exists necessarily. The essentialist independence thesis appears untenable: one cannot know that an infinite and supremely perfect being is possible without thereby knowing that such a being exists. That granted, all the Cartesian arguments observe the essentialist dependence thesis: in the three of them it is apprehension of God's essence that grounds knowledge of His existence.

The contrast between Cartesian essentialism and Scholastic existentialism is strikingly apparent in the opposition between Descartes and Aquinas regarding the issue of whether God is first in the order of human knowledge. According to Descartes there is a sense in which He indeed is, for it is only once we know that there is a true God that we can be certain of anything else (see AT, VII, 36). For St Thomas, on the other hand, 'we arrive at a knowledge of God by way of creatures' (*ST*, I, 88, 3). It is from our sensorial ideas of material things that we frame our idea of God. The earlier half of Descartes's *Meditations* is designed to overturn this Scholastic existentialist empiricism.

Let us finally examine how Descartes dealt with knowledge of his own essence and existence.

The definition of a mind does not entail the existence of the mind defined. Nevertheless a mind's knowledge of its own essence, as indeed its knowledge of any essence, does entail the existence of the knowing mind itself. The essence of one's own mind is not given as other objects of knowledge: it is given fully determined and actual in self-awareness. There cannot be self-conscious cognition of thought without there being knowledge that a conscious thing exists; for in self-consciousness the soul perceives its immediate object, an actually existing mind, as actually existing.

In the case of self-knowledge Descartes grants the existentialist dependence thesis. Yet we should not lose sight of the differences that separate him from

Aquinas and the Late Scholastics. In Scholasticism one finds no conception of a substance, the mind, whose sole essence is thought. Descartes was right when he claimed: 'I am the first to have regarded thought as the principal attribute of an incorporeal substance' (AT, VIII-2, 348).²⁷ Aristotelian sensation is a material act; it is the act of a certain body, an animal. Scholastics of course acknowledged that sensation is a sort of awareness; but they did not use awareness to draw the line dividing matter from spirit. Cartesian sensation, on the other hand, is the act of an immaterial soul or substance; it involves a bodily act only occasionally.²⁸ The Scholastic soul, furthermore, is not properly a substance but the form of a substance. Its nature or character is not, even when taken generally, to think; and when taken individually it is not the first-personal point of view.

In fact, Descartes and Aquinas are directly at odds with regards to the existentialist independence thesis in the case of the mind's knowledge of itself: while Descartes upholds the essentialist dependence thesis even in this case, Aquinas denies it. In the *Summa of Theology* St Thomas distinguishes two forms of self-knowledge. On the one hand there is the self-consciousness or mere existential knowledge which results from the immediate awareness of our mental acts; on the other there is true knowledge of our nature, which if at all attainable is the product of a careful inquiry into the workings of the soul:

our intellect knows itself, not by means of its own essence, but by means of its activity. And this happens in two ways: the first particularly, as when [someone] perceives himself to have an intellectual soul in virtue of perceiving himself to understand; the second universally, as when we inquire into the nature of the human mind from the activity of the intellect . . . There is, moreover, a difference between these two kinds of knowledge. For in order to have the first kind of knowledge the very presence of the mind suffices . . . But to have the second kind of knowledge of the mind its presence does not suffice. In this case a diligent and subtle inquiry is required. (*ST*, I, 87, 1; also see *DV*, X, 8 and 9)

Both kinds of self-knowledge, however, are dependent on sensation. To exist all mental acts require intentional species or forms which humans can acquire only through the senses. No self-knowledge is sensorial; but both kinds require the exercise of the senses. According to Aquinas, 'what is first known by the human intellect is [something external, namely, the nature of material things]; then, in the second place, the act by which [this] is known is itself known; and finally, by means of the act, the intellect, of which the act of understanding is the perfection, is itself known' (*ST*, I, 87, 3). Pierre Gassendi pertinently asked Descartes what thoughts a human mind would have if sensorially deprived from birth (see AT, VII, 310 and 321-2). St Thomas's answer to this question would have been a clear cut and consistent 'none'.²⁹ Descartes's answer was that in those circumstances the mind would have

clearer ideas of itself and of God than those it has of these things when sensorially equipped (see AT, VII, 375).

Suárez, who on the question of the ontological divide between matter and spirit might perhaps be somewhat closer than Aquinas to Descartes, writes that

in this life we know our soul in some fashion up to its specific difference. Still we do not know it quidditatively . . . For we do not conceive it through its proper substance and species, nor do we perceive clearly enough its mode of understanding and operating, nor finally do we apprehend positively the mode of its substance, so to say, but only through a negation. (*MD*, XXXV, 3, 3; see *DA*, Proemium, 33)

According to Suárez the essence of the soul is not known even after careful examination, let alone simple self-consciousness. For Descartes, on the contrary, self-awareness reveals not only the existence of the soul but also its nature. He abides by the essentialist dependence thesis even in the case of the mind's knowledge of its own existence. On this he is at odds with both Aquinas and Suárez. St Thomas explicitly identifies the first kind of self-knowledge which we introduced above with knowledge of existence (*'an est anima'*), while identifying the second kind with knowledge of essence (*'quid est anima'*) (*DV*, X, 8).³⁰ In the case of knowledge of one's own soul, Aquinas clearly upholds an existentialist independence thesis: 'many know they have a soul who do not know what their soul is [*quid est anima*]' (*DV*, X, 9).

In knowing its existence the inquiring self of the *Meditations* is, according to Descartes, directly acquainted with its own essence. Knowledge of the existence of the self is founded on a direct apprehension not of the self's existence, but of its actual properties: 'we cannot initially become aware of a substance merely through its being an existing thing, since this alone does not itself have an effect on us. We can, however, easily come to know a substance by one of its attributes' (AT, VIII–1, 25). If the self is conscious of its acts or properties, it is conscious also of its nature; for any mode of the self is a determinate of its determinable essence. The acts or properties of a mind are just thought or consciousness, its essential attribute, made concrete and determinate.

Cartesian knowledge of the existence of the self presupposes direct acquaintance with the self's essence. It also presupposes at least some discursive knowledge of this nature. My certainty that I exist is founded on the clarity and distinctness of my understanding of myself as a thinking thing. In as much as I take myself to be a body, I do not know that I exist. I know I exist because I perceive that I sense or imagine things: but then 'sense' and 'imagine' designate modes of thought. When I distinctly perceive myself in self-awareness I perceive my sensations and acts of imagination only as modes of thought; and I know I exist in the measure in which I am distinctly self-aware of my acts, properties or modes.

In the Second Meditation we 'finally' arrive at the famous conclusion, 'I am, I exist', only 'after considering everything very thoroughly'. One of the things considered in the lines before this phrase is whether at the strongest moment of the doubt one could not conclude that one was something, given that one had thoughts. Descartes then adds: 'But I have just said that I have no senses and no body. None the less, I hesitate: what follows from this? . . . Does it . . . follow that I too do not exist? No: if I convinced myself of something or just thought anything at all then certainly I existed' (AT, VII, 25; IX-1, 19). Next the possibility that a supreme deceiver could 'bring it about that I am nothing so long as I think that I am something' is rejected.³¹ In these preliminary considerations Descartes displays the clear and distinct understanding of the self, given in self-awareness, which is required to conclude with certainty that 'this proposition, "I am, I exist", is necessarily true whenever it is put forward by me or conceived in my mind'.

At this moment in the Meditation we are not fully cognizant of the nature which we are directly perceiving: 'I do not yet have a sufficient understanding of what this "I" is'.³² Our understanding, though, is sufficient to ground an initial knowledge of our existence; for we have already determined the precise object of our attention and we will not lose sight of it so long as we remain within the limits of what we distinctly understand.

Descartes makes clear how strongly he takes the certainty of 'I exist' to depend on a clear and distinct discursive understanding of the self. Immediately after first stating 'I am, I exist', he writes that 'I must be on my guard against carelessly taking something else to be this "I", and so making a mistake in the very item of knowledge that I maintain is the most certain and evident of all' (AT, VII, 25). This consideration sets him off into a more careful examination of 'the nature of this soul' (AT, VII, 26; see 25-9).

Cartesian self-awareness is self-understanding. 'I exist' and 'I think' are expressions of the same intellectual grasp of my own existing essence. To maintain that in the *Meditations* one knows one's existence without knowing one's essence is to ignore Descartes's own understanding of the self-knowledge underlying both 'I exist' and 'I think'.

One thing is in any case certain: Descartes himself claimed to be following the essentialist order when knowing his own existence. Against the inexhaustible Gassendi he addressed this very issue and left no doubt as to his position. 'I am surprised', he wrote, 'that you should say . . . that I distinctly know that I exist, but not that I know what I am or what my nature is; for one thing cannot be demonstrated without the other' (AT, VII, 359).

Descartes's mocking avowal of surprise was perhaps not completely unwarranted, for the Second Meditation could be naturally interpreted in the way I have suggested. In fact throughout the *Meditations* Descartes respected his proclaimed essentialism. We will come back to this matter in later chapters.

At the end of chapter 5 and then again in chapter 9, we will examine the order of knowledge of essence and existence in the *cogito*; and in chapter 6 and at the end of chapter 8 we will discuss the proofs of God's existence in the Third and the Fifth Meditations.

Cartesian essentialism and Scholastic existentialism give opposing answers to the question, 'what is prior, knowledge of the existence or of the essence of a substance?' To appreciate this contrast we must call upon several doctrines, concerning substance, its essence and properties; understanding and sensation; the self and its nature; essential and natural necessity and possibility; God and His relation to creatures. The opposition between Cartesian essentialism and Scholastic existentialism manifests the unity of the philosophies characterized in its terms, and it affords us a tool for the examination of Descartes's metaphysics and for the fruitful articulation of its relations to Late Scholasticism.

We have now completed the introduction of the themes which inspire and structure the investigation we are about to undertake. The next chapter starts with an account of the history of Descartes's thought until the abandonment of the *Rules* in 1628, focusing on his use of scepticism and on his reaction to the doctrines of the School. The chapter ends with a sketch of Descartes's more general cultural surroundings. My aim is to establish that he undertook his metaphysical reflections against the background of Late Scholastic thought and with the aim of displacing Aristotle, and to present the historical origins and context of the Cartesian essentialist philosophy. Chapter 3 introduces the conception of essential necessity and the being of real essences common to Descartes and his Scholastic predecessors, the Platonic background against which their opposite theses must be understood. This will complete the first, introductory part of the book.

In part II we will consider Descartes's views on ideas and we will examine the road which he follows from essence to existence in the cases of the self and of God. Chapter 4 discusses Descartes's account of the structure, intentionality, and causality of mental acts and his conception of the mind as an inner theatre populated by mental entities and in interaction with the corporeal substance outside it. Chapter 5 examines his views on the relation between sensation and understanding, focusing on his critique of the senses and the autonomy with which he endowed understanding. Chapter 6 looks at Descartes's causal arguments for the existence of God. Finally, in part III we will consider the Cartesian doctrine of substance, essence, and mode.

Let us turn, then, to the evolution of Descartes's thought from his early Jesuit schooling at La Flèche to the articulation of his essentialist philosophy, intended to replace the Aristotelian system of knowledge.

2 Scepticism, Scholasticism, and the origins of Descartes's philosophy

Descartes's education at the Jesuit school in La Flèche

René Descartes, *seigneur du Perron*, was born into a family of the expanding provincial lower nobility or higher bourgeoisie in the town of La Haye in Touraine on 31 March 1596.¹ His mother, Jeanne Brochard, died a few days after giving birth to a still-born child in May 1597.² His father Joachim (a magistrate at the Parliament at Rennes who in 1626 was appointed to the court that condemned Henri de Talleyrand-Périgord, the Count of Chalais, for conspiracy against the king) married again, so Descartes received his first education from his maternal grandmother, Jeanne Sain, and a wet-nurse whom he would remember until his death (see AT, V, 470). Little is known of the memories which he preserved from these first years or of the effect that they might have had later in his life: the most remarkable is perhaps his weakness for convergent strabismus or cross-eye, which derived from his precocious love for a little girl who suffered from the defect (see AT, V, 57).

After this initial schooling within his family Descartes was sent in 1607 to the Jesuit school at La Flèche in Anjou.³ This institution had opened its doors in 1604 under the auspices of Henry IV. It is reported that the king wished to establish the best school in France there.⁴ Descartes stayed for almost nine years. During the last three he received the only formal training in philosophy and the sciences he would receive in his life. Contrary to common belief and to the impression one might gather from some of his writings, he acknowledged his debt to this first training. As will become clear in the ensuing chapters, its influence might in fact go deeper than he himself ever realized. In later years he would recommend the school at La Flèche: 'there is nowhere in the world where ... there is better teaching' (AT, II, 378). To his Jesuit philosophy teacher he wrote that the *Discourse* was 'a fruit which belongs to you and of which you placed the first seeds in my spirit'; but undoubtedly there was false modesty in the exaggerated recognition that he owed 'to those of your order all the scarce knowledge which I have' (AT, I, 383; see also I, 477). Fortunately, we possess detailed information about the structure and contents of the studies which Descartes pursued under the Jesuits.

The Society of Jesus was officially founded by Pope Paul III on 27 September 1540. Its *Constitutions* were the work mainly of St Ignatius of Loyola. They contain some general guidelines concerning the teaching of philosophy: ‘In Logic, and Natural and moral philosophy, and Metaphysics one must follow the doctrine of Aristotle.’⁵ But this injunction was not without exception. Years later, in 1582, one of the original founders and companions of Loyola, Alfonso Salmerón, would write to the General of the Order commenting on this item in the *Constitutions*. He remarked that one should follow Aristotle’s doctrine ‘evidently when it is not in conflict with the faith or with more solid reasons’.⁶ Earlier in that letter he cited the famous dictum, ‘*amicus Plato, amicus Socrates, sed magis amica veritas*’, and made a similar point about Aquinas. He noted that in the desire to heal dissent and disagreement they might end up opening a larger wound and becoming ‘transformed from Jesuits into Thomists or Dominicans in an astonishing metamorphosis’.⁷ Salmerón’s correspondent, Claudio Aquaviva, concurred. He resisted the opinion of those within the Order who thought that they should ‘tie themselves wholly to the teachings of Saint Thomas’.⁸ He replied to Salmerón that he had ‘chosen to let them follow not only the most common and received [doctrines] from whatever doctor they be, but even to find something new, with the proviso that they first consult with their superiors’.⁹ The Jesuits eventually produced a guide for the teaching of philosophy in their schools: the *Plan and Arrangement of Studies of the Society of Jesus*. This was to remain in force basically unaltered for more than two centuries. It provided the general outline for the courses Descartes followed at La Flèche. In it were to be found the same spirit of rational inquiry and freedom from dogmatism, while keeping within the boundaries of Scholastic and Catholic thought, that Salmerón had manifested.

The whole philosophy course took at least three years.¹⁰ There were two hours of lessons per day, normally one in the morning and one in the afternoon. These lessons were delivered by the professor of philosophy, who would stay after class for about a half-hour to answer questions and resolve individual difficulties. Later in the day there was an hour of repetition and revision of the earlier lessons, in the care of an assistant specially appointed for this purpose.¹¹ At least once a week there was a disputation presided by the professor: a thesis was read, followed by its supporting arguments and objections; a discussion of the matter at issue ensued. There were also other less common and more solemn events when again a thesis would be presented and carefully examined and defended.

The first year was devoted to logic; and it was recommended that ‘Toledo or Fonseca’ be followed. The reference is to Fonseca’s *Principles of Logic* (1564) and to Toledo’s *Introduction to Aristotle’s Logic* (1561) and *Commentary on Aristotle’s Logic* (1572).¹² Toledo and Fonseca were both Jesuits. Together

with Suárez they were part of the Society's contribution to the Late Scholastic revival of the sixteenth century. The study of logic included the themes treated in Aristotle's *Organon*, from which the following books were explicitly mentioned: *Topics*, *On Interpretation*, *Prior Analytics*, and *Sophistical Refutations*. The *Categories* is implicitly referred to: 'one should also present the easier aspects of the categories, which are normally obtained from Aristotle'.¹³ The first year ended with a general introduction to the Aristotelian theory of science as preparation for the study of natural philosophy in the second year; the second book of the *Physics* as well as the treatment of definition in the second book of *On the Soul* were mentioned. The *Posterior Analytics* was presumably used at this stage.¹⁴

The second year centred around the *Physics*, *On the Heavens*, *Meteorology* and the first book of *On Generation and Corruption*. The *Plan* instructs that specific parts of these works be summarized and that others be left for the third year. It was during this second year that students were taught geometry, specifically Euclid's *Elements*. This mathematical training ran parallel to the study of natural philosophy. Similarly, the third year was mainly devoted to metaphysics, but students would also study moral philosophy, in particular Aristotle's *Nicomachean Ethics*.

The third year covered the *Metaphysics*, *On the Soul* and the second book of *On Generation and Corruption*. Professors were instructed to use Aristotle's texts directly, but also to compare 'the most important interpretations' and to decide on one on the basis not only of the texts but also of 'the authority of more distinguished commentators, or . . . the force of the arguments'.¹⁵ One can safely conjecture that the course by the Jesuits from Coimbra and the commentaries by Fonseca, Toledo and Suárez, as well as the latter's *Disputations*, played a prominent role in the Jesuit classrooms of the turn of the century.¹⁶ Twenty-five years after leaving La Flèche Descartes acknowledged remembering Toledo and the Coimbricences, amongst whom one must include Fonseca; and he refers to Suárez's *Disputations* as a book he had close at hand when replying to the objections by Antoine Arnauld (AT, III, 185; VII, 235).

Descartes was a devoted student. Indeed, he was authorized to stay in his room in bed instead of attending the morning lessons. Though his frail health surely was considered when granting him such special privilege, Jesuit discipline would not have permitted this if it was not to his intellectual advantage. There is a report that in the disputes at school he was particularly noteworthy, displaying a style of argumentation that 'astonished and sometimes embarrassed his teachers'.¹⁷ Of his stay at La Flèche, which he described as 'one of the most famous schools in Europe', Descartes himself wrote in the *Discourse*:
There I had learned everything that the others were learning; moreover, not content with the subjects they taught us, I had gone through all the books that fell into my hands concerning the subjects that are considered more abstruse and unusual. At the

same time, I knew how others judged me, and I saw that they did not regard me as inferior to my fellow students, even though several among them were already destined to take the place of our teachers. (AT, VI, 5)

Descartes's reaction to Scholasticism

Though instructed in the Scholasticism of the early seventeenth century, Descartes did not leave the Jesuit school a follower of the Aristotelians. Rather, the effect of his philosophical studies was a discreet incredulity. In the *Discourse* he wrote about the different subjects which he studied in his youth. When he came to philosophy he revealed for us the earliest origins of his philosophical thought: 'considering how many diverse opinions learned men may maintain on a single question – even though it is impossible for more than one to be true – I held as well-nigh false everything that was merely probable' (AT, VI, 8). Later on he adds:

In my college days I discovered that nothing can be imagined which is too strange or incredible to have been said by some philosopher . . . But, like a man who walks alone in the dark, I resolved to proceed so slowly, and to use such circumspection in all things, that even if I made but little progress I should at least be sure not to fall. (AT, VI, 16–17)

Reading Suárez's extensive and detailed presentation of the numerous different views which his predecessors had held on each one of the many issues discussed in the vast *Metaphysical Disputations*, 'that genuine compendium of the whole of Scholastic wisdom' as Arthur Schopenhauer would call it, it is not difficult to understand Descartes's bewilderment or his eventual decision to undertake a radically new and fresh start.¹⁸ Descartes's early prudence, as his later methodical scepticism, can be adequately understood only when placed against its Late Scholastic background.

After leaving La Flèche and graduating in law at the University of Poitiers, Descartes 'entirely abandoned the study of letters . . . resolving to seek no knowledge other than that which could be found in [himself] or else in the great book of the world' (AT, VI, 9). Still, he gradually developed his scientific and mathematical interests; and he did engage in some philosophical speculation in reaction to the Aristotelian doctrine he had learned so well. Inspired by some dreams and by his genius he undertook the reflections and inquiries which issued in the brilliant contributions to natural philosophy and mathematics for which he is well known. And he slowly gave shape to his first philosophical book, which he left unfinished. Of this period, which is naturally terminated in 1628 with the abandonment of the *Rules* and the retirement to Holland, Descartes wrote nearly ten years later in the *Discourse*: 'Reflecting especially upon the points in every subject which might make it suspect and give occasion for us to make mistakes, I kept uprooting from my mind any errors that

might previously have slipped into it.' He then explains: 'In doing this I was not copying the sceptics, who doubt only for the sake of doubting and pretend to be always undecided; on the contrary, my whole design was to assure myself and to cast aside the loose earth and sand so as to come upon rock or clay' (AT, VI, 28–9).¹⁹

Descartes's assimilation of the earlier scepticism about the established philosophy to the later epistemological and metaphysical quest for certainty contains truth. Both arose reactively from the Late Scholasticism which he rightly recognized to be the official philosophy of his time. His mathematical and physico-mathematical inquiries and the search for a *mathesis universalis* and for a general method for the advancement of knowledge are the seminal analogues of the essentialist metaphysics and epistemology of his later period.²⁰ His was a long but clearly directed march towards a full response to the School. The seeds planted by the Jesuits in his youth gave a first mature fruit with the publication of the *Discourse* in 1637.

At La Flèche Descartes had 'delighted in mathematics, because of the certainty and self-evidence of its reasonings' (AT, VI, 7). In an early text from the *Rules*, possibly from 1619 or 1620, he claims that 'of all the sciences so far discovered, arithmetic and geometry alone are . . . free from any taint of falsity or uncertainty' (AT, X, 364).²¹ However, he warns against sole devotion to these disciplines:

the conclusion we should draw from these considerations is not that arithmetic and geometry are the only sciences worth studying, but rather that in seeking the right path of truth we ought to concern ourselves only with objects which admit of as much certainty as the demonstrations of arithmetic and geometry. (AT, X, 366)

Descartes was already clear at this time in his life that sensory experience is not to be favoured as a source of knowledge: 'we must note that while our experiences of things are often deceptive, the deduction or pure inference of one thing from another can never be performed wrongly by an intellect which is in the least degree rational' (AT, X, 365). He was also clear that intuition, the basic epistemic act in the *Rules*, is not sensorial: 'By "intuition" I do not mean the fluctuating testimony of the senses or the deceptive judgement of the imagination as it botches things together, but the conception of a clear and attentive mind' (AT, X, 368). And he left no doubt about the background against which he was writing when he added dismissively: 'I wish to point out here that I am paying no attention to the way these terms have lately been used in the Schools' (AT, X, 369). But he did not yet present any considered views regarding the role, if any, of sensation in knowledge and the relation between the intellect and the senses.

During the years following his departure from school Descartes slowly developed a philosophical response to the Aristotelians. From its origins this reply involved the recognition of mathematical and purely intellectual

inquiries as paradigmatic examples of certainty, precision, and science; the mathematization of the objects of knowledge and of science; confidence in a non-empirical source of substantive content and knowledge; and the ideal of a true science of being, promised but undelivered by the Scholastics.²²

In 1620 Descartes wrote: 'We have within us the sparks of knowledge, as in a flint: philosophers extract them through reason'. He added that 'man has knowledge of natural things only through their resemblance to the things which come under the senses' and that 'the things which are perceivable by the senses are helpful in enabling us to conceive of Olympian matters' (AT, X, 217 and 218). From early on Descartes reflected on the function of sensation in knowledge, combining an innatist and intellectualist tendency with the recognition of their indispensable participation. In the *Rules* there is a passage, probably dating from around the same time, where he alludes to Plato and the Academy:

I wondered why the founders of philosophy would admit no one to the pursuit of wisdom who was unversed in mathematics; as if they thought that this discipline was the easiest and most indispensable of all for cultivating and preparing the mind to grasp other more important sciences. (AT, X, 375–6)

Shortly after he continues: 'I am convinced that certain primary seeds of truth naturally implanted in human minds thrived vigorously in that unsophisticated and innocent age.' Descartes was himself following the Platonic educational path by starting his ascent towards higher truth with the study of mathematics. Later in life, he found it natural to perceive unity in his intellectual progress.²³ There were changes along the way.²⁴ But he could see his development as guided by the inner truths which he had recognized from the start and which would finally shine undisturbed by prejudice and the deceptive sensations.

In the *Rules*, in a text from around 1626, Descartes writes:

If someone sets himself the problem of investigating every truth for the knowledge of which human reason is adequate – and this, I think, is something everyone who earnestly strives after good sense should do once in his life – he will indeed discover . . . that nothing can be known prior to the intellect, since knowledge of everything else depends on the intellect, and not vice versa. (AT, X, 395)

A few lines later he adds that 'the most useful inquiry we can make at this stage is to ask: What is human knowledge and what is its scope? . . . This is a task which everyone with the slightest love of truth ought to undertake at least once in his life' (AT, X, 397–8). Though in later metaphysical works radical methodical doubt will take the place of this inquiry, there is a common intellectualist aim underlying both projects.

Descartes describes the results of his reflections up to that point as 'preliminary inquiries' in which 'we have managed to discover only some rough precepts which appear to be innate in our minds' (AT, X, 397). After the

examination of the nature and scope of human knowledge, 'we should then turn to the things themselves; and we should deal with these only in so far as they are within the reach of the intellect' (AT, X, 399). Still distant from the developed metaphysics of later years, Descartes was then ready to start an orderly examination of properly philosophical matters. But he was not approaching this undertaking as if he had suddenly discovered it or as if he had been forced into it. Nor is it the case that the sceptical and occultist tendencies found in the intellectual circles in Paris, where he had gone to settle in 1625, played more than the role of circumstantial motives in bringing about Descartes's 'turn to metaphysics'.²⁵

In April 1630, two years after leaving Paris for Holland, while composing *The World*, Descartes wrote to Mersenne that perhaps his correspondent found 'it strange that I have not persevered with' the *Rules* (AT, I, 136–7). The reason for abandoning that book, he claimed, was that 'I had acquired a little more knowledge than I had when I began' and that 'when I tried to account for this I was forced to start a new project rather larger than the first'. Among the reflections he undertook after settling in Holland were some which form part of his developed essentialist metaphysics and which are not explicitly articulated in his earlier work (see AT, I, 181–2).²⁶ Some of his thoughts, however, were a direct development from issues he had started to explore in the *Rules*. Such are his views on ideas. He had approached the subject in Rule XII and, as he later reported, found that there was more to this matter than he had thought at first and that he needed to devote to it more work. In *The World* (which included the separately published *Treatise on Man*) and in the *Optics*, parts of which were possibly written in 1629 but which was in any case finished by 1634, Descartes developed a theory of sense perception to which he adhered throughout his later works.

Descartes's first thoughts on human knowledge

In Rule XII Descartes engaged in the promised inquiry into the scope and nature of human knowledge. He started by claiming that 'there are only four faculties which we can use for' the purpose of gaining knowledge, 'viz. intellect, imagination, sensation and memory'. He added immediately that 'it is only the intellect that is capable of perceiving truth, but it has to be assisted by imagination, sensation and memory' (AT, X, 411). However, before presenting his results, Descartes issued a qualification:

I should like to explain at this point what the human mind is, what is the body and how it is informed by the mind, what are the faculties in the composite whole which promote knowledge of things, and what each particular faculty does, but I lack the space, I think, to include all the points which have to be set out before the truth about these matters can be made clear to everyone.

Hence, he will offer only a summary account (see AT, X, 411–12). What follows is in fact compressed. And it is apparent that already at that point Descartes had more to say about this matter. But one suspects that some of the problems with his first known account of sensation and intellection were not the result of mere abbreviation.

Descartes presents his summary in five sections (AT, X, 412–17). The first four deal with purely bodily processes in the external senses, in the brain, and in the nerves. They contain a physiological account which in its general lines anticipates that offered in later works. Movements and shapes are transmitted through the bodily senses to the brain. There the ‘phantasy or imagination’, which ‘is large enough to allow different parts of it to take on many different figures and, generally, to retain them for some time’, is imprinted, like wax, with these shapes originated in things outside the body and which reach the brain merely through the movement of matter from them to the imagination (AT, X, 414). That this account is wholly physiological and does not involve any conscious activity is made clear at the end of the fourth section when Descartes refers to animals and denies that they have ‘any awareness of things’: he then implies that the account up to that point can be applied to them (AT, X, 415).²⁷

It is only in the fifth section that there is any treatment of properly conscious events. However, before going on to examine it, I wish to remark on some features of the physiological account, which help appreciate its relation to Scholastic doctrine. Descartes uses terminology borrowed from the School: the soul ‘informs’ the body; the individual senses link up at a ‘common sense’ which in turn acts like a seal upon the waxy imagination. Scholastic doctrine is in the background throughout the *Rules*. I have already mentioned some references to the Scholastics in earlier passages. Later on in Rule XII he will castigate the Aristotelians for their definitions of place and motion (AT, X, 426). The reference in Rule XIV to ‘some philosophers so subtle that they have distinguished quantity from extension’, when Descartes is explaining why he is ‘deliberately refraining from using the term “quantity”’, can be fully understood by referring to Suárez’s *Disputations* (AT, X, 447; *MD*, XL, 1–4 *passim* and in particular 2, 14 and 4, 15). The same can be said of his denial that the line, the surface, and the solid are ‘three species of quantity’ (AT, X, 448–9; *MD*, XL, 6 and *XLI*, 4, *passim*).

Parallels could be drawn between the structure and style of the presentation of the doctrine of perception and intellection in Rule XII and in Scholastic texts. The danger, however, is to miss the explicit differences Descartes is drawing with regards to his Scholastic predecessors and teachers.²⁸ In this respect, it is instructive to compare the Cartesian text with Suárez’s *Commentary on Aristotle’s On the Soul* (*DA*, d. VI and d. VII). Descartes explains that the transmission of motion from the external sense organs to the

common sense occurs 'without any entity really passing from one to the other', that it is done through the nerves, and that his account is simple and straightforward (AT, X, 412–15). On his part, Suárez writes that 'by means of this quality which the exterior sense forms in itself is produced in the internal sense some representative species of the same object'. Suárez does not explain this production of a species in the common sense by means of one in a sense organ. But in his dismissal of the nerves as possible routes for the transmission of such species, he writes that 'those passages [the nerves and ducts between the brain and the eye] are not illuminated, nor diaphanous, so that the species of colour can transit through them'. And he claims that his views on these topics are 'merely probable for in such an obscure matter nothing certain can be determined' (*DA*, d. VI, q. 2, 9 and 10). Aristotelian doctrines are present in Descartes's work, but not always or mostly by adoption. Here as in so many other instances the robe is Scholastic but the flesh under it is not.

The Aristotelians analysed substances into form and matter. In sensation the form which exists physically in the matter of the substance and which is the proper object of the particular sense in question (colour of sight, odour of smell, flavour of taste, sound of hearing, and the pairs hot/cold, dry/wet, and hard/soft of touch) is received in the sense organ where it exists as a sensible species individualized in the organic matter, but psychologically or intentionally and not physically. Scholastics thus intended to capture the notion that though the senses sense by becoming informed by their objects, the sense organs do not actually become their individual objects. Some species are received by more than one of the sense organs; these are the common sensibles, magnitude, movement, figure, and number. The objects of each sense organ are perceived by one single internal or common sense which compounds and distinguishes between them.²⁹

Descartes has not only removed the Aristotelian forms: he has no functionally equivalent substitute. The shapes that originate in the sensed things and terminate in the inner part of the brain, where the imagination and the common sense are found, are not said to be, nor need they be supposed to be, the shapes of the sensed objects. Moreover, the natural reading of the text would lead one to suppose that they are not. Thus, in favour of his account Descartes points out that 'the infinite multitude of figures suffices to express all the differences in sensible things' (AT, X, 414). He is giving a mechanistic account of a causal chain that starts in the sensed thing and ends in some part of the brain: the figures impressed on the imagination or phantasy need not be copies of the objects; for they are merely stages in the transmission of movement across extended matter. Descartes is not substituting figures for Scholastic forms. In later works he would restate such anti-Scholastic views. In the Sixth Replies he writes that 'when I see a stick it should not be

supposed that certain “intentional forms” fly off the stick towards the eye; but simply that . . . certain movements are set up in the optic nerve and, via the optic nerve, in the brain’ (AT, VII, 437).

Earlier in his presentation Descartes used an Aristotelian image: ‘sensation occurs in the same way in which wax takes on an impression from a seal’ (AT, X, 412). However, it is important to notice that, unlike Aristotle, he did not ‘have a mere analogy in mind here’. He added: ‘we must think of the external shape of the sentient body as being really changed by the object in exactly the same way as the shape of the surface of the wax is altered by the seal’ (AT, X, 412). Aristotle had pointed out that the wax takes on only the shape of the seal not its matter or its other characteristics: ‘a sense is what has the power of receiving into itself the sensible forms of things without the matter, in the way in which a piece of wax takes on the impress of a signet-ring without the iron or gold’.³⁰ But while the wax does take the shape of the ring, for Aristotle the sense organ does not necessarily assume physically the sensed shape. Though touch may be shaped by the figure it feels, the eye senses the triangle but it does not become triangular. For Descartes, on the contrary, the sense organ, like the wax, becomes actually shaped by the input from the sensed object. The shape that the extension of the sense organ takes need not be the shape of the sensed object, though it is produced mechanically from the shapes of the sensed body.

The difference between Descartes and Aristotle on this matter is significant: in abandoning hylomorphism and Aristotle’s forms, Descartes effected a crucial ontological shift. There is no room for intentionality within the bodily senses; indeed, as we shall see shortly, Cartesian intentionality constitutes an ontological realm of its own.

Descartes starts the fifth section of his account stating that ‘that power through which we apprehend things in the strict sense is purely spiritual, and is no less distinct from the whole body than . . . the hand from the eye’ (AT, X, 415). He continues:

it is one and the same power: if it applies itself with the imagination to the common sense, it is said to see, touch, etc.; if to the imagination alone, in so far as the latter is invested with diverse figures, it is said to remember; if to the imagination, in so far as it forms new figures, it is said to imagine or conceive; if finally it acts on its own, it is said to understand. (AT, X, 415–16)

When Descartes addresses the relation between these functions he seems content to offer only general and purely heuristic comments (see AT, X, 416f).

In the *Rules* Descartes calls the objects of cognition ‘simple natures’. These appear to include both propositional and non-propositional items: doubt, volition, shape, motion, existence, duration, things that are the same as a third are the same as each other (AT, X, 419). Descartes divides them up

into three groups: first, 'those which the intellect recognizes by means of a sort of innate light, without the aid of any corporeal image' and which 'are purely intellectual'; second, 'those ... which are recognized to be present only in bodies' and which 'are purely material'; third, 'those ... which are ascribed indifferently, now to corporeal things, now to spirits' and which he calls 'common'. This last group includes 'those ... which are, as it were, links which connect other simple natures together' (AT, X, 419). These common simple natures 'can be apprehended either by the pure intellect or by the intellect as it intuits the images of material things' (AT, X, 419–20). Though not explicitly stated, the suggestion is that the intuition of corporeal simple natures requires the perception of 'images of material things'.

Descartes says no more than this about the role of the imagination and the senses in intellection and about the relation between intellection and sensation. His other scattered remarks add very little. In Rule XIV, for example, he writes about 'true ideas of colours' and states that we have 'drawn them from the senses'. But he does not explain this further. And it is not clear that he distinguishes between the sensation of colour and the concept of colour (AT, X, 438). There is some indication that Descartes realized that more was needed for his account to be complete: he explicitly leaves an explanation of 'how pure intellection occurs' for 'its proper place' (AT, X, 416). But what remains unclarified is more than that and it concerns topics which he does treat in the texts I have cited. There are several different issues which arise when dealing with doctrines of perception and intellection and which are not always clearly distinguished in the texts of Descartes and his Scholastic predecessors. It is well known that Descartes uses the term 'idea' to express many different notions.³¹ Equally, his treatment of these different topics is not always separated. Failing to distinguish between them can easily lead interpreters astray.³²

First, then, one might engage in an ontological inquiry. Having dismissed Aristotelian forms and the hylomorphic account of substance Descartes is left with the need to articulate the ontology involved in his distinction between the corporeal and the spiritual. Furthermore, he draws this distinction at a novel place. According to the Scholastics, intentionality requires at least a sensitive soul; but it is a feature of some corporeal substances. Thus Suárez, while denying that material sensation can 'cooperate in a spiritual act', can still claim that the sensorial appearances are available to the spiritual intellect for they both 'are found in one and the same soul' (*DA*, d. V, q. 1, 7; and l. IV, c. 2, 12). Descartes, on the other hand, draws the distinction precisely at the point where consciousness arises. Descartes's new ontology, constructed around the distinction between consciousness and extension, will be examined more fully later. For the moment, it suffices to note that this subject can be brought up in the context of the *Rules*. Moreover, it leads directly into the

second of the problems in Descartes's account of perception and intellection in that early work, the causal issue.

Though Descartes does offer a sketch of the causal chain going from the sensed thing to the inside of the brain, he is at most metaphorical about the causal chain from the brain to the intellect, or, so as not to prejudge on the question, about the causal chain that ends in mental apprehension. Given Descartes's novel ontological divide between body and mind, or between the brain and the 'apprehending' power, and his advocacy of mechanical explanations in the corporeal realm, one would like something to be said about the causal links between these two, or, if there are none, then about the mental causal chains. Though this becomes a particularly pressing concern within a Cartesian dualistic ontology which admits and attempts to explain the appearance of interaction between the two categorically distinct realms, it relates to the much older issue of the causal connection between spirit and matter, present in Suárez's comments that material appearances cannot cooperate in spiritual acts.

The causal problem should not be confused with the problem of intentionality. When Descartes writes that in imagining and sensing the intellect applies itself to some part of the brain there are two distinct questions which he is skirting: one concerns the causal relations, if any, between the intellect and that cerebral part, the other concerns the place that this application of the mind, whatever it may in the end come to, has in explaining how an act of the mind is directed to or about its object. A reader of Rule XII can rightly demand that some account be given, as it is not, of the ability of the intellect to direct itself towards something. What is it that makes an apprehension of an object an apprehension of that object? One can ask of an image or picture: in virtue of what is it an image of whatever is its subject? Similarly, one can ask of an act of the mind or idea: what is it that accounts for its being about the object about which it is?

Descartes's doctrines regarding the mind and its causal and intentional relations differ considerably from those of Aquinas and other Aristotelians.³³ The Scholastics had discussed some of these issues in detail. In chapter 4, against the background of Scholastic doctrine, I will present Descartes's replies to the three questions: what are ideas? what are their causes? how is the mind, via its ideas, directed to things outside it? In chapter 5 we will come back to the issue broached earlier regarding the nature of intellection or understanding and its relation to sensation.³⁴

Descartes's relation to scepticism

It is not unlikely that, at least in part, Descartes had some version of these problems in mind when writing to Mersenne that he had abandoned the *Rules*

after realizing that he needed to engage in a larger project. When he definitively left Paris in 1629, Descartes was already in possession of the rudiments of his essentialist philosophy. Late in 1628, after a short stay in Holland, he attended a gathering of intellectuals at the residence of the Papal Nuncio, Cardinal Guido di Bagno, whom he appears to have seen with some regularity.³⁵ Present on that occasion were, amongst many others, Mersenne, Cardinal Pierre de Bérulle, and a certain Chandoux who gave a talk criticizing the philosophy of the School and proposing a new one of his own. As a result of his intervention at this meeting Descartes was invited by Bérulle to explain his views in some more detail. Descartes obliged a few days later; and Bérulle, already impressed by his comments at the Nuncio's, encouraged him to devote all his energies to the development of his philosophy.

This gathering and the subsequent visit with Bérulle have received much attention from commentators. The meeting has been taken as representative of Descartes's relations to the anti-Scholastic and libertine circles in Paris at the time; and Bérulle's influence on him has been described as 'possibly decisive'.³⁶ Of course, the famous Cardinal might have exercised great influence over the young philosopher and scientist. But Descartes was already on the road towards his mature metaphysics. So at most Bérulle strengthened his determination in this respect. On the other hand, there is no evidence that Chandoux was a sceptic or libertine. In fact, the detailed account of that occasion which Descartes's biographer Adrien Baillet has preserved for us, most probably following Claude Clerselier who would have obtained the facts from Descartes himself, states that our philosopher argued that Chandoux's 'new philosophy was almost the same as that of the School, disguised in different terminology'.³⁷ Baillet continues: 'According to [Descartes], it had the same difficulties and, like [Scholasticism], it sinned at the principles, for they are obscure and cannot help dispel any problems.' So Descartes would have had a chance to confirm that Scholasticism was still the philosophy of the day, even in the avant-garde circles of Paris!³⁸

What the meeting at di Bagno's and the conversation with Bérulle do show is that Descartes's anti-Scholasticism was, at the very least, already in process of detailed articulation by 1628. He was confident enough to intervene in front of 'all that great and learned company', though the Nuncio would later remember him as 'most modest and deprecatory of his own work'.³⁹ Moreover, in a letter a few years later he recalled being encouraged by his correspondent and others in the audience 'to write and make public' the principles of his philosophy (AT, I, 213). He added that these principles were 'better established, more truthful and more natural than any others already received amongst men of learning'. We know these 'others' included prominently the 'principles' of Late Scholastic philosophers. This is specially so in the context of the discussion of Chandoux's 'new philosophy' which

Descartes took to be ultimately the same as theirs. At that time he could explain the basics of his essentialist philosophy at greater length than after the talk at the Nuncio's, as indeed he did a few days later in private with Bérulle. Sceptics do not figure as main characters in this story.

All the same, Descartes was familiar with the new sceptics and the libertines. Gabriel Naudé, one of the more prominent figures in this latter group of Cartesian contemporaries, was to become secretary and physician of Cardinal di Bagno; and we can suppose that at that time Naudé and other of his friends and kindred spirits were already known by Descartes. And the matter of Descartes's knowledge of Renaissance and early modern scepticism has been well documented.⁴⁰ The real issue, then, is not whether Descartes knew and read the sceptics but first, whether there is any truth at all in the claims that he 'placed himself in [their] school' and 'accepted all [their] views', even if only to then turn against them and refute them, and second, whether it can even be claimed that it was an interest in scepticism that motivated and shaped his metaphysics.⁴¹

What is in question is not Descartes's sincerity in the *Meditations*, but rather his use of the sceptical arguments. I contend that he never considered scepticism as anything but a tool for the establishment of his essentialist metaphysics. Thus, in this respect also he was following the same path as other Platonists before him and starting the ascent towards knowledge with the rejection of sensory cognition. In 1637 Descartes acknowledged that 'there is a great defect' in the *Discourse* (AT, I, 353). He explained that in that work he had not presented 'at length the strongest arguments of the sceptics', which, however, are necessary 'to prove that there is nothing at all more evident and certain than the existence of God and of the human soul'. Had he deployed the sceptical arguments, he continued, he 'would have accustomed the reader to detach his thought from things that are perceived by the senses'. Again in 1638 he wrote implying that 'the arguments of the sceptics' are 'necessary to withdraw the mind from the senses'. In the same letter he claimed that 'the certainty and evidence of my kind of argument for the existence of God cannot really be known without . . . the uncertainty of all our knowledge of material things' (AT, I, 560; see also II, 39). In his replies to Hobbes's objections, Descartes explained why he used scepticism in the First Meditation. He wrote that he had 'a threefold aim in mind':

Partly I wanted to prepare my readers' minds for the consideration of the things of the intellect, and help them to distinguish these things from corporeal things; and such arguments seem to be wholly necessary for this purpose. Partly I introduced the arguments so that I could reply to them in subsequent Meditations. And partly I wanted to show the firmness of the truths which I propound later on, in the light of the fact that they cannot be shaken by these metaphysical doubts. (AT, VII, 171–2)

When introducing sceptical arguments Descartes aimed to lead the mind away from sensation and the corporeal and into the realm of the purely intellectual; to examine such arguments with a view to their refutation; and to provide his own philosophy with certainty.

Given Descartes's disillusion with philosophy at La Flèche it is not difficult to see how the flourishing of scepticism could be seen by him as the responsibility of the Aristotelians. After all, were it not for his own intellectual strength he himself would have fallen prey to that infection! But later in life he established other connections between the Scholastic philosophy and scepticism. Scepticism came to serve him in the refutation of the Aristotelians and the grounding of his essentialist philosophy. As they found a place within his philosophy, the sceptical arguments became shaped by the metaphysics which they were designed to help establish. Thus, they played a part in the transition from that framework, Platonic and Aristotelian, which we examined in the last chapter and which is Descartes's own, to that other one, centred around intentionality and its problems, which he originated and which we accept as ours.⁴²

Essentialism and scepticism

Plato's famous allegory of man's path to knowledge and enlightenment in Book VII of *The Republic*, an ascent from the perception of shadows reflected on a wall inside a cave to the contemplation of the sun, is a model which fits the views of other philosophers in the Platonist essentialist tradition. As we will see in next chapter, with Christianity Platonic forms came to be conceived as archetypes within God, ultimately reducible to Him. The Pauline notion of the 'inner man' added a further departure from the ancient conception.⁴³ But the basic structure remained the same: from the sensible world around us to the source of its being and intelligibility in the forms. In its later, Christian incarnation this ascent from uncertainty and opinion to certainty and knowledge starts from the corporeal and the sensible to move into an inner personal world, and then to the contemplation of God, most intimately in mystical communion. Sensation has a role in knowledge; but it is dependent on the divinely illuminated understanding of the forms. This is the itinerary of St Bonaventure's mind to God and of St Anselm's *Proslogion*. It is the way of St Augustine:

those who seek God through these powers which rule the world or its parts are separated and thrown far away from Him not by a distance of space but by a diversity of affection. They persist in wandering outside while forsaking their interior where God is found . . . Why . . . come and go through the heights of the heavens and the depths of the earth searching for Him who is close to us, if we want to be close to Him?⁴⁴

Scepticism about the senses constitutes a natural starting point for this journey. In the long run, however, the sceptic stands to be refuted. The essentialist refutation, which affirms the priority and independence of knowledge of essence, is grounded on a doctrine of innate or autonomous intellectual knowledge.

Though a Platonic ontology was widely accepted amongst medieval philosophers, its accompanying essentialist epistemology was not. One of the most striking accomplishments of St Thomas was the marriage of such an ontology to an Aristotelian existentialist epistemology. The doctrine that *an sit?* is prior to *quid sit?* became the orthodoxy within the Scholastic establishment after the thirteenth century. If we inquire into Descartes's place in this history, which he saw as his own, then we must view his philosophy as the first thoroughgoing essentialist alternative to Thomist existentialism. It is in this context that the significance of sceptical arguments in Descartes's metaphysics comes to light.

Descartes uses scepticism to draw the thinker within herself: away from the senses and towards the inner light of the intellect, its divine contents, and its source in God. Thus, he starts the Third Meditation where he will prove God's existence by writing: 'I will now shut my eyes, stop my ears, and withdraw all my senses ... I will converse with myself and scrutinize myself more deeply; and in this way I will attempt to achieve, little by little, a more intimate knowledge of myself' (AT, VII, 34). He decides he 'will cast around ... to see whether there are other things within me which I have not yet noticed' (AT, VII, 35). When he considers, among the diverse thoughts within him, the idea of God he recognizes 'that it would be impossible for me to exist with the nature I have – that is, having within me the idea of God – were it not the case that God really existed' (AT, VII, 51–2). Once at the end of the Augustinian road he writes:

During these past few days I have accustomed myself to leading my mind away from the senses; and I have taken careful note of the fact that there is very little about corporeal things that is truly perceived, whereas much more is known about the human mind, and still more about God. The result is that I now have no difficulty in turning my mind away from things of the senses or imagination and towards things which are objects of the intellect alone ... (AT, VII, 52–3)

At that stage Descartes is ready to go on to the recovery of sensation and experience for knowledge.

In the First Meditation the supposition that the whole of experience is like a dream and that nothing in it is real forcefully introduces Descartes's theme that the external existence of the immediate objects of perception needs to be demonstrated and that the starting point is obtained from the essences which are immediately perceived. Even after one supposes that all experience is like a dream, Descartes writes, 'it must ... be admitted that certain ... [simple and

universal] things are real. These are as it were the real colours from which we form all the images of things, whether true or false, that occur in our thought' (AT, VII, 20). These things 'include corporeal nature in general', figure, size, number, place, time, 'and so on'. They are studied by 'arithmetic, geometry, and other subjects of this kind, which deal only with the simplest and most general things, regardless of whether they really exist in nature or not'. The methodical doubt of the First Meditation announces the essentialist proofs of existence of subsequent meditations.

Descartes also intends to use scepticism 'to show the firmness of the truths' which he propounds. He proposes to gain certainty for his own philosophy as a result of its immunity to the doubts of the sceptics. So he does not limit the scope of the sceptical arguments. Rather, he adopts the most stringent criteria for acceptability of beliefs: only those which are 'completely certain and indubitable' are to be kept (AT, VII, 18). He submits that assent be held back from any proposition which can be coherently, though possibly only obliquely, believed to be false. Even 'highly probable opinions . . . which, despite the fact that they are in a sense doubtful . . . it is still much more reasonable to believe than to deny' are to be rejected (AT, VII, 22). The aim is to show that his philosophy, a survivor of this scrutiny, is absolutely free from doubt, that it is an imperative of the intellect. In this process, however, Descartes brings under the scope of sceptical arguments not only items 'acquired . . . from the senses or through the senses', but also others that are the most simple and evident fruits of the intellect: for example, that 'two and three added together are five, and that a square has no more than four sides' (AT, VII, 20).

From the point of view of this more radical sceptical proposal there is no distinction between 'I think' or 'I exist' and 'two and three are five'; they all fall under its scope. If the mind does not know 'whether it may have been created with the kind of nature that makes it go wrong even in matters which appear most evident', then all the findings of the intellect, whatever their logical peculiarities, are doubtful (AT, VIII-1, 9-10). The Second Meditation with its famous sentence, "'I am, I exist" is necessarily true whenever it is put forward by me or conceived in my mind', does not directly engage the sceptical threat of the First Meditation (AT, VII, 25). If the general scepticism argued on the supposition of a deceitful god has not been addressed, then it stands whatever the strength of the beliefs. When Descartes does confront the sceptical argument in the Third Meditation he is clear about this point:

I [could] go wrong even in those matters which I think I intuit most evidently with my mind's eye. Yet when I turn to the things themselves which I think I perceive very clearly, I am so convinced by them that I spontaneously declare: let whoever can do so deceive me, he will never bring it about that I am nothing, so long as I continue to think I am something; or make it true at some future time that I have never existed,

since it is now true that I exist; or bring it about that two and three added together be more or less than five, or anything of this kind in which I see a manifest contradiction. (AT, VII, 36)

All evident and simple things are subject to doubt equally on the hypothesis that there is a malignant god: 'if I do not know [whether there is a god and, if there is, whether he can be a deceiver], it seems that I can never be quite certain about anything else', Descartes concludes after the passage just quoted. If there is here a relevant difference between 'I am' or 'I think' and other simple and evident truths of reason, it lies in the fact that it is difficult to refer to the former even merely obliquely and indirectly without thereby making them explicitly present to the mind. But if it is granted that one can refer to the *cogito* without bringing it into the direct contemplation of the intellect, then one should also include it under the scope of radical doubt. (This accounts for the formulation in AT, VIII-1, 6-10; see also VII, 69 and 140.)⁴⁵

Even Descartes's most radical use of scepticism can be read with profit against the background of Scholastic metaphysics. Shortly after a passage in the *Disputations* to which Descartes refers in the Fourth Replies, Suárez writes:

It may be objected: sometimes the intellect can be forced by an extrinsic cause, as God or an angel, who, if he is evil, may propose something false to the intellect so that it cannot dissent . . . [S]ometimes the evident is only apparent. It can then be false and yet not force the intellect less than if it were true. To this is replied: God can indeed force the intellect, even regarding those things that are not evident . . . But, having admitted that miracle, the true and sound doctrine of theologians teaches that God cannot induce the intellect to falsity, since this is no less repugnant to His goodness than lying . . . Regarding angels, it must be said that, through its natural power, an angel cannot immediately change the intellect into judgement . . . For this is proper of God, its author. Hence, much less can an evil angel force the intellect to assent to what is false. At most it can induce false assent by way of teaching, through suggestion and persuasion. But man can always dissent or, if he wills, not assent. (*MD*, IX, 2, 7)

When Descartes entertains the possibility that there is a malignant demon which ensures that he is wrong about the most simple and obvious truths of reason, propositions to which he cannot but assent when in their explicit presence, he should be read in the context of this Suárezian text.

Descartes agrees with his Scholastic predecessor that the true God cannot be deceitful; but he maintains that there is no gap between assent and contemplation with respect to the most simple and evident truths of reason. He holds also that what appears evident to the attentive and unprejudiced intellect is truly evident. Hence, in order to advance his more radical proposal and question our knowledge of the most simple and evident matters, the Cartesian sceptic relies on Descartes's doctrine that, contrary to Suárez's views, God creates necessity and could have chosen otherwise.⁴⁶ Descartes demands that it be proven, prior to any claims to knowledge, that in fact there is a true God

and not an all-powerful malignant demon, or at the very least that the supposed deceiver cannot exist and that, therefore, the sceptic's story is an incoherent fantasy which cannot help him in his project of doubt. Armed with the sceptical arguments, Descartes takes Suárez up on this concession that unless we know there is a benevolent God, we cannot know anything.

At this point we can appreciate the significance of the malignant demon hypothesis in Descartes's confrontation with the Aristotelian existentialists. Unless the hypothesis is disposed off there can be no knowledge. The Scholastics, however, cannot refute it. They must start any demonstration of God's existence from veridical sensation, and the supposition that all sensation might be like a dream has already undermined that. If they cannot prove that a benevolent God exists, then they are unable to show that it is not the case that an evil and most powerful deceiver ensures that we go wrong about even the most simple and evident matters. In fact, the road to refuting the sceptic is purely intellectual. When the mind turns away from the senses and the corporeal and sensible things which are their objects it finds itself. The first object of the intellect is the mind which appears to itself in its very nature, unmediated and existing undisguised. Within the mind the intellect then discovers a world of essences. One of these, the idea of divine infinity, will allow the mind to show the incoherence of the sceptic's hypothesis.

To read Descartes in the light of such Scholastic background is historically accurate and philosophically enlightening. In our day such reading must be emphasized to temper the 'natural' placement of Descartes in the context of the sceptical revival of the Renaissance. On the other hand, to approach Descartes's thought from the 'detached' perspective of pure argument is to run the certain risk of missing the extent to which the product of his historical circumstances has become a part of our own presuppositions. Scepticism *per se* is important for us in a way in which it was not for Descartes; but we will surely learn about why it is important for us if we understand how it was important for him.

The most radical stage of the doubt has a part to play in Descartes's essentialist project for it results in a comprehensive underwriting of the intellect as it is directed towards the mind itself and the essences within it. Examination of the sceptical proposal that there may be an omnipotent and evil being causing us to be deceived about what is most simple and evident leads to the conclusion that this suggestion is incoherent. Since Descartes advances a demonstration that this is so and that the intellect is trustworthy, all similar proposals are thereby defeated. If the demonstration is granted, the sceptic must do more than suggest an incompatible possibility; to induce doubt in the Cartesian terms he would have to demonstrate that reason is deceptive. In Descartes's plan, radical doubt, far from undermining the intellect, serves to ground the principle of all knowledge: 'whatever I perceive

very clearly and distinctly is true' (AT, VII, 35).⁴⁷ Indeed, the introduction of this principle in the Third Meditation is immediately followed by a summary of the doubt ending with the questions 'whether there is a God, and, if there is, whether he can be a deceiver' and the claim that unless we know the answers to these questions we 'can never be quite certain about anything else' (AT, VII, 36). Descartes's view of course is that we can find the answers if we use our intellectual ability to perceive the truth clearly and distinctly. Unlike the senses the intellect can defeat the sceptic from its own resources; then, making proper use of sensation, it can gain knowledge of the actual material world.

The post-Cartesian epistemological philosophy

The Cartesian refutation of scepticism appeals to the innate capacity and contents of a soul which shares in the divine knowledge of essence. It belongs to the tradition of St Bonaventure and St Augustine. There are, however, significant differences between Descartes and his Christian predecessors. His epistemological philosophy is not the mystical wisdom of these earlier platonists.

Bonaventure warns against many of what would become assumptions of post-Cartesian thought:

I first invite the reader to pray . . . lest he believe that reading is sufficient without unction, speculation without devotion, investigation without wonder, observation without exultation, industry without piety, science without love, intelligence without humility, study without the grace of God, reflection without divinely inspired wisdom.⁴⁸

The natural light of reason, properly trained intellectually, may perhaps be necessary for the soul seeking to know God; but it is decidedly not sufficient. So Bonaventure's considerations are directed to persons who possess non-intellectual virtues and gifts: 'to those already prepared by the grace of God, to the humble and pious, to the contrite and devout, to . . . the lovers of divine wisdom who are moved by the desire for it'. In the *Soliloquies* Augustine writes that God has reserved 'knowledge of truth only for the pure'.⁴⁹ The understanding these Christian mystics seek requires living in a certain way, having a certain character and disposition, being divinely illuminated, and in general satisfying other conditions aside from having the required free time and relaxed circumstances needed to undertake what Bernard Williams has called the 'project of pure enquiry'. Unlike the mystical Platonist, the Cartesian pure inquirer is an abstraction, fully defined by the ideas in its mind, the certainties of an innate intellectual talent and natural light (which include a divine but conditional guarantee of sensation), and a bare desire for truth.⁵⁰

Descartes separates his quest for certainty from the affairs of human living. In the Second Replies he stresses his 'very careful distinction between the conduct of life and the contemplation of the truth' (AT, VII, 149). In the Fifth Replies he explains that

when it is a question of organizing our life, it would . . . be foolish not to trust the senses, and the sceptics who neglected human affairs to the point where friends had to stop them from falling off precipices deserved to be laughed at. Hence . . . no sane person ever seriously doubts such things. But when our inquiry concerns what can be known with complete certainty by the human intellect, it is quite unreasonable to refuse to reject these things in all seriousness as doubtful and even as false . . . (AT, VII, 350–1)

By deliberately abstracting 'himself from practical concerns' Descartes bestows on the sceptic immunity from refutation on the ground of those practical concerns.⁵¹ He disengages philosophical inquiry from life; and he announces Hume:

the sceptic . . . had better keep within his proper sphere, and display those *philosophical* objections . . . Here he seems to have ample matter for triumph . . . But [he] . . . must acknowledge, if he will acknowledge anything, that all human life must perish, were his principles universally and steadily to prevail . . . It is true; so fatal an event is very little to be dreaded. Nature is always too strong for principle . . . [T]he first and most trivial event in life will put to flight all [the sceptic's] doubts and scruples . . .⁵²

Descartes and Hume must grant the philosophical sceptic immunity from practical refutation precisely because they do acknowledge that she *could* be so refuted. They see a continuity between philosophy and life. So theirs is not the contemporary 'insulation' of philosophy from common sense which Myles Burnyeat rightly traces to Kant and the transcendental stance, and which allows present-day philosophers to, for instance, doubt the existence of other minds using the pronoun 'we'.⁵³

Still, the Cartesian attitude is interestingly different from that of previous mystical Platonists (and from any Plato himself adopted). Augustine might have allowed that the impure could know many truths, but could they know God, that He exists and who He is? Again: if there is a contradiction in what the Anselmian fool believes, then that settles the matter of whether what he believes is false; but it does not touch on whether the fool will acknowledge the contradiction or could discover it himself, and if not, why he will not or could not. That one can gain philosophical and metaphysical understanding in the 'pure' Cartesian way is a supposition which separates Descartes's essentialism from its mystical predecessors. The mystic is a whole man engaged in a comprehensive transformation, corporeal and spiritual, theoretical and moral. Mystical Platonism is an enterprise that supposes the unity of these human aspects in the ascent towards truth.

Assuming this Cartesian distinction between philosophy and intellectual pursuits on the one hand and practical matters on the other, we can inquire

first whether, as would seem to be the case, some theoretical considerations are a condition for certain practices, and second whether, as St Bonaventure and St Augustine suggest, certain non-intellectual practices are a condition for some theoretical undertakings. Descartes appears to decide the latter without argument or discussion. He takes theory (inquiry into what can be known with complete certainty) to be an activity independent from the demands of practice (the living of our lives). His option is not unconnected to his conception of the self as a purely thinking thing.

Descartes proposes that philosophy be foundationally concerned with epistemology. He sets ‘the possession of certain knowledge’ as the aim of metaphysics; and he makes the obtention of this aim depend on an evident proof that our faculties are to be trusted (AT, VIII–1, 10). A refutation of scepticism is, according to him, a requirement for the establishment of ‘anything at all in the sciences that [is] stable and likely to last’ (AT, VII, 17). The argument against scepticism is part of the metaphysical foundation of knowledge. The *Meditations* introduce an epistemological exercise which abstracts from all ends but truth and adopts the point of view of pure subjectivity, even at the risk of ending up a barren consciousness. The reader is asked to reject as if false any belief which is open to the slightest doubt. At the start of the Third Meditation this leads her to contemplate the rejection even of ‘I think’ and ‘I exist’, since the possibility of an evil god entails the possibility of their falsehood (or so Descartes claims). In the *Meditations* this exercise results in a secure criterion for truth and the advancement of knowledge, and in a metaphysics and ontology which will serve as foundation for the complete edifice of mathematical, natural and moral science.⁵⁴ Metaphysics, the root of the tree of knowledge, provides absolutely certain ‘principles . . . [which] enable all other things to be deduced from them’. Descartes writes of these principles as leading ‘to the highest degree of wisdom, which is the sovereign good of human life’ (AT, IX–2, 9 and 15). (He also points out that this wisdom is a fruit not found at the roots.)⁵⁵

By using scepticism to refute the Scholastic existentialists and establish his essentialism, Descartes helped move epistemology to the centre of philosophy even when he himself thought it was only a mere prelude to a new metaphysics. In Descartes’s mind this epistemological turn and its accompanying sceptical arguments were all at the service of his intellectualist philosophy and ontology. Somewhat paradoxically, however, the details of the Cartesian metaphysics never enjoyed widespread acceptance, while the epistemological turn of the *Meditations* with its adoption of the perspective of pure consciousness and the determining role it grants to scepticism in philosophical reflection has arguably been the most influential and pervasive of Descartes’s legacies.

The placing of epistemology at the starting point of philosophical reflection, natural though it may seem to us, is not in itself obvious or necessary. Just as

we do not think we need to solve all paradoxes before we proceed with the business of acquiring other knowledge, so one might not think it necessary to refute all scepticism, or even give it serious consideration, before doing so.⁵⁶ Nor is the epistemological inevitability of the perspective of pure consciousness, the enclosure of the self within itself, evident. It is not clear that philosophy should be conceived as founded on pure inquiry undertaken by a sceptical *ego*. Our epistemological 'Cartesian' philosophy was not Descartes's own. For him epistemology was at the service of metaphysics and ontology. And in his mind all of these were at the service of the natural sciences and of morals. When Descartes refers to the *Meditations* and the *Principles* as containing the highest wisdom to which human beings can aspire, he is writing from the perspective of a philosophy that does not conceive itself exclusively or even just centrally as a 'pure' epistemological exercise in sceptical refutation.

The Church and the Crown: Descartes's project for a new system of knowledge

The founding of the Jesuit school at La Flèche was part of the Catholic Reformation in France. The Church of Rome would in the end secure its dominant place within the French nation. But this was the result of a long and complex process which owed as much to social and political circumstance, as to the revival of Catholic thought.⁵⁷ There were, on the one hand, the civil wars of religion and the massive social conflicts involving nobility, bourgeoisie and peasantry alike, which resulted from the affirmation of the authority of the king as embodiment of the state. These events brought about the effective subjection of French Protestantism and the creation of an absolute monarchy closely tied to the Catholic Church; and they made possible the emergence of independent national currents of Catholic thinking. On the other hand, there is the ultimately victorious conflict with Spain and the Empire, which resulted in the submission of the Spanish Crown and underscored the decline of the School after the Golden Age of Spanish Late Scholasticism.

In Europe, the period from 1600 to 1650 marks a moment in the long process of resolution of the many conflicts – social, political, and cultural – associated with the transit from a feudal world to a modern nation. During those years, the institutions of learning completed their course from the Benedictine monasteries of the Middle Ages, through the faculties of mendicant friars and secular clergy, to the courts, academies, societies, and increasingly secular universities of the mid-seventeenth century.⁵⁸

Descartes's life spans those fifty years. A member of the ruling classes, he was formed by the Jesuits under the aegis of Henri IV and then, like other gentlemen in his position, studied law at Poitiers. Though for the most part he

sought to avoid the public light, it is not unwarranted to say that throughout his life, first as a young soldier and later as a philosopher and scientist, Descartes was conscious of the duties of his station, and he remained consistently loyal to the Church and to France.⁵⁹

When the Jesuits opened their classrooms at La Flèche imbued with confidence and conviction, they were not afraid to keep abreast of the newer scientific discoveries and of the cultural developments of the moment. They did not have to face then the subsequent and inevitable divorce between Scholasticism and secular culture. Jesuit education combined instruction in Scholastic thought and the Catholic faith with respect for reason and argument, genuine curiosity, and a broad post-Renaissance appreciation of the arts and letters. Their alumni would be able to defend the truth in the free and open secular world, being second to none in humanistic cultivation and in intellectual and scientific training.⁶⁰ Descartes was a product of this upbringing, a man at the end of the French Renaissance: philosopher, mathematician, and natural scientist; physiologist, trained lawyer, courtier, and musician; soldier and expert swordsman. Incarnating the ideals of the Jesuit Reformation and persuaded of the weakness of Scholastic learning, Descartes gradually came to adopt as his life project the construction of a new system of knowledge, in harmony both with the faith and with the new science, to take the place of Aristotle's.

Earlier we have surveyed some aspects of Descartes's philosophical evolution from the early days with the Jesuits to his departure for Holland in 1629. His earlier reflections, I have maintained, announce his later anti-Scholastic essentialist metaphysics. As Descartes himself suggests, the abandonment of the *Rules* should not be seen as a break with the past but rather as a continuous and natural evolution.

When he left for Holland Descartes was already in secure possession of the rudiments of his essentialist philosophy. In July 1629 he wrote to Father Gillaume Gibieuf of the Oratory in Paris informing him that he was starting 'a little treatise'. Descartes reminded Gibieuf of his 'promise to correct it and give it the finishing touches', and revealed his hopes of having it ready for him to do so in 'two or three years' (AT, I, 17). In November 1630 he mentioned to Mersenne that he 'may some day complete a little Treatise of Metaphysics . . . which is principally aimed at proving *the existence of God and of our souls* when they are separated from the body, from which their immortality follows' (AT, I, 182).

Almost seven years later, again to Mersenne, he wrote that 'around eight years ago I wrote in Latin the beginnings of a treatise on Metaphysics in which this argument [for the existence of God and the distinction between the soul and the body] is conducted at some length' (AT, I, 350). Mersenne had objected that the proof of God's existence in the *Discourse* was obscured by

Descartes's failure to explain 'at sufficient length how I know that the soul is a substance distinct from the body and that its nature is solely to think' (AT, I, 349–50). Descartes agreed; but, as we have seen, he revealed that this was the result of a deliberate omission of sceptical arguments. The omission, he wrote, was motivated by a fear that, as he was writing in French and so could not ensure the proper training of his readers, 'weak minds' would be taken in by the doubts and 'afterwards be unable to follow . . . the arguments by which I would have endeavoured to remove them' (AT, I, 350). It is at this point that he mentions the earlier Latin metaphysical work. So there is good evidence that in 1629 Descartes had, as he claimed, 'taken sides concerning all the foundations of philosophy' (AT, I, 25). He was in basic possession of the metaphysical foundations of knowledge; and he understood the use of scepticism in helping inquirers 'withdraw their minds from the senses' and direct them towards the contemplation of the inner world of essences and truths, from where they would set back on the road to certain knowledge of existing substances (AT, I, 351; see also I, 353 and VI, 37). When working on the *Rules* Descartes had come to realize that he needed to systematically engage in metaphysical discussion and to make explicit the intellectualist and essentialist presuppositions implicit in his method.

Descartes's attention to the reaction of his readers was characteristic. When he wrote to Mersenne in 1637 he had in mind the secular dilettantes which he had known so well in Paris, people who fell prey to sceptical arguments or to the new empiricist philosophies of the likes of Gassendi or Hobbes. But, just as he had always kept an eye on Scholastic doctrine when formulating his method, after 1628 Descartes would be particularly concerned with the response his views elicited from his Aristotelian contemporaries. In December 1629, having decided 'to publish [a little treatise on sublunary phenomena in general] as a specimen of my philosophy and to [remain anonymous] in order to hear what people will say about it', he asked Mersenne, 'and some other intelligent people willing to take the trouble', to submit it to a 'painstaking scrutiny' (AT, I, 23 and 85).⁶¹ He explained his request as arising 'mainly on account of theology, which has been so deeply in the thrall of Aristotle that it is almost impossible to expound another philosophy without its seeming to be directly contrary to the Faith' (AT, I, 85–6).

In 1633, upon hearing news of the condemnation of Galileo Galilei, he decided to suppress his 'little treatise', *The World*: he was 'so astonished', he wrote, that he 'almost decided to burn all [his] papers or at least to let no one see them' (AT, I, 270–1). Shortly after he wrote that he 'would not wish, for anything in the world, to maintain [his arguments] against the authority of the Church' (AT, I, 288). Though his excessively prudent disposition is apparent in these letters, Descartes was also greatly affected by what these events meant for his plans to supplant the Aristotelian philosophy. How important

these plans were for him is evidenced by the fact that, in spite of his desire for tranquillity, he persisted with them.

In 1640 Descartes decided to seek the ‘protection’ of the Society of the Sorbonne for his *Meditations*, so he again wrote to the sympathetic Gibieuf, whom he described as ‘one of the leading lights of the Society’, asking him for help regarding this matter (AT, III, 237–8). Descartes was worried that prejudice would get in the way of reason; so he invested much effort to enlist the favourable opinion of clerics respected within the Catholic intellectual establishment and to avoid unnecessary confrontation with his Scholastic adversaries. In fact, the very choice of the meditational genre, which directly engages the reader, must be accounted in a significant measure by these considerations. In 1642 he asked Mersenne not to tell people that the *Meditations* ‘contain all the foundations of my physics . . . for that might make it harder for supporters of Aristotle to approve them’ (AT, III, 298). Instead, Descartes hoped ‘that readers will gradually get used to my principles, and recognize their truth, before they notice that they destroy the principles of Aristotle’.⁶² All the same, his mood was still confident. A couple of months later he wrote to Mersenne regarding the Eucharist:

I think that [the traditional philosophy (*la philosophie vulgaire*)] would have been rejected as clashing with the Faith if mine had been known first. I swear to you in all seriousness that I believe it is as I write it. So I have decided not to keep silent on this matter, and to fight with their own weapons the people who confound Aristotle with the Bible and abuse the authority of the Church in order to vent their passions – I mean those who had Galileo condemned . . . [N]one of the opinions of their philosophy accords with the Faith as well as mine. (AT, III, 349–50)

In spite of his optimism, in time Descartes had to accept that his views would make little progress within the Church, at least during his lifetime. As late as 1645, he wrote to Father Etienne Charlet, one of his teachers at La Flèche, recalling his debts to the Jesuits, trying to enlist their help in advancing his philosophy, manifesting certainty that it would ultimately gain universal acceptance, and confessing his own personal ambitions (AT, IV, 156–8; see also 140–1). But behind the conciliatory tone (he even states that they will find in his philosophy ‘many things which . . . may . . . serve effectively to explain the truths of the Faith without . . . contradicting . . . Aristotle’) there are signs of despondency: ‘Should [the Jesuits] accept these things, then in a few years this philosophy will gain as much credence as it would in a century without their goodwill . . . [Y]our Society . . . should not tolerate a situation in which others accept important truths which it does not accept’ (AT, IV, 157–8; see also 577–88). The fact is that much earlier Descartes had already recognized the difficulties in convincing the Aristotelian doctors of the truth of his philosophy. At the time of Galileo’s censure, he wrote that ‘the Jesuits have helped to get [him] convicted’ (AT, I, 281–2). At that time this fact underscored for

him the importance of winning the Jesuits over to his philosophy. Later he became less patient with his former teachers. While he assured Charlet that he felt 'deeply obliged to the members of your Society' and that he 'would be extremely sorry to be on bad terms with any [of them]', he also referred to them with disdain: 'the Jesuit is full of empty boasting, he is more a charlatan than a savant', he would write to Constantijn Huygens referring to Athanasius Kircher, SJ, author of *De Arte Magnetica* (AT, IV, 156–7; V, 548; and Alquié (1963–1973), III, 11. See also AT, I, 283–4).

As his hopes of gaining the immediate battle on the Ecclesiastical front waned, Descartes turned to the Crown, for him the natural alternative in his efforts to further his views. In a letter of 1642 Descartes revealingly compared Princess Elizabeth of Bohemia to the Scholastic theologians and philosophers: 'I rather think myself fortunate that she has deigned to read my own book and has expressed her approval of its contents. I set far more store by her judgement than by that of those learned doctors whose rule is to accept the truth of Aristotle's views rather than the evidence of reason' (AT, III, 577). In May 1647, confronted by tendentious attacks from Dutch theologians whom he described to Elizabeth as '*gens d'école*', he wrote to the French ambassador requesting the intervention of Prince William of Orange with the Curators of Leyden University: 'For I am sure that they will not approve that after so much French blood was shed to help them chase away the Spanish Inquisition, a Frenchman, who in the past even took up arms for that same cause, should today be subject to the Inquisition of the Ministers of Holland' (AT, V, 16 and 25–6). Descartes was never paid the pension which the King of France granted him in September 1647; but the recognition expressed with this award certainly played some part in his decision to return to Paris in 1648 (see AT, V, 653–5). His stay in Paris was cut short by the characteristic frivolity of its intellectual circles and by the Fronde. Descartes would die in Stockholm, where he had gone to instruct Queen Christina in his philosophy, disillusioned by the superficiality of his royal patron.

In this chapter we have examined the origins of the Cartesian metaphysics, as it took shape from the days of La Flèche until the retirement to Holland. We have focused on Descartes's critical rejection of Scholastic doctrines, and on the use he made of sceptical arguments. We have seen how, after leaving La Flèche, Descartes first reacted against Scholastic metaphysics by seeking an intellectual method that would serve as universal guide in the search for truth, and how he came to abandon this goal in 1628. When he claimed in 1629 that he had 'taken sides concerning all the foundations of philosophy', Descartes was announcing his later essentialist project, conceived to supplant the Aristotelian existentialism of the School. But before we are ready to discuss the details of this project, we must first examine the essentialist

Platonic background common to both Cartesian and Schoolman, their shared notions of real essence and natural necessity.

3 Cartesian real essences

Real essences

Commentators have emphasized the role of scepticism and of scientific inquiry within Descartes's thought. This has helped obscure the influence on his metaphysics of Aristotelian Scholasticism and of Christian Platonism. But, as I have argued in the last two chapters, we cannot properly understand the function of sceptical arguments and methodical doubt in the Cartesian metaphysics, if we ignore the Scholastic philosophy against which it was reacting and which it was designed to replace. The issue is not about the diverse influences on Descartes or their relative importance. It is well known that these include Renaissance scepticism and the developments in the natural sciences which took place in the two centuries preceding his birth and during his own life. Given the pivotal place of subjectivity and its epistemological concerns in post-Cartesian philosophy and the immense success of scientific research in the last three centuries, it is not surprising that when we look back at Descartes's works we should be forcefully impressed by the extent to which he influenced and determined these developments. But both for historical and for philosophical reasons it is to our advantage not to see him as a mere image of ourselves.

I stress Descartes's relation to St Thomas and the sixteenth-century Jesuit Scholastics not to belittle the significance of his own original insights nor to negate the evident importance of his scientific and epistemological contributions and the full historical context from which they originated. Rather, my aim is to redress the unbalanced but extended picture of the Cartesian philosophy as a radical break with the past.¹ I have proposed that we view Descartes's philosophy as originating from a confrontation with Late Scholasticism. Decisively influenced by the demands of the new mathematical natural sciences and by the sceptical arguments so common during the Renaissance, Descartes's thought was nevertheless structured within the philosophical horizon which he shared with his Scholastic opponents. He retained the Aristotelian project of a true science of being, which Gassendi, in dismissing it, described as 'certain and evident knowledge . . . that something is by nature and in itself,

and as a result of basic, necessary and infallible causes, constituted in a certain way'.² And as had happened before when the aim of a realist metaphysics had met with sceptical reflections in the thought of St Augustine, Descartes linked up with the Platonic tradition, a tradition which had never completely died within Scholasticism.³ Indeed, it was in Scholastic doctrine itself that Descartes found the elements for his essentialist reaction to the existentialism of the School.

Essentialism and existentialism, as they are understood in this essay, both presuppose that there are real essences and that the necessity which attaches to essential definitions is grounded on the things which are defined and not merely on the way in which they are described. In the essentialist and existentialist theses, knowledge of essential definitions is not concerned merely with human conventions and behaviour. It deals with how things are in themselves; it treats, that is, of the reality which shapes and structures linguistic use. As noted earlier, the usual practice nowadays is to use the term 'essentialism' to refer to this more general doctrine that there are real essences and true *de re* modalities.⁴ And we may call 'nominalism' the opposing view that all modalities are *de dicto* and all essences, nominal.⁵ Essentialism and existentialism as they have been characterized in chapter 1 are varieties of what is ordinarily called 'essentialism'.⁶ Descartes, St Thomas, and the Late Scholastic Jesuits were all essentialists in this wider sense of the word. Furthermore, they shared, in its broad outlines, a theistic ontology of essences inherited from St Augustine. This chapter introduces this common background, the underlying doctrine of real essences upon which are built Scholastic existentialism and Cartesian essentialism.⁷

It is perhaps not amiss to start by considering the views on the relation between essence and existence of a distinguished contemporary nominalist (in the sense of 'nominalism' to which I have just alluded). The late Sir Alfred Ayer, when examining the ways in which existence and essence may be said to be one prior to the other, pointed out that 'it is logically necessary that anything which actually has a specific character should exist'. In this sense, he stated, 'it is obviously true that existence precedes essence'.⁸ Ayer was certainly right. For if 'A is essentially F' (or for that matter any statement of the form 'A is F') is interpreted as stating of something that it actually instantiates some property, then it does immediately follow that the thing exists. Nothing we have attributed to Descartes or the Scholastics contradicts this. Ayer went on to add that there is another sense in which 'it is obviously false that existence precedes essence; for a noun may have a meaning and so describe an "essence", if that is the way one chooses to put it, even though there exists nothing that it denotes'.⁹ Again, this is unexceptionable and denied neither by Descartes nor the Scholastics. They did not wish to dispute that words like 'unicorn' or 'Pegasus' are

meaningful even though there exist neither unicorns nor a winged, flying horse called Pegasus.

The opposition between Ayer's nominalism and Cartesian and Scholastic essentialism is not to be found in these plain observations but in Ayer's implicit claim that this is all there is to say about essential definitions.¹⁰ According to Ayer a statement of the form 'A is F' can do one of two things. It can predicate an actual property of something or it can give the meaning of a phrase or a word. Ayer also holds that 'to talk about the essence of things is merely another way of talking about the meaning of words'.¹¹ In one case, the statement 'A is essentially F' tells us that A actually has the property F with a necessity derived from the fact that 'F' is part of the meaning of 'A'; in the other case, it just tells us that 'A' means (at least in part) 'something that is F'. If the statement is true, then in the first case it is true also that A exists while in the second case this need not be so. But in any case, it is Ayer's view that 'essence' and its cognates in the end refer to no more than to facts about linguistic use and human conventions. For Descartes and his Scholastic predecessors, on the contrary, the necessity of essential definitions originates not in language but in the things defined. And, in addition, they believed that true statements of the form 'A is essentially F' need be neither reports on the meaning of words nor attributions of properties to existing things.¹²

That this is so in Descartes's case is apparent from the fact that he claims to attain knowledge of the 'essence of material things' without taking this to provide him with knowledge of their existence (AT, VII, 63–5 and 70–1). When he does address the issue 'whether material things exist' he does not take knowledge of their essence to establish, on its own, much more than that 'they are capable of existing' (AT, VII, 71). The demonstration of the existence of body requires not only knowledge of its nature but also of God's nature and existence and of certain facts about our natural inclinations (AT, VII, 78–81). It is clear, then, that according to Descartes there is a sense of 'body is essentially extended' in which it does not on its own entail 'body exists'. Nor is that sense one where what is being said is that the word 'body' means 'something extended'. If this were *all* that was involved, it could hardly be understood why Descartes claims that from 'body is essentially extended' it does follow that body is capable of existing.

The same holds true of Aquinas and Suárez (or, for that matter, Toledo and Fonseca): for them essential definitions are neither mere reports on linguistic use nor predications of actual properties of existing things. As we have seen, in Aquinas's thought there is room for definitions of the non-existent. God, we learn from St Thomas, knows what has not been, is not, and will not be (DV, II, 8). The divine intellect comprehends 'the universal essence of a species' and also, unlike the human intellect, 'the singular essence of each and every individual' (DV, II, 7). In knowing what does not exist God knows

the essences of empty kinds and of merely possible individuals. Moreover, the divine ideas of what does not exist are indeterminate only in that they are ideas of what God has not produced: ‘even though that which never existed, does not exist, and will not exist does not have in itself a determinate act of existence it exists determinately in God’s cognition’ (*DV*, III, 6, *ad* 1). Suárez was following St Thomas when he wrote that ‘to be true, the science by which God knew from eternity that man is a rational animal did not require that the essence of man have some actual real being, for “is” in the definition does not express actual and real existence, but only an intrinsic connection between the terms’ (*MD*, XXXI, 2, 8). He explained that this connection is grounded in merely potential being but is conditionally necessary. Thus, ‘if man is to be produced, he necessarily will be a rational animal’.¹³

In the *Commentaries on Aristotle’s Posterior Analytics* St Thomas rejects, with Aristotle, the suggestion that ‘a definition is nothing other than an account of the meaning of a word’ (*PA*, II, 6, 7). He offers three reasons for this. First, a statement of meaning need not be about a ‘substance or, generally, a being’. Secondly, any account can constitute the meaning of some word. Finally, words are arbitrary signs and statements about the conventions that conjoin such signs to their meanings are not the object of scientific inquiry. Essential definitions, on the other hand, are about substances or what has being by inhering in a substance; secondly, not any account can constitute an essential definition; and third, essential definitions are the objects of every science (*PA*, II, 6, 7–9). A distinction between nominal and essential definitions along similar lines is commonplace throughout Late Scholastic philosophy. In particular, it is found in Fonseca, Toledo and Suárez, as is suggested by some of the passages cited earlier in chapter 1.

Descartes, Aquinas and the Late Scholastics did not take essential definitions in any of the two senses allowed for by Ayer’s account. More generally, they also disagree with Ayer about the necessity of essential definitions. In fact, their opposition to Ayer should be referred to a conception of essence and essential necessity which involves, at a general level, the following common features. First, essential definitions are conceived to be true *de re*: they state necessary truths which hold of the things they define independently of the way in which these things are named. Secondly, the essential definitions of Aquinas, Suárez and Descartes express a rich structure of natural necessity.¹⁴ Possession of an essence determines, in an ontologically fundamental manner, what is to count as the same substance. It fixes what changes are possible without destruction, what properties a substance must have if it is to be that thing and not something else. Indeed, each essence specifies a set of properties, including certain dispositions actualizable over time, which are characteristic of the substances it defines. What essences are possible, which sets of properties, which lives or histories can actually exist in the world (either absolutely

or given certain other contingent conditions) is itself established from an order exhibited by real essences and inherent to them.

These first two aspects of the Cartesian and Scholastic conception of essential definitions make up what might be properly called their common essentialism (in the wider sense of 'essentialism'). Aquinas's, Suárez's and Descartes's views on essence also share a common Platonism. All three believed that substantial definitions are in the end about eternal and immutable essences which might never be created and so might never be part of the actual world. Though essential definitions apply to existing things, their truth does not depend on any such entities. They apply to existing things because they are true of the real essences of these things which are given even if no creatures exist. In the next sections we will look more closely at these two parts of the Cartesian and Scholastic conception of real definitions, their essentialism and their Platonism.

Platonism

Let us start with the second part, the Platonic ontology of essential necessity and possibility. This doctrine derives historically from the philosophy of early Christianity. The *locus classicus* is St Augustine's brief tract 'On Ideas', which starts by mentioning that Plato is said to have been the first to use the term 'Ideas' to refer to the 'first principles of all things'.¹⁵ Placed at the end of a tradition running from Middle Platonism through Neoplatonism to the early Church Fathers, Augustine states that these Ideas or Forms are contained within God, unchangeable and eternal.¹⁶ He adds that 'though they themselves neither come to be nor pass away, everything that is capable of coming to be or of passing away and everything that does come to be or pass away is formed according to them'.¹⁷ St Augustine explains that God creates 'each individual thing according to its proper principle' and that it is in this way that 'every living thing has its life from God, and that the universal preservation of things and the very pattern by which the changeable unfolds in time with certainty and order are overseen and governed by the laws of the Supreme God'.¹⁸ He argues that the Ideas exist 'in the mind itself of the creator', for it is 'sacrilege' to hold that God perceived 'something outside Himself . . . in order to be guided by it when creating what He created'.

In its general outline, this Platonic doctrine of divine exemplars is to be found suitably combined with an Aristotelian epistemology in the works of Aquinas and the Late Scholastics. Descartes alluded to it in his replies to Hobbes's objections to the *Meditations*: 'the word "idea" . . . was the standard philosophical term used to refer to the forms of perception belonging to the divine mind' (AT, VII, 181; see also 134 and V, 160). Placed once again, as in its pristine formulation, on the side of an innatist theory of knowledge, it was

to furnish Descartes with the elements for his essentialist reaction to the empiricist existentialism of the School and, through this Cartesian renewal, it was to find a place in modern philosophy.

Aquinas stated that the divine ideas of the non-existent, which are involved in God's knowledge of the essence of an empty kind, 'are not ordered by divine cognition to this, that something in their likeness be made, but rather to this, that something in their likeness can be made' (*DV*, III, 6, *ad* 4). For Descartes and the Late Scholastics, as for Aquinas, that a substance is possible in nature is determined by God's power to create it; and what God can create is determined by God's own nature. Certainly, there is a sense in which for Descartes divine omnipotence is unbounded even by logical impossibility.¹⁹ But Descartes grants that, assuming a decision on God's part, it is licit to introduce a realm of necessity and impossibility knowable by the 'natural light' of the human mind: 'the essences of things, and the mathematical truths which we can know concerning them . . . are immutable and eternal, since the will and decree of God willed and decreed that they should be so' (*AT*, VIII-1, 380). This realm includes truths of nature among which is that thought and extension are the essences of possible substances, and, moreover, the only ones knowable. On the other hand, Scholastics generally, though not always, denied that God's understanding is determined by His unbounded will. But they also allowed for a sense, pertinent to our present inquiry, in which one can speak of necessity and possibility as grounded on God's nature.

We should focus somewhat more closely on the matter at hand. One aspect concerns the relation between God's will and understanding. To a large extent, it is this issue which has been treated in contemporary discussions of the Cartesian doctrine of the creation of eternal truths. This seems to me a hopelessly theological matter. Though the topic has attracted the attention of Cartesian scholars, and it has perhaps some connection to questions of modal voluntarism and realism, I am convinced that there is little philosophical progress to be made here. Thus, for instance, almost all discussions ignore the fact that a constraint on the question of the relation between Divine will and understanding is the belief, universally accepted by Descartes and by his Scholastic predecessors, that God is absolutely simple. A similar ignorance afflicts discussions of 'Divine conceptualism': one must first give some account of how one says of a God who is simple that He has thoughts, that is, one must first develop some notion of analogical theistic language. In any case, I take it that any interpretation of texts where Aquinas, Suárez or Descartes discuss whether or not God's will determines His understanding must be guided by the fact that they all adhered to the belief that God is absolutely simple, totally independent and infinite.

Though some Thomists maintained that the reality of possible essences derives wholly from their being objects of God's knowledge, Suárez opposed

this view, as he would have opposed the Cartesian alternative that the being of an essence is its being willed by God. (See, for example, *MD*, XXXI, 2, 1 and 12, 40; and LIV, 2, 17.) Suárez asserted without qualification that essential definitions ‘are not true because they are known by God, but rather they are known because they are true’ (*MD*, XXXI, 12, 40). He held that the necessity of an essential definition cannot originate in God’s knowledge. Using the definition of human beings as an example, Suárez explained that

the Divine Idea itself had this necessity to represent man as a rational animal, without being able to represent it as another essence. This derives solely from the reason that man cannot have another essence; for by the very fact that something has another essence, it is not man. Therefore, this necessity comes from the object itself and not from the Divine Idea. (*MD*, XXXI, 12, 46)

Suárez stressed that necessary truths are referred to a necessary and self-sufficient reality. He argued that since contingent truths are also eternal objects of God’s knowledge, what distinguishes them from necessities is not that they are eternally known by God, but something in the known objects themselves (*MD*, XXXI, 12, 40). None the less, Suárez was not endorsing a form of that Augustinian sacrilege, extra-deical Platonism.²⁰ As he stated earlier, ‘We must begin by laying down that the essence of a creature in itself, or the creature by itself [*de se*] and before it was produced by God, has no true real being. In this sense, setting the being of existence apart, essence is not something, but completely nothing (*MD*, XXXI, 2, 1)’. He added that it is an error to affirm that ‘from eternity creatures have some real being different from the being of God’. For Suárez, Divine Ideas or Exemplars are God’s simple, eternal and immutable thought of Himself. He was pointing out that God’s thought of Himself is fixed and determined by God’s nature.

There is some reason to believe that this Suárezian doctrine offended Descartes’s Christian sensibilities. It imposes, he thought, a limitation on God’s infinity. So he, in turn, conceived the Deity as pure will, a totally free and active thought which knows no bounds. Still, it would seem that Descartes did not want to assert that it is in some sense possible for God to destroy Himself: ‘it is quite impossible for [God] to diminish His own power’, he asserts in the *Principles* (AT, VIII–1, 51).²¹ If this is so, his view that God freely creates (some) necessary truths must be supplemented with an account of the necessity of those necessary truths which do not issue from His will. But even if it is not so, it remains the case that in the end, like Suárez and Aquinas, Descartes grounds all necessary truths in God’s nature, now conceived, in opposition to Aquinas and to Suárez, as infinite will (see AT, VII, 380).

Rather than focus on issues concerning the priority of Divine faculties, or the relation between such powers and the Divine nature, I propose that we

remain at a more general and less theological level and that we note the Platonic ontology common to Aquinas, Suárez and Descartes. Following St Augustine, they placed the Platonic Forms within God; and, as in Plato and the Platonic tradition, they grounded necessary truths and essences on this transcended reality. Descartes and the Scholastics explain the truth-conditions for essential necessity in terms of God: only what God can create, and hence can exist in reality, is a possible essence. What God can do is determined in God Himself by the Divine Ideas. Since the Divine Ideas are ultimately identical with God, who is one, immutable and simple, what God can create is determined by God's nature itself. St Thomas, Suárez and Descartes are all agreed on this. God provides them with the elements for a realist account of essential definitions: there is a sense in which, ultimately, 'A is essentially F' is a statement about God. Leaving aside the theological issue of whether or not the Divine will is determined by the Divine understanding, where Descartes and the Scholastics diverge is in the account they offer of human knowledge of essential definitions. For Descartes, knowledge of possible substantial essences is innate in human beings; and it originates causally from God, creator of the mind. For the Scholastics what is possible in nature is known by humans from what is actual: the only road to knowledge starts from actual particulars given in sensation.

By bringing God into the Platonic picture Descartes and the Scholastics combined belief in the existence of a transcendent, immutable and necessary world of essences with the view that only particulars exist. Christian Platonism found a way (or so it was thought) of coherently asserting both the reality of Plato's forms and the reality only of singular substances. Theistic Platonism also suggested ways in which to expound the traditional doctrine of the dependence of particulars on the Forms: God is the first cause of all reality, which He has created in His image. The Platonic language of 'participation' figures prominently in the discussions of the causal relations between God and creatures in Aquinas, Suárez, and Descartes. Indeed, in all of them there is an appeal to a notion of degrees of being consonant with a conception of God as containing all reality (thus assuring some form of self-predication) and of creatures as absolutely dependent beings, real only by participation. Descartes, for instance, maintains that every real property found in creatures is found 'eminently' or in some higher form in God (see AT, VII, 46). He writes rhetorically: 'where, I ask, could the effect get [*posset assumere*] its reality from, if not from the cause? And how could the cause give [*dare posset*] it to the effect unless it possessed it?' (AT, VII, 40). Thus, an account is suggested of how it is that essential definitions, being in the end about God, can apply also to created substances.²²

What is known, then, when it is known that 'A is essentially F', if not that A actually has the property F and not just that 'F' is part of the meaning of

‘A’? Succinctly put, what is known is a real essence: ‘A is essentially F’ states ‘F is the essence of a possible substance, A’, or, what amounts to the same, ‘F defines A, a possible substance, as what it is’.²³ Let us now examine the notion of real essence as found in the writings of Aquinas, Suárez and Descartes, and look more closely at their account of our knowledge of essential necessary truths.

Suárezian essences

Suárez distinguished between the ‘real essences’ of possible substances and the characterizations of impossible entities:

on the part of the creature before it is produced by God . . . there is some capacity or, better, non-repugnance to be produced by God with that being, for it is indeed in this respect that the essence of creatures is distinguished from fictitious and impossible things, like the chimera; and it is in this sense that it is said that creatures have real essences, even if they do not exist. (*MD*, XXXI, 2, 8)

Suárez explained that non-existent things ‘possess’ real essences

not in act but potentially, not through an intrinsic capacity but extrinsically through the capacity of the creator . . . Hence such an essence is called real before being produced, not on account of a proper and true reality which it actually has in itself, but because it can be made real, receiving from its cause some true entity. This possibility . . . on the part of the essence expresses only non-repugnance to being made; but on the part of the extrinsic cause it expresses the power to cause it. (*MD*, XXXI, 2, 2)

A possible essence ‘is not an entity made up by the intellect . . . [I]t is not an entity of reason’ (*MD*, XXXI, 2, 10). An entity of reason ‘is not capable of a true and real existence’; and its only ‘real and positive being’ is to be given ‘to the intellect or reason that thinks it’ (*MD*, LIV, 1, 4 and 6).²⁴

The entities of reason which Suárez had in mind when he distinguished them from real but non-existent essences are caused by a ‘proliferacy of the intellect, which can feign fictions out of true entities by joining parts that cannot be together in reality, like the chimera or something similar’ (*MD*, LIV, 1, 8). In this manner, he adds, the intellect forms ‘those entities of reason which are called impossibles’. Suárez points out that such impossible beings can be pictured in the imagination, ‘which occasionally feigns some entities that never exist in reality, or even cannot exist, composing them out of the entities that fall under the senses, as when it feigns a golden mountain, which, though possible, does not exist; it can likewise feign an impossible entity, such as the chimera’ (*MD*, LIV, 2, 18). When it pictures an impossible being, Suárez continues, the imagination feigns ‘a composition of [elements] which are incoherent’. While the description of an impossible being lacks coherence, the necessity of an essential definition ‘is nothing more than a certain objective identity between [the terms]’ (*MD*, XXXI, 2, 8). Since the imagination can

picture impossible beings, 'imaginable being has a larger extension than possible being' (*MD*, LIV, 2, 18). But, clearly, Suárez did not want to hold that one can imagine the face of an animal with both only one nose and two noses, in the sense in which this contradicts the fact that we cannot form an explicit visual image of this contradictory feature. How, then, are chimeras incoherent?

The fire-breathing monster with a lion's head, a goat's body, and a serpent's tail that was killed by Bellerophon is impossible since 'Bellerophon' is the proper name of a fiction. On the other hand, it might very well be possible that there exists an animal with a head which looks like the head of a lion, an ophidian-looking tail, and a body in appearance like that of a goat. Suárez was not referring to these cases when he wrote about the contradictory chimera. By 'chimera' he meant 'an animal that has a lion's head, a goat's body and a snake's tail and breathes fire'. Suárez's chimera, like the goat-stag of Aquinas, is a thing supposed to belong to several different species of animals. These monsters are in part of one species and in part of others. This is impossible and a contradiction because membership in an animal species is an all or nothing proposition and being a member of one species entails not being a member of any others. Suárez writes that

since it is impossible that a horse be a lion, we say that the being conceived as a horse and a lion at the same time is fictitious, and we call it a chimera or something similar. In the same way, to explain that this negation is necessary, 'an ox cannot fly', we apprehend a flying ox as something impossible and a being of reason. (*MD*, LIV, 4, 10)

The reason behind the impossibility is that the essences of animal species each define a structured set of properties, a characteristic life, which identifies their members. To be a lion is to have the properties proper to lions and these are incompatible with those proper to goats. Moreover, there is nothing which counts as a member of a species turning into a member of another species: substances can pass away and new substances arise in their place, but a substance cannot change its nature for another one and in any sense remain the same substance. In no sense, then, can a horse be a serpent.

Similarly, it is impossible for goats to fly because to do this a goat would require a nature other than the nature of a goat. Animals are constituted by their essences and the body which an animal has is a function of its nature. The nature required to be a goat bans the possibility of unaided flying. It is, in other words, against the laws of nature for a goat to fly unaided. Nevertheless, talk about 'laws of nature', as opposed to talk about natural necessity, is unnecessary. We can suppose that the real essences of things themselves fully determine what is naturally possible. I should stress that Suárez's point cannot be reduced to a nominalist reading: it is a matter of what the essence of goats is like, not of the meaning of some word.

Imagine a being with the head of a chicken and the body of a human. This imaginary thing can be described in any of the following ways: a human with the head of a chicken; a chicken with the body of a human; or a chickenman. Such animals are similar to the contradictory Thomist and Suárezian monsters. However, it seems clear that Suárez also wanted to declare that these other aberrations are impossible: beings which, having neither the nature of chicken nor of human, have a head like the head of a chicken and a body like that of a human. One first source of incoherence arises if such beings are called animals. For it is naturally impossible that a being with a human-like body and a chicken-like head can have the life of an animal. It is probably also a natural impossibility for such a creature to just live as a whole organism; in other words, it is probably true that there is no real essence of a living unity which allows any of its members to fit that description. Such a creature is incoherent because it is supposed on the one hand to be living and on the other to have properties incompatible with living. Of course Suárez would have recognized that a non-living thing composed of the dead head of a chicken and the dead body of a human can exist; but such a thing is not even a substantial whole.

Descartes on essential necessity

Descartes claims that ‘possible existence . . . belongs to all . . . things of which we have a distinct idea, even to those which are put together through a fiction of the intellect’ and that ‘possible existence is contained in the concept or idea of everything we clearly and distinctly understand’ (AT, VII, 119 and 116; see also 71). Against Henry Regius he writes that ‘the rule, “Whatever we can conceive of can exist” . . . is true only so long as we are dealing with a conception which is clear and distinct, a conception which embraces the possibility of the thing in question, since God can bring about whatever we clearly perceive to be possible’ (AT, VIII–2, 351–2). In these and similar texts Descartes proposes that being understandable distinctly is a sufficient condition for being possible. Against Regius he suggests that a clear and distinct conception ‘embraces the possibility’ of its object, and he argues that it is certain that God can create what we can distinctly perceive to be possible. In the other texts he writes only of perceiving clearly and distinctly and leaves out this reference to the thought of the possibility of the object. It is apparent that Descartes believed that if something is understood clearly and distinctly to be possible, then it is possible. I take it he also believed that to understand something clearly and distinctly is to understand it to be possible.²⁵

Descartes recognized that we can feign impossibilities. Against Gassendi he wrote: ‘I do not . . . deny that possible existence is a perfection in the idea of a triangle . . . for this fact makes the idea of a triangle superior to the

idea of those chimeras, which cannot possibly be supposed to have existence' (AT, VII, 383). Gassendi, adapting an example from the Fifth Meditation, had maintained that just as we can imagine a horse with or without wings, so we can think of God as existing or as not existing (see AT, VII, 67 and 324–5). There appears to be little room for doubt that Descartes believed that the ideas of God, of a triangle and of a monster differ in that their objects, respectively, must, can and cannot exist. Chimeras, he stated, 'cannot possibly be supposed' to exist. He called a vacuum, which he deemed impossible, a 'chimera' (AT, XI, 20). And he claimed that atoms as well are impossible (AT, VIII–1, 51–2). He would have included amongst impossibilities things such as a square-circle and an animal with both only one and two noses.

What is impossible cannot be understood clearly and distinctly. Consider a distinct impossibility, something with patently contradictory properties. It is Descartes's view that such a thing cannot be the object of a clear and distinct perception. The reason for this lies in its contradictory nature. The mind cannot understand something which has and lacks the same property at the same time. In the cases we are considering the incoherence is so immediate that one can hardly fail to distinctly perceive that these things are impossible and cannot exist. In the Second Replies, after stating that he has 'examined [God's] nature with ... as much clarity as is necessary to know that His nature is possible', Descartes explains that 'all self-contradictoriness or impossibility resides solely in our thought, when we make the mistake of joining together mutually inconsistent ideas ... Self-contradictoriness in our concepts arises merely from their obscurity and confusion: there can be none in the case of clear and distinct concepts' (AT, VII, 152). Descartes here equates being impossible with being contradictory. He explains that impossibilities can be the objects of thought because the mind can join together what is incoherent. The impossibility must be found in some incomprehensible aspect of the idea; there our perception will be obscure and confused.²⁶

Descartes suggests that there is an impossibility in the notion of thinking matter similar to that of a patent absurdity (see AT, VII, 376–7). The ideas of God and of a triangle are alike, Descartes writes, in that they are both about 'things which even though they may not exist anywhere outside me still cannot be called nothing; for although in a sense they can be thought of at will, they are not my invention but have their own true and immutable natures' (AT, VII, 64). He implies that knowledge that God exists is like knowledge that it is necessary for the three angles of a triangle to be equal to two right angles, and *mutatis mutandi* that knowledge of the impossibility of the non-existence of God is like knowledge of the impossibility of a square-circle. The impossibility of a space without a body, a vacuum, resides in 'the fact that there is no difference between the extension of a space ... and the

extension of a body' (AT, VIII-1, 49). Atoms, that is, 'pieces of matter that are by their very nature indivisible', are impossible because matter is extension and extension is by nature divisible: the notion of something extended but indivisible, which is what atoms are 'imagined' to be, is contradictory (AT, VIII-1, 51 and IX-2, 74; see also III, 477).

Supposing that impossibilities are not understood clearly and distinctly in virtue of their contradictory nature, how is the idea of a chimera, in the literal sense of the word, obscure? Even if descriptions like 'flying horse' or 'animal with goat's head, lion's body and snake's tail' are in the end contradictory, they are not so as immediately and distinctly as 'animal with both only one and two noses' or 'square-circle'. They are not even as clearly contradictory as a vacuum, atoms, a non-existent God, or a thinking body. It would be extraordinary to suppose that Descartes believed that there is a demonstration that a fire-breathing goat-lion is impossible, which is as simple as the ontological argument for God's existence or as a proof of the impossibility of a vacuum, atoms, or a thinking body. Did Descartes hold that the difference here is merely one of complexity? Indeed, did he believe that impossible chimeras include monsters of the imagination?

As Suárez pointed out, goat-lions are imaginable and impossible. But then for him, as for Aquinas, knowledge of the essences of possible substances and of the necessities of nature is *a posteriori*. Since such knowledge requires observation and experience, it is no surprise that it is not obvious, even after careful thought, that flying horses, goat-lions and other imaginable monsters are impossible. For Descartes, on the contrary, there is *a priori* knowledge of real essences. This knowledge is *a priori* in the traditional sense of being independent of sensation: it is knowledge which holds even under the suppositions that all beliefs which originate in the senses are false and that no content which is proper to sensation is part of what is known. Descartes maintains that such *a priori* knowledge includes knowledge of the nature and existence of the self; mathematical knowledge of extension, the nature of matter; knowledge of God's existence and nature in so far as it can be known by man; and perhaps knowledge of the general laws of physical nature in time. Such knowledge is displayed in the various claims cited above.

Before proceeding any further, we should note that there is an ambiguity in the English verb 'imagine' that is present also in Descartes's French '*imaginer*' and Latin '*imaginor*'. For our purposes, we might distinguish between a literal sense of 'imagine' according to which it means something like 'entertain a sensorial, usually visual, image or representation', and another sense where it means something like 'consider', 'think about', or even 'conceive'. Descartes uses the term in both these senses. Also, Descartes sometimes applies the adjectival phrase 'clear and distinct' to sensations and to acts of the imagination. If the phrase is used to convey epistemic validity, then, to safeguard

Descartes's express and insistent intellectualism, we should restrict it, in its primary application, to acts of intellection or understanding. (See, for example, AT, V, 160: 'It must be stressed . . . that we are talking of clear perception, not imagination.') Sensory perceptions and acts of the imagination can still be derivatively clear and distinct, particularly when accompanied by a clear and distinct understanding of their objects. I take Descartes's view to be that something can be distinctly imaginable, in the literal sense, and still not be possible. Furthermore, I hold that, though he allowed that the incoherence or impossibility of some such things is discoverable *a priori*, he also believed that some impossibilities can be discovered only *a posteriori*.²⁷

Descartes distinguished between the scopes of literal imagination and understanding. He affirmed that the objects of clear and distinct intellection extend far beyond those of the imagination and mentioned a chiliagon, a figure of a thousand sides, which can only be understood but not imagined (AT, VII, 72). In *The Passions of the Soul* he included the nature of the self amongst objects that are 'purely intelligible and not imaginable' (AT, XI, 344). On the other hand, contradictions cannot be literally imagined: the imagination cannot openly picture what, at the same time, has and lacks some property.

In the *Discourse* Descartes writes that 'we can distinctly imagine a lion's head on a goat's body' (AT, VI, 40; see also 6–7).²⁸ If a chimera is impossible and, hence, incoherent, how can it be in any way perceived distinctly? Since the imagination cannot openly picture a contradiction, when one imagines an impossibility, the incoherence in the object must be hidden from the mind. But then the image must contain an obscurity which conceals the contradiction; it would seem that it cannot be distinct.

Consider a moving hard ball colliding at a right angle against a fixed hard wall such that, without imparting any of its movement to other bodies, the ball comes to a stop and then accelerates back in the other direction. I take it that this event is distinctly imaginable. All the same, according to Descartes it is impossible. To appreciate the incoherence one has to understand the general laws of motion, which are derived in the second part of the *Principles* (AT, VIII–1, 61ff). The motion of the ball is impossible because it contradicts certain physical laws relating to the conservation of movement. For Descartes the laws it contradicts can be deduced *a priori* from God's nature.²⁹ There is a distinction to be marked between those features which a thing can be distinctly understood to have considered in itself, and those which it can be distinctly understood to possess everything considered. Whatever one thinks about Descartes's 'deductions' of the laws of motion from the immutability of God, one thing that is clear is that they appeal to knowledge of the nature of a substance other than matter, namely, God. The description of the moving ball contradicts the necessary immutability of God; and that is the source of its impossibility.

One may clearly understand the moving ball only if one leaves out consideration of what its movement entails regarding God's nature. That is why one can distinctly imagine this movement: the image does not touch on the consistency of the event with the necessary existence of an immutable God. That is, the distinct image is accompanied by a clear understanding of only some aspects of its object. For the imagination cannot have God as its object; and it is the understanding that will perceive the obscurity of the proposed motion. The situation is similar in the case of a lion-goat. As Descartes tells Gassendi, the 'form of a chimera does not consist in the parts of the goat or lion . . . [It consists] simply in the fact that the elements are put together in a certain way' (AT, VII, 362). Suppose that a chimera is indeed impossible because it contravenes the laws of nature. There is no form of a chimera when one thinks of one, merely the joining up in the mind of some real parts which cannot in fact be together. In these cases, the incoherence arises from the fact that the joining of the parts implies the denial of a necessary truth which the imagination cannot perceive. As Descartes told Frans Burman, 'though we can with the utmost clarity imagine the head of a lion joined to the body of a goat, or some such thing . . . we do not clearly perceive the link, so to speak, which joins the parts together' (AT, V, 160).

Even so, a chimera remains a remove away from any of the cases mentioned. We cannot suppose that Descartes believed that there is a demonstration that a horse cannot fly or some similar impossibility which is as simple even as the argument for the incoherence of a ball moving in the way described above. Having introduced knowledge of the laws of nature, perhaps the difference between knowledge of the impossibility of the motion of the ball and of chimeras can be described as a matter of degree: one demonstration of incoherence is more complicated than the other. Then it would be the case, supposing that knowledge of the required laws of nature is *a priori*, that an intellect more capable than ours should be able to deduce the contradictory nature of goat-lions and flying horses using only what we can know *a priori* and without any appeal to sensation. Nevertheless, there seems to be more to this difference than just complexity.

Descartes allowed that much of physical knowledge is *a posteriori*. Such *a posteriori* knowledge remains intellectual in that it involves the clear and distinct understanding of some truth and that it excludes any content proper to sensation. But it is *a posteriori* in that it is brought about only on the occasion of sensory perceptions. It is sensation, together with God's guarantee, that induces justified assent to what does not command assent on its own, even though it is perceived clearly and distinctly. In a famous passage in the *Discourse* Descartes writes that, given an actual physical effect, the general laws of motion, and the mathematical science of extension, we yet need experiment and observation to be able to find out how it is that the given

effect is brought about (AT, VI, 64–5). Even granting that the general laws of motion are deduced *a priori*, it remains the case that unless we have recourse to the senses, we cannot know which of the many situations compatible with what we know *a priori* is actually given in the world. It is through observation, within the constraints set by *a priori* understanding, that we discover the actual workings of nature.

One possibility is that a lion-goat is only hypothetically or consequentially impossible, given what actually exists. In other words, though absolutely chimeras could have existed, they actually do not exist and, given what does exist, they cannot come into existence. To use the language of the *Discourse*, in that situation there may well be *possible* ‘ways’ in which the existence of a chimera ‘can be deduced’ from what is known *a priori*, but by observation we discover that none of those ways is actually given (AT, VI, 64–5). If this were so, I take it, chimeras should perhaps not properly be called impossible; for they would be impossible only hypothetically from what is itself merely contingently non-existent, they would be impossible only in that they happen never to be actual. In *The Passions* Descartes implies a distinction between two different impossibilities (see AT, XI, 438). One is of some event which cannot happen given the actual circumstances, but which could have happened in other, possible circumstances. Another is of something being produced without one of its necessary causes. The latter event is absolutely impossible; the former is not. The consequential impossibility of some event does not entail that the event is, in absolute terms, impossible.

Did Descartes, then, want to restrict the absolutely impossible to what can be known to be contradictory *a priori*, supposing that the general laws of motion are derivable *a priori*? Strictly, the texts leave the matter undecided. Still, my inclination is to answer ‘no’. I am inclined to suggest that Descartes thought that experiment and observation do not tell us merely which amongst the possible is actual; they also inform us about the scope of natural possibility. Given the natural inclinations of our mind and God’s benevolent guarantee, through experience we can determine what is naturally possible beyond what is settled by *a priori* knowledge. Suppose we were in possession of the completed Cartesian science. I take it that, as Descartes makes clear in the *Discourse* and other later writings, this body of knowledge would not be all *a priori*.³⁰ Equipped with this science, we could establish that certain things cannot come about, given the ways in which nature works. The impossibility of a chimera would consist not in that what could bring it about happens not to exist, but in that its existence is incompatible with the workings of nature, whatever happens to exist. Chimeras, like the impossible moving ball, might be compatible with the essence of matter taken geometrically on its own, and, unlike the ball, also with the general *a priori* laws of motion; but they are incompatible with less general *a posteriori* principles.

If we have a rich conception of eternal, true and immutable essences, one which includes the complete necessary determinations of their development in time, then we could say that the real essence of matter is known as fully as humans can know it only *a posteriori*. Such a conception would involve something like the Leibnizian notion that an essence contains an inner principle of its development.³¹ It would be a conception like that found in Aquinas and Suárez and which they developed from Augustine. Descartes himself appears to have a more austere understanding of substantial essence. He takes the essence of matter to be mathematical extension, supplemented with the notion of the motion (or rest) of its parts. Thus, he suggests a separation between the real essence of body and the laws governing its deployment in time.³² If we follow this suggestion, then we can say that according to Descartes the essence of matter is completely known *a priori*; some general laws of nature can also be known *a priori*, by deducing them from God's nature; but the detailed scope of natural possibility is only revealed *a posteriori*.

For Suárez, as for Aquinas, God could create different possible worlds because he could create different possible individual essences. Of course, not all sets of possible individuals are consistent. But it is doubtful that in their view or in Descartes's, every individual defines a unique set of all the individuals with which it could co-exist, as Leibniz would later have it.³³ In the Cartesian account, God could have created other possible worlds by not creating matter or by creating it with a different amount or distribution of movement than He in fact put in it, or by creating different souls than those He actually creates. Unlike Leibniz, Descartes took the laws of physical nature to be necessary and invariant across these alternatives. The Scholastics have little to say here, for they did not isolate the concept of a law of nature as Descartes did. Their whole natural science was like the Cartesian science of mind presented in *The Passions*, more a sophisticated classificatory account than a body of (mathematical) principles governing change in time. Yet, underlying Descartes's new science of matter were notions of natural necessity and of real essences which he received from those Scholastic predecessors.

Scholastic and Cartesian definitions

Cartesian definitions are concerned with essences, which, if actual, are substances; and all subjects of predication in true judgements ultimately refer to possible individual substances, as do the terms of true relational propositions. Unlike Aquinas, Descartes admitted definitions of individual substances. For the Scholastics, individual material substances are composites of matter and form.³⁴ Aquinas argues that one cannot formulate definitions of individual material substances, since such definitions would require a concept of the designated matter of the defined substance. But, strictly, matter cannot be

comprehended by the human intellect. The pure matter of Aquinas's individual sub-lunar natures is something indefinite and undefinable; it is pure potentiality and thus, on its own, nothing (see *DV*, II, 5 and 7).³⁵ Yet Aquinas strains the coherence of his thinking by holding also that God, who can know only intellectually and not sensorially, knows the definition of individual substances by in some fashion knowing matter intellectually. It is perhaps for this reason that Suárez accepts that an individual's singular difference, in conjunction with its species, allows the individual to be, in a sense, defined. Though he views the issue as 'verbal', he concludes that 'strictly understood the definition explains the essence of a thing, and, hence, since the individual has no other essence apart from the essence of its species, it should not be taken to have any other proper definition' (*MD*, *Index in Metaphysicam Aristotelis*, VII, 10, q.5). Suárez admits that in principle there is a fully determined specification of any given individual substance, consisting of the individual's singular difference and its species. But, unlike Descartes, he takes definitions to be properly of kinds and not of individuals, and to be concerned with the common essential form of substances of the same kind. (See *DA*, Proemium, 13; and also *MD*, V and VI, *passim*.)

In the Scholastic and the Cartesian views, substances are unities in virtue of their essences. Though analysable, an essence is a single whole explicative of the intrinsic properties of the kind. As Aquinas puts it, 'by knowing the essence of a species, the intellect comprehends all the *per se* accidents of the species', a claim with which, if suitably adapted by changing 'species' for 'substance' and '*per se* accidents' for 'modes', Descartes would have agreed (*DV*, II, 7). According to Descartes, full knowledge of an essence yields understanding of all properties which could inhere in that substance. What it does not involve is knowledge of which accidental determinates are given when and where. In this respect Cartesian definitions fall between St Thomas's definitions of natural kinds, which yield knowledge only of the properties common by nature to all individuals of the species, and definitions of individual substances, which, if only they were humanly knowable, would yield knowledge of all the accidents of the particular substance defined: 'as the universal essence of any species is related to all *per se* accidents of that species, so the individual essence is related to all the proper accidents of that individual, of which kind are all the accidents found in it; since by being individuated by it, they are made proper to it' (*DV*, II, 7).

Both Cartesian and Scholastic definitions are expandable. Though the essence is a unity, it can be discursively understood to a greater or lesser degree either, following Descartes, by resorting to the intellectual inspection of a simple nature or, according to the Aristotelians, with the aid of sensory examination of particulars. Thus, though a definition informs about an essence, one may know a definition and still not fully apprehend all that is

contained in, or all that follows from, the nature of the kind defined. Our understanding, unlike God's, is discursive; and it is limited in its power to bring complex objects under a unitary grasp. As Aquinas explains, God

knows each thing by simple understanding, by knowing the essence of each thing. We should do the same if, in understanding the nature of man, we understood all that can be predicated of man. That is not how in fact our mind works; we pass from one object to another because the intelligible species in our mind represents one thing without representing other things. Thus in understanding the nature of man we do not thereby immediately understand other things that are in man; that requires a certain succession. (*ST*, I, 14, 14)

Elsewhere, he states that 'he who knows a definition knows potentially the truths demonstrable by the definition. But in the divine intellect, being in act does not differ from being in potency' (*DV*, II, 7, *ad* 5). Similarly, Descartes agrees that one may know an essence and not know all that follows from it. (See *AT*, VII, 219–27.) For him, however, the reason for this is not properly described, as for Aquinas, by saying that the intellect fails to represent everything that the essence contains. That may be so in the case of our grasp of the divine nature, but in other cases the situation is better described by saying that we fail to attend to what we could perceive clearly and distinctly.

In the *Disputed Questions on Truth* Aquinas contrasted human and divine knowledge of things:

the relation of God's knowledge to things is the opposite of the relation of our knowledge to them. Our knowledge is received from things, and, by its nature, comes after them ... Hence, our knowledge of natural things cannot be had unless these things previously exist; but the actual existence or non-existence of a thing is a matter of indifference to the intellect of God ... (*DV*, II, 8)

Unlike God, we learn about possible essences from actual ones. Essences are known from sensible likenesses of actual substances; and 'the likeness in sense is abstracted from the thing as from an object of knowledge and, consequently, the thing itself is directly known by means of the likeness' (*DV*, II, 6). For Aquinas, all concepts ultimately refer to particulars: one can compose empty notions but the building blocks in the end come from actual instances. Both the severance of sensation from the actuality and nature of external things, the product of sceptical and of intellectualist considerations whose remote origins are probably to be found in his studies at La Flèche, and the postulation of a world of real essences existing within the mind independently of sensation, are Cartesian elements absent from the thought of the Aristotelian Scholastics. Accordingly, God's role in the acquisition of human knowledge changes in the transit from Aquinas and Suárez to Descartes. For all of them, it is God who provides the ontological foundations for essential and natural necessity and possibility. In Suárez's *Disputations* we find the historically dubious but revealing suggestion that

Plato did not posit ideas with a view to our mode of understanding, defining, or knowing things universally, since the ideas, as they are in God's mind, contribute nothing to this. For we do not conceive those ideas or define them; and if *per impossibile* such ideas did not exist, universals could be conceived and defined by us in the same way. Instead, those ideas are posited to be the first exemplars of these lower things, and to influence them as a first and immutable principle in its kind. (*MD*, VI, 2, 3)

According to Descartes, on the contrary, God also accounts causally for the contents of the mind. For Aristotelian existentialists such as Suárez, God's relation to the world as exemplar cause was the last remnant of the Platonism of St Augustine. Descartes's innatism, a central part of his essentialist and intellectualist attack on the School, returned to God and the world of Platonic forms their function in explaining 'our mode of understanding, defining, or knowing things'.

We will come back to some of the issues discussed in this chapter when we examine Descartes's views on existence and its relation to essence in existing creatures in chapter 8. We have now completed the introductory goals of the first part of this essay; we have introduced Descartes's essentialism, looked at the early history of his intellectual development and examined the metaphysical and ontological background concerning essence that he shared with his Scholastic predecessors. I hope we have thus come to perceive the unity of Descartes's essentialist, anti-Scholastic metaphysics. Over the next three chapters we will examine the details of the road it follows from essence to existence in the cases of mind and of God.

Part II

Ideas and the road from essence to existence

Cartesian ideas

What are the causes of ideas?¹ How is the mind directed to its objects? We have encountered these questions in the context of the discussion of the scope and nature of human knowledge in the *Rules*. In this chapter I will examine the answers Descartes developed over the decade following the abandonment of that early treatise. They are contained in *The World*, *Treatise on Man*, and *Optics*, writings which he composed shortly after leaving Paris for Holland, and in the fuller expositions of his essentialist metaphysics, the *Discourse* and *Meditations*. There were to be no significant changes in the works of the last decade of his life, the *Principles* and *The Passions*, though he would then address some of the problems that objectors had found in the earlier books. Discussion of Descartes's answers to our two questions about the causality and the intentionality of ideas will naturally lead to an examination of his views on the structure of mental acts, and his doctrine that such acts suppose the existence within the mind of certain inner things which are the immediate objects of consciousness. As argued earlier, this doctrine is at the core of Descartes's essentialist reaction to the existentialist empiricism of the School.

In his mature work Descartes distinguished two aspects of an idea which stand in need of causal explanation.² Cartesian ideas are acts, modes, or properties of a thinking substance. Like any other actual properties, actual ideas have causes. This is the first respect in which their causal origin can be addressed. Being acts of consciousness or thought, ideas are of or about something or other; they have objects. Descartes maintained that the production of an idea requires the production of its object. This is the second aspect of an idea – its object – that needs accounting causally. Let us look more closely at these claims.

While various different ideas may all be considered ontologically equivalent in so far as they are acts of minds, they can be distinguished one from the other not only by being of different minds or by occurring at different times or by being different sorts of acts of consciousness, but also by having different

objects. So a distinction can be marked between the object of an idea or act of awareness and the act itself. For example, when Jimmy sees women out of the window, there is Jimmy's act of seeing and there is also an object of this act, women out of the window.

Now, an act of the mind itself admits of consideration under two different aspects. For Jimmy's act is not just an act of visual perception; it is also an act of awareness directed towards women out of the window. And this is a feature of the act itself, not of its object, the seen women. More fully, then, one can distinguish between: first, an idea as property, mode or act of a mind; second, an idea as directed awareness or representation; and third, the object of an idea.

Descartes accounts for ideas as representations by claiming that the mind is inevitably aware of what exists within it. The directedness or intentionality of acts of thought is explained as the power to apprehend things existing within the mind, conceived as an inner theatre. These mental things are constitutive of acts of thought. If a thing is produced inside the mind, the mind cannot but apprehend it; and if the mind apprehends an object, then that object exists inside the mind. There is no way of bringing about an act of thought without bringing about the existence within the mind of a certain entity, which is the immediate object of the act of thought. Since ideas vary as to kind of awareness (e.g., obscure, distinct, sensory, intellectual), the cause of an idea must account also for this aspect of the act. For Descartes, therefore, the cause of an idea must be capable of producing both a determinate act or property of a mind, and a mental entity which is the object of the act.

There is a sense in which, according to Descartes, God is ultimately the only cause. Derivatively, Descartes takes created substances to be causally active in the sense that, presupposing only that God keeps each in existence, they are causally independent wholes. As we will see later, Descartes endows created souls with a capacity to 'produce' from their own resources the objects of their consciousness. Thus, he might appear to make room for the notion that in some way the soul contains realities of which it is not conscious. Descartes also introduces a further sense in which creatures are truly said to be causally active, this time one upon another. He writes of an occasional causal link between creatures: a relation between two distinct created substances, mediated by God's will and constant productive efficacy. In one sense, then, ideas, like everything else, are entirely produced and continually conserved by God. In another sense, the mind itself is the cause of its own ideas. Finally, ideas are also the occasional effects of other substances.

Descartes uses knowledge of the occasional causal links between ideas and other substances to justify judgements which the self is naturally disposed to make about certain entities existing outside the mind. He suggests that these judgements are the result, at least in part, of an innate and unconscious

calculus which correlates the inner reality within the mind and the outer world. These judgements are constructed from the inner objects of the mind and the notion of actual or substantial existence. Such judgements are the only representative link, apart from self-consciousness, which Descartes allows between the mind and the external world.

We have, first, ideas as properties of a thinking substance; secondly, ideas as acts of directed awareness; thirdly, the immediate objects of ideas; and fourthly, the things which do not exist within the mind but about which ideas succeed in being. As we observed above, Jimmy's seeing can be viewed either as a mode, property, or act of a mind, or as an act of representing women out of the window. According to Descartes, if seen in this latter respect, it is nothing other than the existence within the mind of some immediate object of awareness: namely, an inner women-out-of-the-window. Still, Jimmy's act is also about another object, not immediate but mediate: namely, the actual women out of the window.

Things outside the mind are not the primary objects of ideas. Strictly, an act of consciousness does not *per se* succeed in being about these things. And the mind has no power to apprehend them directly. In this sense, nothing inside the soul is intrinsically representative of things outside it. The only intrinsic representative power the soul has is its capacity to apprehend its immediate objects, entities existing within itself.³ However, the soul can refer to real things through an external and non-intrinsic connection. For the soul can judge that there exist external entities like the objects which it perceives and which exist within it; it can judge that there is a substance with the same 'reality' as is displayed by these internal objects. According to the Cartesian account, what in the end effects the 'representation' of external things is nothing representative in the soul but the soul's capacity to grasp the fundamental difference between existing objectively in the mind and existing independently in reality. The content of the soul's judgement is furnished by the inner objects of the mind, and by the notion of real existence, which is innate to the soul and can, in any case, be obtained from the *cogito*.

This, in a compressed form, is Descartes's account of the structure, intentionality and causality of ideas. In the following sections we will examine it in more detail. First, I will present some of Descartes's principles concerning the production of the immediate objects of ideas. I will focus on his exchange with Caterus regarding the causation and nature of ideas, where he makes constant reference to Scholastic doctrine. So, secondly, I will place the Cartesian account in the context of the thought of his Aristotelian predecessors. Before presenting Descartes's full views on the causation and intentionality of ideas in the final sections, I will examine his doctrine of the material falsity of ideas, with a view to securing our understanding of the Cartesian theory and of its relation to the thought of the School.

Objective reality and the causes of ideas

Descartes identified the immediate objects of thought with ideas as representations. He called these internally existing things the ‘objective reality’ of ideas. What he called the ‘formal reality’ of ideas is their being modes, acts, or properties of a mind. Descartes claimed that the causes of ideas must account for both these aspects: for ideas properly and also for their objects. He cast the distinction between these two aspects using common Scholastic terminology.

In the *Disputations*, Suárez writes about ‘the popular distinction between formal and objective concept’:

The act itself . . . through which the intellect conceives a thing or a common notion is called formal concept. It is called concept because it is like an offspring of the mind, and formal because it is the ultimate form of the mind, because it formally represents to the mind the thing cognized, or because it is truly the intrinsic and formal term of the mental conception . . . The thing or notion which is properly and immediately cognized or represented through the formal concept is called objective concept . . . It is called concept by an extrinsic denomination from the formal concept, through which the object is conceived. It is rightly called objective because it is not a concept that is, as form, the intrinsic determination of a conception, but rather, as object and matter, that with which the formal conception is concerned and towards which the . . . mind is directed. (*MD*, II, 1, 1)

This distinction is found also in Toledo, Fonseca, and other Scholastic texts which Descartes knew.⁴ When he borrowed the terms, however, Descartes left behind at least one central feature of the Aristotelian doctrine. As in other instances, he took the robe but not the flesh. Here, his departure consisted in making the object of an idea an inner or mentally existing entity, some ‘reality’ to be found in the mind whether or not there exists anything outside the mind.

Caterus, who apparently missed the contrast between Cartesian essentialism and Thomistic existentialism in the proofs of God’s existence, nevertheless caught on to Descartes’s divergence from established doctrine in his treatment of ideas. So he asked him:

what sort of cause does an idea need? Indeed, what *is* an idea? It is the thing that is thought of, in so far as it has objective being in the intellect. But what is ‘objective being in the intellect’? According to what I was taught, this is simply the determination of an act of the intellect by means of an object. And this is merely an external denomination which adds nothing to the thing itself. Just as ‘being seen’ is nothing other than an act of vision attributable to myself, so ‘being thought of’, or having objective being in the intellect, is simply a thought of the mind which stops and terminates in the mind. And this can occur without any movement or change in the thing itself, and indeed without the thing in question existing at all. (*AT*, VII, 92)

The Scholastic theologian added that ‘objective reality is a mere denomination, not anything actual. A cause imparts some real and actual influence; but what

does not actually exist cannot take on anything, and so does not receive or require any actual causal influence' (AT, VII, 92–3).

Caterus was reacting to Descartes's principle that the causation of an idea involves the production of a mode of the soul *and* of an object in the mind, that the full causal account of an idea must include a causal account of its object:

The nature of an idea, being the work of the mind, is such that of itself it requires no formal reality except what it derives from my thought, of which it is a mode, *i.e.* a manner or way of thinking. But in order for a given idea to contain such and such objective reality, it must surely derive it from some cause which contains at least as much formal reality as there is objective reality in the idea. (AT, VII, 41; IX–1, 32–3)

The background of Caterus's objection to this Cartesian view is found in the 'popular distinction between formal and objective concept'.

Descartes maintained that there is a causal explanation for everything that exists, that nothing causes nothing, and that there can be nothing in an effect which is not accounted for by its cause. He took these principles to be evident. In the Appendix to the Second Replies he included the following axioms:

I. Concerning every existing thing it is possible to ask what is the cause of its existence . . .

III. It is impossible that *nothing*, a non-existing thing, should be the cause of the existence of anything, or of any actual perfection in anything . . .

IV. Whatever reality or perfection there is in a thing is present either formally or eminently in its first and adequate cause. (AT, VII, 164–5; see also III, 428, and VII, 135 and 367)

These principles are hard to make completely clear. For example, the notion of having a property or perfection eminently, though easy to apprehend in its general meaning, is difficult to the point of intractability when examined closely. Very roughly, to have formally is to have the property or feature in question; to have eminently, as Anthony Kenny puts it preserving the obscurity, is to have 'some grander property'.⁵ But it is not clear how one is to understand a property being 'grander', for it is not clear that Descartes's intended meaning can be captured without resorting to the mysterious idea of degrees of reality. There may of course be ways of explicating eminent containment which, though falling short of Descartes's own understanding, are adequate for the purposes of the arguments where he uses that notion.

Cartesian causality is a relation between substances or their properties and acts. Effect and cause stand to each other as substance, property, or act produced to producing substance. One point Descartes seems to make is that if something is produced, then there must be a producer. This appears to be unexceptionable. Descartes also maintained that anything that exists, except

God, is produced, and is, moreover, continually re-produced or conserved so long as it exists.⁶ The cause or producer must be able to account for all the features in the effect. Descartes reasons that if there is a feature in the effect which is not accounted for by the cause, then there is something, namely that feature, which strictly has been produced by nothing. This conclusion, like the intuition on which it is based, appears to be *prima facie* acceptable.

It is important to keep in mind that Descartes was operating within a conception of causality as production of one thing or feature by another thing. Within such a conception one naturally requires that the producer, which taken fully and completely might involve more than one substance, have the power and the resources to produce all that is in the product. Otherwise there is something in the product which is not properly produced by the producer and hence is not a product. If everything has been produced, it follows that the total cause must account for the whole effect.

The doctrine that motivated Caterus's objection is one which Descartes connects to those we have just presented. In the Appendix to the Second Replies, after the axioms cited above, he writes:

V. It follows from this that the objective reality of our ideas needs a cause which contains this reality not merely objectively but formally or eminently. (AT, VII, 165; see also 135 and VIII-1, 11)

To account causally is to produce. The ability or capacity to produce is cast by Descartes in terms of having as much reality or being. Little is gained with that obscure rendering.⁷ Indeed, we shall fare better by returning to the more intuitive and imprecise notion of being capable of producing. The principle which he advocates is that the causes of an idea must be able to produce not only an act of the mind but also the objective contents or object of such an act.

In the *Meditations* Descartes discussed the connection between this principle and the more general ones mentioned above:

if we suppose that an idea contains something which was not in its cause, it must have got this from nothing; yet the mode of being by which a thing is objectively or representatively in the intellect by way of an idea, imperfect though it may be, is certainly not nothing, and so it cannot come from nothing. (AT, VII, 41)

He adds that 'the ideas in me are as pictures or images which can easily fall short of the perfection of the things from which they are taken, but which cannot contain anything greater or more perfect' (AT, VII, 42; IX-1, 33). The 'things from which they are taken' are the causes of ideas and not their mediate and external objects. Ideas are as pictures or images in that both present a certain content or reality, which may or may not be like anything that exists apart from them. Now, even if there is or could be nothing outside the mind corresponding to the object of an idea, something does exist within the soul. Indeed, the immediate and proper object of consciousness is this internal

thing, which thereby exists ‘representatively in the intellect by way of an idea’. Since this mental object is not nothing, it requires a cause capable of producing it. Given that the production of the object of an idea is part of the production of the idea, the causes of an idea must be able to produce not just a mental act, but also its object.

There is no doubt that Descartes had the Scholastics in mind when using the words ‘formal’ and ‘objective’. In the French translation of the *Meditations*, which he examined and according to Baillet used as an opportunity to ‘retouch the original’, he added a reference to ‘the Philosophers’ when introducing those terms (AT, IX–1, 32). He knew he was departing from their views (compare *DA*, d. V, q. 5). He devotes considerable time to explaining the principle that the causes of an idea cause not only the mental act but also the immediate object or that to which the act is directed. Scholastics like Suárez and Catusus did not have this principle. Indeed, they could not have advocated it without abandoning their direct or realist theory of ideas.⁸

The structure of mental acts

What I call a *direct* or *realist* theory of ideas takes mental acts to be immediately directed towards things, which may or may not exist in reality. According to this account being the immediate object of an idea is a property which is not intrinsic to the thing itself which possesses it. For example, the beauty of Helen, when I contemplate it, has the property of being the object of my thought. But this property is one which the Hellenic beauty can acquire and lose without itself suffering any real change. What does change in that case is my mind. It is a property of my thoughts to be about the beauty of Helen or about the flavour of roasted pork. Helen and her beauty have causes; just as the pig and the roasting are caused. So too do my mental acts have causes.

Within a realist account, it is my act of awareness itself which possesses a representative structure; and it is in virtue of this structure that it is directed towards one object or another. It is an intrinsic feature of the mental act that it be so directed to its object. This feature of my act, its intentional character, must itself be explained by the cause of the act or idea. But such a cause is completely separate from the cause of the object of awareness. The causing of the act and the causing of the object remain independent, as they must, given that the realist allows that there can be acts directed towards non-existent objects which have no causes. So there are no constraints on the causing of an idea arising from the production of its object.

The Scholastic Aristotelians maintained that a mental act is determined towards its object by the presence in the soul or the sense organs of the form of the thing apprehended. This intentional form, however, is not itself an object but that which determines or directs the act towards its object. Though

intentional forms make the mind like the things towards which it is directed, it does not formally become those things. In this lies the difference between *esse naturale* and *esse intentionale*. By maintaining that the thing cognized has *esse intentionale* in the mind the Scholastics were neither claiming that it is something within the mind that is immediately apprehended nor that the thing itself is present within the mind. Rather, they were explaining how it is that the mind apprehends the thing outside the mind: through an act directed towards its object by the very form of the object.

As Kenny has written, ‘according to Aquinas . . . what makes the thought of a horse the thought of a horse is the same thing that makes a real horse a horse: namely, the form of a horse. The form exists, individualized and enmattered, in the real horse; it exists, immaterial and universal, in my mind.’⁹ In the case of a sensation of a horse, the intentionally existing form is actually individualized by the matter of the sense organ, though the organ itself does not become a horse. The ‘similitudes’ (i.e. the species or forms) in the senses and intellect are called by Aquinas not objects but ‘principles of sensation’ and ‘principles of intellection’. As he explains,

an intelligible species has the same relation to the intellect as a sensible species has to the senses. But sensible species are not what is sensed; they are rather that by means of which the senses sense. Therefore, the intelligible species is not what is understood, but that by means of which the intellect understands. (*ST*, I, q. 85, a. 2)

Aquinas makes clear that ‘things existing outside the soul’ are understood and sensed in veridical perceptions. These objects are not mediate: ‘since the intellect reflects upon itself, by such reflection it understands both its own intellection and the species by means of which it understands . . . But what is understood first is the thing of which the intelligible species is a likeness.’ Unlike Cartesian objects, which are grasped in first-order perceptions, Aquinas’s directing ‘intelligible species’ is known only in self-consciousness.

There are important differences in the accounts of diverse Scholastic philosophers, from Aquinas to the sixteenth century. But in the general outline, the view just sketched is the Scholastic doctrine as Descartes learnt it and knew it. Suárez, for example, writes that ‘almost all philosophers and theologians . . . place certain similitudes of the objects in the cognizing powers in order to unite through them the objects and the powers’ (*DA*, d. V, q. 1, 3). The similitudes are not terms or objects of the acts; they are the means by which the acts are directed to or united with their objects: ‘the [intentional] species are not seen . . . [rather] by means of them the thing itself is immediately seen’ (*DA*, d. V, q. 2, 16).¹⁰

Descartes rejected such an account. Instead, he advocated an *immanent* or *indirect* theory of ideas. For him there are acts of the mind, things outside the mind, and also mental entities which are the immediate and direct objects of the mental acts. It is in virtue of having these internal or immanent realities as

the immediate objects of its acts that the mind can reach external things mediately and extrinsically, not properly or directly by representation from these objects but through a true judgement that certain realities exist outside the mind. So contrary to the Scholastics, Descartes explains the intentional or representative character of ideas solely in terms of the existence within the mind of their objects. In so far as the mind succeeds in 'apprehending' things outside it, it is through acts of judgement based on the fact that its immediate objects display objectively the essences or natures which are found actually in the substances that populate the world.¹¹

Descartes and the realist Scholastics agreed that the causes of an idea must account for their effect whether taken as a mode of the mind or as a representative act. But for the realists the cause of the idea is not the cause of its object. For Descartes, on the other hand, the immediate objects of ideas must exist in the mind if the mind is to have an idea. Though Helen herself and her beauty in reality need suffer no alteration when I contemplate her, the immediate and direct object of my thought, what I properly contemplate, does suffer alteration: it exists when I am aware of it and ceases to exist when I am not. The mind, or whatever else, might have the capacity to produce this object. The objective reality in my mind may pre-exist in some way in the causes which can produce it within the soul. But unless it is actually produced within the mind and so becomes an object, there will be no idea. And if it is so produced, then necessarily there will be some idea of it; for it is an intrinsic feature of this internal object that it be an object of mental apprehension. This mentally existing entity is an effect which imposes as much of a constraint on its cause as if it were externally existing. This, precisely, is what Caterus could not understand: he could not see what it was that needed a cause as idea apart from the act of thought.

It may be that neither the beauty of Helen nor the flavour of the pork exists in the world. It may be that there is no Helen or that, sadly, though she is, she is without beauty. It may indeed be that the flavour of roasted pork exists nowhere but in the tasting mind. The Aristotelians did not want to deny that the mind can have as object something non-existent. They knew that in their dreams gourmets encounter delicacies that are not to be found in the actual world. What a direct realist does deny is that a correct account of ideas requires the existence of mental entities as the immediate objects of thought. When the hallucinating gourmet tastes the flavour of a non-existent roast he can still be seen as having a determined or directed mental act. In that case the object of the act will be non-existent, since there will not be any roasted goods around. Both realist and immanent views can acknowledge and attempt to accommodate a distinction between appearance and reality. The immanentist will naturally maintain that the features of appearances are to be found in the immediate objects of thought even when they are nowhere in the external

world. On her part, the realist might take the features of appearances to be relational properties of the acts of thought or sensation and the world, or perhaps (adverbial) properties of the acts themselves, so that even if there is no roast there can yet be the appearing as if there were a roast.

For the Aristotelian Scholastics the directing intentional species or form is a constitutive part of an act of consciousness. Such species are necessary for the act whether its object exists or not. Referring to dreams and memory Suárez writes that ‘if when the object is absent nothing remains in the [apprehending] power, then it would not be possible for the power to remember the absent thing and it would behave as if it had never known it’ (*DA*, d. V, q. 1, 5; see also d. V, q. 2, 26). According to Suárez, whatever species the mind has within it have originally reached it through the senses from externally existing objects. Given that there is remembering, dreaming and imagining, Suárez argues, ‘it may be concluded that there are [intentional] species in the external senses, for nothing can arrive in the internal powers except through them’ (*DA*, d. V, q. 1, 5). And the external senses receive their forms ‘from objects present to them’: the ‘intelligible species or the phantasms ... are produced primarily and originally by the objects’ (*DA*, d. V, q. 1, 4; and *MD*, XLIV, 8, 2). Things can act on the sense organs and the soul in this way because it is in the nature of the soul and its organs to receive forms intentionally.

Suárez, like Aquinas, relied on the senses to furnish the mind with the likenesses needed to direct it to things outside it. Descartes opposed the Scholastic account of ideas by severing the representative and causal links between sensation and the external world. Furthermore, as we shall see in the next chapter, Descartes argued that the proper objects of intellection (true and immutable natures) are not obtained from the contents of sensation. Thus, he created a world within the mind, the immediate object of its gaze, and simplified the Scholastic view on the structure of mental acts. But he could still press upon the Scholastics that the ‘objective reality’ of ideas demands a causal explanation. For, though the directing intentional species had been cast away from his account, he could maintain that the Scholastics needed to provide a causal account of it, as in fact we have seen Suárez did. Not surprisingly when Arnauld interpreted Descartes as a direct realist, he identified the Cartesian ‘objective being or reality’ with the directing or structuring aspect of an idea, which points the act towards its transcendent object.

Descartes’s alleged direct realism

Most commentators agree that Descartes did not have a direct realist theory of ideas.¹² Nevertheless, some have argued recently that, like the Scholastics, Descartes did hold such a doctrine.¹³ They have maintained that in his account

of the objective reality of ideas Descartes was not departing from the Aristotelian view.

Such innovative reading derives some support from Descartes's use of Scholastic terminology in the presentation of his views. Moreover, its controversial character and relative originality as an interpretation of a central item in the metaphysics of one of the most examined of philosophers has contributed to its attractiveness.¹⁴ But, *pace* Richard Rorty and other contemporary thinkers, originality and controversiality are not guides for philosophical inquiry, let alone historical interpretation.¹⁵ When a virtue, originality arrives without being sought. Indeed, one should want to say that it is properly attained only in spite of the aims of the inquiry: for one ought to hope that truth and knowledge be more common than error and ignorance.

Descartes was not a direct realist. His doctrine of ideas is one of a piece with his metaphysics and its basic ontological and epistemological commitments. So it is in relation to the interpretation of his whole philosophy that this question needs to be ultimately settled. But the Cartesian ontology cannot allow the immediate objects of mental acts to be entities existing outside the mind and independently of it. Descartes conceived the mind as a substance entirely and essentially constituted by thought. If the immediate objects of thought could possibly exist on their own and independently of the mind, then the essence or nature of mind would be a relation inherent to the mind only on one side but completed on the other by a separate and independent entity. The mind would not then be independent from other substances, as it must be to be a substance.

Furthermore, relations or *n*-adic predicates are difficult to incorporate into an ontology exclusively of substances and their modes or inhering properties. They are strange accidents which, as Leibniz would put it, 'can, at the same time, be in two subjects and [have] one foot in one, so to speak, and one foot in the other'.¹⁶ Descartes did not conceive the essential nature of mind to be a relation which could possibly hold between it and some other substance. He was not and could not have been a direct realist with regards to any mode of mind or any immediate object of a mental act.¹⁷

Moreover, this issue can be decided directly. As has been conceded by an advocate of a realist reading, 'Descartes's text is not unsupportive of [the] assignment' of an immanent theory.¹⁸ In fact, there are texts which, displays of hermeneutical virtuosity apart, it is difficult to take as anything but statements of an immanent doctrine of ideas (see AT, III, 474; VI, 559; VII, 8).¹⁹ It is anachronistic to argue that Descartes did not espouse an immanent doctrine or even just that he was unclear about his views, on the basis of the fact that he never set out his thoughts in a manner that is unequivocal to us. Descartes was not writing for the interpreters of later times. He was writing for Scholastic thinkers like Caterus. He took the Aristotelian background for granted.

Against such background his views are clear, as his exchange with Caterus shows.

When placed in the context of the Scholastic distinction between the formal and the objective aspects of ideas as presented by Suárez, the First Replies reveal Descartes's immanent conception. He addresses Caterus's question 'what is an idea?' by acknowledging that he had written that it 'is the thing which is thought of in so far as it has objective being in the intellect' (AT, VII, 102). But he then distances himself from the Scholastic divine, diplomatically adding that 'to give me an opportunity of explaining these words more clearly the objector pretends to understand them in quite a different way from that in which I used them'. The truth is that Caterus was using the words as they were commonly used at the time, as Suárez or Toledo would have understood them.

Descartes next quotes Caterus's statement that objective existence 'is merely an extraneous label which adds nothing to the thing itself' (AT, VII, 102). This is parallel to Suárez (see *MD*, II, 1, 1 quoted above). Descartes, however, stresses that this is not how he intends to speak of the objective content of ideas. Hence, he writes:

Notice here that [Caterus] is referring to the thing itself as if it were located outside the intellect, and in this sense 'objective being' is certainly an extraneous label; but I was speaking of the idea, which is never outside the intellect, and in this sense 'objective being' simply means being in the intellect in the way in which objects are normally there. (AT, VII, 102)

This text could be read in a direct realist fashion, by taking 'objective being' to be the analogue of the Aristotelian intentional being and by having Descartes's object occupy the place of the Aristotelian directing species. But it should not be read in that way. Descartes knew the Scholastic doctrine and terminology well. If he is read as a direct realist, Caterus's objection demands nothing but terminological clarification. All Descartes would have had to do is to point out that he did not mean 'objective reality' in the sense in which it is a mere extrinsic denomination of the object, but in the sense in which it is that by means of which the act is directed to its object. In that case, he should also have added that the objective reality of ideas is part of their formal reality. Descartes, however, does not make that point. The reason, I take it, is that he knew that the problem was not one of terminology but of doctrine.

It was not Descartes's intention to stress his differences with 'the Philosophers'. He took himself to be solving the same problems that they confronted; what he wanted was to guide them into his true account. He sought out and used the common ground he shared with these objectors. Still, the differences are there and they are not covered up. He expressed this same attitude on several occasions regarding other matters on which he was in direct conflict with the Scholastics. His dismissal of Aristotelian forms and of

the explanations that rely on them is clear and explicit. Yet he wrote: ‘in order not to cross swords with the Philosophers, I do not wish at all to deny anything that they imagine in bodies in addition to what I have mentioned, such as their “substantial forms”, their “real qualities”, and similar things’ (AT, VI, 239). He was not interested in antagonizing or engaging in debate, only in leading to the truth: ‘my accounts shall be more easily and strongly accepted, since I will make them depend on fewer things’.

The Scholastics held that the objective aspect of a sensation of the sun is the sun itself. Though they wrote of the sun being intentionally in the senses, this is not the object of the sensation, but that which structures the sensation towards its object. Suárez points out that ‘the difference between formal and objective concepts is that the former is always a true and positive thing and in creatures a quality in the mind, while the latter is not always a true positive thing’ (MD, II, 1, 1). When the objective concept is not a positive thing, he adds, ‘it only has objective being in the intellect’. Clearly this object is not the structuring intentional species or form (see MD, VI, 3, 16; XLIV, 1, 3; and DA, d. V, qq. 1 and 2).

By ‘objective being in the intellect’ Suárez meant the following. If the object does not exist, there is still an act of consciousness and hence an object of that act. But to be merely the object of a mental act is not something positive. Suárez contrasted non-existent objects and real qualities or things; and he distinguished between something ‘singular and individual’, which the formal concept ‘always is . . . for it is a thing produced by the intellect and it is in it’, and objects of consciousness that do not exist in reality. There are genuine questions concerning the ability of the mind to apprehend non-existent objects, but there is no room left for inquiry into the causal origin of what is nothing real or actual. Using a comparison suggested by Elizabeth Anscombe, we might say that the being of an object *qua* object is like the being of a grammatical direct object.²⁰ There should be no question as to the ontological status or reality of objective being *per se*. There is only one sun. And its being the object of sensation is merely its standing in a certain extrinsic relation to the senses. Whatever positive reality there is in Suárez’s ‘objective being’, it comes from the thing which happens to be an object, not from the mind.²¹ If the object of apprehension is not something actually existing, then there is only an act of the mind directed towards something non-existent. This is constitutive of a direct realist doctrine of ideas.²²

Suárez distinguished two senses in which something can be said ‘to be known’:

one can call that being which is known and which properly is objectively in the intellect, a known being; or one can call a known being that being itself which the thing is said to have from the very fact that it is known and which is not objectively in the intellect in virtue of the direct cognition. Rather, it is formally in the intellect by

the act by which the thing is known; it is objectively in the intellect in the reflex cognition by which the intellect knows . . . the thing to be known. (*MD*, LIV, 2, 13)

The first sense in which something is said to be known and to be objectively in the intellect is the ‘proper’ sense. It is that which holds of any object in so far as it is an object of the soul. In this sense, the thing known might be a chimera, something which does not exist at all. Its ‘being’ in the intellect is not a true positive being. Even if the known being exists, its being in the understanding as object adds nothing to it. This sense of ‘objective being’ has no ontological import; *per se* it does not introduce any causal demands. On the other hand, the thing can be said to be known merely by reference to an act of knowing it. It then exists formally in the intellect: it exists formally in so far as it is contained – as directing species – in a formally existing act. This directing species is objectively in the intellect only when the mind knows reflexively, in knowing its own act, that the thing is known. If the thing exists in reality or if it is a possible real nature, then there is something more in the world apart from the act directed towards an object. There is also, in the first case, an actually existing substance, and in the second, God.

Let us go back to Descartes’s response to Caterus. Descartes writes that ‘the idea of the sun is the sun itself existing in the intellect – not of course formally existing, as it does in the heavens, but objectively existing’ (*AT*, VII, 102). Notice that the Suárezian objective ‘being’ is transformed into an objective ‘existing’ or an ‘existing’ in the intellect.²³ Descartes adds that ‘this mode of being is . . . much less perfect than that possessed by things which exist outside the intellect; but . . . it is not therefore simply nothing’ (*AT*, VII, 103). From the perspective of a direct realist, objective being is not ‘less perfect’ than actual existence. There is the formal existence of ideas and the formal existence of the objects of ideas, when they do actually exist. Objective being is nothing over and above these two; it is not an ‘existence’. If the object cannot exist formally, what exists is an act of the mind determined in a certain way, the appearing of things, nothing more. If the non-existent object is a real or possible essence, then what appears to the mind is not a mere nothing outside the act. For it ultimately refers to the necessary being that is God. But objective being *per se* adds nothing to its reality. On the other hand, a Cartesian might construe the ‘existence’ of the immediate object as somewhat real yet less perfect than independent and actual existence. He could indeed write that ‘the mode of being by which a thing is objectively or representatively in the intellect by way of an idea, imperfect though it may be, is certainly not nothing’ (*AT*, VII, 41 and IX–1, 33).

The only way in which Descartes’s text could yield a realist account of ideas is by supposing that he used ‘objective being or reality’ to refer not to the object as term or object of a mental act, like the Aristotelians did, but rather to whatever it is that directs the act to a non-immanent object.

‘Objective existence’ would then parallel the ‘*esse intentionale*’ which, in the Scholastic doctrine, belongs to the form or species which structures the act towards its object. This, in turn, is just part of the formal reality of the act of consciousness.

In the context of the Scholastic treatment of this topic, this use of ‘objective’ would be confusing for Descartes’s intended readers. Even if, surprisingly, he had not realized this, Caterus’s objection should have made it apparent to him. For it would have been manifesting confusion over the terms in exactly the expected way. One ought then to ask why Descartes did not abandon this use or at least point out the differences between ‘objective reality’ as directing species and ‘objective reality’ as thing apprehended. After all, the First Replies would have provided him with the opportunity to make his views clear. To write merely that the object exists in the intellect in the way in which things exist there and that such an object is different from the thing outside the mind does not clear up the ambiguity.

On my reading, Descartes saw Caterus as baffled not by the words but by the doctrine. His reply then appears appropriate: the object of any act of awareness demands a cause merely from being an object of thought; for it exists in some way. The objective reality within the mind, independently of whether it exists or can exist outside the mind, ‘imperfect though it may be . . . is certainly not nothing’. If one does not suppose that Descartes was ignorant of the meaning of the terms he was borrowing, or that he did not care about the confusions into which his Scholastic readers would be thrown, then one must conclude that when he writes of objective reality and of objective ‘existence’ in the mind, Descartes is expressing an immanent conception of ideas. Conscious of his departure from Scholastic doctrine, Descartes simply left it for Caterus to infer, even if he missed the innovative aspect of his account, that the Scholastic ‘intentional species’ had to come from somewhere.

My argument is perhaps reinforced by noting that Caterus had referred to Suárez in his objections. When writing the Fourth Replies a few months later, Descartes explicitly acknowledged consulting the *Disputations* to see whether his use of a technical term ‘might have involved too great a departure from standard philosophical usage’. He comments that ‘this would have worried’ him. The term in question was ‘materially’ as in ‘materially false ideas’. And in that case he happily wrote that ‘the first philosophical author I came across, namely Suárez’, had ‘used [it] in an identical sense to my own’ (AT, VII, 235).

The material falsity of ideas

One feature of the Cartesian account which has puzzled commentators is precisely this doctrine of the ‘material falsity’ of ideas.²⁴ What underlies the

difficulties that interpreters since Arnauld have had in understanding Descartes on this subject is that they have taken him to claim that materially false ideas suffer from some kind of representative defect. One telling difference between Arnauld and the contemporary commentators which he inspires is that Arnauld was arguing from a direct realist conception of ideas while his successors have generally sought to locate the representative failure somewhere in the immediate and mental objects of ideas. However, the interpretation which I am presenting suggests that this common assumption is mistaken. For Descartes did not identify any intrinsic representative character in the immediate and sole objects of the mind's awareness, nor in the acts of the mind themselves.²⁵ The representative function of the mind relative to things outside itself is the result of judgement. Descartes never could have intended to introduce a notion of ideas which represent their objects falsely. What he did intend was the notion of an idea, including its immediate object, which could lead the mind to judge falsely.

In what follows, I will first present the Cartesian doctrine of the material falsity of ideas. In the next two sections I will confirm my reading by examining the response to Arnauld in the Fourth Replies, against the views of Suárez to which Descartes explicitly referred.

In the *Meditations*, Descartes wrote that those objects which 'represent what is nothing as if it were something' may be called false (AT, VII, 43). In this way he allowed for falsity to attach to something other than judgements, though only in a derivative sense. Ideas may be called materially false, by extension, when they 'provide subject-matter for error' in judgement (AT, VII, 231). Descartes explained and exemplified the material falsity of ideas thus:

the ideas which I have of heat and cold contain so little clarity and distinctness that they do not enable me to tell whether cold is merely the absence of heat or vice-versa, or whether both of them are real qualities, or neither is. And since there can be no ideas which are not as it were of things, if it is true that cold is nothing but the absence of heat, the idea which represents it to me as something real and positive deserves to be called false; and the same goes for other ideas of this kind. (AT, VII, 43–4)

The kind of idea to which Descartes refers is awareness of the proper or exclusive objects of sense: 'light and colours, sounds, smells, tastes, heat and cold and the other tactile qualities' (AT, VII, 43).

As any other ideas, sensations have objects that exist in the mind; and they possess objective reality. But, as he repeatedly made clear throughout his writings, Descartes believed that properly sensorial contents do not exist formally. Moreover, he denied that the very possibility of their formal existence makes any sense. These contents are essentially mind-dependent: they exist only as objects of consciousness and cannot be meaningfully conceived to exist independently: 'When they are judged to be something existing outside

our minds, there is absolutely no way of understanding what they are' (AT, VIII-1, 33). They can, nevertheless, be carelessly mistaken for possible formally existing qualities. For in a sense, they appear as something real and positive; and their mode of apprehension is such that the mind cannot tell from it whether they can or cannot exist in reality.

Descartes stated in the *Principles* that 'all the objects of our perception we regard either as things, or affections of things, or else as eternal truths ...' (AT, VIII-1, 22). This is the same point he makes in the Third Meditation: 'there can be no ideas which are not as it were of things'. It is only upon reflection that we discover that many of the objects of ideas which 'we regard ... as things, or the affections of things' are to be 'referred' to things outside the mind only in a qualified and indirect manner (AT, VIII-1, 23). So the proper ideas of sense are materially false in that they present objects whose existence outside the soul is impossible; they present these objects in a manner which does not reveal whether they can or cannot exist in reality, namely, in the manner of sensory perception; and they present them as things or properties of things.

Descartes distinguished the material falsity of ideas from the falsity of judgements, which he acknowledged as primary. Still, both propositional and substantival objects can be 'clearly and distinctly' perceived. (See, e.g., AT, VII, 43 quoted above and AT, VIII-1, 21.) Corresponding to these uses, clarity and distinction come into the notion of material falsity in two different ways. In the propositional sense, what is perceived obscurely and confusedly, though it may be unclearly thought to be perceived clearly and distinctly, is the supposition that the proper objects of sense exist formally. What will come to be recognized as clearly and distinctly true is that such objects can exist only objectively in the mind. In the substantival sense, it is sensation itself which reveals the nature of its objects obscurely and confusedly. Clarity and distinctness with respect to the ontological nature of the perceived object apply only to cases of intellectual perception. The ideas of the proper objects of sensation, being obscure and confused, do not enable one to tell whether their objective contents could exist formally outside the mind. Since their immediate objects are exclusively of sensation, one cannot attain knowledge of their true nature through direct, clear and distinct intellectual inspection.

Nevertheless, the mind can clearly and distinctly perceive its own sensory acts. Thus, it may come to know that the proper objects of sense can exist only within such acts, and that their direct perception is obscure and confused by nature. When the soul turns reflexively upon its sensations it can distinguish clearly and distinctly between the objects of sensation which can exist formally (e.g., size or shape) and those which can exist only objectively within the mind (e.g., pain or green). Furthermore, the soul can perceive intellectually that sensations are obscure and confused, and that they do not

exhibit the true ontological character of their objects, presenting them as ‘things or the properties of things’ when they are mere objects within the mind. Materially false ideas ‘are such as to provide subject-matter for error’. Their objects may be taken to exist formally in reality, when in truth they exist only as objects in the mind. Descartes’s ‘only reason for calling the idea “materially false” is that, owing to the fact that it is obscure and confused, I am unable to judge whether or not what it represents to me is something positive which exists outside of my sensation’ (AT, VII, 234).

Sensations reveal or determine the true nature of their objects only obscurely and confusedly. In this sense, neither sensory perceptions nor proper sensory objects are ever clear and distinct.²⁶ It is only when the sensory act with its proper sensory object is apprehended intellectually in a reflexive act of understanding that the sensation can be said to be clear and distinct as to the ontological status of its object. But then it is the reflexive act of understanding and not properly the act of sensing that is said to reveal the nature of the object clearly and distinctly.²⁷ This is crucial for the Cartesian account of materially false ideas. For, precisely, it is in this way that materially false ideas ‘provide subject-matter for error’.

The error in question attaches, for example, to the judgement that ‘what is called colour in objects is something exactly like the colour of which we have sensory awareness’ (AT, VIII–1, 35). In that case, as Descartes states, ‘we make the mistake of thinking that we clearly perceive what we do not perceive at all’. Say we have a clear feeling of pain. Suppose also that, on the basis of this, we judge that there is something in the world outside the soul exactly like the clear and vivid pain we feel. What we have not perceived clearly and distinctly thus far is whether the pain is something that can exist independently in reality. For that is not revealed by the feeling. And the intellectual grasp of our feeling involved in the judgement that its object exists in reality cannot have been clear and distinct, or else we would have seen that the proper objects of sense and feeling cannot exist in reality. Even when sensation is directed to what can and does exist in reality, it is not the clarity and distinctness of the sensation that grounds the correct judgement that the content presented by such objects exists in reality. It is, instead, the clarity and distinctness of the act of understanding a real essence which, in a self-reflective act, we perceive to be part of the object of that sensation. When we intellectually grasp a pain or a colour, what we grasp is a feeling or a sensation of pain or colour. But then we understand them to be modes of thought. Only intellectual perceptions can reveal clearly and distinctly the nature of their objects.

There are three components to the material falsity of ideas. First, the idea must lack clarity and distinction in the presentation of its object, in the respect we have identified above. Second, the objective content of the idea

cannot possibly exist formally or if it can, it must at least not exist formally. It could be that the object of an idea cannot exist formally on account of having contradictory properties. However, if proper sensations are taken as paradigms of material falsity, it may be more appropriate to restrict the concept to ideas with simple objects. Simple objects include both simple qualities, like the proper objects of sensation, and also ‘true and immutable essences’, like God or the circle, which ‘the intellect cannot divide [by a clear and distinct operation]’ (AT, VII, 117; VIII–1, 22–3). Descartes takes all objects to be either simple or made from simples. He writes about ‘simple notions from which our thoughts are composed’ (AT, VIII–1, 22). Materially false ideas, then, have simple objects which cannot exist formally. By extension, other ideas are materially false if their complex objects contain a simple one which cannot exist formally, or if they are composed of things which cannot exist together. In a still more extended sense, all ideas that present objects which do not exist in reality, even if they could have so existed, may be said to satisfy this requirement of material falsity. With respect to these first two components, the idea of God is the ‘truest and most clear and distinct of all my ideas’ (AT, VII, 46). For its object can only be grasped intellectually; and that act will reveal it not only as a possible formal reality but as a necessary one.

Thirdly, materially false ideas must present their objects as having some possible formal reality. In itself, an act of perception of a ‘thing or affection’ is the presentation of something as an entity or property, a substantive content. This is common to all ideas with objective reality, that is, with objects. When the object of an idea is properly understood as existing only objectively, the idea may be said to ‘represent’ nothing, but only in the sense that its object cannot or does not exist outside the mind. Still, the idea has objective reality; and in virtue of this objective reality, the idea presents to the mind something which could be taken, even if only obscurely and confusedly, to exist formally or independently of the perception (i.e., not exclusively objectively or as its object).

The adventitious character of sensorial objects and the connection between sensorial perception and true existential judgements about material things can only contribute to the careless mind’s error.

The Cartesian concept of material falsity supposes a distinction between the immediate objects of the mind and the things outside the mind to which it can refer through judgements which are fully grounded on what exists within the mind. However, it does not presuppose any proper representational failure on the part either of the acts of the mind or of their objects. All substantial ideas present something as if it were a thing or a property of a thing; and they all have objective content. But they need present nothing which could or does exist in reality.²⁸ While the immediate objects of materially false ideas have objective existence and reality, there is nothing outside the mind to which these objects could be extrinsically referred through judgement.²⁹

Arnauld's critique of the material falsity of ideas

Arnauld criticized the notion of material falsity which Descartes had introduced in the *Meditations*. He maintained that this notion was 'inconsistent with [Descartes's] own principles' (AT, VII, 206). Arnauld argued from a direct realist conception of ideas. In so doing, he shifted the 'objective being in the intellect' from the being of a true object to the being of what directs an act of the mind towards its transcendent object. Arnauld accepted the Cartesian causal principle requiring an account of the objective reality of an idea. But unlike Descartes he understood this to be the reality not of the object of the idea, but of that which directs or structures the idea towards its object. In 1683, more than thirty years after Descartes's death, Arnauld lucidly and explicitly put forth such a direct realist view in *On True and False Ideas*, his polemic tract against Malebranche's *The Search after Truth*.³⁰ But he also stated then that Descartes himself had been of the same persuasion on this matter.³¹ Arnauld offered no evidence for this latter claim: he appealed to texts which could easily be read otherwise. Let us now examine his exchange with Descartes in the Fourth Objections and Replies.

In his objections Arnauld was puzzled by Descartes's statement that there are ideas 'which represent what is nothing as if it were something'. It appeared to him that there could not be any materially false ideas. Either what is represented by the idea is nothing, in which case the idea is true, or it is something, in which case the idea does not represent what is nothing. Like Caterus, he asked 'what is the idea of cold?' And like the Dutch Scholastic he replied that 'it is coldness itself in so far as it exists objectively in the intellect' (AT, VII, 206). Arnauld then continued: 'if cold is a mere absence, it cannot exist objectively in the intellect by means of an idea whose objective existence is a positive entity. Therefore, if cold is merely an absence, there cannot ever be a positive idea of it, and hence there cannot be an idea which is materially false.' The thing represented outside the mind and what exists objectively in the mind when it perceives such an existing thing are connected as thing or object represented and representing act or perception. If cold itself, the represented thing, is nothing, then the idea of cold would also have to be objectively nothing; otherwise, it would not represent cold but something else.

Arnauld could not make sense of Descartes's notion of an idea that represents as something what is in fact nothing. An idea always succeeds in representing something. If this something does not correspond to something else, this fact is completely extrinsic to what the idea does represent and to its representational or objective character:

although it can be imagined that cold, which I suppose to be represented by a positive idea, is not something positive, it cannot be imagined that the positive idea does not represent anything real and positive to me. For an idea is called 'positive' not in virtue

of the existence it has as a mode of thinking . . . but in virtue of the objective existence which it contains and which it represents to our mind. Hence, the idea in question may perhaps not be the idea of cold, but it cannot be a false idea . . . The idea itself, within you, is completely true. (AT, VII, 207)

An idea represents something positive and real in as much as it is objectively something positive and real. If one supposes that an idea has objective reality, then one cannot also suppose it represents what is nothing. For Arnauld, ideas have only one object. The idea or act of awareness represents this object on account of its representational character, that is, of its being structured towards that object. What so structures an act is a part of what that act is formally, as mode of the soul. Arnauld calls this the 'objective reality' of the act. This objective reality is not strictly the object of the act; it is instead that which constitutes the act as consciousness of that object. Hence, the only object that Arnauld finds for an idea of cold is whatever that idea 'represents to our mind' through 'the objective existence which it contains'.

Arnauld argued from a realist account of ideas. So by the 'objective existence' of an idea he meant not existence as immediate object of perception but existence in the act of the mind directed towards that object.³² More than four decades later Arnauld explicitly adopted this interpretation. In *On True and False Ideas* he wrote that

what [Descartes] calls an idea . . . is not really distinct from our thought or perception . . . it is our thought itself, in so far as it contains *objectively* what is formally in the object. Apparently he takes this idea to be the *immediate* object of our thought . . . since our thought knows itself, and I do not think about anything of which I am not conscious. Therefore, there is no need for . . . a *representative entity*, different from my thought.³³

Nevertheless, Arnauld's criticism of the material falsity of ideas can arise also if the representative function of an idea is located in its immediate object and this is taken as what directs the mind towards something outside it: either this immediate object truly represents what it does represent or it does not represent at all.

When taken as false representation, material falsity makes no sense. From both the perspective of a direct realist and of an immanent doctrine of ideas it may be asked: 'what does the idea of cold, which you say is materially false, represent to your mind? An absence? But in that case it is true. A positive entity? But in that case it is not the idea of cold' (AT, VII, 207).³⁴

Arnauld was also disturbed by claims about the causality of materially false ideas. He maintained that Descartes appeared to contradict himself by holding both that such ideas have nothing as their cause and that they have 'positive objective being'. Since, as we have seen, Descartes held that the cause of an idea must have as much reality formally as its effect has objectively,

Arnauld concluded that in the *Meditations* the author ‘violates [his] most important principles’ (AT, VII, 207). Unlike Caterus, Arnauld did maintain that objective being requires a causal account. But he took objective being to be a constitutive part of the act of perception, not its object but its structuring form. So his problem was not with the causality of objective reality, but with the supposed Cartesian claim that materially false ideas have objective reality but do not need a cause of this reality.

Descartes’s rejoinder and its Scholastic background

As with Caterus, Descartes’s strategy was not one of overt confrontation. He recognized Arnauld as a sympathetic critic, and he used the objections as stepping stones. Still, he did not cover up his views. He was in direct opposition to Arnauld and the Scholastics on the matter of the structure of ideas, so his answer leaves this clear without explicitly stating the innovative character of his doctrine. Furthermore, Arnauld had misunderstood the nature of the material falsity of ideas by taking it to reside in some sort of false representation. So Descartes first cleared up the misunderstanding and then restated his view more fully than in the *Meditations*.

At the start of his ‘careful’ examination of Arnauld’s criticism Descartes introduced a distinction:

when we think of [ideas] as representing something we are taking them not *materially* but *formally*. If, however, we are considering them not as representing this or that but simply as operations of the intellect, then it could be said that we are taking them materially, but in that case they would have no reference to the truth or falsity of their objects. So I think that the only sense in which an idea can be said to be ‘materially false’ is the one which I explained. (AT, VII, 232)

Descartes mentioned Suárez to justify his use of the term ‘material falsity’. Suárez had written that an ‘operation of the intellect’ is ‘taken, as it were, materially as it is a certain spiritual quality’, while it is taken ‘formally in so far as it relates the thing to the intellect . . . or in so far as, in its representative being, [the operation] contains the thing known’ (*MD*, VIII, 3, 16). Later on, in the passage which Descartes explicitly cited, Suárez distinguished between the mistake of someone who judges to be true what is in fact false and the falsity which may be said to attach to the false proposition itself which is apprehended, prior to any judgement: ‘falsity can be admitted in that apprehension [of what is false] even if it is in it, as it were, materially, that is, not like in one who affirms or proffers what is false, but like in a sign which signifies what is false’ (*MD*, IX, 2, 4).

In a passage expressing a notion similar to that which Arnauld brought against Descartes, Suárez wrote that

if a thing is false with respect to the intellect, then it will be so either with respect to the intellect that forms the proper and true concept of the thing, which evidently cannot be the case since it does not disagree with the concept; or with respect to the intellect that truly conceives some other thing, as fools-gold is said to be false gold with respect to the intellect that conceives true gold. In this way gold too can be said to be false with respect to the intellect that truly forms the concept of fools-gold . . . [I]f a thing is compared with its own proper concept, it is not false with respect to it, but true; and if it is compared instead with the concept of some other thing, it is not falsely known by it but rather ignored. (*MD*, IX, 1, 8)

As Arnauld argued later, if an idea is compared with the object it does represent, it is true; and if it is compared with what it does not represent, it is not false but simply not of that thing.

Descartes sought to explain how he avoided this problem by introducing the distinction between an idea taken formally and taken materially:

Thus whether cold is a positive thing or an absence does not affect the idea I have of it, which remains the same as it always was. It is this idea which, I claim, can provide subject-matter for error if it is in fact true that cold is an absence and does not have as much reality as heat; for if I consider the ideas of cold and heat just as I received them from my senses, I am unable to tell that one idea represents more reality to me than the other. (*AT*, VII, 232)

Arnauld, Descartes claimed, was ‘dealing solely with an idea taken *formally*’ while the pertinent sense in which an idea is false requires that it be taken materially. Descartes wanted to exclude any reference to things outside the idea itself which it may be said to ‘represent’. Arnauld’s objection was that an idea cannot represent nothing as something; for if it represents something positive, then it is not an idea of nothing. Descartes’s answer was that the idea represents nothing as if it were something not by reference to its falsely representing something outside the idea but by presenting an object in a way that does not reveal whether the object can or does formally exist. An idea is materially false in that ‘owing to the fact that it is obscure and confused, I am unable to judge whether what it represents to me is something positive which exists outside of my sensation. And hence I may be lead to judge that it is something positive though in fact it may be merely an absence’ (*AT*, VII, 234). Inspired by Suárez, Descartes claimed that a sensation can be called materially false prior to a judgement that its content actually exists. In this sense, it derives its falsity from its objects, which cannot or do not exist formally.

Where Descartes parts company with Suárez and also with Arnauld is in taking the sensation itself within the mind, considered materially, to include its object. If we strictly follow Suárez’s distinction between an ‘operation of the intellect’ taken ‘formally’ and taken ‘materially’, then an idea taken materially excludes reference to its representative character. It is merely a

‘certain spiritual quality’ with no mention of its directedness to this or that object. When Suárez speaks of material falsity he makes reference to judgement; and he exemplifies the notion using the perception of a proposition in relation to a judgement involving that proposition (in *MD*, IX, 2, 4). But here the idea taken materially does include a representative element, for it is the idea of a certain proposition which is the content of a judgement. What is being excluded is the representative element of the act of judgement, namely, the assertion of the truth or falsity of the perceived proposition. However, if following Descartes we apply Suárez’s account to simple sensations, then the result is no longer straightforward. For the distinction between a sensation taken materially and taken formally is between an act of the mind apart from its representative character and the act inclusive of that character.

From the perspective of direct realists like Suárez and Arnauld, what represents something non-existent is an act of sensory perception taken formally. And this formally understood act can be said to be materially false only in relation to a judgement affirming the existence of its object. The relevant difference is not, therefore, between a sensation taken materially and the sensation taken formally, but between a sensation taken formally and a judgement that the sensation succeeds in representing something existent. In other words, it is between the act of judgement taken materially, as the presentation of its object – the directed sensation – and the act of judgement taken formally, as the affirmation or denial of the existence of the object of that sensation.

By speaking of sensations themselves taken materially, not as ‘representing this or that but simply as operations of the intellect’, when in fact he was including their objects and their objective reality, Descartes was indicating that unlike Arnauld or Suárez he took the objects of ideas to exist within the mind and any ‘representative’ power ideas have beyond the presentation of these internal objects to depend on a judgement presupposing a reflexive consideration of those ideas. Again, he was not interested in stressing his divergence from the Scholastics, but he did not try to hide it. So he formulated his account in their vocabulary and appealed to their own views, though he never denied his own significant departures.

After distinguishing between an idea taken materially and taken formally, Descartes addressed, as in his replies to Caterus, the objector’s answer to the central question ‘what is an idea?’:

When my critic says that the idea of cold ‘is coldness itself in so far as it exists objectively in the intellect’, I think we need to make a distinction. For it happens in the case of obscure and confused ideas – and the ideas of heat and cold fall into this category – that an idea is referred to something other than that of which it truly is the idea. (AT, VII, 233)

Descartes distinguished between that to which an idea is referred and that of which it truly is. Neither, however, is the immediate and proper object of the

idea. This becomes clear in the next sentence: ‘Thus if cold is simply an absence, the idea of cold is not coldness itself as it exists objectively in the intellect, but something else, which I erroneously mistake for this absence, namely a sensation which in fact has no existence outside the intellect.’ Though the terminology is not helpful, the intention seems clear enough. ‘A sensation’ is not ‘an act of sensory perception’, for it is that ‘which I erroneously mistake for [an] absence’.³⁵ It is, rather, the proper and immediate object of a sensation of cold. ‘Coldness itself’ is something outside the act, which, in this case, is nothing.³⁶ That to which the object of the sensation is erroneously ‘referred’ is a supposed formally existing thing like the object of the sensation. This requires a judgement. That judgement refers the object of the sensation of cold to ‘that of which [the sensation] truly is’ when it takes the object to be nothing more than the object of a sensation, something which only exists objectively in the mind. Without the distinction between cold-the-immanent-object and cold-the-transcendent-object or between things existing outside the mind and objects existing within it, the passage makes little sense.

Descartes next addressed Arnauld’s problems with the causality of materially false ideas:

... in asking what is the cause of the positive objective being which, in my view, is responsible for the idea being materially false, my critic has raised an improper question. For I do not claim that an idea’s material falsity results from some positive entity; it arises solely from the obscurity of the idea – although this does have something positive as its underlying subject, namely the actual sensation involved. (AT, VII, 234)

Descartes did not deny that a materially false idea has a ‘positive objective being’. Rather, he affirmed that it does: ‘this positive entity is in me, in so far as I am something real’. This positive content is nothing real only in the sense that it exists merely objectively and not formally; it does not have a real cause solely in the sense that its cause is nothing but the mind itself that has it:

Such ideas obviously do not require me to posit a source distinct from myself. For on the one hand, if they are false, that is, represent non-things, I know by the natural light that they arise from nothing – that is, they are in me only because of a deficiency and lack of perfection in my nature. If on the other hand they are true, then since the reality which they represent is so extremely slight that I cannot even distinguish it from a non-thing, I do not see why they cannot originate from myself. (AT, VII, 44)

Descartes should not be read as stating that if the contents of the proper objects of sensations cannot exist formally, then the objective reality of sensations needs no cause. What he does state is that such objective reality needs no cause other than the mind itself which has it: it needs no cause other than what could cause the formal aspect of the sensations. The claim that such ideas ‘arise from nothing’, when fully deployed, amounts to the following:

first, the objects of those ideas are caused exclusively by the mind; and, secondly, what occasionally causes the mind to produce these objects is something other than formally existing things like the objects of those ideas. This latter fact is due to a 'deficiency or lack of perfection in my nature'. Therefore, Descartes concludes that his account of the causation of materially false ideas 'does not in any way violate [his] fundamental principles' (AT, VII, 235).

Innatism and the causality of ideas

Let us now retake the main thread of our discussion. Descartes maintained that acts of thought are immediately directed to inner, mental, objects, and that these internal entities are realities in need of causal explanation: whatever is in the idea objectively, is formally or eminently in its cause. In this and the next section we will discuss his account of the causation of ideas, and of the representative relation between the self and the external world. Thus, we will complete our examination of his answers to the two questions with which we began this chapter.

At the end of 1647 Descartes was involved in a dispute with Regius, a proclaimed Cartesian who had become an embarrassment. In the *Comments on a Certain Broadsheet*, Descartes discussed the causal origin of ideas. In the piece motivating the rebuke the former friend had written that 'the mind has no need of ideas, or notions, or axioms which are innate: its faculty of thinking is all it needs for performing its own acts' (AT, VIII-2, 345). He had argued that 'all common notions which are engraved in the mind have their origin in observation of things or in verbal instruction'. Regius had even suggested that 'the idea of God . . . has its origin either in divine revelation, or in verbal instruction, or in observation of things'. Descartes confronted him on all these claims.

He started pointing out that by admitting that 'the mind has the power of thinking (presumably natural or innate)' Regius was actually saying that the mind has innate ideas; for these are just ideas that come 'solely from the power of thinking', as opposed to those that come 'from external objects' or those that are 'determined by [our] will' (AT, VIII-2, 357-8). He explained that in 'the same sense . . . we say that generosity is "innate" in certain families'. With that, he continued, we do not mean that babies possess these properties in the mother's womb, 'but simply that they are born with a certain "faculty" or tendency to contract them'. This classification of ideas into three kinds, innate, coming from external objects, and determined by our will alluded to the classification of the Third Meditation into innate, adventitious, and factitious ideas (see also AT, III, 383).³⁷

Originally that classification was introduced as, one might say, merely

phenomenal. Ideas ‘appear’ to come from within us, from outside, or to be invented by our will (AT, VII, 37). Let us for the moment concentrate on this initial phenomenal classification, though in the end the causal story might not square with it. Indeed, having introduced the distinction, Descartes immediately suggests that maybe upon consideration of ‘their true origin’ all ideas will turn out to be innate, or all adventitious, or all factitious (AT, VII, 38). Whatever the final determination as to the origin of diverse ideas, there may yet be something important to which this classification is pointing.

Innate ideas appear to be, initially, ideas that can be derived ‘from [our] own nature’. They include ‘what a thing is, what truth is, what thought is’. They are, it seems, related to what Locke later called ‘ideas of reflection’.³⁸ Innate ideas are obtained from consideration of the operations of the mind. They do not refer only to properties or acts of the mind, but all of them, it would seem, can be obtained from consideration of my actual thinking nature and its modes. Adventitious ideas appear to be ideas of the external senses. Descartes writes of ‘hearing a noise . . . or seeing the sun, or feeling the fire’. Later on he speaks of his visual sensation of the sun as ‘a prime example of an idea which I reckon to come from an external source’ (AT, VII, 39). He concludes a revision of adventitious ideas by referring to them as ‘ideas or images of [external things transmitted] through the sense organs or in whatever other way’ (AT, VII, 40). Factitious ideas are those made up by the imagination, like sirens and hippocgriffs.

The problem with this reading of the classification is that it does not leave room for a whole class of ideas: the non-sensorial ideas of things other than those derived from ourselves, in particular, intellectually perceived extension and God. Nevertheless, the text is clear about where these should be placed. Descartes contrasts the sensorial idea of the sun with the idea of the sun ‘based on astronomical reasoning’ (AT, VII, 39). The latter, he claims, is ‘derived from certain notions which are innate in us’. Descartes does qualify this last phrase by adding ‘or made by me in whatever other way’. Still, the suggestion that an idea of the sun could be innate is illuminating. For it indicates that innate ideas are not co-extensive with Lockean ideas of reflection. Rather, they appear to be those which ‘derive simply from [our] own nature’ in the sense that they are acts of intellection whose content is not determined by external things affecting us through sensation. Whatever Descartes’s considered view as to the causal origin of ideas, the distinction between innate ideas on the one hand and ideas of sensation and the imagination on the other is more than just provisional or merely for the sake of argument.³⁹ It expresses the important distinction between sensation and intellection, which is not strictly or primarily causal.

In the *Comments* against Regius, after introducing the notion of innateness as intellection, Descartes goes on to present another sense according to which

ideas are innate. Unlike the former, this second sense is properly causal. And, in this causal sense, it turns out that all ideas are innate: those of sensation, those of imagination, and those of intellection. In a passage which deserves to be fully quoted Descartes writes that

there is nothing in our ideas which is not innate to the mind or faculty of thinking, with the sole exception of those circumstances which relate to experience, such as the fact that we judge that this or that idea which we now have immediately before our mind refers to a certain thing situated outside us. We make such judgement not because these things transmit the ideas to our mind through the sense organs, but because they transmit something which, at exactly that moment, gives the mind occasion to form these ideas by means of the faculty innate to it. Nothing reaches our mind from external objects through the sense organs except certain corporeal motions . . . But neither the motions themselves nor the figures arising from them are conceived by us exactly as they occur in the sense organs . . . Hence it follows that the very ideas of the motions themselves and of the figures are innate in us. The ideas of pains, colours, sounds, and the like must be all the more innate if, on the occasion of certain corporeal motions, our mind is to be capable of representing them to itself, for there is no similarity between these ideas and the corporeal motions . . . I would like our author to tell me what the corporeal motion is that is capable of forming some common notion to the effect that 'things which are equal to a third thing are equal to each other' or any other he cares to take. For all such motions are particular, whereas the common notions are universal and bear no affinity with, or relation to, the motions. (AT, VIII-2, 358-9)

Corporeal motions or bodily events cannot cause ideas. They are, Descartes argues, completely dissimilar to their supposed effects. He invokes the causal principle that cause and effect must be alike to support the claim that ideas are not formed, produced, or caused by anything in the body. It is the mind itself, he tells us, which causes all of its ideas, all of its contents. It does this, he maintains, on the occasion of bodily events, specifically, of movements in a certain part of the brain. As he explains shortly after the quoted passage:

something can be said to derive its being from something else for two different reasons: either the other thing is its proximate and primary cause, without which it cannot exist, or it is a remote and merely accidental cause, which gives the primary cause occasion to produce its effect at one moment rather than another. (AT, VIII-2, 360)

It is the mind itself which is the primary and proximate cause of ideas. Bodily events are merely accidentally connected, so that ideas could in principle exist without them. The occurrences in the body merely serve as occasions for the exercise of the mind's causal efficacy.

Nothing is said in the *Comments* as to how bodily events can serve as occasions for the mind to go into action: how can they be even mere occasional, accidental, and remote causes? Descartes does have an answer to this question. It is not to be found in the description of the pineal gland and its interaction

with the animal spirits: that, Descartes always recognized, has to do only with the corporeal side of the *relata*. Descartes's answer has to do rather with the connection between the movements of the pineal gland and the events in the soul. In the *Optics* he writes that corporeal events 'give occasion for [the] soul to sense as many qualities in . . . bodies as there are differences in the movements caused by them in the brain' (AT, VI, 114). Later he adds an important notion, one which is constitutive and explanatory of that of occasional cause: the notion of an order, institution, or law of nature. While explaining how it is that the body's interaction with a corporeal thing, which causes movements and pictures in the brain, can give rise to a mental sensation, he states that 'it is the movements composing this picture which, acting immediately upon our soul in so far as it is united to our body, are instituted by Nature to make it have such sensations' (AT, VI, 130). This same idea is expressed in *The Passions*. There he writes of a movement in the pineal gland being 'instituted by Nature to make the soul feel [some] passion' (AT, XI, 357). What is this Nature which can institute or ordain movements to make the soul sense or feel? What indeed is this instituting?

In the Second Part of the *Principles*, while inquiring into the cause of motion, Descartes distinguishes between 'the universal and primary cause that generally produces all the movements in the world' and 'the secondary and particular causes of the various motions we see in particular bodies' (AT, VIII-1, 61-2).⁴⁰ The universal cause, he argues, 'is none other than God himself' (AT, VIII-1, 61). He explains that God initially created and then recreates at every instant all that there is. In this sense, God is 'the first and unchangeable cause of all effects that do not depend on human free will . . . He is also the cause of all those that do so depend' (AT, IV, 313-14). This constant productive activity of God results in the history of created substances. The temporal sequence of their properties is governed by laws which are the result of the determination of His will in their continued production. These laws govern the operation of secondary causes.⁴¹ In the *Principles* Descartes was concerned only with changes in the material world or extended substance. But the same general account applies to mental substances and also to the occasional causality between different created substances. This may be inferred from the passage where he writes that the third law of movement covers only corporeal changes. He warns that he is not 'inquiring into the existence or nature of any power to move bodies which may be possessed by human minds' (AT, VIII-1, 65). But he implies that the investigation of such causes would fall under the same general framework under which he is treating of corporeal events, for he assigns it a place in a later part of the *Principles*.

We may now answer the questions raised above concerning the identity of Nature and the nature of its instituting whereby occasional causation is established. Descartes is referring to God and to the determination of His will.

Indeed, one could substitute the phrase 'the will of God' for 'Nature' and the meaning would be unaltered. As to the notion of occasional cause itself, he offers some further remarks that bear on its meaning.

Descartes does not restrict the relation of occasional causality to the interaction between matter and mind; he writes of material events being one the occasion for the other (AT, XI, 354). The principles guiding the identification of efficient and of occasional causes include reference not only to such notions as that of a cause without which, in principle, the effect could not exist, but also to the simultaneity between efficient causes and their effects which need not hold between occasional causes and their effects. Such temporal distance, I take it, is part of the intended reference of 'proximate' and 'remote' in the passage from the *Comments* quoted earlier, so that something happening at one time may give occasion for the production of something at some other time.⁴² Though the notion of occasional causality requires more extensive treatment than that granted it by Descartes, he did provide a sketch of the causation of minds and their contents.⁴³

God recreates or conserves each mind at every moment of its existence. All ideas are causally innate in the sense that all that is involved in their production is the production of the mind with them. No other substance apart from the mind is required in this Divine causation. When considered in abstraction of any other created substance, the mind can be seen as a causally autonomous whole. However, God has additionally instituted a correlation between the occurrence of certain events in the mind and other events both in the mind and in other substances. He has established that certain events act as occasions on which certain strict productions will take place. Such occasional causality refers to a determination of God's will, according to which, for example, a mind will be produced with some idea when it has been produced with another idea some time in the proximate past or when a certain human body is or has been produced with a certain property in it. In a stronger sense than the first, some ideas are causally innate when they are caused by the mind without the occasional intervention of any other substance. This is not the case with sensations, feelings, appetites, and all other ideas which are occasionally caused by occurrences in the body and which cannot take place, given the determination of God's will, without those bodily events.⁴⁴

In the *Comments*, mindful of a Scholastic audience, Descartes claimed that 'there is no doubt that . . . the observation of things is often a remote cause which causes us to give some attention to the idea which we can have of God, and to bring it directly before our mind' (AT, VIII-2, 360). Yet in the Fifth Replies against Gassendi, an empiricist materialist, he wrote that the mind does not depend on the body, even if only occasionally, in order to have 'ideas of God and of itself', for the mind could have them in the absence of any corporeal events (AT, VII, 375). It would seem, then, that Descartes held

that the body may act as the occasion for the production of these ideas, but that it need not do so. Therefore, these ideas are innate in the second, stronger sense. They do not depend causally, either strictly or occasionally, on any substance other than the mind itself that has them, in so far as it is produced by God.

When Descartes maintains that the idea of God is innate, one should not take him to mean that it pre-exists objectively, formally or eminently in the mind. He conceded that it does not pre-exist objectively when he acknowledged that the mind is not aware of it since birth; and he obviously did not want to hold that the mind is God or grander than God. Descartes used Scholastic terminology in this context: he wrote that the idea of God is 'potentially' in the mind prior to its actual production (AT, VIII-2, 360-1; see also VII, 246-7). I take this to mean that such idea can be produced in the mind without the intervention of any other substances but the mind and God, in so far as He produces that mind. Though innate, the idea of God need not exist in the mind strictly as in its cause. It is innate because no other substances are needed to cause it, apart from the mind that has it and God, in so far as He produces that mind.

The causal accounts found in other Cartesian texts all present or imply the same doctrine as we have just sketched (see AT, XI, 342-8; and also V, 162). In *The Passions*, for example, he examines the way in which 'the soul and the body act on each other' (AT, XI, 354). And he offers an account in terms of movements of the pineal gland which are 'ordained by nature to make the soul' have a certain mode (AT, XI, 357). Likewise, the causal power of the soul over the body 'consists entirely in the fact that simply by willing something it makes the little gland to which it is closely joined move in the manner required to produce the effect corresponding to the volition' (AT, XI, 360). This power of the will to make a body move, he explains, 'depends on the various ways in which nature or habit have diversely joined certain movements of the gland to certain thoughts' (AT, XI, 362; see also AT, IV, 309-13).

The only causal role that creatures can have is occasional. This is not surprising when we consider that Descartes simplified the Scholastic doctrine of causation and got rid of their various different kinds of active causes. For him, God's creative power exemplifies the only kind of causal efficacy there is. Since no creature can create, he was inevitably drawn to the doctrine that only God is a true cause.

In some texts Descartes connects the occasional link between sensory perceptions and bodily events originating in external things, and the mind's capacity to 'refer' perceptions to things outside it through 'judgement' (AT, XI, 346; see also VIII-1, 40-1).⁴⁵ This judging and this referring suppose the soul's ability to address what is outside it. We now turn to this aspect of Descartes's doctrine of ideas.

The intentionality of the soul

In virtue of what, according to Descartes, is the mind aware of something? The mind is aware of its immediate objects simply in virtue of being a mind and of having them existing within it, and, similarly, it is aware of its own operations or acts merely in virtue of their existence: 'there can be nothing in the mind, in so far as it is a thinking thing, of which it is not aware . . . For there is nothing that we can understand to be in the mind, regarded in this way, that is not a thought or dependent on a thought . . . and we cannot have any thought of which we are not aware' (AT, VII, 246). Whatever exists within the mind, either as an act of thought or as an immediate object of such act, is something of which the mind is directly and inevitably aware. But it appears that the mind can also be directed to things that do not exist within it. Moreover, it is such external things which are usually said to be the objects of consciousness.

Descartes did not want to deny that we can somehow apprehend things that do not exist within the mind. He speaks, as we all do, of seeing trees and the sun or of thinking about these material things, and he uses the term '*objets*' to refer to things existing outside the mind (AT, XI, 346; also see, VII, 102 and 161; and VIII-1, 34). So the question that must be addressed is: how does the mind apprehend what is not an object of immediate awareness? How is the soul directed to something other than the objective contents of its ideas or its own acts? Before we go on to this, though, I want to examine the relation between the mind and its immediate objects more closely.

Descartes holds that all mental modes present some object and so contain objective reality. He suggests that all the acts of the soul involve consciousness or perception of an inner object. When he writes of 'the form of any given thought' in the Appendix to the Second Replies, Descartes is referring to what constitutes and determines an act of awareness, including the immediate object of such an act (AT, VII, 160-1). One of the things that 'give form to the mind itself' are the inner objects which are the immediate terms of consciousness. Some ideas 'additionally have certain forms' that account for their specific character as volitions, fears, affirmations, denials, and so on: 'when I will, or am afraid, or affirm, or deny, there is always a particular thing which I take as the object of my thought, but my thought includes something more than the likeness of that thing' (AT, VII, 37).⁴⁶ It would appear that at least in part the difference between acts of intellectual and of sensorial perception lies in these additional 'forms'. It lies, in other terms, in the kind of awareness rather than in their respective objects. There are objects that are exclusive to one or the other mode of perception: God cannot be sensed; only sight perceives colour. Still, the same thing can be the object of acts of sensory and of intellectual perception: 'But what is this wax which is conceived by the . . .

understanding alone? It is of course the same wax which I see, which I touch, which I imagine . . . ' (AT, VII, 31; IX-1, 24).

In order to engage in intellectual contemplation the soul can act on the body and turn 'away from the senses' (AT, VII, 34). Indeed, the mind does not need the senses in order to engage in intellection. In his *Objections* Gassendi had asked:

what progress do you think you would have made if, since being implanted in the body, you had remained within it with your eyes closed and your ears stopped and, in short, with no external senses to enable you to perceive this universe of objects or anything outside you? Would you not have been absorbed in private meditation, eternally turning thoughts over and over? (AT, VII, 310)

He enjoined Descartes to 'answer in all honesty' and concluded: 'tell me what idea of God and yourself you think you would have acquired under such circumstances'. Our philosopher obliged:

if, ever since being implanted in the body, it had remained within it, with the eyes closed and none of the senses functioning . . . I do not doubt that the mind . . . would have had exactly the same ideas of God and itself that it now has, with the sole difference that they would have been much purer and clearer. The senses often impede the mind in its many operations, and in no case do they help in the perception of ideas. The only thing that prevents all of us noticing equally well that we have these ideas is that we are too occupied apprehending the images of corporeal things. (AT, VII, 375)

When the mind has an idea of God, it intellectually apprehends a supreme being independent of the soul contemplating Him. According to Descartes, the mind is able to think about external things entirely apart from any contact with them through the senses. Hence, his doctrine of the intentional relation of the mind to things outside it explains this power of the soul without invoking sensation. On the other hand, Descartes's account of the transcendent intentionality of sensation does suppose this power in the pure intellect. In fact, the Cartesian intellectualist metaphysics involves a surprising doctrine. Contrary to the Aristotelians and to the new empiricists like Gassendi, Descartes holds that it is only through its intellect that the self can reach out into the actual world, either directly in self-consciousness or indirectly through judgement.

There are two components to the mind's intentional relation to its immediate objects. There is, first, a mental grasping or directedness which can be of different kinds: desire, sensation, intellection, and so on. Second, there is a certain object existing within the mind. Since the mind is aware of all its modes, the mental acts are themselves objects of consciousness. Self-consciousness is the result of the mere existence of a mental act. In *The Passions*, Descartes makes this point with respect to the will: 'it is certain that we cannot will anything without thereby perceiving that we are willing it . . . [T]his perception is effectively one and the same thing as the volition'

(AT, XI, 343; see also III, 295). The same notion is expressed more generally in the Appendix to the Second Replies: 'I use the term *thought* to include everything that is within us in such a way that we are immediately aware of it. Thus all the operations of the will, intellect, the imagination and the senses are thoughts' (AT, VII, 160). A difference between mental modes and their objects is that the immediate objects of self-awareness are formally existing entities while the immediate objects of non-reflexive awareness exist only within the mind.

The intentional relation of the self to things outside it incorporates a third component: a true judgement that a certain substance or property of a substance exists formally or in reality. It is such judgement that effects the 'referring' of ideas to material things. The distinction between internal or objective existence, on the one hand, and external or formal existence, on the other, is ultimate and fundamental: in the end it can be expressed only through the way in which it itself articulates the Cartesian metaphysics. Descartes presents it through metaphor; and it is discharged, like the real distinction between mind and body, by the success of the Cartesian ontology and metaphysics, measured in terms of its inner coherence and its epistemic fertility. Formal existence is the independent existence of substances or of the properties which inhere in them. Objective existence, on the other hand, requires a picture of the soul as a kind of inner theatre, to use the common image, in which are displayed all the immediate objects of awareness. Keeping to the analogy, this inner theatre includes not only the stage but also the stalls, for the direct objects of the soul include both its formally existing acts of thought and the objectively existing objects of these acts.

The subjects of the existential judgements required for the intentional relation of the mind to external things are provided by the immediate objects of thought. In the simplest case, one judges that something exists formally with, to use Descartes's terminology, the same reality as is contained objectively in the immediate object of awareness. Descartes writes that some internal objects are 'completely similar' to external things (AT, VIII-1, 41; see VII, 102-3).

Is one entitled to speak here of the inner object and the outer thing sharing the same reality or content? Descartes suggests that sharing the same reality can be understood in terms of having the same properties (apart, that is, from those resulting from being within or outside the mind). So, for example, the object of a clear and distinct perception of extension and the external extended substance have the same reality, since they both are 'extended in length, breadth and depth and [have] all the properties which we clearly perceive to belong to an extended thing' (AT, VIII-1, 41). The inner object has these properties objectively, while the substance has them formally. But that is precisely the respect in which, having the same reality, they are neither the same substance nor the same immediate object.⁴⁷

Suppose I see a square. There is within my mind an entity which is square ‘not of course formally . . . but objectively . . . as objects normally are in the intellect’. Suppose now that on the basis of this sensation I justifiedly and truly judge that there is a square in the actual world. It is through this judgement that I succeed in referring to something outside myself. The content of my judgement is given by the inner object of awareness, which is the only object I ever directly apprehend, and the notion of existing in actual reality, formally or as a substance or a property inhering in a substance. Descartes sometimes writes as if the external thing and the inner object were the *same thing* existing here in one way (formally), there in another (objectively), as when he states that ‘the idea of the sun is the sun itself existing in the intellect’. A somewhat better alternative is to write, as does Descartes himself in other contexts, of two numerically distinct entities, one within the mind and another outside it, which are ‘similar’ or like each other in certain respects. In fact, according to Descartes the internal object displays to the mind the same properties that are found in the external thing; but the two possess those properties in different ways, objectively and formally. This distinction between objective and formal existence is ontological; it is neither an epistemological distinction, nor one construed in terms of representation. Totally from within itself the mind reaches out into the world. But its success depends on the truth of a judgement. Thus, its power to transcend its own contents is reliant on the epistemic guarantee provided by God.

Not all cases of external or mediate awareness, however, are like the simplest one. Sometimes, as may occur in sensation, the judgement involved has as subject something that is not ‘completely similar’ to what is presented in the initial act of perception. For example, the inner object of sight might be an ellipse; but the external thing grasped is a circle. Nevertheless, the model of the simple cases can also serve to understand the transcendent intentionality of the more complex ones. What is needed is, first, that there be an immediate object that is like the external thing – in the example, an inner circle – and, second, that the mind have access to some process which links the actual object of immediate awareness to this other inner object – the seen ellipse to the inner circle. Descartes carefully deployed these elements in his account of sensation in the *Optics* and in the Sixth Replies.

The occasional causal link between matter and mind through the senses and brain is relevant to the determination of the subject of the judgements with which the mind transcends its own contents in sensation. The inner objects of sensory perception are sometimes taken to be caused by certain external things. These inner objects and external things may indeed be occasionally linked in actual fact. The apprehension of the object as so caused, however, involves an intellectual perception and judgement that is itself

produced in the mind on the occasion of bodily events which may also be causally connected to the external things.

In the Sixth Replies, Descartes distinguished ‘three grades of sensation’ in order ‘to get a clear view of what sort of certainty attaches to the senses’ (AT, VII, 436). The first level is that of corporeal activity in the sensory organs and the brain. The second ‘comprises all the immediate effects produced in the mind as a result of its being united with a bodily organ which is affected in this way’ (AT, VII, 437). Examples are ‘the sensations of pain, pleasure, thirst, hunger, colours, sound, taste, smell, heat, cold and the like’. Likewise, in the *Optics* Descartes distinguished between the movements and images in the eye and the brain and the visual sensations in the soul occasioned by these corporeal events. He wrote that the ‘objects of sight’ include ‘light, colour, position, distance, size, and figure’ (AT, VI, 130). Though there are pictures formed in the eye which ‘still bear some resemblance to the objects from where [they] proceed’, the soul does not sense ‘by means of this resemblance’, i.e. by sensing it. If this were the case, then we would need ‘yet other eyes within our brain with which we could perceive it’. Rather, the objects of sensory perception and, therefore, the sensory perceptions themselves are occasioned by ‘the movements composing’ such pictures. Finally, the third grade of sensation ‘includes all the judgements about things outside us which we have been accustomed to make from our earliest years – judgements which are occasioned by the movements of these bodily organs’ (AT, VII, 437). Notice that bare sensory awareness is of purely internal objects. It is judgement that links the soul to external things.⁴⁸

Suppose, with Descartes, that one sees a stick. At the first level what happens is that ‘rays of light are reflected . . . and set up certain movements in the optic nerve and, via the optic nerve, in the brain’ (AT, VII, 437). From this, he continues, ‘follows the second level, which extends to the mere perception of the colour and light reflected’. He adds: ‘Nothing more than this should be referred to the sensory faculty, if we wish to distinguish it carefully from the intellect.’ Descartes makes it clear that at the second level one does not have any awareness of something outside the mind, even if merely representatively and indirectly. Leading on to the third level, he adds:

Suppose that, as a result of being affected by this sensation of colour, I judge that a stick, located outside me is coloured; and suppose that from the extension of the colour and its boundaries together with its position in relation to other parts of the brain, I make a rational calculation about the size, shape and distance of the stick: although such reasoning is commonly assigned to the senses . . . it is clear that it depends solely on the intellect. (AT, VII, 437–8)

The perception of external things incorporates a judgement. And it may involve also a ‘rational calculation’. These are occasioned by the sensory

objects and by events in the brain and body; but it is the understanding and will that judge and reason, not the senses or the body.

In the *Optics* Descartes offers an account of the sensory perception of position, distance, size and figure, as distinct from the perception of the proper objects of sensation. (See AT, VI, 134–41.) In that account he distinguishes between the first and second levels of sensation; and he writes of a certain ‘reasoning’ involved in perception (AT, VI, 138). This reasoning is clearly not overt and explicit. Rather, it is a geometrically understandable correlation between distance or position and the angles and shapes of parts of the body, which are themselves correlated with changes in the brain and with sensations and judgements in the mind. In the *Optics* we also find suggested, though not explicitly drawn, the distinction between the second and the third levels: ‘it is obvious that we judge shape by the knowledge or opinion that we have of the position of the various parts of an object, and not by the resemblance of the pictures in our eyes. For these pictures usually contain only ovals and rhombuses when they make us see circles and squares’ (AT, VI, 140–1). There is implicit here a distinction between sensations and intellectual perceptions of shape. The seen thing is round, the image in the eye is oval. The intellectual perception and its ensuing judgement is of a round thing. But the patch of colour seen at the second level of sensory awareness, is that round or oval? It seems that the answer is that it is oval also, for the colour does not exist outside the mind and it undeniably appears oval.

The intellect judges and perceives the features of external objects, their sizes, shapes, and movements, their positions and distances. It does this occasioned by the different movements in the sense organs and in the brain which are also the occasional causes of properly sensory objects. That accounts for the causal origin of these intellectual judgements and perceptions. On the other hand, the intentional doctrine is clear: the mind is intentionally related to external things through the perception of its immediate objects and through true judgements that something actually exists with the same reality as is possessed objectively by what is immediately perceived. In sensory perception the judgement is occasioned by events in the body. When the judgements are true, there indeed are external things occasioning events in the brain which themselves occasion sensations and judgements, and these external things do have in reality the same properties as are possessed objectively by the things within the mind. The truth of those judgements which are clear and distinct and which arise naturally within us when we sense certain inner objects is guaranteed by the omnipotence and benevolence of God.⁴⁹

It is, therefore, wholly from within itself and by means of its intellect that the mind is able to reach things existing outside it. Transcendent intentionality remains an indirect and external achievement of the soul: it depends on the success of judgement, so it relies on the Divine guarantee of clear and distinct

cognition.⁵⁰ As we saw earlier, Descartes held a doctrine of causal innatism with respect to all ideas. In the case of the idea of God, however, the finite soul itself cannot ultimately account for its power to cause it. It is in part from this fact that Descartes arrives at knowledge of the existence of something outside himself. Nevertheless, before examining his proofs of God's existence, we must examine more closely his other innatism: the claim that the proper objects of intellection are independent from sensation. This is the subject of the next chapter, where we discuss the famous reflection on a piece of wax in the Second Meditation and its accompanying argument: the essentialist apprehension of our own existence in the *cogito*.

Intellection, sensation and the world within the mind

Descartes's account of the acts or properties of the soul involves the following claims. First, there are things within the mind which, the self and its modes apart, are the only immediate objects of thought. Secondly, these mental things are innate in the sense that their production depends on the soul alone within which they exist, assuming only that God keeps it in existence. Thirdly, some of these inner objects, particularly in the case of the objects of sensations, are related to external things through occasional causation. Fourthly, self-consciousness apart, the intentional or representative relation of the mind to the external world is indirect, through intellectual judgement. Descartes endows the world within the soul with considerable ontological weight: the cause of an idea must have, to use his own terminology, at least as much reality formally as the idea has objectively.

The *Meditations* begin by leading the reader into this inner world. Towards the end of the First Meditation Descartes writes: 'I shall think that . . . all external things are merely the delusions of dreams . . . devised to ensnare my judgement' (AT, VII, 22). The first stop in the Cartesian journey towards truth and knowledge is the apprehension of our own existing essence, expressed in the third paragraph of the Second Meditation. But before the initial, purifying and preparatory, stage can be completed, Descartes must lead the reader away from sensation, so that she relies solely on her intellect. This, in fact, is the purpose of the Second Meditation; and it is achieved in two steps. First, the reader's attention is focused on her own actual essence, which she grasps in a purely intellectual act of self-reflection. Secondly, the reader is lead to recognition of the comprehensive autonomy of the intellect: no object of understanding is ever obtained from sensation; and any sensorial knowledge presupposes some act of intellection, since perception of objects as identifiable beings is the act of the pure understanding.

Since his earliest writings Descartes isolated an intellectual faculty of understanding, sharply separating it from sensation and the imagination. This distinction underlies the phenomenic classification of ideas in the Third

Meditation into innate or intellectual, adventitious or sensorial, and factitious or imaginative. Descartes characterized sensation by its proper objects: ‘light and colours, sounds, smells, tastes, heat and cold and the other tactile qualities’ (AT, VII, 43). He recognized that there are objects common to the senses and the intellect, such as shape, size, or motion.¹ But the sensory perception of these common objects is dependent on the perception of the proper objects of sense. When one sees a triangle, the triangle is coloured or delineated by light and darkness. One cannot sense motion, size, or shape unless one also perceives the proper objects of the relevant sensations. The intellect, on the other hand, does not perceive these common objects in such an impure way; one can understand a triangle on its own, unmixed with colour, softness, or any other objects.

Clear and distinct intellectual perception alone reveals the true nature of its objects; and it constitutes the basis of all knowledge. Contrary to the Scholastics and other empiricists, Descartes attributed to the intellect and not to the senses the power to reach into the world of substances existing outside the inner theatre of the mind. The intellect knows actual substances directly in self-awareness or indirectly through true existential judgements. In this chapter we will examine more closely this decisive piece in the Cartesian essentialist reaction to the thought of the School: Descartes’s account of intellection and its relation to sensation.

I will start by comparing Descartes’s doctrine with the views of his empiricist contemporaries, Suárez and Gassendi. Though these matters were widely debated in the Scholastic tradition and it would be a mistake to use Suárez as representative of other Late Scholastics, it is yet true that here as elsewhere the *Disputations* can serve as a guide to the variety of opinions and arguments in the School. Moreover, the justification for the comparison, in this case, is that Suárez advances a brand of Aristotelianism which was known to Descartes, which he surely recognized as the original and sophisticated development that it was, and which serves to bring out the salient features of the Cartesian position. On the other hand, Gassendi put forth his anti-Aristotelian empiricist account of understanding in the Fifth Objections. In correspondence Descartes also came across Hobbes’s similar views (see AT, III, 343–4).² We know already Descartes’s general opinion concerning the ‘new’ empiricists: at best they offered a confused and weaker version of the Scholastic philosophy. Gassendi belonged to that group of ‘modern’ thinkers whom Descartes despised intellectually (at least on metaphysical matters) and whom he would have preferred to ignore. By contrasting the empiricist accounts of Gassendi and of Suárez, we will be able to appreciate more fully both the significance of Descartes’s intellectualism, and its relation to the Aristotelian doctrines which it was designed to replace.

Gassendi, Suárez and Descartes on universals

The first point to make is that Suárez, Descartes and Gassendi all agreed that everything that exists is only particular or individual. In this sense, they were all 'nominalists'.³

Suárez wrote that 'all things that are actual entities or that exist or can immediately exist are singular and individual' (*MD*, V, 1, 4).⁴ He contrasted what is singular and individual or 'numerically one' with what is common and universal or 'found in many according to some one concept' (*MD*, V, 1, 2). According to Suárez, nothing in an existing individual is in itself universal. He explained that 'of itself a common nature does not involve that negation [of being divisible whole into many similars]; however, such negation pertains *per se* and intrinsically to that nature as it exists in reality' (*MD*, V, 2, 8). Suárez did not think that 'in the same individual, say, Peter, humanity as such and this humanity are really distinct' (*MD*, V, 2, 9). He stated that 'the capacity of a common nature to exist in many is not something which pertains to the nature itself just as it exists in reality'; and he argued that 'in reality there is nothing but what is singular and individual, and in the singulars themselves there is nothing really different from them; so no nature as it exists in reality can have any capacity to be in many' (*MD*, VI, 4, 2). Though Suárez allowed that there is in individual substances a certain intelligible 'formal unity', he unambiguously maintained that 'an actually existing nature is not distinguished in reality from the individual' (*MD*, VI, 3, 7). Thus, he denied that genuine universals exist in reality, either separated and on their own, or in particulars.⁵

Gassendi upheld the same view: 'How can people defend the thesis that the essence of man, which is in Plato, say, is eternal and independent of God? Is this supposed to be because it is universal? But everything to be found in Plato is particular' (*AT*, VII, 319).⁶ Gassendi seems to have thought that this doctrine constitutes an objection to views which he attributed to the 'schoolmen'. As we have seen, Suárez maintained that there is a sense in which real essences are eternal and independent of God's will and knowledge. Perhaps Gassendi was alluding to him.⁷ In any case, whatever Gassendi's misconceptions about Scholastic philosophy and the distinction between a Divine Idea, a universal, and the nature of a substance, he did share with Suárez, and with many other of the 'schoolmen', the view that everything that exists in reality is only particular.

On this matter, Descartes too agreed with Suárez. He implied that everything that exists 'outside our thought' is either an individual substance or the property of a substance; and he wrote of the actual properties of a substance as 'concrete' and opposed to 'abstractions' (*AT*, VIII–1, 22; and III, 356). Furthermore, in correspondence with Regius Descartes attributed the perception of universals 'to the intellect alone, which relates to many things an idea

which is itself singular'; and in the *Principles* he maintained that 'universals arise solely from the fact that we make use of one and the same idea for thinking of all individual items which resemble each other' (AT, III, 66; and VIII-1, 27). In these last two texts Descartes introduces a second doctrine which is common also to Suárez and Gassendi. For the three of them believed not just that everything that exists in reality is only particular, but also that genuine universals are only objects of the mind and that they are dependent on a mental operation.

In the Fifth Objections Gassendi explained how universals are formed.

It is true that after seeing the nature of Plato and of Socrates, and similar natures of other men, the intellect habitually abstracts from them some common concept in respect of which they all agree, and which can then be regarded as the universal nature or essence of man, in so far as it is understood to apply to every man. But it is surely inexplicable that there should have been a universal . . . before the intellect performed the abstraction. (AT, VII, 319-20)

The universal nature, Gassendi stressed, must not be imagined to be 'something which exists anywhere outside the intellect' (AT, VII, 320). For him, the operation of abstraction is performed on the objects of sensory perception; and it is grounded on the similarity exhibited in sensation. But, these differences aside, he is of the same view as Descartes: universals are only objects of the intellect; they result from an act of the mind.

On his part, Suárez maintained that there is a sense in which 'those natures which we call universal or common are real and truly exist in things themselves' (MD, VI, 2, 1). But he explained, first, that 'these [universal] things or natures . . . are not really separated from singular things', and, second, that 'the natures become universals in act only through an operation of the intellect which supposes some foundation on the part of things themselves; this is why it is said that universals in potency exist in reality' (MD, VI, 2, 2 and 8). He concluded that 'the unity of a universal nature in so far as it is universal is not real, nor is it in things just as they exist in reality and before any operation of the intellect' (MD, VI, 2, 13). The unity of a universal as universal 'is . . . of reason' (MD, VI, 2, 15; see also VI, 3, 2, 6, and 10). He states that 'the true solution concerning universal unity' is that 'universal unity arises through a function of the understanding, with a foundation or occasion taken from singular things themselves. So, in this way, there is a certain unity of reason which pertains to natures as they are presented to the mind, in virtue of the denomination which thence arises' (MD, VI, 5, 1).

Suárez's tenets that everything that exists is only particular and that universals are only objects of the mind are strikingly expressed in his reply to the suggestion 'that man differs essentially in Peter and Paul, or that Peter and Paul do not have the same essence' (MD, V, 2, 32). Suárez concedes that

‘they do not really have the same essence’; but he adds that ‘they do have the same essence conceptually, which is nothing other in reality than having similar essences’. While denying that there is ‘in reality something which is truly one, constitutive of man, and common in reality itself’, Suárez maintains that in reality there are many unities each constituting a different individual human being. These many singulars each contain the grounds for universality, manifested in ‘the resemblance or similarity which they have between them’.

Nevertheless, Suárez deems real similarity between individuals to be ‘neither necessary nor sufficient for the concept of universal’ (*MD*, VI, 2, 14). His point is that, first, a universal need not actually be in many things; it could be that it is not instantiated at all or that it is instantiated in only one thing. So it is only potential similarity between individuals that is demanded by a common nature. And second, real similarity is not sufficient for a universal nature,

because something common to many is not conceived in virtue of that similarity . . . but instead many things are conceived to be similar between themselves. However, the universal in itself must be conceived as one. Furthermore, the universal as universal is conceived as actually indivisible as such, and as potentially divisible and communicable. But things, as they are really similar in nature, are instead actually divided and potentially or fundamentally united, so to say, in one nature conceived universally.

An act of the mind framing one single nature capable of existing in many is necessary for universality; and, as we will see shortly, it is only on the supposition that such an act is given and a universal nature is already grasped, that it can be said that things are perceived to resemble each other in a common respect.

Indeed, though Suárez and Gassendi agreed that everything that exists is only particular and that universals are merely objects of the mind, they had opposing views regarding how universals are brought about by the intellect. First of all, however, we must remark upon a further agreement between them: they both held that the human intellect is in some way dependent on the senses for the acquisition of its objects; they took it that sensation is necessary for understanding. This runs contrary to Descartes’s doctrine that understanding is an autonomous act which can take place without the operation of the senses. In later sections I will articulate the Cartesian position more fully. For the moment let us note the common empiricism of Suárez and Gassendi, and its opposition to Descartes’s intellectualism.

Gassendi and Suárez on abstraction

How did Suárez and Gassendi understand ‘abstraction’? In his objections against Descartes Gassendi suggests that the intellect, upon sensorially perceiving several similar particulars, notes their resemblance and forms a universal concept under which they and all other similar things fall. For Gassendi, to

abstract is to notice a similarity or recurring feature in sensed objects and to fashion, on this basis, a ‘concept, or idea, or form’ which is common to all similar particulars (AT, VII, 320). Gassendi also writes as if a universal were merely a ‘label’ applied to many particulars in virtue of their sensorial resemblance. Whatever the details of Gassendi’s account, whether in the end they constitute a coherent whole or not, the point we are now interested in is this: for him, the intellect understands by perceiving particulars given in sensation which resemble each other, noticing their similarity, and thereby forming a universal. So in Gassendi’s view the perception of the resemblance of sensorial objects is presupposed by the understanding of a ‘universal nature or essence’.⁸ This doctrine is explicitly disputed by Suárez. In fact, Suárez and Gassendi are at odds about almost the entire account of the operation by which the intellect understands and of the function of the senses in relation to the act of understanding.

To understand Suárez’s account we must first examine his notion of formal unity, a unity which he contrasts with, on the one hand, numerical or individual unity and, on the other, universal unity. A universal is something which by its very nature can be found whole in many; an individual is again by its very nature precisely not ‘communicable to several similar entities, or, what is the same . . . not . . . divisible into many entities such as it is itself’ (*MD*, V, 1, 3; see also VI, 3–5). The unity of a universal is a product of the intellect, which frames a single notion covering many possible particulars. The unity of a sensible individual, however, is ‘as it were, material in virtue of [its] entity’ (*MD*, *Index in Metaphysicam Aristotelis*, VII, 10, q. 5; see also V, 6). Universals are eminently intellectual objects; the unity of a universal is intelligible and discursively explainable. Numerical individuality, however, is a given, brute fact. The material unity of a particular is apprehensible sensorially but not intellectually. Apart from these two unities Suárez finds a third, ‘formal unity’ in substances (*MD*, VI, 1).

There is the individual substance, say, Pedro; there is the common nature, ‘humanity’; and, Suárez holds, there is also the humanity of Pedro. The humanity of Pedro possesses a certain real unity as an essence, which Suárez calls the ‘formal unity’ of Pedro. He argues that ‘in reality a formal unity is given which pertains *per se* to each essence or nature’ since ‘Peter is not just one in number, he is also one essentially . . . [J]ust as in reality he lacks numerical division, so he lacks also essential division’ (*MD*, VI, 1, 8). This ‘formal unity is distinguished at least conceptually from individual unity’ (*MD*, VI, 1, 9). When the ‘common nature’ of Pedro is conceptually distinguished from Pedro’s individuality ‘it does not have individual unity, though it retains formal unity’. Formal and numerical unity ‘are conceptually distinct, in the same way as, in an individual thing, the essence as essence is distinguished from the essence as that individual and singular entity’. However,

‘these unities are not distinct in reality’ (*MD*, VI, 1, 10). Such a distinction holds between two real entities and ‘nothing, apart from individuals, can have real existence’ and ‘be a true real entity, whether in act or in potency’. So the nature of a substance ‘has no reality in itself, only in individuals’. Since ‘whatever is in an individual intrinsically and essentially is not really distinct from it’, the essence of substances ‘cannot have a formal unity distinct in reality and by nature from the singular unity of each individual’. From this it follows that ‘this formal unity, just as it exists in things prior to any operation of the intellect, is not common to many individuals. Instead, so many formal unities are given as there are individuals’ (*MD*, VI, 1, 11). This multiplicity of formal unities ‘suggests only an entitative and real distinction’ between, say, Pedro and Pablo; it does not exclude the essential similarity on which ‘the community which the intellect can attribute’ to their nature is ‘founded’ (*MD*, VI, 1, 14 and 12).

Note that, according to Suárez, the indivisible unity of substantial essence does not exclude that the genus or other of the essential properties of the substance may be, as such, undetermined. The animality of Pedro is determinable (and indeed determined) by Pedro’s rationality. As Suárez explains, ‘generic nature has its formal unity; and, nonetheless, it is formally divisible by specific differences’ (*MD*, VI, 1, 14).

Between the unintelligible but sensorially given material individuality of Pedro and the intelligible but merely conceptual unity of the universal ‘humanity’, there is the real, individual, intelligible formal unity of the humanity of Pedro. This form provides the ‘foundation or occasion’, the intelligible grounds in the individual itself, for the production of a universal by the intellect (*MD*, VI, 5, 1). Let us now turn to Suárez’s account of this production.

Following the Aristotelian tradition, Suárez distinguished between the intellect as active or agent, and as passive, possible or receptive. The active intellect is the intellect as it produces an intelligible species to direct the mind towards an intelligible object. The function of the passive intellect, on the other hand, is to ‘operate and understand by means of’ the intelligible species brought about by the active intellect (*MD*, VI, 6, 1). Citing Aristotle’s comparison of ‘our intellect’ as initially like a ‘blank tablet (*tabula rasa*)’, Suárez rejects Plato’s doctrine that the intellect is innately ‘infused with the species of all things’ (*DA*, I. IV, c. 2, 2). Instead, the senses provide a material intentional species which ‘concur in some way to [the] production’ of a non-material species (*DA*, I. IV, c. 2, 4; see also I. IV, c. 2, 12). Material acts of sensation, however, are not sufficient to determine the mind towards a spiritual intellectual object; the agent intellect is needed (see *MD*, VI, 6, 1; and *DA*, d. V, q. 1, 7). The active intellect ‘does not act freely, but in so far as it can, it naturally imprints the species, given [phantasms]’; for ‘the purpose and natural activity of the agent intellect’ is this, ‘that through its intermediate spiritual action it

render the possible intellect like the representation in the phantasm' (*MD*, VI, 6, 6 and 7).⁹

The agent intellect 'produces a species which is singular not only as to its being, but also in representing an individual and singular thing', namely, the particular formal unity that is the humanity of Pedro (*MD*, VI, 6, 3). But when the receptive intellect is directed by this species towards consideration of the represented form as an intelligible nature, it already understands the universal 'humanity' (see *MD*, VI, 6, *passim*). This is a most significant point. Universals are not the result of a reflexive operation of the intellect considering various similar particulars. Suárezian 'abstraction' is nothing other than the production of a non-material intentional form from a material one. Indeed, Suárez explicitly rejects the opinion of certain Thomists 'that a nature is made universal by [the] abstraction [of the agent intellect]' (*MD*, VI, 6, 7; see also 6, 3).¹⁰ In understanding the humanity of Pedro, as opposed to sensing it, the mind already grasps the general intelligible nature expressed by the function 'the humanity of ...' It can 'from Peter alone ... prescind simply from the individuating properties and stop at the consideration of human nature' (*MD*, VI, 6, 11).

Once in possession of this understanding the intellect can reflexively compare the natures of Pedro, Pablo and Pablito and, finding them alike, relate the three of them under the universal 'humanity'. All the same, this comparison presupposes direct acts of intellection, where the mind grasps the human nature in Pedro, in Pablo, and in Pablito; and each of those acts is already the grasp of a common nature (see *MD*, VI, 6, 4). Suárez does grant that by comparing many individuals under a common notion the mind in a way expresses universality more fully, though the universal as such is already grasped whole in a prior act (see *MD*, VI, 6, 10 and 12).

According both to Gassendi and to Suárez, understanding is dependent on sensation; but they conceived the nature of this dependence differently. For Gassendi, to understand is to fix on the similarity of several sensory objects and thereby form a common notion to group them together with all other similar things. In this way Gassendi takes sensation to fully determine the intelligible objects of the mind: objects of understanding are obtained from inspection of the actual contents given in sensation, and they are formed by comparison of several sensory particulars. Suárez, however, rightly points out that comparison of several particulars can only take place after one has already understood each individual: to find A and B similar is to grasp that they resemble each other in a certain respect; and this presupposes understanding each of the two as being of a certain kind. But to understand either A or B in that way is to grasp a universal (see *MD*, VI, 6, 12).

Suárez is clear, first, that the intelligible species produced by the agent intellect is not itself the object of the receptive intellect but its intentional or

directing species; and, second, that its production is not the result of noticing similarities or in any such way ‘abstracting’ sensorial features. While for Gassendi understanding is the result of working from sensorial appearances to a common notion or universal, for Suárez it is more a question of applying discriminatory abilities to intelligible appearances.¹¹

In his replies Descartes took note of Gassendi’s claims about intellection, but he excused himself from discussing them, for they were concerned, he wrote, with ‘the universals of the dialecticians . . . [and] my understanding of universals is not the same as theirs’ (AT, VII, 380). He went on to discuss instead the perception of ‘the essences we know very clearly and distinctly, such as the essence of a triangle’. Contrary to Gassendi, Descartes distinguished ‘the universals of the dialecticians’ from the intelligible ‘real essences’ of things. But in this text he grouped Gassendi with the Scholastics because they both made sensation necessary for the operation of the human intellect. He was not interested in participating in a dispute between empiricists, so he avoided commenting on their differences.

Descartes denied the Scholastic doctrine of the dependence of the intellect on the senses, and he rejected the Aristotelian notion of an agent intellect. Without doubt, however, he was farther away from the ‘new’ empiricists, like Gassendi or Hobbes, than he was from some of his Scholastic predecessors. He would have agreed with Suárez that understanding is not the result of abstracting common features in sensorial appearances. And he found a place for an analogue of Suárez’s individual ‘formal unity’ to serve as foundation for universals or common notions. In the Second Meditation, after the *cogito*, Descartes pursued his attack on trust of the senses; but his direct target was the empiricism of the likes of Gassendi, not of Suárez. In his metaphysics as in his physics, Descartes’s attitude to the Aristotelians was that he could explain the same things they explained, but in a simpler and clearer way, with fewer entities and obscurities. He replaced, with his own causal innatism, all need for the obscure causal activity of the agent intellect.¹² And, in the Second Meditation, when he argued against the new empiricists that the content of sensation leaves undetermined the objects of understanding, he was also indirectly subverting the Suárezian assumption that the intelligible form is present whole in the particular presented in sensation.

The Cartesian doctrine of intellection

Descartes held that all formally existing things are only particular and that universals exist merely as objects in the mind, resulting from an intellectual operation.¹³ In the last section we have discussed how Gassendi and Suárez understood this operation which brings about a common nature. Let us now examine the Cartesian account of ‘how universals arise’.

Using the terminology of ‘dialecticians’, Descartes writes in the *Principles* of the ‘five common universals: genus, species, differentia, property, accident’, thus indicating that he intends to address one of the core aspects of the Aristotelian epistemology. He then succinctly presents the following account: ‘these universals arise solely from the fact that we make use of one and the same idea for thinking of all individual items which resemble each other: we impose one and the same word on all the things which are represented by the idea in question, and this word is the universal’ (AT, VIII–1, 27). Though perhaps on its own this passage could be misread as presenting an ‘abstractionist’ account similar to Gassendi’s, Descartes leaves no room for doubt that he does not intend any such view.

Immediately after the text quoted he states: ‘when we see two stones and direct our attention not to their nature but simply to the fact that there are two of them, we form the idea of the number which we call “two”’. A few lines later he adds: ‘when we see a figure made up of three lines, we form an idea of it which we call the idea of a triangle; and we later make use of it as a universal idea, so as to represent to our mind all the other figures made up of three lines’ (AT, VIII–1, 27–8). When Descartes writes that ‘we make use of one and the same idea for thinking of all the individual items that resemble each other’ he does not mean that it is grasp of the resemblance that accounts for the use of the universal name or for the framing of the general idea. His examples involve apprehension of a universal from a single instance; so resemblance is not being invoked to explain this grasp. Descartes took intelligible objects to be applied to sensory particulars, and not to be obtained from them.

Moreover, in Descartes’s text there is implicit a distinction between two sorts of intelligible objects. There are the universals with which the passage is overtly concerned; but there are also the intelligible features which the mind apprehends in an individual and which apparently ground both the use of the general names and the grasp of the resemblance between particulars that fall under them. These intelligible features cannot themselves be subject to the same treatment that is given there to nominal universals, under pain of obvious vacuity and circularity.

In a letter to Father Gibieuf, Descartes calls the ability to consider a certain feature of the object of an idea apart from the other given features ‘the abstraction of the intellect’. He explains that it consists in ‘turning my thought away from one part of the contents of [an] idea the better to apply it to another part with greater attention’ (AT, III, 475). Here Descartes writes as if understanding consisted in a sort of inspection of an intelligible object, conceived, no doubt unconsciously, on the model of sensory perception. Indeed, we have seen that Descartes viewed understanding as the intellectual scrutiny of inner objects. The first point to note now is that this Cartesian

'intellectual abstraction' is completely independent of sensation, since it is a process involving solely acts of intellection and their objects. But, secondly, it presupposes understanding and is not intended to explain it; for the intellect is said to abstract from 'some other richer or more complete idea which I have in myself' and this 'idea' is clearly an object of understanding (AT, III, 474–5).

Descartes understood universality as Suárez did: to be a common nature is to be whole in many. But he disagreed with Suárez that there is universality before the mind relates one thing to many things. In Descartes's view a universal arises only after the mind compares many singulars: 'I attribute [the perception of universals] to the intellect alone, which relates to many things an idea which is itself singular' (AT, III, 66). For both of them, the act of comparing many particulars presupposes a prior act of understanding; but while for Suárez this act already is the act of grasping a universal, for Descartes it is instead the act of perceiving a singular or 'concrete' real essence. In the letter to Gibieuf he suggests that 'intellectual abstraction' in the end presupposes the 'complete' innate ideas of extended substance and thinking substance (AT, III, 475–6).

When Descartes wrote that in forming a universal the intellect relates to many things 'an idea which is itself singular', he did not mean merely that the idea is singular by being the object of one act of thought. Suárez had pointed out that this unity belongs also to universals, for they too are one by each being the object of a particular mental act (see *MD*, VI, 2, 12). By calling the idea singular, Descartes instead meant that the object itself of the idea is not a universal, one thing capable of being whole in many, but an individual real essence.

These Cartesian real essences, like Suárezian individual forms, may be determinable. The 'richer or more complete' objects presupposed by intellectual abstraction are themselves determinables which in a sense contain all their possible determinations and modes (see AT, III, 474–5). The 'complete ideas' of extension or thought are ideas of the 'one principal property [of each substance] which constitutes its nature and essence and to which all its other properties are referred' (AT, VIII–1, 25). These essences are highest-order determinables; yet they are singular, concrete simple natures, neither universals nor abstractions. Any one of these natures is individual in the strong sense that any possible instantiation involves only one same thing, namely the substance which is essentially constituted by it. Extension is the nature of the material substance. Here 'thought' refers to the individual essence of a particular mind, primarily one's own.

Suárez allowed that there can be a determinable individual nature possessing formal unity. Similarly, Descartes separated the universals of the dialecticians and their relations, on one side, from, on the other, the 'rich and complete'

real natures which the mind innately possesses and their determinations (see AT, VIII–1, 22–32).

Suárez distinguished between four sorts of ‘unity’: first, the unity which something has in virtue of being the object of one particular mental act; secondly, the universal unity of that which is one whole in many particulars; thirdly, the numerical or individual unity of what cannot exist whole in many; and fourthly, the formal unity of an individual in virtue of its intelligible nature. Something can possess both the first and the second unities; but possession of the second unity is incompatible with possession of the third. Everything that exists in reality has the third unity, which is distinct only conceptually from the fourth. The fourth unity, in turn, furnishes the intellect with the grounds for its production of a universal endowed with the second unity.

Descartes was basically in agreement with all these Suárezian claims (unlike Gassendi, who does not distinguish between the third and fourth unities).¹⁴ It is true that Descartes did not write about ‘formal unity’, but he maintained that there is a conceptual distinction between the numerical unity of a substance and the essential unity of its actual nature: ‘the natures of intelligent and corporeal substance . . . must be considered as nothing else but thinking substance itself and extended substance itself . . . [T]he distinction between [the notions of thought and extension] and the notion of substance itself is . . . a conceptual distinction’ (AT, VIII–1, 30–1).¹⁵

Cartesian universals presuppose the intellectual grasp of singular essences. The mind apprehends an innate, individual real nature, fixes on some feature, and then relates many similar particulars, placing them under one common name and thereby producing a universal. But the proper objects of sense are not real natures capable of actual existence, and they are never the objects of intellectual apprehension. If this is so, how can the intellect ever frame universals to cover the proper objects of sense?

To answer this question, let us start by distinguishing between the proper object of an act of sensory perception and the universal under which it falls. That there is a difference here is easily perceived from the fact that those born blind lack sensations of colour but can learn to use and apply colour terms correctly, even if they cannot make non-inferred literal colour attributions.¹⁶ Our question then is: how can the mind form a universal covering proper objects of sense when it cannot intellectually perceive such objects? In other terms: Descartes’s account of understanding, as I have presented it above, excludes all reference to the objects of sensation, how can it then explain the use of general terms such as ‘colour’, ‘painful’, or ‘loud’?

Succinctly put, the answer is that for Descartes such general terms properly refer to acts of sensation and not to their objects independently of these acts. The framing of, say, the universal ‘colour’ involves a reflexive self-intellection,

whereby the soul perceives its own act of seeing colour. The mind understands colour and the other proper objects of sense in so far as it can intellectually grasp its sensations; for those objects can be given to the intellect only as objects of acts of sensation (see AT, VIII–1, 32–5). The mind frames the universal ‘colour’ by relating one such sensation to other objectively similar sensations. Thus, the difference between the universals ‘colour’ and ‘sensation of colour’, as between ‘pain’ and ‘sensation of pain’, is merely one of words. At best, it marks the distinction between a whole sensory act and its constitutive immediate object.

The Cartesian intellect is causally autonomous with regards to the senses: acts of understanding can take place without the intervention of any acts of sensation. In some cases there is an occasional causal link between sensation and intellection; but even then, acts of sensation are mere external motives in the production of an intellectual object. Descartes also held that the objects of the human understanding are wholly independent of the contents of sensation: they are not obtained from sensation, nor could they, since the objective content given in sensation underdetermines the objects of intellection. Furthermore, the sensory perception of objects presupposes understanding. The Cartesian doctrine of the priority of the intellect over the senses involves the causal and cognitive independence of the intellect, and the cognitive dependence of sensation. In the following two sections, I will discuss Descartes’s arguments for this doctrine in, respectively, his replies to Gassendi’s objections and the reflection on a piece of wax in the second half of the Second Meditation.

The intellect and the senses have common objects. Size, shape, and motion can be both perceived intellectually and sensed. Still, the sensory grasp of any such objects is necessarily confused; for in sensation they are presented conjoined with the proper objects of sense which cannot be distinctly understood as ‘things or affections of things’, but only as ‘sensations or thoughts’ (AT, VIII–1, 22 and 33). It is only reflexively in self-consciousness – in Descartes’s view, an act of the intellect and not of the senses – that any object of sense, whether intelligible or proper, can be distinctly perceived. And, even more significantly, all objects of sensation are perceived determinately as self-identical individuals not by the senses but by the intellect alone. We have seen Descartes hold that the proper objects of sense are unintelligible unless they are grasped (reflexively) as objects of sensation. In the Second Meditation he maintained that all other objects of sense are individuated and identified by the intellect alone. Sensation is cognitively dependent on the autonomous understanding.

All Cartesian non-propositional objects of understanding ultimately originate in the intellectual perception of the three ‘real natures’: extension, thought, and infinity or the divine essence (sometimes said to be ‘infinite thought’).

These ideas are innate, first, in the sense that the mind can have them without the causal intervention of any other substance (presupposing only, that is, that God conserves the mind in existence); secondly, in the sense that they are all intellectual acts, causally independent of sensation; and thirdly, in the sense that their objective content is not obtained from, or determined by, the objects of sensation.

Descartes conceived matter as geometrical extension. He proposed a purely quantitative understanding of body, attributing no other properties to corporeal substance but determinates of size, motion, and shape (understanding geometrical shapes in terms of quantitative functions). Cartesian qualities are not to be found in the material world outside the mind: they attach either to proper objects of sensation, or to acts of thought.¹⁷ Descartes proposed to replace the qualitative ontology of the Aristotelians with a new, comprehensive account of reality. He suggested that thought and extension are the two ultimate and exclusive kinds into which falls all reality. In chapter 9 we will discuss Descartes's real distinction between minds and body. In chapter 7 we will examine the Cartesian doctrine that predicate expressions in meaningful and possibly true predications signify either individual determinable real essences or their determinate modes; second-order properties, such as the property of having a real essence; secondary properties, referring to the proper objects of sense; or nominal universals.

Descartes's distinction between real properties and what, following customary usage, I have called 'secondary' properties is founded on his intellectualism. It is drawn at the same place as the distinction between understanding and sensation: secondary properties are just the proper objects of sense. Descartes claims that these objects cannot be understood to exist in reality outside the mind. To the question 'why?' he surely would have answered by leading the inquirer to the intellectual perception of the real essences within him, as he sought to do in the *Meditations*. There is nothing wrong with this reply; nor should we criticize Descartes for not producing independent arguments in favour of his claim. We are entitled to demand that the proposal actually succeed in its stated aims, and that it display cogency and internal coherence. As we shall see later, it is fair to say that the Cartesian metaphysics does not live up to these, its own standards.

Sensation and the perception of geometrical figures

Gassendi stated that his empiricist account of universals holds also of Descartes's 'true and immutable natures', of his 'triangle and its nature' (AT, VII, 320). Though Descartes dismissed Gassendi's assertions, he did offer a fuller statement of his position and an argument for some of his claims.

He denied that the notions of geometrical figures come from sensation or that they are taken from sensed particulars (see AT, VII, 380–1). In support he submitted the following:

[The figures studied by geometers] are composed for the most part of straight lines; yet no part of a line that was really straight has ever affected our senses, since when we examine through a magnifying glass those lines which appear most straight we find that they are quite irregular and always form wavy curves. Hence, when in our childhood we first happened to see a triangular figure drawn on paper, it cannot have been this figure that showed us how we should conceive of the true triangle studied by geometers, since the true triangle is contained in the figure only in the way in which a statue of Mercury is contained in a roughly worked block of wood. (AT, VII, 381–2)¹⁸

Descartes distinguished between ‘the true triangle studied by geometers’ and the triangular approximations that are perceived sensorially. He maintained that the first has never been given in sensation. So he concluded that it is not from the senses that the notion of a true triangle has been obtained.

Let us start our examination of the quoted passage by noticing an ambiguity in the claim that sensed triangles are only approximately triangular. On one reading the point of the analogy between the relation of sensed figures to geometrical figures and the relation of a roughly worked block of wood to a statue of Mercury is that no geometrical figures are ever given in sensation. Just as the piece of wood contains not one but many statues and is not itself a smooth and finished statue, so sensible shapes are approximations of many geometrical figures without themselves being any. A sensed line has an indeterminate or vague width within which are contained an infinity of precise geometrical lines; so a sensed shape contains a true one by being an indeterminate figure whose vague boundaries describe a range within which there are indefinitely many mathematical or true figures. According to this reading, it is in the nature of the objects of sensation to be indeterminate and vague. However precise a sensory object is, it will always fall short of the exactness and absolute determinacy of geometrical objects.

This interpretation has Descartes starting his argument for the claim that the notion of a geometrical figure cannot be obtained from sensation with the fact that sensory shapes are indeterminate. A sensed shape is an example of no specific geometrical figure: it is an example of one as much as it is an example of indefinitely many others. We can never sense a triangle. And what we can perceive approximates a triangle as much as it does an infinity of other more complex geometrical figures. According to this interpretation, it is from these considerations that Descartes would argue towards the conclusion that the idea of a triangle cannot be determinately accounted in terms of sensed particulars.

As promising as this line of reasoning may be, we shall not explore or develop it any further. It is not the only possible interpretation of the quoted text; and I believe that it was not the one which Descartes intended here.

First, in the cited passage he does not write that we see approximations of wavy curves. If forced one could hold that perhaps by ‘irregular and . . . wavy curves’ Descartes meant vague and indeterminate in the sense suggested above (AT, VII, 382).¹⁹ But this is not a straightforward reading. Secondly, he writes that a truly straight line has never been sensed, not that it could never have been sensed.²⁰ Thirdly, the sentences immediately preceding the text we are examining are: ‘I do not . . . concede that the ideas of these figures ever came into our minds via the senses . . . For although the world could undoubtedly contain figures such as those the geometers study . . . there are no such figures in our environment except perhaps ones so small that they cannot in any way impinge on our senses’ (AT, VII, 381). The implication is not that it is in principle impossible to sense true geometrical triangles, but simply that there are none around us to be sensed.

Earlier, Descartes addressed Gassendi’s claim that ‘the objects of pure mathematics, such as the point, the line, the surface, and those composed from these indivisibles but which are indivisible themselves, cannot exist in reality’ (AT, VII, 329). He retorted that ‘these essences . . . undoubtedly conform to the true nature of things established by God’ (AT, VII, 381). He added that this does not mean that there exist bodies with ‘length but no breadth, or breadth but no depth; it is rather that the geometrical figures are considered not as substances but as boundaries within which a substance is contained’. Again, the implication seems to be that if there were mathematically straight or circular boundaries around us large enough to be perceived (perhaps with the aid of a magnifying instrument), then we could perceive them sensorially.

Finally, when Descartes explained how the notion of a triangle is in fact originated in the mind, he treated the approximately triangular object of sensation not as an imprecise figure but rather as a more complex but apparently exact one: ‘since the idea of a triangle was already in us, and could be conceived by our mind more easily than the more composite figure in the triangle drawn on paper, when we saw the more composite figure we did not apprehend the figure we saw, but rather the true triangle’ (AT, VII, 382). Here the difference between a sensed triangle and a mathematical triangle is said to be one of degree of complexity: the sensory figure is ‘more composite’ than the triangle. There is no mention of a difference of determinacy and precision in the figures. Instead, there is the suggestion that, like the true triangle, the shape drawn on paper is a determinate mathematical figure.

So it appears that in these passages Descartes did not intend to claim that we cannot sensorially perceive mathematical figures. On the other hand, he did imply elsewhere that sensorial extension is intrinsically indeterminate. For instance, while there is a limit to how small what is perceived in sensation can be, he maintains that extension is infinitely divisible: ‘the existence

of . . . parts of matter which have extension and yet are indivisible implies a contradiction, because it is impossible to have the idea of an extended thing without also having the idea of half of it or of a third of it . . .’ (AT, III, 477). Nevertheless, the point Descartes makes in the text we are discussing is not related to the indeterminacy of sensory extension; it is just that we do not sense the simple shapes which geometers mostly study, for example, straight lines and triangles.

Descartes wants to argue for the conclusion that ‘the essence . . . of any geometrical figure . . . [is] not taken from particulars’ (AT, VII, 380). How, then, does he arrive at this from the fact that some geometrical shapes are not given in sensation?

By pointing out that straight lines are never sensed Descartes excludes the sensory perception of a host of geometrical shapes: all those, indeed, that contain straight lines, as for example, the triangle and the pyramid, the square and the cube, the semi-circle, the cone, and any rectilinear polygon. And one could equally well point out that, strictly, only the approximations of circles, ellipses and other simple regular curved figures are perceived by the senses, not the exact curvilinear shapes themselves. The starting fact, then, is that sensation does not afford the mind with any of the shapes that are more readily grasped by the understanding in geometry. The shapes that are given in sensation are utterly complex; their boundaries are ‘quite irregular and always form wavy curves’.²¹

Descartes next introduces another factual consideration, this time having to do with how the mind learns the notions of geometrical figures in childhood. We first comprehend simple figures. A triangle ‘can be conceived by the mind more easily’ than the sensorially perceived triangular approximation. The mind arrives at the notions of more complex mathematical objects from its grasp of simple ones, and not vice versa. Indeed, some mathematical objects are so complex that it is only with effort that the mathematically trained and talented understanding can apprehend them clearly and distinctly. The objects given in sensation are, if anything, of this latter kind. So it is not the sensory apprehension of a certain shape that provides the mind with the notion of that mathematical figure. First, simple geometrical objects are not given in sensation. Secondly, the clear and distinct perception of the complex geometrical objects which are given in sensation is built on the perception of simple geometrical objects. Hence, in childhood ‘when we saw the composite figure we did not apprehend the figure we saw’, but some other simple one which we did not see. And when we did come to grasp a complex figure, and perhaps even recognized it as a shape we sensorially perceived, this grasp was not the result of the sensation; rather the sensation was recognized as a sensation of that complex figure because of the non-sensory perception of it, which was arrived at from the perception of simple mathematical objects.

Descartes wants to establish that there is a purely intellectual perception of mathematical objects, and that it is this understanding which accounts for their sensory apprehension. He suggests that the mathematical triangle ‘was already in us’ when we first sensorially perceived a geometrical figure. And he ends this section of his replies to Gassendi with the statement that ‘we could not recognize the geometrical triangle from the diagram on the paper unless our mind already possessed the idea of it from some other source’ (AT, VII, 382). In the *Principles*, when he wrote that ‘when we see a figure made up of three lines, we form an idea of it which we call the idea of a triangle; and we later make use of this as a universal idea’, Descartes was implicitly referring to this intellectual grasp of a triangle (AT, VIII–1, 27–8).

These claims are intended to apply beyond the realm of mathematical notions. Descartes asserts unqualifiedly that the ideas of ‘the essences we know clearly and distinctly . . . are not taken from particular instances’²² (AT, VII, 380). The argument in the Fifth Replies does not prove this general conclusion, for it applies only to mathematical figures. And it fails to be anything more than suggestive even regarding these objects. On their own, that in order to understand complex figures we must first understand simple figures and that we never sense simple figures do not establish that the notion of a triangle was not obtained from sensation nor that the mind could have such a notion even if it did not have access to the contents of sensations.

In the Fifth Replies Descartes affirmed the priority of the intellect with regards to the senses, but he did not produce an argument to prove his affirmation. He told Gassendi that he could ‘easily make [him] admit’ the cognitive independence of the understanding (AT, VII, 380). But his reasoning is effective only against Gassendi’s express objections. Descartes states that we never sense triangles; if this claim is true, then it cannot be that the notion of a triangle is obtained from particular triangles given in sensation, contrary to what Gassendi had written.

The Cartesian doctrine of the priority of the intellect is meant to hold without exception. In all its operations, the intellect is cognitively independent of the senses. The objects of the understanding are not in any way determined by or derived from the objects of sensation. Conversely, all sensory acts are cognitively dependent on the operation of the intellect. The cognitive content of any sensation is fully constituted by a corresponding act of intellection. Descartes’s main concern in the Fifth Replies was to answer Gassendi; there, he did not intend to present a fuller defence of this doctrine.²³ That is to be found instead in the Second Meditation, where Descartes argued that the sensory perception of an individual object presupposes an act of understanding, and that acts of understanding are cognitively underdetermined by the contents of sensation. He thus subverted Scholastic empiricism and provided the foundations for his essentialist philosophy.

The reflection on the wax

There are several strands running through the reflection on a piece of wax in the latter half of the Second Meditation.²⁴ It appears to deliver the promise in the title of the meditation, ‘that [the mind] is better known than the body’ (AT, VII, 23; IX–1, 18). But it is overtly introduced as one last permissive concession to the mind’s lack of intellectual discipline (see AT, VII, 29–30). The text is dense with suggestive and significant doctrine. In the next section I will discuss it with a view to determining its function within the *Meditations*. Now I wish to examine it in the context of the Cartesian doctrine of the priority of understanding.

Descartes starts by considering ‘the things which people commonly think they comprehend most distinctly of all; that is, the bodies which we see and touch’ (AT, VII, 30). He proposes to examine ‘one body in particular’. He considers a piece of wax in front of him, and vividly depicts its sensory appearance: ‘It has just been taken from the honeycomb; it has not yet quite lost the taste of the honey; it retains some of the scent of the flowers from which it was gathered; its colour, shape and size are plain to see; it is hard, cold and can be handled without difficulty; if you rap it with your knuckle it makes a sound.’ In his description Descartes is careful to mention all the five sensory faculties: taste, smell, sight, touch, and hearing. He next notices how ‘even as I speak, I put the wax by the fire, and look: the residual taste is eliminated, the smell goes away, the colour changes, the shape is lost, the size increases; it becomes liquid and hot; you can hardly touch it, and if you strike it, it no longer makes a sound’. After noting the loss of the initial features and the new appearance, he asks: ‘does the same wax remain?’ The answer, as he points out, is that ‘it must be admitted that it does; no one denies it, no one thinks otherwise’.

We are asked to consider a particular object given in sensation. Descartes first describes the contents of the perception we are invited to entertain. Then he points out that we can reidentify such an object even when ‘whatever came under [the senses] has . . . changed’. He concludes that the grounds for this reidentification are not found in the initially given sensory contents. That cannot have been what determined the object as this piece of wax: ‘So what was it in the wax that I understood with such distinctness? Evidently none of the features which I came upon through the senses.’

An important element of the argument I will propose as an interpretation of this passage is contained in the remarks connecting a distinct perception of the wax with the capacity to reidentify it. For a mind to be aware of its object as a determinate something or other is for it to be capable, in principle, of identifying the same object in other circumstances. The mind apprehends an individual as a determinate individual in as much as it can, in principle,

identify it, reidentify it, and distinguish it from what it is not. The mind understands a universal when it can, in principle, find it in those objects that instantiate or exemplify it and not find it in those objects that do not. Conversely, to manifest an ability to identify an individual or to understand a universal is to manifest a grasp of a determinate object. The piece of wax can be identified and reidentified: it is given as such a determined object. The suggestion which Descartes rejects is that that object, this piece of wax, is defined purely by the contents given in the initial sensation.

Perhaps the piece of wax can be fully specified in purely empirical terms, even if not with the initial sensory contents alone. Maybe a longer list of qualities would do, one including both the earlier and the later features that were sensed in the wax, and making reference to the conditions in which the wax has the respective characteristics. In fact, Descartes's description links the different sensory qualities to the changing circumstances in which the wax is given. It is a freshly gathered piece in the midst of a cool room that is first perceived; it is one placed near a fire that is perceived later. These conditions seem themselves to be sensed. Thus, it appears that the piece of wax might be determinately specified purely by reference to sensory contents, and that the identification of the wax might be explained by reference to the apprehension of this complex sensory object. After the initial considerations presented above, Descartes directly addresses these suggestions: 'the wax was not after all the sweetness of the honey, or the fragrance of the flowers, or the whiteness, or the shape, or the sound, but was rather a body which presented itself to me in these various forms a little while ago, but which now exhibits different ones'.

Closer inspection of the proposal, however, reveals difficulties. The sensory features required to completely determine the piece of wax are indefinitely many; for the same piece of wax 'is capable of countless changes' (AT, VII, 31). The 'immeasurable number' of features required for the specification of the wax could not have all been given in the senses. So the contents of sensation did not directly determine the apprehension of this piece of wax.

Descartes next adds that not even the imagination could fully grasp the piece of wax; for it is 'capable of being extended in many more different ways than I will ever encompass in my imagination'. When making these points Descartes writes that the wax is 'something extended, flexible and changeable'. Of course, the piece of wax is not just something extended, flexible and changeable; but it is (in fact, essentially) extended, flexible and changeable. To be any of these properties is to be potentially (as a determinable contains its determinates) an indefinitely large number of different shapes and sizes, infinitely more than could be given in sensation or grasped by the imagination: 'But what is meant here by "flexible" and "changeable"? Is it . . . that this piece of wax is capable of changing from a round shape to a

square shape, or from a square shape to a triangular shape? Not at all; for I can grasp that the wax is capable of countless changes of this kind.’²⁵

These comments suggest the point that a finite enumeration of ordered sets satisfying a function whose argument ranges over an infinite domain will not succeed in determinately specifying the function; that is, a determinate function $f(x)$, where x ranges over an infinity of values, is not specified by giving some of the values of the satisfying pairs $\langle x, f(x) \rangle$. Let A stand for any member of the set of groups of properties that this piece of wax has under each of all possible conditions and let B stand for any member of the set of such conditions. What we are looking for, when we seek a full determination of the wax, is a function that maps from B to A: $f(B) = A$. This function is the notion of this wax, manifested in the power of the mind to apprehend the same wax in different circumstances and through change. No list of some possible values of B and the corresponding values of A will define the function $f(B)$ as opposed to an infinity of other functions $f_1(B)$, $f_2(B)$... $f_n(B)$, which have the same values when completed with the arguments listed but diverge from one another in other cases. No finite amount of empirical observation can explain the faculty to recognize this wax through the innumerable changes it could suffer while remaining the same wax in the eyes of the mind.

One feature of Descartes’s reasoning that is brought out by viewing it in this light is that it is unimportant whether the object under consideration changes or not. The reflection on the piece of wax is not about identity through change. Even if the wax were capable of having only one set of features, one size, shape, colour, odour, and so on, it would still be the case that it cannot be fully determined merely by a listing of these features. One cannot fully specify the function $f(x) = n$, where n is a constant, with any finite listing of pairs that satisfy it. Such listing does not necessitate that the value of $f(x)$ be n for any x that is not listed; there are indefinitely many functions that differ from $f(x)$ but are satisfied by the listed pairs.

The issue raised by Descartes concerns the determination of an object of apprehension. The minimum variance necessary to give rise to the need to specify an indefinitely large set of correlations is provided by possible variance in time or perception. Even if no change were possible as to other conditions, there is possible change in acts of apprehension of the same object. So if we consider a thing that is just triangular and unchangingly so and, furthermore, is possibly given only under certain unchangeable conditions, it might still be given at infinitely many different times and be the object of infinitely many different perceptions. An object is not specified as the same object across infinitely many different acts of perception by a finite enumeration of some of the circumstances (i.e., acts of perception) in which it can be given and of the features that it has in those circumstances. That list does not determine

the same object in each of the unmentioned circumstances. Hence, it does not determine the original grasp of the object.

Having denied that this piece of wax is apprehended as such by the senses or the imagination, Descartes concludes that one ‘must therefore admit that what this wax is . . . is perceived by the mind alone’ (AT, VII, 31).²⁶ By referring to ‘the mind alone’ he intends to exclude the senses and the imagination. Both involve, even if only occasionally, the causal participation of the body.²⁷ At the end of the Second Meditation Descartes restates his conclusion thus: ‘even bodies are not strictly perceived by the senses or by the faculty of imagination, but by the intellect alone’ (AT, VII, 34). Later in the Third Meditation he contrasts the mind to the senses stating that ‘my mental vision [*mentis aciem*] is blinded by the images of things perceived by the senses’ (AT, VII, 47). On the other hand, he clearly does not wish to deny that the wax is also given to the senses: ‘this wax which is perceived by the understanding or the mind alone . . . is . . . the same wax which I see, which I touch, which I picture in my imagination’. The issue is: how is the sensed object apprehended as a determinate object? The conclusion is that the wax is not determinately grasped through sensory perception, even with the aid of the imagination, but by the sole intellect: ‘the act whereby it is perceived, is a case not of vision or touch or imagination, nor has it ever been . . . but of purely mental scrutiny’ (AT, VII, 31; IX–1, 24–5).

At the level of pure sense awareness there is no grasping of determinate objects. This is the awareness of unintelligent and pre-linguistic consciousness: ‘was there anything in [the sensory perception of the wax] which an animal could not possess?’ (AT, VII, 32). Though his considered doctrine on this matter denies that non-human animals possess consciousness, for the purposes of his exposition here Descartes takes the view that even if it were granted that beasts are sensorially aware it would yet be the case that, being deprived of an intellect, they would not be aware of any determinate sense objects. They would possess the unselfconscious brute perception of some Leibnizian monads.²⁸ When, in the last chapter, we examined Descartes’s three grades of sensory perception, I marked the difference between the second and third grade in terms of the power of the mind to be directed to things outside it. Descartes affirms that this intentional faculty, located in the third grade of sensation, requires judgement and understanding. What I am focusing on now is the view that if the second sensory grade is taken as prior to all understanding, then that grade of awareness is not of determinate objects.

Descartes holds that in all cases it is the intellect alone which apprehends an object as a determinate something.²⁹ If his argument succeeds in the case of a particular thing, like this piece of wax, it will also succeed in the case of universal objects: ‘the point is even clearer with regard to wax in general’ (AT, VII, 31).³⁰ After discussing the wax, Descartes goes on to make his

claim generally. The perception of a determinate object involves bringing an internally given contents under a concept; it involves an act of judgement. So the sensing of a determinate object presupposes an act of intellection and judgement, which is not itself determined by sensation.

Descartes comments that 'ordinary ways of talking' are deceptive (AT, VII, 32). For, as he observes, 'we say that we see the wax itself, not that we judge it to be there from the colour or the shape'. But, truly, we do not grasp the wax as such with our senses; we judge that what we grasp with our senses is the wax. Similarly, if I watch human beings walking, 'I normally say that I see the men themselves, just as I say that I see the wax. Yet do I see any more than hats and coats which could conceal automatons? But I judge that they are men.' This last example is not ideal, since it involves an inference which is not present in the case of the wax and is irrelevant to the main issue. Descartes's point would hold also of the case where we see naked women walking and see they are not 'moved by springs' (AT, IX-1, 25). It holds of any act of apprehension of an object as a determinate or reidentifiable something.

As I noted, there are several lines of argument running through these pages in the *Meditations*. Descartes himself does not differentiate sharply the diverse themes that are mentioned or implied; nor does he set out his claims as carefully and precisely as one might expect. At times, for example, he appears to write as if concerned with determining what pertains to the wax in reality behind its appearance to the senses: 'take away everything which does not belong to the wax, and see what is left' or 'distinguish the wax from its outward forms, and, as it were, consider it naked' (AT, VII, 30-1 and 32). But the difference between real substantial properties and mere mental appearances is not one with which he is concerned in these reflections, though it is connected to the distinction between sensation and intellection; for nothing like the proper objects of sensation can exist outside the mind.

Similarly, two paragraphs after proposing the important tenet that the determination of any object of perception requires intellection and judgement, Descartes alludes to the different claim that the power of the mind to grasp external objects involves an act of judgement: 'if I judge that the wax exists from the fact that I see it' (AT, VII, 33). Finally, we might recall the more explicit aims of these passages, to lead the mind towards restraint and circumspection in its use and trust of sensation, and to justify the assertion that the mind is better known than the body. These aims explain the constant references to the obscurity and confusion of the initial sensory perception of the wax and the clarity and distinctness of the later intellectual grasp. Here I have focused only on one aspect of the text which bears on our present concern.

The reflection on the wax, as I have reconstructed it here, can be kept purely at the level of the inner objects of consciousness, without making any

reference to external reality. Otherwise, there is the danger of finding that it is involved in an inescapable circle. Suppose the aim of this text is to answer the question ‘what is it to bring an object under the concept of an extended material thing, a piece of wax?’ This requires an account of the inference from an inner appearance to an external thing, since it is an external thing and not its inner appearance that strictly is the material wax. In turn, any account of this inference will itself suppose that an external thing can be brought under the concept of the wax. Descartes could be criticized for not having carefully distinguished between the appearance and its phenomonic properties and the external extended substance and its physical properties.

Whatever the imprecisions of the Second Meditation, in discussion Descartes left little room for doubt that he did not want to refer to external objects when speaking of the wax. He wrote that he ‘had carefully pointed out that [he] was not here dealing with sight and touch, which occur by means of bodily organs, but was concerned solely with the thought of seeing and touching [*cogitatione videndi & tangendi*] . . .’ (AT, VII, 360). The crucial distinction here is between internal or objective and external or formal existence and predication. The appearance of the wax is objectively coloured and, hence, objectively extended. It objectively has a size and a shape; it is objectively flexible. Neither the acts of the mind nor the contents of these acts are formally extended or flexible; only material substance can be such.

Descartes’s argument is concerned with the determination of any object. In the Second Meditation it is properly concerned with the inner and immediate objects of the mind; and it asks of these objects, how are they determinately given as the objects they are? The formal character of these objects is referred to their being mental contents. But their objective character, which is the subject of examination, is their being, for example, objectively coloured and extended, flexible and shaped. It is of an inner object, of an objective content, that Descartes asks: how is it determined as a such and such? His answer is that this question cannot be answered in terms of sensation, even when it is the objects of sensation that are in question.

Descartes wanted to establish the priority of the intellect over the senses. The Second Meditation, however, does not succeed in this aim. Though the reflection on the wax is effective against the empiricism of Gassendi or of Hobbes, and even of Locke and perhaps Hume, it does not really affect the Scholastic position. In the First Meditation Descartes compares intellectual simple natures with colours:

These are as it were the real colours from which we form all the images of things, whether true or false, that occur in our thought.

This class appears to include corporeal nature in general and its extension; the shape of extended things; the quantity, or size and number of these things . . . (AT, VII, 20)

Like the new empiricists but contrary to the Scholastics, Descartes was an empirical atomist; he assumed that sensorial reality could in principle be fully analyzed into discrete contents, constituted by determinate sizes, shapes, and movements and properly sensorial qualities.

From Hobbes to Hume, modern empiricists accounted for understanding and its intelligible objects in terms of sensation and the association of its resembling objects. Ultimately, such an account must appeal to empirically given, qualitatively determined objects; objects which, so to say, bear their unique character on their face.³¹ It must assume, that is, that an object can be pre-conceptually given in pure sensation as, for instance, red, or hard, or round; and that resemblance between objects is thereby given in pure sensation prior to intellection. The notion of such pre-conceptual self-identifying individuals in fact makes no sense.³² In the Second Meditation Descartes argued that no finite amount of sensorial contents, understood as composed of discrete empirical items, will account for the intellectual powers of the mind. I believe that neither Gassendi, nor Hobbes, nor Locke recognized the force of the Cartesian reflection. On the other hand, post-Kantian empiricists were able to acknowledge Descartes's point while still holding on to the dependence of understanding on sensation (or so some will argue).

In fact, within Scholasticism there existed the resources to assimilate the Cartesian lesson and remain faithful to the empiricist doctrine that human understanding is dependent on sensation. In Aquinas and Suárez we do not find an atomic understanding of sensory objects, similar to Descartes's. These Scholastic realists had a holistic and non-reductive conception of sensation, which was a more natural companion for their view that intellection is a learnt ability, gradually acquired in interaction with the world and manifested primordially in intelligent behaviour (though, of course, it was also accompanied by their stale view of the natural sciences). Descartes conceived understanding, in the model of observation, as the inspection of an intelligible mental entity. In the writings of Aquinas and of Suárez, there are strands which resist this contemplative conception of intellection.³³ Such alternative perspectives relate understanding to intelligent behaviour; so they can admit that sensory awareness without understanding is brute and dumb, and still hold that without sensation, that is, without direct intentional interaction with the world, there can be no understanding.³⁴

The structure and function of the Second Meditation

The Second Meditation raises interesting questions of interpretation. The Meditation comes immediately after the deployment of the radical doubts of the sceptic. If it is mainly concerned with finding a reply, or even just the start of a reply, to these doubts, then why does it include the reflection on the wax?

What, in any case, is the connection between the earlier half, apparently concerned with the intellectual perception of one's essence and the certainty of one's existence, and the second half which we have just examined?

One of the aims of the sceptical doubts is, as we have seen, to 'withdraw the mind from the senses' and direct it towards 'the consideration of the things of the intellect' (AT, I, 560 and VII, 172; see also I, 350–1 and 353–4). Descartes uses scepticism to turn the mind towards itself. This involves not only turning away from external things and into an inner world, but also detaching the mind from the senses and their objects and leading it towards the objects of intellection and understanding: 'I will now . . . withdraw all my senses. I will eliminate from my thoughts all images of bodily things . . . I will converse with myself and scrutinize myself more deeply' (AT, VII, 34). By means of the sceptical considerations at the start of his essentialist journey, Descartes casts doubt on the source of the existentialist's knowledge of existence. The sceptical arguments conduct the mind to the intellectual perception of itself and the world within it. In the Second Meditation Descartes gains a firm grip on the intellectual power of the soul. At the beginning of the Third Meditation he is ready to start displaying the orderly path of the understanding in the acquisition of metaphysically certain science. In the process, the sceptical arguments will be shown to be incoherent.

In the Second Meditation Descartes leads the inquirer to the recognition of the certainty of her own existence as a thinking thing or mind. The certain knowledge of her existence, however, is also the direct apprehension of her own essence. In the *Discourse* and in the *Principles* Descartes expresses this point with the famous formulation of 'the first and most certain [piece of knowledge] to occur to anyone who philosophizes in an orderly way': 'I am thinking, therefore I exist' (AT, VI, 32; VIII–1, 7). In the Second Meditation he departs from the inferential formulation, but he expresses the same connection between knowledge of his existence and the perception of his essence: 'let him deceive me as much as he can, he will never bring it about that I am nothing so long as I think that I am something . . . [T]his proposition, *I am, I exist*, is necessarily true whenever it is put forward by me or conceived in my mind' (AT, VII, 25).

There are three paths that lead from essence to existence in the *Meditations*, one for the self, another for God, and the last for matter. The essence of the self is the only one which is grasped directly in its actual existence; it is both the thinking subject and the object of its own thought. It is not given, as are the other known essences, merely as an object within the mind. Rather, it is manifested in any act of thought, and it is immediately apprehended in self-consciousness. Since all the real properties of the mind are determinations of its essence, awareness of any mental property will be awareness of the determined essence of the self.³⁵ Hence, as Descartes wrote against Gassendi,

‘that I exist . . . cannot be demonstrated without [knowledge of what my nature is]’ (AT, VII, 359). The source of my knowledge of ‘I exist’ is the apprehension of my essence.

The first half of the Second Meditation introduces this existing essence, which is known with certainty and without mediation. This is the first result of the use of the intellect after methodical doubt. With it come the elements for the rest of the Cartesian essentialist undertaking. Within the mind is found a world; and it is from this inner world of essences that Descartes will argue for substantial existence. The certainty and immediacy with which the mental world is grasped, and the fact that the whole of the Second Meditation can be conducted purely within this inner universe, provide an ideal setting for the acquisition of knowledge after the First Meditation. The first step after the introduction of the mind to the world within it, is to attain knowledge of the true essences of things. This requires that the mind focus on the objects of understanding and exercise its intellectual powers.

Having cast doubt on the senses as a source of knowledge of existence, Descartes next casts doubt of the senses as a source of knowledge of essence. If the *Meditations* are read exclusively against the background of scepticism, as contemporary philosophers are tempted to do, the reflection on the piece of wax appears oddly placed between the *cogito* and the proof of God’s existence. But Descartes himself did not perceive scepticism as a serious option. His horizon was that of Scholasticism. With this in mind the Second Meditation appears as a unified whole, naturally placed after the propaedeutic and purifying sceptical doubts of the First Meditation and before the essentialist proofs of God’s existence in the Third Meditation.³⁶ In the Second Meditation Descartes denied that the senses have any role in the determination of intelligible objects, and he isolated the autonomous intellectual apprehension of real essences. Having established the intellectualist foundations of his reaction to Scholastic existentialism, he was ready to undertake the essentialist demonstrations of the existence of God and material body in the following Meditations.

Descartes explicitly presents the reflection on the wax as designed to strengthen the abandonment of the senses. He considers ‘the bodies which we touch and see’ in order that ‘when it is time to tighten the reins, [the mind] may more readily submit to being curbed’, that is, to being turned away from sensation (AT, VII, 30). But there is another aim to the Meditation. Its title announces ‘that [the mind] is better known than the body’ (AT, VII, 23; IX–1, 18). In one respect, this is shown to be true with the *cogito*: knowledge that the mind exists precedes knowledge of the existence of body.

Nonetheless, someone might counter that what the body is better known than what the mind is. As was pointed out earlier Suárez believed that while ‘in this life’ we can know the nature of some material things, we cannot know

the nature of the mind (*MD*, XXXV, 3, 3; see also *ST*, I, q. 87). This is also Gassendi's position:

what we are looking for . . . is that inner substance of yours whose property is to think . . . You should carefully scrutinize yourself and conduct a kind of chemical investigation of yourself, if you are to succeed in uncovering and explaining to us your internal substance. If you provide such an explanation, we shall ourselves doubtless be able to investigate whether or not you are better known than the body whose nature we know so much about through . . . so many . . . sciences, so many senses and so many experiments. (*AT*, VII, 276–7)

Note that, given that at this stage in the *Meditations* there is yet no knowledge of the existence of body, in so far as the issue here concerns knowledge of the essence of mind and of body, it can be raised only from a position which upholds the essentialist independence thesis: that one may know the essence of some substance without knowing whether it exists.

Descartes's answer to Gassendi's objection, putting aside the abuse ('this is indeed worthy of you, O Flesh, and of all those who have only a very confused conception of everything'), consists in pointing out that anything that is known about the body is *eo ipso* something that is known about the mind, namely, 'that it has the power of knowing' such bodily facts (*AT*, VII, 360). One can infer 'from this . . . that we know more attributes in the case of our mind than we do in the case of anything else'. But being 'better known' is not just a matter of there being more things that are known about the mind than about the body. Strictly, the mind knows the body intellectually and not through the senses, and sensorial perception of body as such depends on an intellectual cognition. The mind comes to have a distinct knowledge of body when it separates sensory from intellectual objects, when, as in the reflection on the wax, it goes from the apprehension of visual, tactile, and other sensorial features to a clear and precise perception of the intellect. On the other hand, the mind directly and intelligibly grasps itself in any of its acts, or so Descartes maintains. In progressing from the senses to the intellect in its knowledge of the body, the mind is also learning about its own contents and powers, and hence about its own nature.

In the Third Meditation Descartes addresses the hypothesis that there is an omnipotent deceitful being and the 'deep whirlpool' of doubt resulting from it (*AT*, VII, 24). In the Second Meditation he is not concerned with answering this sceptical trope. His aim is rather to build upon the soul's withdrawal from the external world presented in sensation, the positive result of the First Meditation.³⁷ He starts by introducing the reader to the inner world of her soul, focusing first on the clear and distinct awareness of herself as a thing which truly thinks. Through self-examination, the reader's grip on her intellectual powers is secured: '[N]one of the things that the imagination enables me to grasp is at all relevant to this knowledge of myself which I possess, and

... the mind must therefore be most carefully diverted from such things if it is to perceive its nature as distinctly as possible' (AT, VII, 28; see also 29). Next Descartes shows that it is the pure intellect and not the senses which knows and recognizes corporeal things. At the end of the Meditation he writes: 'I now know that even bodies are not strictly perceived by the senses or the faculty of imagination but by the intellect alone, and that this perception derives not from their being touched or seen but from their being understood' (AT, VII, 34).

After the reflection on the wax, his readers will be ready to exercise, as he put it later, 'the intellectual vision which nature gave them, in the pure form which it attains when freed from the senses; for sensory appearances generally interfere with it and darken it to a very great extent' (AT, VII, 163).

Essentialism and the self

Before discussing the arguments for God's existence in the Third Meditation, we must pause and address more carefully the question of the essentialist character of knowledge of one's own existence in the Second Meditation. Commentators have generally disregarded Cartesian essentialism. One of the aims of this essay is to make sense of this doctrine and to articulate Descartes's reaction to the existentialism of his Scholastic predecessors. In my own experience, when Descartes's explicit essentialist avowals are pointed out, informed scholars will grant that the essentialist order of knowledge obtains in the Cartesian demonstration of the existence of material substance. Some concede that perhaps that order is observed in the proofs of God's existence. But most commentators reject its application in the case of knowledge of the existence of the self.³⁸ They display such conviction in this rejection, that they fail to be disturbed even by Descartes's undeniable protestations to the contrary. I turn now, then, to this issue.

First of all, let us recall that it is only the thesis of the dependence of knowledge of existence that must hold in the case of the self. In other words, Cartesian essentialism requires only that if one knows one's existence, then one know also one's nature. It does not require that one know one's essence and not know that one exists.

The Second Meditation starts where the First left: 'So serious are the doubts into which I have been thrown as a result of yesterday's meditation that I can neither put them out of my mind nor see any way of resolving them' (AT, VII, 23). Descartes resolves to 'make an effort' and continue searching for 'something certain' (AT, VII, 24).³⁹ He doubts his senses and his memory; and he supposes that 'body, figure, extension, motion and place are chimeras'. Then he asks

Is there not a God, or whatever I may call him, who puts into my mind the thoughts I am now having? But why do I think this, since I myself may perhaps be the author of these thoughts? In that case am not I, at least, something? But I have just said that I have no senses and no body. This is the sticking point: what follows from this? Am I not so bound up with a body and with senses that I cannot exist without them? But I have convinced myself that there is absolutely nothing in the world, no sky, no earth, no minds, no bodies. Does it now follow that I too do not exist? No: if I convinced myself of something or merely thought anything at all, then I certainly existed. But there is a deceiver of supreme power and cunning who is deliberately and constantly deceiving me. In that case I too undoubtedly exist, if he is deceiving me; and let him deceive me as much as he can, he will never bring it about that I am nothing so long as I think that I am something. So after considering everything very thoroughly, I must finally conclude that this proposition, *I am, I exist*, is necessarily true whenever it is put forward by me or conceived in my mind. (AT, VII, 24–5)

The passage sets off with a series of questions that the meditator addresses to herself. She begins that internal monologue by turning upon her own thoughts and considering whether there is a God from whom those thoughts come or whether she herself is their author. If the latter were the case, then she would be something. Doubts are cast on this suggestion on the basis of the supposition that there is no body. This, Descartes writes, is the sticking point: what follows from the fact that there is no body, or, as he writes in the next lines, that there is nothing in the world outside the meditator?

Descartes's intention in the first part of the quoted paragraph is, I take it, to focus the attention of the meditator on herself, a mind. She turns upon her own thoughts, and she considers herself in exclusion of the body and of everything else apart from herself as a thinking thing. It is at this juncture that Descartes introduces the existential claim. But he stresses throughout that her knowledge of her existence is dependent on her reflexive perception of herself as a possessor of thoughts: 'if I convinced myself of something or merely thought anything at all ... if he is deceiving me ... so long as I think that I am something ... whenever it is put forward by me or conceived in my mind'.

In his objections Gassendi raised doubts as to whether Descartes 'needed all this apparatus' to show that he exists (AT, VII, 259).⁴⁰ Descartes replied that

These very words of yours show that I have the best reason to think that I have not used enough apparatus, since I have not yet managed to make you understand the matter correctly. When you say that I 'could have made the same inference from any one of my actions' you are far from the truth, since I am not wholly certain of any of my actions, with the sole exception of thought. (AT, VII, 352)

Descartes explained that the self's knowledge of its existence is grounded on the self's knowledge of its thought. In his reply to Gassendi, Descartes writes of 'inferring' his existence from his thinking. Nevertheless, the point holds

whatever views we might have as to whether 'I am, I exist' is the result of inference or not.⁴¹ For what Descartes maintains is that the only existential knowledge that is warranted is of a thinking something. If 'I am' is taken to be the result of direct intuition, that intuition is not of a thing that simply and purely exists, since on its own existence cannot be intuited. It is, rather, the intuition of actual thought in self-consciousness.

Therefore, I take it that when Descartes introduces the claim 'I am, I exist' he is already in possession of an answer to the question 'what am I?' This answer is in terms of a real and actual property of the I, its thought. It is for this reason that the next paragraph of the Second Meditation begins: 'But I do not yet have a sufficient understanding of what this "I" is, that now necessarily exists' (AT, VII, 25). Descartes does not deny that he has some understanding of what the I is. He affirms that he does, and warns that it is not sufficient: 'I must be on my guard against carelessly taking something else to be this "I" and so making a mistake in the very item of knowledge that I maintain is the most certain and evident of all.' To elucidate Descartes's point, let me refer to a distinction he proposed between different kinds of knowledge or understanding.

In a letter of 1648 Descartes distinguishes between the intuitive knowledge of God in the beatific vision and the discursive understanding which we can have of Him 'in this life, short of a miracle' (AT, V, 136–7). The first involves a 'direct impression' from God on the understanding, whereby He reveals what He pleases about Himself. The latter involves 'reasoning' and is the result of 'progress in our inquiry'. In a letter of 1630 Descartes presents a related distinction, this time between comprehending and knowing: 'To comprehend something is to embrace it in one's thought; to know something it is sufficient to touch it with one's thought' (AT, I, 152). We cannot comprehend God, for He is infinite and we are finite; but we can know Him, for we can know that He is infinite in a way we cannot comprehend.

In accordance with these Cartesian distinctions I propose that we differentiate three kinds of knowledge of something:

1. direct acquaintance;
2. understanding; and,
3. comprehension.

Knowledge by direct acquaintance is the non-discursive cognition which the mind has of whatever it directly intuits. Understanding and comprehension are both discursive and distinguished as a matter of degree. Comprehension is the full and complete intellection of something. Understanding falls short of comprehension and it admits of degrees.⁴²

I hold that when the meditator arrives at knowledge of her existence in the Second Meditation she already has at least a direct, intuitive apprehension of

her essence. Moreover, she is in possession of an initial and barely sufficient discursive understanding of it. This essential knowledge is required for the knowledge of her own existence. That she must be directly acquainted with her essence is established as follows. The meditator knows her existence by grasping some of her actual real properties. In Descartes's view, any real property of a substance manifests or expresses its essence in the way in which a determinate exhibits the determinable it determines.⁴³ That she must have some understanding of her essence is established from the fact that at the beginning of the Second Meditation, before she is able to self-reflectively focus on herself as a thinking thing or as a possessor of thoughts, even if only in a first and tentative fashion, the meditator is correctly in doubt as to her existence. This, precisely, is why Descartes places a reflection, however short, about the meditator's thoughts and the possibility that she is a body, before putting forth 'I am, I exist'. (Notice, nevertheless, that Descartes does write: 'after considering everything very thoroughly'.) If she did not engage in that reflection, the 'apparatus' of which Gassendi complained, she might end up not knowing what she takes to know and being the subject of one more deception. For in so far as 'I am' is taken to express that a body or something other than a mere possessor of thoughts exists, it is not known to be true.

Thus and contrary to what is a commonplace amongst commentators, it is not the case that Descartes first arrives at knowledge of his existence being in ignorance as to his essence and only then goes on to inquire what his nature might be. Instead, Descartes first directly intuits his essence by self-consciously apprehending his thoughts and briefly discourses about the object of this intuitive grasp only then to conclude that he undoubtedly exists. Immediately after this he acknowledges that this discursive understanding is not sufficient and he goes on to increase it through reasoning. A few pages later he writes: 'But what then am I? A thing that thinks. What is that? A things that doubts, understands, affirms, denies, is willing, is unwilling, and also imagines and has sensory perceptions' (AT, VII, 28). By then he has greatly augmented his understanding of his nature and he is ready to continue his inquiry by considering the piece of wax. But before he arrived at this stage and before he could even conclude that he exists he needed to intuit his own essence and to understand that what he intuited was a bearer of thoughts.

Therefore, Descartes was right to assert against Gassendi that he was 'surprised that you should say . . . that all my considerations about the wax demonstrate that I distinctly know that I exist, but not that I know what I am or what my nature is [*quis aut qualis sim*]; for one thing cannot be demonstrated without the other' (AT, VII, 359). As he explains, 'nothing more is required to reveal a substance than its various attributes; thus the more attributes of a given substance we know, the more perfectly we understand its

nature' (AT, VII, 360; contrast *MD*, XXXV, 3, 3, and *DA*, Proemium, 33). Without the direct intuition of his thought and the understanding of this intuition as presenting him with thoughts, Descartes cannot establish the certainty of his own existence.

Given the resistance of many commentators to accept the essentialist order of knowledge in the Cartesian *cogito*, let me restate the main points of my argument.

First, there is the explicit and straightforward textual evidence. Those who deny that Descartes followed an essentialist method when dealing with his own existence are forced to attribute to him a contradiction, and they have to explain away his explicit claims to have pursued such a method. Given the quick and confident manner in which, in my experience, this tends to be done, I must suppose that Descartes is being taken to have made an unthinking claim in the Fifth Replies and elsewhere when he professed to follow an essentialist order of inquiry. This makes him doubly irresponsible: not only was he careless in his assertion against Gassendi but he went on to grotesquely hurl undeserved abuse on his objector by placing him in the company of 'all those who have only a very confused conception of everything'. At the very least, it seems to me that it is the responsibility of commentators to make the greatest effort to try to find out if Descartes did have something in mind, before just dismissing his claim. Perhaps he was wrong, but then let us see why he thought he was right.

Secondly, there is the fact that Descartes's essentialist avowal can be made cogent. One should acknowledge the Cartesian notion of a direct intuition of an essence and distinguish the various degrees of understanding that can be had of it. One should bear in mind that for Descartes any property that a substance has is a determinate which exhibits its essence as its highest-order determinable. One should notice that 'I exist' is known through self-conscious knowledge of some actual property of the mind, a thought understood as a thought. Finally, one should remark on the connection which Descartes himself points out between the certainty of one's existence and the understanding of oneself as a thinking thing. If, after this, my reader remains uncertain as to the essentialism of the *cogito*, I ask her or him to reserve judgement until after we have discussed Descartes's account of 'I' in chapter 9.

Together, the first two Meditations constitute the preparation of the mind for the intellectual perception of true and immutable natures. This propaedeutic moment is built around the self's awareness of its own being. In the Third Meditation, Descartes disposes of the sceptical tropes and begins the journey from the essences inside the soul to the world outside it.

6 Essentialism and the existence of God

Essentialism and Descartes's demonstrations of the existence of God

The study of past philosophy must be guided by the demands of historical accuracy and of philosophical understanding. These aims are not truly separable. Still, attention to the one can lead, each in its own way and with unequally valuable consequences, to disregard for the other. The history of philosophy should blend the two as complements (though not necessarily in equal doses). Indeed, the essentialist interpretation of Descartes's metaphysics strives after both philosophical and historical insight; it attains its goal most successfully regarding the proofs of God's existence.

As Martial Gueroult has put it, 'all interpretation of Cartesian metaphysics must rest above all on . . . the *Meditations*, not because it contains the whole of philosophy . . . but because it comprises the essential elements set forth according to their true justification'.¹ The *Meditations* is without doubt the most genuine expression of the content and spirit of Descartes's philosophy. It contains his more important and enduring contributions to the subject, presented so that 'what is put forward first [is] known without the aid of what comes later; and what follows [is] arranged in such a way that its demonstration depends solely on what has gone before' (AT, VII, 155). A mere glance at the titles of the six *Meditations* reveals their central themes: the essence and the existence of the self, of God, and of matter. Overtly inspired by sceptical arguments, Descartes defends reason and uncovers the innate contents of the intellect. Intimately motivated by the need to replace the Aristotelianism of the Schools, he develops a radically new understanding of being. Refuting in turn the sceptic and the Aristotelian, he deploys his reflections while traversing the paths that lead from knowledge of the essence to knowledge of the existence of these substances. The *Meditations* is both Descartes's account of his essentialist journey from the *cogito* finally to the demonstration of the existence of matter, and an example for those who want to follow him in this metaphysical undertaking.

There are three proofs of God's existence in the works of Descartes.² Two argue from the existence of some effect to the existence of its divine cause.

The third proceeds directly from consideration of ‘the concept of God’ to His existence (AT, VII, 168). All three proofs are found in the *Meditations*. It was Descartes himself who, using the terminology of the Schools, distinguished between the ‘*a priori*’ proof from God’s ‘essence or nature’ and the ‘*a posteriori*’ proofs ‘from his effects’ (AT, V, 153; VII, 120 and 167). Care must be taken, however, not to infer from this that the latter do not follow the essentialist order of knowledge. If, as Suárez might have had it, an *a priori* proof of existence is one that involves consideration of the respective essence in the premises, then all Cartesian demonstrations of existence are *a priori* (see *MD*, XXIX, 3, 2 and 32). Certainly, the three proofs of God obey the essentialist precept that ‘we must never ask whether something exists unless we already know what it is’ (AT, VII, 107–8).

Of the three, the one which more obviously exhibits its essentialist structure is the ontological argument in the Fifth Meditation. There Descartes proceeds straightforwardly from the examination of God’s nature to the discovery of His necessary existence. Yet even in this case doubts might be raised. Descartes could have been mistaken about his own method; or he may have expressed himself loosely when he claimed to ‘have examined [God’s] nature’ (AT, VII, 152). For it might be argued that God’s nature cannot be known by humans, at least not unless human beings be granted the contemplation of God in eternal salvation or in some anticipatory mystical rapture. Descartes surely did not want to deny this.

The issue which is thus suggested is not unlike one discussed in the last chapter concerning knowledge of the essence of the self. Following that lead, we should distinguish between knowing God’s essence by direct acquaintance, comprehending it and understanding it. Descartes did not propose, nor does the ontological proof require, that divine nature be contemplated as in a beatific vision. Even less did he suggest that the human mind can comprehend God’s full essence. He stated unambiguously that there are ‘innumerable things in God which I cannot in any way comprehend or perhaps even touch with my thought’ (AT, VII, 46; see also 55 and 113).

What Descartes did hold is that we can have some understanding of divine essence, sufficient in fact for the ontological argument to go through and for us to be able to refer to God:

even if we conceive of God only in an inadequate or, if you like, ‘utterly inadequate’ way, this does not prevent . . . our being able truly to assert that we have examined his nature with sufficient clarity, that is, with as much clarity as is necessary to know that his nature is possible and also to know that divine existence belongs to this same divine nature. (AT, VII, 152)

When Descartes presented the ontological argument in the Fifth Meditation he maintained that existence necessarily belongs to God’s essence, that God is unique, that ‘it is necessary that he has existed from eternity and will abide

for eternity', and that He has 'many other attributes' (AT, VII, 68). Earlier in the Third Meditation he had explained that by 'God' he understood 'a substance that is infinite, eternal, immutable, independent, supremely intelligent, supremely powerful, and which created myself and everything else (if anything else there be) that exists' (AT, VII, 45). At the start of the Fourth Meditation he added that God's perfection entails His complete lack of 'malice' and of 'trickery or deception' (AT, VII, 53).

Understanding, which is a matter of degrees, can fall pitifully short of comprehension or adequacy to its object and still be adequate for the purposes of human science. Human understanding of divine essence may be infinitely removed from the full intellectual grasp which the Deity has of Himself, but it is all that is necessary for the Cartesian proofs of God. Descartes was not, in this regard, asking for more than what St Thomas himself allowed. Aquinas's Five Ways set out from the existence of some effects and arrive at the existence of a being to which 'all give the name "God"' (ST, I, 2, 3). In accordance with his proclaimed existentialism, at that stage Aquinas was prepared to acknowledge only a nominal understanding of God. But after his proofs he added that 'having recognized that a certain thing exists, we still have to investigate . . . what it is that exists' (ST, I, between qq. 2 and 3). Aquinas explicitly affirmed that we can only know what God is not, not what He is. But he went on to hold that God is good and perfect and that these are not merely negative concepts (ST, I, qq. 4–6). Descartes did not have a developed notion of analogical discourse, so his understanding of God's attributes is not the same as that of St Thomas.³ In the present context, nevertheless, it is fair to claim that Descartes was not asking for more knowledge of God's essence than what Aquinas was prepared to grant after discussing the divine attributes in the questions immediately following the Five Ways.

The first causal proof offered in the Third Meditation starts from the existence of an idea of 'a supreme God, eternal, infinite, immutable, omniscient, omnipotent, and the creator of all things that exist apart from him' (AT, VII, 40). Descartes lays claim to this starting point by actually producing that idea. He then invokes the principle that all actual ideas have causes capable of accounting for their contents (AT, VII, 40–2). He goes on to argue that nothing but God Himself can account for the actual idea of God (AT, VII, 45–7 and 49–52). Finally, he concludes that God exists. Consideration of God's nature, of the objective contents of the idea whose cause is sought, is a crucial step in Descartes's argument. It is through an understanding of divine essence that he can establish that no cause other than God can account for the idea of God. The proof starts from a claim to knowledge of the existence of an idea of God, and hence argues *a posteriori* to the existence of the cause of this idea. But it assumes knowledge of God's essence before it can draw its inference. As with the ontological argument, it too follows the essentialist path.

The fact that in these arguments the examination of divine nature precedes the conclusion that God exists is compatible with the rejection of that order in other valid proofs of His existence. The second causal argument in the Third Meditation, which will be the main subject of this chapter, could be construed as starting from the existence of the self and proceeding without reference to the causality of the objective contents of ideas. The argument does require other causal principles. But, it might be interposed, it does not need consideration of God's essence prior to attaining knowledge of His existence. Descartes's second *a posteriori* proof would then be ultimately the same as Aquinas's Second Way, as Caterus suggested in the First Objections (AT, VII, 94). Thus, like its Thomist predecessor this Cartesian argument from effects would defy an essentialist reading.

This reasoning is flawed on both historical and philosophical counts. Descartes himself maintained that consideration of God's nature is indispensable for this proof, even if it is not taken to involve the causal principle concerning the objective reality of ideas. Moreover, the grounds for this claim bring out why no causal argument for God's existence can succeed unless it includes knowledge of the divine essence in the premisses. Therefore, given that he recognized 'only two ways of proving the existence of God, one by means of his effects, and the other by means of his nature or essence', Descartes was entitled to say that knowledge of the divine essence must precede knowledge of God's existence (AT, VII, 120). In his second causal proof Descartes was far from simply copying Aquinas. Rather, he was coming at the end of a long line of criticism of the Five Ways. Read in the light of this history, and in particular of Suárez's *Disputations*, the Cartesian argument further reveals its essentialist structure.

Descartes's second causal demonstration

In the Third Meditation the two proofs from effects are presented in a continuous exposition. All the same, the transition from the first to the second was marked. After laying out the argument involving the causation of ideas, Descartes mentioned the need for reinforcement given the frailty of his grasp of the reasoning he had just completed. He then added: 'I should therefore like to go further and inquire whether I myself, who have this idea, could exist if no such being existed' (AT, VII, 47–8). In the Appendix to the Second Replies and in the *Principles*, where the ontological proof is placed before the causal arguments, he explicitly distinguished two *a posteriori* proofs, offering two separate demonstrations: one 'from the fact that we have an idea of God within us' and the other 'from the fact that we, who possess the idea of God, exist' (AT, VII, 167–8; and VIII–1, 11–13).

Commentators have disagreed as to the exact relation between these two demonstrations. On one extreme there are those who like Caterus have taken

the second proof to be a version of the Thomist Second Way. On the other extreme there are those who appear to take it as a restatement of the first in different terms, not really ‘a second proof of the existence of God’, more ‘a second form of the first proof’.⁴ Some have found significant differences between the two, but they have still made the second depend on the causal considerations concerning the idea of God within the self. The position I shall defend is that, contrary to these views, Descartes offers two independent proofs from the effects, only one of which requires reference to the causality of ideas, though both obey the essentialist order of knowledge.⁵ I see no better way of proceeding than to actually produce the second causal demonstration and to let the texts speak for themselves.

A convenient starting point is provided by the fact that Descartes generally refers to the second *a posteriori* proof as starting from the existence of the self ‘who has the idea of God’ (for example, AT, VII, 48, 168; VIII–1, 12). This could indicate that it is not independent from the first. But it does not. Descartes does use the idea of God in that proof; the issue, however, is how he uses it. I agree with Etienne Gilson that ‘if man did not have this idea, nothing could prove that the cause . . . is God’.⁶ Yet I maintain that this is not because Descartes reasons ‘about the cause of this being [who possesses the idea of God], not in so far as it is body or even thought, but, strictly, about the cause of the idea of God which is contained in this thought’.⁷ I hold instead that it is because an inquiry into the cause of the self cannot be completed unless the idea of God is considered, regardless of what caused this idea.

Succinctly put, the second Cartesian causal argument goes as follows:⁸

1. I exist.
2. Every substance has a cause of its existence.
3. Nothing causes itself.
4. Causes are simultaneous with their effects.
5. Causality is transitive.
6. There is no infinite regress of causes.
7. God, a being that is uniquely *causa sui*, is the only possible first and primary cause of my existence.
8. Therefore, God exists.

None of these steps involves consideration of the causality of ideas. To establish this we will now examine them in turn as they appear in the Third Meditation.

Descartes starts by assuming the first two items. He takes for granted both knowledge of his own existence and of the existence of a cause of his existence (AT, VII, 48). Towards the beginning of the Second Meditation he had established ‘that this proposition, “I am, I exist”, is . . . true’ (AT, VII, 25). According to Descartes, ‘nothing exists concerning which the question may not be asked: “what is the cause of its existence?”’ (AT, VII, 164). He

explained that only in God's case does this question admit of the answer 'nothing'; and in God's case there is an explanation of why He needs no cause in order to exist and indeed could not possibly depend on one (see AT, VII, 164–5; and also AT, III, 428; VII, 40, 108, 135, 367).

After these initial assumptions Descartes considers whether he could be his own cause (AT, VII, 48). It is here that commentators have found him to rely on arguments from the previous causal proof relating to the causality of the idea of God within him. Following Bernard Williams, John Cottingham has tersely expressed this reading:

the second version . . . cannot work without relying on the results supposedly achieved by the first version . . . [I]t relies on the notion . . . that this principle [that there must be at least as much reality in the cause as in the effect] can be applied to the . . . 'objective reality' . . . of the idea of God: whatever caused me, it is claimed, must ultimately be sufficiently perfect to account for the perfections depicted in my idea of God.⁹

On this interpretation, Descartes excludes the possibility that he caused himself by noting that he is not God and that whatever caused him must be God, since it must have caused the idea of God within him.

That there is something wrong with this reading becomes apparent when we ask whether Descartes would have agreed that if he did not possess the idea of God, he could have caused himself. The answer is obviously 'no'.¹⁰ And the reason is that he believed that nothing apart from God can in any sense be said to produce itself (AT, VII, 108–11 and 239–40). A cause must account for its effect; to say that something is its own cause amounts to saying that it needs no account of its existence apart from itself. As Descartes explained in the Fourth Replies,

In every case . . . we must ask whether a thing derives its existence *from itself* or *from something else* . . . [W]hat derives its existence 'from another' will be taken to derive its existence from that thing as an efficient cause, while what derives its existence 'from itself' will be taken to derive its existence from itself as a formal cause – that is, because it has the kind of essence which entails that it does not require an efficient cause. (AT, VII, 238)

But such an essence is one that entails existence. In other words, if I had caused myself, I would exist necessarily. There is for Descartes only one essence which exists necessarily; and that is the essence of a perfect and infinite being. Hence, he could infer that since I am not perfect, I have not caused myself. With these thoughts in mind, we can now turn to the text of the Third Meditation.

Descartes states: 'if I derived my existence from myself, then I should neither doubt nor want, nor lack anything at all; for I should have given myself all the perfections of which I have any idea, and thus should myself be God' (AT, VII, 48).¹¹ He argues for this claim by first making the following point:

I must not suppose that the items I lack would be more difficult to acquire than those I now have. On the contrary, it is clear that, since I am a thinking thing or substance, it would have been far more difficult for me to emerge out of nothing, than merely to acquire knowledge of the many things of which I am ignorant – such knowledge being merely an accident of that substance.

What can cause a thinking substance to ‘emerge out of nothing’ can also cause it to be omniscient. If I caused myself, then I could have caused myself to know everything I do not know.

Descartes’s identification of ‘causing myself to exist’ with ‘emerging out of nothing’ rather than with ‘emerging out of myself’ is explained in the Fourth Replies:

Here the phrase ‘his own cause’ . . . simply means that the inexhaustible power of God is the cause or reason for his not needing a cause. And since that inexhaustible power or immensity of the divine essence is as *positive* as can be, I said that the reason or cause why God needs no cause is a *positive* reason or cause. Now this cannot be said of any finite thing . . . If a finite thing is said to derive its existence ‘from itself’, this can only be understood in a *negative* sense, since no reason can be derived from its positive nature which could enable us to understand that it does not require an efficient cause. (AT, VII, 236)

To say of myself, a finite thing, that I am the cause of my own existence, amounts to saying that I have no cause and giving no further account of why this is so. This alone is sufficient to refute the possibility of my self-causation, given that ‘if anything exists we may always ask why it exists; that is, we may inquire into its efficient cause, or, if it does not have one, we may demand why it does not need one’ (AT, VII, 108). Descartes appeals to the idea of God not in order to inquire into its cause, but to confirm that he is finite and to elucidate the notion of causing himself.¹²

Having established that if he caused himself he could have given himself the perfections he conceives God to have, Descartes proceeds to argue that if he were his own cause, he would in fact have given himself all those perfections: ‘if I had derived my existence from myself, which is a greater achievement, I would certainly not have denied myself . . . any of the attributes which are contained in the idea of God; for none of them seem any harder to achieve’ (AT, VII, 48). Descartes closes the paragraph by adding that if any of these attributes ‘were harder to achieve’ than to have caused himself, ‘they would certainly appear so to me, if I had indeed got all my other attributes from myself, since I should experience a limitation in my power in this respect’.

Up to this point Descartes does not invoke any principle concerning the causality of ideas. It is also manifest that he was satisfied that he had demonstrated that he is not his own cause (see also AT, VI, 34–5 and VIII–1, 12). Indeed, he goes on to consider a different matter by bringing up the supposition

that ‘I have always existed as I do now’. He points out that even if this were true, it does not follow that ‘there [is] no need to look for any author of my existence’. This takes us to the next step in the proof, and to a striking claim about causality and time.

Time, causality and infinite regress

Descartes took the following three statements to be evident:

1. Time is a succession such that no two different instants are simultaneous;
2. the existence of a substance can be caused only by something which exists at the time when it is produced;
3. the appropriate term in a causal relation is not a substance but a substance at or during some time, and all such terms require a causal account.

It follows that at every moment of the existence of a substance there is simultaneously a cause which produces it. This conclusion is swiftly introduced in the Third Meditation:

a lifespan can be divided into countless parts, each completely independent of the others, so that it does not follow from the fact that I existed a little while ago that I must exist now, unless there is some cause which as it were creates me afresh at this moment – that is, preserves me. For it is quite clear to anyone who attentively considers the nature of time that the same power and action are needed to preserve anything at each individual moment of its duration as would be required to create that thing anew if it were not yet in existence. (AT, VII, 48–9)

As I have argued elsewhere, it is the three claims mentioned above that are at work here (see AT, VIII–1, 13; VII, 49, 108, 164, 165).¹³ We are not now concerned with Descartes’s entitlement to them. For the time being all we want is to determine what precisely is the second proof in the Third Meditation.

Starting from his existence, Descartes inquires after its cause. He first excludes himself, arguing that if he were his own cause, he would be God, which he is not. He then adds an important qualification: the cause he is seeking is simultaneous with its effect. At that point he is ready to consider whether he could have been caused by some being distinct from himself but still lesser than God. Before examining how he settles this question, however, it is necessary to look more carefully at the structure of the presentation in the Third Meditation.

When he introduced the second proof Descartes alluded to the need to strengthen his grasp of the first demonstration. In the First Replies he wrote that his intention, when he ‘went on to inquire “whether I could exist if God did not exist” . . . was not to produce a different proof from the preceding one, but rather to take the same proof and provide a more thorough explanation of

it' (AT, VII, 106). In a letter to his Jesuit supporter Denis Mesland, he said that 'it does not make much difference whether my second proof, the one based on our own existence, is regarded as different from the first proof, or merely as an explanation of it' (AT, IV, 112). Again, it would be wrong to conclude from these remarks that only one causal demonstration of God is offered in the *Meditations*. In the Second Replies he explained that

there may be some whose natural light is so meagre that they do not see that it is a primary notion that every perfection that is present objectively in an idea must really exist in some cause of the idea. For their benefit I provided an even more straightforward demonstration of God's existence based on the fact that the mind which possesses the idea of God cannot derive its existence from itself. (AT, VII, 136)

Descartes made four claims: that there are two different proofs in the Third Meditation; that they share a common argumentative structure; that they both use the idea of God within the self; and that the second is an explanation or development of the first. My view is that these four claims can be made consistent while holding that the second proof does not depend on the principle, used in the first, about the causality of ideas. In other words, I maintain that, if anything, it is the second demonstration which is more economical. Through it Descartes presents the general structure of any causal proof of God; in the first, since he is arguing from the existence of an idea, he must resort to a principle which is superfluous in the second, that the cause of an idea must account for the objective content of the idea and not only for its formal being.

It is precisely at the stage we have reached in Descartes's exposition of the second proof in the Third Meditation that he delivers on his assertion that he is also offering a fuller explanation of the first proof. It becomes apparent then that both demonstrations are concerned with simultaneous causes and that they both exclude the possibility of an infinite regress in the series culminating in the effect which each takes as its starting point.¹⁴ When he moves to discuss whether the cause of his existence could be lesser than God, Descartes reintroduces the issue of the cause of his idea of God. But he does so in a way that makes clear that the second proof need not concern itself with this matter. The point he is intent on making is that neither the simultaneous series of causes of my idea of God nor the simultaneous series of causes of myself can go on to infinity, that they both must stop at a first cause and that 'this will be God' (AT, VII, 50).

Descartes, then, entertains the possibility that he 'was produced ... by other causes less perfect than God' (AT, VII, 49). He dismisses this suggestion by initially appealing to the principle that 'there must be at least as much in the cause as in the effect'. He then formulates the ensuing sentence in terms that may seem to refer to the earlier proof involving the causal principle

about ideas: ‘whatever kind of cause is proposed, since I am a thinking thing and have within me some idea of God, it must be admitted that what caused me is itself a thinking thing and possesses the idea of all the perfections which I attribute to God’. But he immediately proceeds to state his point in terms that can be read quite generally and independently of that principle.

In respect of this cause one may again inquire whether it derives its existence from itself or from another cause. If from itself, then it is clear . . . that it is itself God, since if it has the power of existing *per se*, then undoubtedly it also has the power of actually possessing . . . all the perfections which I conceive to be in God. If, on the other hand, it derives its existence from another cause, then the same question may be repeated concerning this further cause, namely whether it derives its existence from itself or from another cause. (AT, VII, 49–50)¹⁵

There is implicit here the unproblematic precept that causality is transitive, that if A causes B and B causes C, then A causes C. The critical juncture towards which this passage is leading is whether the series of causes thus generated can go on to infinity. Descartes addresses it in a compressed and peremptory fashion: ‘It is clear enough that an infinite regress is not possible here, particularly since I am dealing not so much with the cause that produced me in the past, but rather, most importantly, with the cause that preserves me at the present moment’ (AT, VII, 50). This brief statement deserves close examination.

Why can a Cartesian causal series not go back without end? Descartes mentions two relevant features in this context: that the series is simultaneous and that an earlier member must causally account for (that is, ‘have as much reality as’) those that come later. In the Fifth Replies Descartes says: ‘an infinite regress is absurd “in the case of causes which are so linked that a cause which is lower in the chain cannot act without one which is higher”. But it is causes of this sort, and only of this sort, that are at issue here, since we are dealing with causes of being, not causes of coming into being’ (AT, VII, 370). He had explained shortly before that

an architect is the cause of a house and a father of his child only in the sense of being the causes of their coming into being; and hence once the work is completed it can remain in existence quite apart from the ‘cause’ in this sense. But the sun is the cause of the light which comes from it, and God is the cause of created things, not just in the sense that they are causes of the *coming* into being of these things, but also in the sense that they are causes of their *being*; and hence they must always continue to act on the effect in the same way in order to keep it in existence. (AT, VII, 369)

I propose that Descartes took it to be evident that in causal series with these features (causes and effects are simultaneous; causes must account for everything in their effects; and intermediate causes can act only in so far as they themselves are being acted upon) there cannot be an infinite regress. I shall now attempt to recover the intuition behind Descartes’s conviction.

Consider first a series of funnels or conduits, connected one to the other in sequence. Suppose that a certain amount of liquid, say some pisco, is transmitted from one to the other of these ducts. If we take any intermediate funnel and ask ‘where did the spirit come from that passed through it?’, the answer will be ‘from the funnel before it’. Suppose that we stipulate that for any duct we chose, the answer to the question after the origin of the liquid it carried will be that it came from the prior one. One thing which is clear about such series is that it precludes a definitive answer to the question after the origin of the spirit. For the reference to any funnel in the series invites a further question about the origin of its contents. No conduit originates the pisco, they all receive it from somewhere else. So there is no final answer to the question after its origin. That is: the series of funnels is infinite, though not necessarily all at once, and the spirit has existed, travelling through the conduits, from eternity.

Simultaneity cannot be added to this imaginary setup without modifying it. Suppose, therefore, that we change it to incorporate this further characteristic. Imagine that we do not speak of a liquid traversing some space, but of some one thing which is simultaneously present throughout the members of a series, but which is still transmitted from one to the other in such a way that any intermediate member has it and can pass it on only in so far as it receives it from the previous one. Consider, for example, a series of things freely hanging from each other in a vertical line. The ‘one thing’ simultaneously present throughout these holders is the being held. Any intermediate member is held by the prior one; we could say it receives its being held from the holder above it. Suppose we now stipulate that the series of holders goes on back *ad infinitum*. Again, it would then follow that there is no final answer to the question after the origin of the holding in the series. But there is an important difference with respect to the pisco’s case.

In that case we asked about the origin of the spirit in some funnel, and answered by referring to the funnel that contained the spirit the moment immediately preceding. If we phrase our question in terms of the cause of the liquid during some time, then our answer referred to the liquid during an earlier time. When, on the other hand, we ask about the cause of some holder being held, we answer by pointing to another simultaneous holder holding it and itself being held. If we put this question in terms of the cause of something being held at some time, our reply refers to something being held at that same time. There is a sense in which we have not progressed: we have not given an answer which invites a further question; we have repeated that after whose cause we were asking and have invited the very same question again. We have, of course, referred to a different holder. But if this member merely transmits the holding and if we are asking after the cause of the holding, we have, in effect, not answered at all. By pointing to a funnel prior in space we

are pointing at a spirit prior in time. And the pisco could be eternal. By pointing at a prior holder we are pointing at the same holding about whose origins we are inquiring, the holding at the time of our asking. Here there is no possibility analogous to the eternity of the spirit. The infinity of the series of holders does not generate an infinite series of questions and answers, it repeats the same incomplete answer to the one question an infinity of times. If there must be a definitive answer to that question, then the series cannot go back infinitely.

The question after the origin of the spirit in each funnel receives an answer by reference to a different funnel. Correspondingly, it could be argued, the question after the origin of the holding of each holder in our series in a sense does receive an answer by reference to a different holder. In other words, it is objected that the holding of the held is not the same as the holding of the holder, even if, unlike the case of the spirit, they are simultaneous. In passing from spirit to holding we have lost our entitlement to the claim that it is 'one thing' that is present throughout the chain.

A similar point is contained in the Fifth Objections. Gassendi writes that the principle

that the effect must be contained in the cause 'either formally or eminently' proves nothing more than that an effect sometimes has a form that resembles the form of its cause, while sometimes it has a dissimilar and imperfect form, so that the form of its cause is eminently superior. But it does not follow that even an eminent cause bestows on the effect some of its essence . . . or that it shares its form with the effect. (AT, VII, 289)

In his replies Descartes does not address this claim directly. But he does state that in the section from where this quote is taken Gassendi includes 'many assertions with which I strongly disagree' (AT, VII, 366). And he then repeats the causal principle and rebukes his objector's contention that it applies to material and not to efficient causes. He does so in a way that indicates that he did believe that the cause contains the very reality of the effect:

You say that the axiom 'There is nothing in the effect which did not pre-exist in the cause' should be taken to refer to material rather than efficient causes; but it is unintelligible that the perfection of form should ever pre-exist in a material cause; it can do so only in an efficient cause.

When we ask after the cause of some reality, we do not advance at all if all we do is refer to the very same effected reality. But that is precisely what we do, according to Descartes, when we offer as cause something that is itself an effect in the same respect in which it is a cause. For he claims that what we are seeking to account must 'pre-exist' in the cause. If there must be an answer to our question, if all existing reality must have a cause, or if it does not, must have some other satisfactory and complete explanation of its

existence without a cause, then we must be able to arrive at some cause which is not an effect of something other than itself.

There are many obscurities in this view. I purport to have done nothing more than to have suggested some lines of inquiry towards recovery of the rationale of Descartes's rejection of an infinite causal regress. We shall, therefore, have to come back to this issue shortly. For the time being let us follow the progress of the Cartesian second causal proof.

What do we have up to this point? That I exist; that everything that exists has a simultaneous cause; that I am not my own cause; and that there is no infinite regress in my causes. If all we have is this, it would be unwarranted to conclude that there is a first cause of myself. For that contradicts the principle that everything must have a cause. We might as well just deny that I have a cause or that I am not my own cause. The argument up to this moment is, it would seem, better constructed as a paradox. I must have a first cause, since it is impossible that the series of my causes go back infinitely; but I cannot stop the infinite regress of causes without positing something which itself has no cause, which is impossible. It is at this point that the idea of God is decisively introduced.¹⁶

Descartes affirms that 'the whole force' of his second proof depends on the fact that 'in inquiring about what caused me . . . I was asking about myself in so far as I observe, amongst my other thoughts, that there is within me the idea of a supremely perfect being' (AT, VII, 107). He gives three reasons for this:

first, this idea contains the essence of God, at least in so far as I am capable of understanding it; and according to the rules of true logic, we must never ask whether something exists unless we already know what it is. Second, it is this idea which provides me with the opportunity of inquiring whether I derive my existence from myself, or from another, and of recognizing my defects. And, last, it is this same idea which shows me not just that I have a cause, but that this cause contains every perfection, and hence that it is God. (AT, VII, 107–8)

Apart from referring to the general essentialist requirement in the order of knowledge, Descartes claims that, as we have seen, the idea of God is used to show that he is finite and not his own cause; but he adds further that it has a role to play in showing that he has a cause and that this is God. In the letter to Mesland he explained what he meant:

all these proofs based on [God's] effects . . . are incomplete . . . if we do not add to them the idea which we have of God. For since my soul is finite, I cannot know that the order of causes is not infinite, except in so far as I have in myself that idea of the First Cause; and even if there be admitted a First Cause who keeps me in existence, I cannot truly say that it is God unless I have the idea of God. I hinted at this in my reply to the First Objections; but I did so very briefly. (AT, IV, 112)

Let us first examine how having the idea of God allows Descartes to know that the series of his causes is not infinite and that, hence, he has a cause.

Two requirements which are apparently at odds must be satisfied by Descartes: that the series of his causes cannot go on to infinity and there must exist a first uncaused cause; and that everything that exists has a cause of its being. He reconciles these two statements by distinguishing two senses of 'cause' and resorting to the notion of a possible being that is in one sense caused and in another uncaused, that is, to the idea of God.

The God of Descartes, which he took to be possible on the grounds that he could clearly and distinctly conceive Him, is a being which exists, if He exists, without being an effect. In this sense, He is uncaused. Thus, if there must be an end to the regress of his causes, this end will be God. But the God of Descartes is also that being which uniquely is His own cause, not in the sense that 'he has any of the indignity of being an effect', but in the sense that His 'inexhaustible power . . . is the cause or reason for his not needing a cause' (AT, VII, 242 and 237). Therefore, positing God as first cause does not contravene the requirement of universal causality, the exigence of 'the light of nature . . . that if anything exists we may always ask why it exists; that is, we may inquire into its efficient cause, or, if it does not have one, we may demand why it does not need one' (AT, VII, 108).

We shall now address Descartes's second point: that, even if he was allowed to stop the regress in his causes and posit a first cause of his existence, unless he had the idea of God, he could not know that this cause was indeed the true God. This claim brings to light how, regardless of questions about causality, no Cartesian argument for God's existence can go through if it does not abide by the essentialist precept that knowledge of essence must come before knowledge of existence.

The essentialist structure of proofs of the existence of God

Suppose that we want to demonstrate the existence of an A and that an A is defined as a being that is F (where 'F' is its essence). Suppose also we prove that a B exists (where 'B' is some description); that, for all we know, being a B is compatible with not being F; and that, unknown to us, the B we have shown to exist is in fact F. I take it to be plain that, given only this, we have not proved the existence of an A in virtue of having proved the existence of the B. In order to transform our proof of the existence of a B into a proof of the existence of an A, however, we do not need to show that being a B entails being essentially F. All we would need is to determine that the B we know exists happens to be essentially F.

Trivially, if 'A' is understood as 'something which is F', then to prove that an A exists one must prove that something which is F exists. And, obviously,

if the essence of something is already known, to show that something is that thing will amount to showing that it has that essence. Now, all this is compatible with holding that one can prove that a thing exists while in ignorance of its essence, as, for instance, we have supposed the existence of a B to be proved independently of knowledge of its nature. One must, of course, have some understanding of that whose existence one is seeking to prove. But it may seem that such understanding need not entail its essence. An existentialist could argue that it is only once the thing has been shown to exist that one can either provide an ostensive essential definition or, in its presence, go on to examine it to discover its nature and articulate its essential definition.

But what if we are dealing with something which, to start with, is understood in terms of its essence? It would appear that this is the case with mathematical entities. But numbers and geometrical figures are shown to exist by being shown to be possible. Since a definition is not a statement of essence unless it defines something possible, this will not help the essentialist who wants to hold that such a statement is required in the premisses of proofs of existence. For knowledge of essence is then attained only in so far as one attains knowledge of existence. Furthermore, the 'existence' of mathematical entities may be thought to be quite different from substantial existence, precisely because it is a matter merely of successful definition. If substantial existence were a matter of successful definition and the essentialist were right, then his proofs of existence would be complete the moment the definitional premiss was successfully introduced. The Cartesian essentialist maintains rather that substantial existence is not a matter solely of the possibility of essential definition. In particular, he holds that any understanding that succeeds in being an understanding of God must be in terms of His essence, and that, putting the ontological argument aside, the mere possibility of God does not establish His existence.¹⁷

The crux of the essentialist doctrine about God lies in the fact that He is understood in terms of His essence completely *a priori*. There is, indeed, never any question of directly examining Him in order to discover His nature. Any understanding of divine essence that we can have is given independently of the inspection of His actual being. Hence, according to the essentialist it turns out to be unimportant whether or not we start with an understanding of the word 'god' in non-essential terms. For there is an *a priori* notion of God, a notion, that is, of the divine nature. If it is the existence of a being with this essence that is in question, then, unless the god whose existence is demonstrated is itself shown to have it, the proof will not be a proof of God.¹⁸

Since God is not an object of direct apprehension, like the concepts of mathematical entities the concept of God requires, in the words of Kant, 'completeness in the determination of the subject with respect to all its properties'.¹⁹ God is not presented in experience; His properties are not known to

belong to Him because they are given in sensation bundled together with His essence in one subject. In order to know that God has a certain attribute, one must show *a priori* that it belongs to the being with the divine nature.²⁰

The view that the idea of God is an idea of His essence involves three points: first, that it is the idea of a possible entity; secondly, that this entity is conceived in terms of properties which it must have, if it exists; and thirdly, that those properties define the entity's being, that is, they define it as a substance possessing the informative attributes which characterize and differentiate it as the thing that it is. In the *Meditations* Descartes addresses these points. He contrasts a contradiction and the idea of God: 'there is a great difference between this kind of false supposition and the true ideas which are innate in me, of which the first and most important is the idea of God' (AT, VII, 68). He adds that 'this idea is not something fictitious which is dependent on my thought, but is an image of a true and immutable nature'. As is apparent from the passage from where these quotes are taken, Descartes took his idea of God to be the idea of a possible being on the grounds that he could understand it 'clearly and distinctly'. (See, for example, AT, VII, 46 and 150–2).

It is repeatedly stated in the *Meditations* that the idea of God is the idea of a 'supremely perfect being', a being with 'all perfections', a substance which is unique, eternal, infinite, complete, simple, immutable, independent, omniscient, omnipotent, and good (AT, VII, 67; see AT, VII, 40, 45, 50, 53, 62 and 68; IX–1, 32, 35–6, 40, 42–3, 49–50, 54). When he defined 'the word "God"' in the Third Meditation, Descartes was offering an essential definition (AT, VII, 45). The question about the existence of God is not about something we happen to call 'God' but about that which, if it exists, is God. The properties by which he specifies the meaning of 'God' inform us about His essence; they are properties that the being that is God must have. The 'many . . . attributes' which are contained in the idea of 'the first and supreme being' are such, he tells us, that 'I cannot remove nor alter any of them' (AT, VII, 67 and 68). Comparing the idea of God to the ideas of shapes and of numbers, he writes that 'my understanding that it belongs to His nature' to possess the properties which are contained in that idea 'is no less clear and distinct than is the case when I prove of any shape or number that some property belongs to its nature' (AT, VII, 65). He stresses the cohesion of the notion of God: 'the unity, the simplicity, or the inseparability of all the attributes of God is one of the most important perfections which I understand Him to have' (AT, VII, 50). It is beyond doubt that in Descartes's view, if any properties define the being of an entity, then the properties contained in the idea of God, which he called 'the truest . . . of all my ideas', do (AT, VII, 46).

Perhaps in the case of cats, Japanese algae, or gold, one can start with an understanding of these things in terms of some accidental description, being

ignorant both of their existence and of their essence.²¹ Having shown that something falling under such description exists, one can then point at it and refer to its nature, whatever it may be; or one could, if the thing is available for inspection, study it to discover what its essence is. Since, on the other hand, the understanding of divine nature is *a priori*, when investigating the existence of God it is not possible to prescind from the prior consideration of His essence. No proof of God's existence will be complete before it establishes that the being that it shows to exist has the divine nature (that is, is God), regardless of whether the initial non-essential description happened in fact to apply to God.

It could be objected against this conclusion, while granting that there is an *a priori* essential concept of a supreme being, that this is not what is commonly understood by 'God'.²² But it does not really matter how 'ordinary' men use the word 'God'. Even if nobody but Descartes used 'God' as he does, his essentialist doctrine would still hold of the being about which he was writing.

In a letter to Mersenne Descartes wrote that 'by the idea of God I mean nothing but what all men habitually understand when they speak of Him' (AT, III, 393). This might seem either to affirm more than is justified or indeed true or to assert a truism. For it is certain that not everybody that uses the word 'God' usually means by it what Descartes meant by it. And it is obvious that, given that God is the being that is represented by the idea that Descartes discusses, in order to speak of Him one must speak of what that idea represents.

The more interesting claim that was perhaps intended in that letter is that the discussion of God's existence in traditional philosophy and theology has concerned itself with a being thought to be supremely perfect, infinite, most excellent, the *ens realissimum*, greater than the greatest that can be conceived.²³ It is the idea of such a being that Descartes explores in the *Meditations*. In the Second Replies, taking himself to be 'in agreement with all metaphysicians and theologians, past and future', he asserts that

the points you make . . . have no more force than if I had said that God is not subject to anger or other emotions, and you were to produce as counter-examples passages from Scripture where human feelings are attributed to God . . . [T]here are two quite distinct ways of speaking about God. The first is appropriate for ordinary understanding and does contain some truth, albeit truth which is relative to human beings; and it is this way of speaking that is generally employed in Holy Scripture. The second way of speaking comes closer to expressing the naked truth – truth which is not relative to human beings; it is this way which everyone ought to use when philosophizing, and that . . . [I used] in my *Meditations*. (AT, VII, 142)

Hence, it is clear that Descartes considered the conclusions at which he arrived in that treatise to apply to the question of God as it should and has been traditionally interpreted.

Through Mesland Descartes was addressing the tradition of Scholastic existentialism. His comments express the essentialist rationale which I have articulated in this section. This is what he meant, I propose, when he wrote that ‘all these proofs based on His effects . . . are incomplete . . . if we do not add to them the idea which we have of God’. As he explained, ‘even if there be admitted a First Cause who keeps me in existence, I cannot say that it is God unless I truly have the idea of God’ (AT, IV, 112). One can use the word ‘god’ as shorthand for some description, say ‘a first cause which keeps me in existence’, and then show that a being satisfying that description exists. But this does not amount to a proof of God’s existence unless, first, one understands what God is, that is, one has an idea of the divine nature; and, second, one shows such first cause to have this essence. As he put it to Mersenne, without an understanding of the idea of divine nature ‘we could not know anything at all about God’ (AT, III, 393).

In the *Critique of Pure Reason* Kant maintained that the concept of God, the *ens realissimum*, ‘fully determines [its subject] *a priori*’.²⁴ He went on to hold that any successful proof of God’s existence must involve the claim that what has been shown to exist is the *ens realissimum*. In an admittedly obscure but not untypical fashion, Kant then argued for the view that all proofs of God presuppose the ontological argument.²⁵ However, we should distinguish the issue regarding essentialism and existentialism with respect to God from the question whether the proofs of His existence can proceed *a posteriori* from effects to cause, or *a priori* solely from His concept. In so far as the essentialist requirement is concerned, the way in which the idea of God comes into play in a causal proof need not convert the argument into a purely conceptual one.

It could be held that, as with mathematical objects, the sole possibility of an essential definition of an individual guarantees its actual existence.²⁶ If this were true, then the non-conceptual elements in essentialist demonstrations of God from effects would be strictly superfluous. Even so, it is not necessary that in order to validly arrive at its conclusion an argument from effects must adopt this Platonic doctrine. Satisfaction of the essentialist precept does not require inferring that God exists from the consideration of His nature.

The ontological argument in the Fifth Meditation does not presuppose the Cartesian *a posteriori* arguments of the Third Meditation. On the contrary, these arguments collapse into it. For Descartes excludes infinite regress in the series of causes by appealing to the possibility of the idea of a necessarily existing being. According to the account we have quoted from the Fourth Replies, to understand that there is a first cause is to understand that there is something ‘which derives its existence “from itself”, that is, that there is a being with ‘the kind of essence which entails that it’ exists (AT, VII, 238). Thus, we reach a surprising result: it is the ontological argument which occupies the

privileged position among the Cartesian proofs of the existence of God.²⁷ It is not evident, though, that in order to argue against infinite causal regress it must be granted that the inference of the ontological argument is sound. Descartes, of course, did believe that it was. But at least on the face of it, there is no incoherence in thinking, against Descartes, both that a first cause is something with an essence such that, if it is possible and exists, it exists necessarily and from its own resources, and that the existence and possibility of that necessary being can be deduced only with the aid of the causal principles and the existential premisses of the *a posteriori* proofs. (Here Descartes's essentialism depends on the view that an understanding of God's essence, such as is required in any case, is sufficient on its own to establish the possibility of that essence.)

The point of these last remarks is to suggest a line of interpretation of the particularly difficult reflections contained in the section on the Ideal of Pure Reason in Kant's *Transcendental Dialectic*, an interpretation which is motivated by the discussion of the essentialism of Descartes's demonstrations in the Third Meditation. The Kantian doctrine that all proofs of God presuppose the ontological argument, and the stronger thesis that they all reduce to it, truly appear irresistible when the two Cartesian claims are put together, that all arguments for God's existence involve consideration of His nature and that nothing 'is more self-evident than the fact that the supreme being exists, or that God, to whose essence alone existence belongs, exists' (AT, VII, 69).²⁸

The Second Way

Much can be learnt about Descartes's metaphysics by placing it in the context of the Scholastic doctrines from where it emerged. The second proof of the Third Meditation lends itself admirably to this exercise. Descartes himself reflected on the parallels and divergences between his argument and those current among the Aristotelians; and he expressly discussed the relations between them. More significantly, the rationale of fundamental aspects of Descartes's causal demonstrations is revealed further when his arguments are put at the end of a tradition of discussion and criticism of Aquinas's Five Ways. With this aim in mind, I will now examine one of those ways, the second from efficient causality. As Kenny has shown, the 'Five Ways have a formal structure in common'.²⁹ The choice of the Second Way is dictated by the fact that it is closest in content to Descartes's second argument from effects. In the course of our examination I will refer also to the work of other Scholastic thinkers and in particular to the discussions that bear on the concept and existence of God in Suárez's *Disputations*.

Though the Five Ways of the *Summa of Theology* have the distinction of being some of the best known and most frequently quoted texts in philosophical

literature, the brevity of the Second Way and the convenience of having the passage at hand for easy reference will absolve me, I hope, of the charge of tedious repetition.

The second way is based on the nature of efficient causation. In the observable world efficient causes are found to be ordered in series. But we never find, nor ever could find, something efficiently causing itself. For such a thing would be prior to itself, and this is impossible. It is not possible either for a series of efficient causes to go on *in infinitum*. For in any ordered series of efficient causes the first member causes the intermediate and the intermediate causes the last (whether the intermediate be one or many). Now if the cause is eliminated, the effect is eliminated. So unless there is a first efficient cause, there will not be an intermediate nor a last member of the series. But if the series goes on *in infinitum*, there will not be a first efficient cause. Hence there will be neither a last effect nor an intermediate efficient cause. This is patently false. Therefore, it is necessary to posit some first efficient cause, to which all give the name 'God'. (*ST*, I, 2, 3)³⁰

St Thomas starts from the 'observable world'. In it he discovers 'efficient causes' ordered in series. The notion of efficient causality is borrowed from Aristotle. It can be roughly rendered as the production of something. Though imprecise, this understanding is sufficient for our immediate purposes. The Second Way begins by noting a common datum of experience: we perceive things that are produced.

Already at this initial stage there is a divergence between the Cartesian and the Thomist arguments, a difference which is not veiled by our vague interpretation of Aristotelian efficiency, designed precisely to smother the dissimilarities between the causes of Descartes and of the Scholastics. Descartes exposed it in the First Replies: 'I did not base my argument on the fact that I observed there to be an order or succession of efficient causes among the objects perceived by the senses' (*AT*, VII, 106). He explained that he 'regarded the existence of God as much more evident than the existence of anything that can be perceived by the senses'. For this reason, he said, 'I preferred to use my own existence as the basis of my argument, since it ... is better known to me than anything else could possibly be' (*AT*, VII, 106–7). To Mesland he stated that 'all ... proofs based on ... effects' will fail 'if the effects are not evident to us (that is why I considered my own existence rather than that of heaven or earth, of which I am not equally certain)' (*AT*, IV, 112).

Knowledge of the formal existence of the objects of sensation is dependent, according to Descartes, on knowledge of God's existence. When its assumptions are fully discharged, a proof of God that starts from the existence of things in the 'observable world' turns out to be circular. Given the Cartesian order of enquiry, to propose such reasoning in the Third Meditation is simply to argue from what is doubtful. Descartes must begin his arguments by appealing to what he can establish with certainty. He may resort, that is, either to the

objective existence of the contents of thought or else to the formal existence of the self. So he presents two arguments from effects corresponding to each of these possible starting points.³¹

There is a difference between these alternatives, which, though in the end of little or no consequence for the effectiveness of the respective demonstrations, may help explain the order of the two proofs in the Third Meditation. The first argument begins not from the formal existence of an idea but from the objective existence of the object of an idea. According to Descartes, knowledge of the objective existence of the objects of our ideas is firsthand and unshakeable. It is the most secure item in the face of sceptical doubt. It requires no inference. It is what is given in the first and fundamental Cartesian conviction, 'I think'. Knowledge of the existence of the self, on the contrary, does depend on an inference, however small; hence it supposes a principle of inference, however simple and obvious. Descartes ascertains that he exists from his given consciousness and the eternal truth, 'it is impossible that what thinks should not exist'. More substantial metaphysical principles are taken for granted to conclude that he is a thinking substance.

There is only 'a very slight and, so to speak, metaphysical' reason that grounds the possibility that 'I am nothing, so long as I continue to think that I am something' (AT, VII, 36). Yet there is that doubt. Since he is precisely undertaking its removal, Descartes is entitled to ignore it while arguing for God's existence. But this difference in the knowledge of the existential premiss of the two *a posteriori* demonstrations perhaps provides enough to account for his placing them in the order that he did.

Simultaneity, dependence, universality and the hierarchy of causes

To understand the next stages of St Thomas's proof we must look more closely at his doctrine of efficient causality. One feature of the causes in the Second Way is that they are simultaneous with their effects. Two points are involved here. The first is that the causes are, using Scholastic terminology, causes in act and not in potency. Aquinas explains that 'a cause in act is what is actually causing a thing'.³² He continues: '[S]peaking of causes in act, the causing and the cause must exist simultaneously.' The intuition which is invoked by St Thomas is not difficult to recover, even if it will be disputed by those who have a post-Humean conception of causality along the lines, for example, of statistical conjunction. There is a sense of the verb 'to cause' ('to produce') that is natural enough and quite common, according to which there must be some actual thing which causes the effect at the moment the effect is in fact caused. In other words, without an existing producer there cannot be a production.³³

The distinction between actual and potential causes was common among St Thomas's Aristotelian successors. Together with the simultaneity requirement, it is present in the work of Suárez and Fonseca. Following Aristotle in *Metaphysics* V Suárez held that 'if a cause is taken *in actu secundo* it is necessarily simultaneous with its effect' (*MD*, XXVI, 2, 14; the relevant passage in Aristotle is 1014a 20–25, Aristotle (1984), II, p. 1601. See also *CM*, V, 2, q. 18; vol. II, pp. 230–4). By a cause *in actu secundo* the Aristotelians meant a cause in act as opposed to what is only potentially a cause, which they called cause *in actu primo* or according to its *vis agendi* or power to act. Causes in potency need not precede their effects temporally, though they may. As Suárez put it: 'an efficient cause in itself may be prior in time to its effect with respect to its absolute entity or *vis agendi* . . . but it is not always necessarily so; for at times the effect of such a cause can be equal in duration to it' (*MD*, XXVI, 2, 14). On his part, Aquinas wrote that 'simultaneity [with their effects] . . . is not necessary in causes which are causes only in potency'.

Clearly, this is the background against which the following text in the First Replies should be read: 'the natural light does not dictate that the notion of an efficient cause requires it to be prior in time to its effect; on the contrary, it does not properly have the nature of a cause but when it is producing its effect, and hence is not prior to it' (*AT*, VII, 108). As is beyond dispute, Descartes is in conflict with the Aristotelians in so far as he rejects their analysis of reality into act and potency. He has no place for the *vis agendi* or potentiality of efficient causes. For him a cause is such only in as much as it produces an effect. Both he and the Scholastics agree with Aristotle that the cause in act is simultaneous with its effect. Descartes adds further, and here he parts company with the Aristotelians, that the nature of a cause *qua* cause consists solely in its acting as such and not in its potency or *vis agendi*.

The principle that a cause of existence is simultaneous with its effect was mentioned earlier as one of the elements supporting the Cartesian doctrine that the series of causes leading to his existence at any moment must all of it exist at that same moment. In fact, as we shall see presently, Descartes also inherited from the Scholastics the third claim which I mentioned in support of that doctrine, that the appropriate term in a causal relation is something at or during some time, and all such terms require a causal account.

The second point involved in the simultaneity of the causal chain in the Second Way is that the causes are causes *per se* and not *per accidens*.³⁴ A series of essential or *per se* causes is one where any intermediate members are dependent on the simultaneous causal activity of their causes for their own efficacy and being, and where the members ascend in perfection from the latter to the earlier. On the other hand, a series of *per accidens* or accidental causes can take place in time; in it an intermediate member may be active

causally when its cause is not active. And there need be no difference in the perfection of its members.

An example of a series of accidental causes of existence is that of grandparents, parents, and child; while a series that exemplifies the first characteristic of an ordering of essential causes is that of a ball, a rope, and a stick, each being held vertically by the other. Series of essential efficient causes of existence, however, are more difficult to exemplify. Scholastic attempts rely heavily on antiquated Aristotelian physics; or they come to identify it with some sort of Platonic efficacy involving a hierarchical conception of reality and a doctrine that contingent substances exist and cause existence only in so far as they, in the terms of St Thomas, Fonseca, and Suárez, ‘participate in’, ‘are given’, or ‘receive being’ (*ST*, I, q. 8, a. 1; q. 9, a. 2; q. 46, a. 2, *ad* 7; q. 104, a. 1 and a. 2; *CM*, V, 2, q. 12; *MD*, XVII, 2, 2–5; XXI, 1–3).³⁵

Still some characteristics of an essential causal order can be discerned. The first we noted is that in such series an effect depends on its cause for its existence and its ability to cause and not vice versa. Cartesian causes share this feature with Scholastic causes *per se*. Descartes expressly stated that ‘it is causes of this sort, and only of this sort, that are at issue’ in his *a posteriori* demonstrations of God’s existence (*AT*, VII, 370). Kenny has explained this characteristic as follows: ‘The priority of cause over effect need not be temporal . . . but a cause A must be prior to an effect B in the sense that you can have an A without a B but not a B without an A.’³⁶ When dealing with a cause in act, the only to which Descartes grants the name ‘cause’, this thesis is more properly expressed thus: a cause is prior to its effect in the sense that the existence and the causing of the cause does not need the causing of the effect, but the effect does need the former in order to exist. One cannot have a cause in act without thereby having its effect. But the effect need not be a cause; the series could end in it.³⁷ From this dependence of effects on their causes, together with the principle that causes must exist when they are causing their effects, it follows that the whole causal series is simultaneous.

Aquinas noted in the Second Way that it follows immediately from the priority of cause over effect that nothing can strictly be its own essential efficient cause. Descartes had no quarrel with him on this point (see *AT*, VII, 108–11).³⁸ Descartes added that there is ‘another kind of cause analogous to an efficient cause’ which is that invoked when it is said that God is His own cause. He was right in saying that, unless some explanation is given of how it is that something can exist without a cause, to posit a first cause is just to say that something exists without any cause and thus to contradict the principle of universal causality. But his departure from St Thomas is not that deep here. Aquinas and his followers had the conceptual resources to explain the independence of God. In fact, they are at work in their exclusion of God from the requirement of a conserving essential cause. Descartes’s point is methodological, and as

such it maintains all its force: the Thomist proof needs that explanation before it can conclude that there is a first cause. It is for this reason that the Cartesian argument does not eliminate the possibility of the self being its own cause by alluding to the causal priority of cause over effect. Instead it examines and rejects the suggestion that the self is God.

A second characteristic of essential efficient causes is that they are required at every moment of the existence of their effects. As Descartes put it, using terminology which was common in the Middle Ages and the Renaissance, they are causes of being (*esse*), not of coming into being (*feri*). Suárez distinguished between these two kinds of efficient causes as follows:

that effect is made by a cause in its coming into being which does not require that cause simply and absolutely in order to be, but only in order to be through such action or efficiency . . . [T]hat effect is made by a cause directly in its being which requires such cause simply and absolutely in order to be. So, for example, Adam is said to be made by God in his coming into being and in his being for he necessarily requires that cause in order to be. On the other hand, Abel is said to be made by Adam in his coming into being for he does not require that cause absolutely in order to be but only to be produced in that way, that is, by natural generation, since he could have been made by God alone. (*MD*, XXI, 1, 8)

In complete and almost literal agreement with St Thomas, Suárez concluded that ‘whenever an effect is made by a cause requiring it simply and with absolute necessity in order to be, it does not only depend on the actual influx of the cause to first receive being, but also to endure and persevere in being’ (*MD*, XXI, 1, 11; see *ST*, I, q. 8, a. 1 and q. 104, a. 1).³⁹ Apart from God, ‘all other being participates in [Him] . . . and for that reason it requires with intrinsic necessity [its] influx . . . in order to be’ (*MD*, XXI, 1, 9). It follows that at all moments of their existence all things apart from God need an efficient cause *per se*. Again, this is true also for Descartes.

Suárez distinguishes two sorts of essential conservation: ‘one is direct and immediate’ and the other, ‘mediate or remote’ (*MD*, XXI, 3, 2). As Suárez indicates, in the *Summa of Theology* Aquinas wrote that ‘when we have many ordered causes, it necessarily follows that, while the effect depends first and principally on the first cause, it also depends in a secondary way on all intermediate causes’ (*ST*, I, 104, 2). Both Suárez and Aquinas restrict the principal and direct essential causal dependence on being to an immediate relation between individual creatures and God. Claiming agreement with St Thomas, Suárez asserts that ‘no created substance depends for its conservation as to its substantial being on a created cause’ (*MD*, XXI, 3, 4).

A principle of universal causality is supposed in the Second Way, since it deals with essential causes of being. Hence, the fact that St Thomas allowed for ‘fortuitous events, chance coincidences, [which] as such have no causes’ would seem to be irrelevant here.⁴⁰ Within an ontology of substances and

properties, such as that of the Thomists and of Descartes, the reference of statements about events can ultimately be expressed through statements where something is predicated of individual things. For Aquinas and Suárez (and also for Descartes), the being of any substance has at all times an efficient cause *per se*. This is compatible with the claim that there is no accidental cause of the coming into being of certain events, as Aquinas indeed holds; but it is not compatible with the claim that the reality to which any statement about an actual event refers has no essential efficient cause.

A third characteristic of an essential series of causes is that all its members have something in common. Kenny has explained the Aristotelian thesis ‘that effects [are] like their causes’ by pointing out that ‘the likeness between cause and effect is . . . in the ϕ ness which B receives from A which must itself already possess ϕ ness [e.g. only what is hot heats]’.⁴¹ According to this account what is shared by cause and effect is a property; Kenny uses a variable with a nominal form. This is in a sense correct when referred to the essential causes of being. But it must be explicated to avoid misunderstanding. For the likeness between efficient causes *per se* and their effects involves a relation insinuated in the passage quoted earlier, where Suárez associates causal dependence and participation.

In the course of a discussion of the divine conservation of creatures Aquinas offered the following argument against the view that an essential cause of being has the same form and in the same manner as its effect:

if an agent is not the cause of the form as such, it will not be the cause *per se* of the being which results from that form, but a cause of the effect according only to its coming into being. Now it is manifest that if two things are of the same species, one cannot be the cause *per se* of the form of the other in so far as it is that form. For it would then be the cause of its own form, since both forms have the same nature [*ratio*]. But it can be the cause . . . that this matter acquires this form. And this is to be a cause of coming into being . . . [W]henever an . . . effect is naturally disposed to receive the impression of an agent in the same way [*rationem*] in which it is in the agent, the effect depends on the agent for its coming into being but not for its being. But sometimes the effect is not so disposed to receive the impression of an agent in the same way [*rationem*] as it is in the agent . . . Such an agent can be the cause of the form according to the nature [*rationem*] of that form, and not only according to its being acquired by this matter. Consequently, it is the cause not only of coming into being but also of being. (*ST*, 104, 1)

Cause and effect have a form in common, but the form exists in a different way in each. When he explained the difference Aquinas resorted, as Suárez would later, to the notion of ‘participation’: ‘what is said to be essentially is the cause of everything that is said to be by participation’ (*SG*, II, 15, 5). Effects have a form by participating in their efficient causes *per se*; causes, on the other hand, have the form from their own nature (or perhaps by a lesser participation).

Both Aquinas and Suárez concluded from this that there is an ascent in perfection from effects to causes. As Suárez put it: ‘only that agent which is of a superior kind [*rationis*] and which does not communicate to the effect a form or nature or being of the same kind [*rationis*], but an inferior participation of it, can be a cause not only of the coming into being of its effect but also of its being’ (*MD*, XXI, 1, 8).⁴²

It would appear that Descartes did not want to maintain that there must be a hierarchy of perfection in causal series; he let cause and effect have the same reality formally, holding only that it is possible that the cause have the reality of the effect eminently. (On the other hand, see *AT*, VII, 242 and 370.) However, Descartes’s notions of formal and eminent reality are at best unclear. It is a commonplace for commentators to rightly complain about their obscurity. Things are not any clearer when we turn to Descartes’s Scholastic predecessors. The hierarchy of being proposed by Suárez or Aquinas is founded on a mysterious doctrine of participation. Perhaps there is here an intuition which is genuinely difficult for them to express and for us to recover. But I confess that I see no way of making progress on this matter.

Participation, essential causality and infinite regresses

Scholastic efficient causes *per se* address not the causing of ‘this matter acquiring this form’, but, we might say, the origination of the form itself. Cartesian true causes should be understood as inheriting this aim. For Aquinas, Suárez, and Descartes, something being ϕ involves two causal dependences: first, one must account for this particular thing, as opposed to any other, being ϕ ; second, one must account for the fact that ϕ itself is real. In their view, these are distinct facts in need of separate causal accounting. The cause which explains some particular thing being ϕ must itself in some way be ϕ ; but it need not be the cause of the reality of ϕ . If it is caused to be ϕ by something else, it will not be the cause of the ϕ ness itself.

St Thomas argues unconvincingly that ‘since effects are in proportion to their causes . . . that which is common in the effects is referred back to some common cause’ (*SG*, II, 15, 4). When discussing the conservation of creatures he asserts that ‘there must be some active cause *per se* of the human species itself’, adding that this holds ‘of all other species of natural things’ (*SG*, III, 65, 4). In a passage parallel to Question 104 of the First Part of the *Summa of Theology* Aquinas states that ‘what is caused in respect of some nature cannot be *simpliciter* the cause of that nature, for it would be its own cause. But it may be the cause of that nature in this thing . . .’ (*SG*, II, 21, 8). Although Aquinas did not take existence to define a species he was prepared to apply a similar reasoning to the causation of the existence of substances; he held that ‘God is a being by His essence, which is being itself; every other being is a

being by participation' (*SG*, II, 15, 5). None the less, the doctrine can hold with respect to essential causes of existence even if existence is, as Suárez claimed, the actuality of a proper form and not some reality in itself.⁴³ In that case, the essential cause of the existence of a substance is the cause of the being of the substantial form itself.

One way of presenting this doctrine is to say that something is ϕ either as it participates in something else which is ϕ or as it is ϕ from itself. If we inquire after the cause of something being ϕ and we posit something in which the effect participates but which itself is ϕ by participating in something else, we have not answered the question after the origin of the ϕ ness itself. A series of participants is in this respect similar to the series of holders which we encountered when first discussing Descartes's rejection of an infinite causal regress. What is ϕ by participation does not cause ϕ ness by giving it to its effect if it just partakes in the ϕ ness of something else. What merely passes a form from its cause to its effect may well explain the form being added to this individual, but it does not account for the form itself, since it received it. At the most it refers back to something else, its cause, as a possible cause of the form.

This causal doctrine and the related notion of participation are difficult to articulate clearly and convincingly. Yet they are present in Scholastic and in Cartesian reasoning. They are suggested by Descartes in phrases to the effect that, in causal processes, some 'reality' is 'communicated', 'transmitted', 'given', 'received', or 'pre-existing'. And, more to the point now, it is manifested in the view that an infinite regress in the order of essential efficient causality would not account for all that needs to be causally explained.

A principle of sufficient reason is not enough to stop an infinite causal regress unless it is supplemented by the claim that the same item that is in need of causal accounting is reiterated in a caused cause, or by some other similar premiss. Otherwise, the demand for a sufficient reason would be satisfied by positing a cause, whether caused or not. If the cause is caused, then there must be some other cause sufficient to account for it. But nothing prevents this series from going on forever.⁴⁴

It has been repeatedly argued that St Thomas's reasoning against an infinite regress of causes in the Second Way suffers from equivocation. This traditional criticism, as Kenny has expressed it, is that 'the Second Way . . . uses an equivocation between "first=earlier" and "first=unprecedented" to show that this series cannot be an infinite one'.⁴⁵ It is objected that Aquinas rightly held that an intermediate cause requires an earlier cause, but that he fallaciously concluded from this that without an uncaused cause intermediate causes could not produce their effect.

Careful consideration of the texts raises doubts as to the appropriateness of the criticism (see also *SG*, I, 13, 33). Aquinas qualifies the assertion that an

intermediate cause needs a first cause with the phrase ‘whether the intermediate be one or many’. In the corresponding passage in the *Contra Gentiles* he stated that if there is no first uncaused cause ‘all the other causes, which are intermediate, will be eliminated’. This might suggest that, rightly or wrongly, what he wanted to claim is that a non-intermediate cause is required by a chain of intermediate causes. It would appear that Aquinas was not intent on just making the simple analytic point that an intermediate cause requires an earlier one but rather the more substantial one that any series of intermediate or dependent causes, however short or long, requires a non-dependent or first cause. It seems that he was making the same point that Descartes had in mind when he maintained that a series of causes where the causality of one member depends on the simultaneous causality of an earlier one cannot go back to infinity.

That St Thomas was making this point emerges from what was said above. He believed that a proper essential cause cannot have the form it causes in the same way as it is in the effect, which it would if it were itself an effect in the respect and manner in which its effect is an effect. Aquinas argued that if it did, it would cause itself, which is impossible. In this sense, intermediate causes are not properly causes; they are all effects. If what is to be accounted for in the effect is the same thing that is caused and causes in the cause, then we have not advanced at all towards obtaining an account of the effect. In the relevant respect caused causes are not each a different effect, but a reiteration of the same effect.⁴⁶ This thought is succinctly expressed in *On Being and Essence* with respect to caused causes of existence: ‘everything which exists by virtue of another refers back, as to its first cause, to that which exists by virtue of itself’.⁴⁷

In the *Disputations* Suárez examines in some detail the question whether there is an infinite regress of ‘essentially subordinated causes’. And he might appear to slide from ‘all that is produced is produced by another’ to ‘the whole collection’ of produced things is produced by another (*MD*, XXIX, 1, 27). However, he does not. For he explains that ‘if all entities considered separately or distributively were dependent and made, then the collection of all entities would also be dependent and made, certainly not with a single dependence or action, but with the collection of all the dependences and actions by which all the entities depend or are made’ (*MD*, XXIX, 1, 28). Suárez does not infer the separate dependence of the whole from the dependence of its parts, for he does not attribute a dependence to the whole different from that of each of its members.

Suárez maintains that the whole collection of dependent causes essentially depends on one cause, not with a single dependence but simply with the dependences of each of its members, whether one or infinite. This essential dependence, however, must be different from the proper dependence of an

effect on its caused cause, for that dependence is satisfied for each and all members in an infinite series of caused causes. Suárez does allow that there could be an infinite series of essentially subordinated causes leading to some effect, but in that case all the members of the series would depend on an uncaused cause outside the series (see *MD*, XXIX, 1, 30).⁴⁸ Evidently, then the effects would not constitute a series in that order of dependence.

There are, it would seem, two ways in which the Thomist and the Cartesian arguments against an infinite regress might be supplemented, both suggested in the writings of Descartes, Suárez and Aquinas. One is through the notion that every member of a series of intermediate causes repeats the same effect; the other, that all members of a series of causes depend, either immediately or mediately, on one same cause. Under pain of circularity, such one cause cannot be a member of the series; and in this order of dependence, the series cannot go back infinitely.

When Descartes alluded to ‘the case of causes which are so linked that a cause which is lower in the chain cannot act without one which is higher’ he had in mind, I propose, that the action and reality of a lower cause is a mere repetition of the action and reality of higher causes. The denial of an infinite regress in such series is then a result of the demand for an account of this reality.

The question of infinite regress arises differently in the two proofs of God in the Third Meditation. The second proof denies an infinite regress in a chain of simultaneous causes of substantial existence; the first deals only with a series of ideas causally connected to each other. The rejection of an infinite regress of ideas causing ideas is implicit in the causal principle that an idea in the end demands a cause with as much reality formally as the idea has objectively. Descartes allowed that ‘one idea may perhaps originate from another’ (*AT*, VII, 42). When he first introduced this possibility, he stated that ‘eventually one must reach a primary idea, the cause of which will be like an archetype, a model or original, which contains formally and in fact all the reality or perfection which is present only objectively or representatively in the idea’ (*AT*, VII, 42; IX–1, 33). In both the *Meditations* and the *Principles* he carefully qualified the principle that the objective contents of an idea need a cause that formally or eminently has that reality with the phrase ‘at least in the case of the first and principal cause’ (*AT*, VII, 42; VIII–1, 11). Since the first proof deals with the idea of God, it will have reached its conclusion once the original cause is found.

But why can a Cartesian series of ideas causing ideas not go back to infinity? First, Descartes distinguished between a cause that accounts for the representation of some reality in some particular idea and a cause that accounts for the represented reality itself; and, secondly, he took it that the representative possession of some reality does not suffice to cause that reality, as opposed

to causing its presence in some mind. That is, Descartes held that, though an idea with a certain objective reality can have as immediate cause another idea with that objective reality, that causation does not address the origin of 'the objective intricacy which is in the idea' (AT, VII, 103). And he maintained also that in the order of causation of the reality itself 'the formal mode of being belongs to the causes of ideas . . . by their very nature' (AT, VII, 42). When it comes to accounting for the objective reality itself, as opposed to transmitting it to some idea, representative possession is not enough; actual possession is needed.

Descartes was pointing to this fact when he wrote in the Third Meditation, in the lines preceding the examination of series of ideas causing ideas, that 'the mode of being by which a thing exists objectively or representatively in the intellect . . . imperfect though it may be, is certainly not nothing' (AT, VII, 41). The imperfection does not attach to the thing within the mind but to its mode of existence. It is in the incapacity of objective possession to effectively explain the existence of the reality in question, even if that existence is only objective.⁴⁹ What is formally F can cause what is objectively F but what is merely objectively F cannot ultimately cause what is formally F.

Both the Second Way and the second proof in the Third Meditation appear to depend on stipulation. A series that does not admit of an infinite regress and ends in God is introduced, and it is simply asserted that such a series exists in reality. There is little or no argument offered that would make compelling or even just plausible the metaphysical apparatus on which the causal doctrines rely. On the other hand, this criticism does not touch my reconstructions as interpretations of the thought of St Thomas and Descartes. It is true that I have read their rejection of an infinite regress of causes putting the conclusion very near to the premisses. But this accords with the fact that they took themselves to be making conceptual points and to be invoking evident existential statements. Their reasoning against an infinite regress is, indeed, strikingly quick, as if obvious. But they do attempt to explain and develop the causal doctrines they invoke. The more significant and forceful criticism that can be levelled against these demonstrations is that even this is not done convincingly. Perhaps it is a matter of recovering a lost conceptual framework. The only way of advancing the issue along this road would involve providing a reconstruction of that framework, and I know of none.

The essentialist criticism of the Five Ways

From the impossibility of an infinite regress Aquinas inferred that 'it is necessary to posit some first efficient cause'. This, however, is not satisfactory. For presumably that first cause will also be subject to the requirement that a causal account of its being be available. As Descartes wrote to Mesland, the

proof is at best incomplete. The objection notwithstanding, suppose that Aquinas is granted this conclusion. Was he justified in concluding then that God exists?

The issue before us concerns all Five Ways. Those demonstrations in turn establish the existence of 'a first cause of change', 'a first efficient cause', 'a *per se* necessary being', 'a cause of all perfection', and 'an intelligence which directs everything in nature towards its goal' (*ST*, I, 2, 3). The question is whether these conclusions justify the claim that God exists. For this to be the case, it would need to be shown that all these existent things are one and the same. Even if for the sake of the First Way it is allowed that God is a first cause of change, it would then have to be established in the Second Way that a first efficient cause is the first cause of change; and so on for each of the other ways.⁵⁰ Furthermore, it would have to be shown that such being is a supremely perfect being, the greatest being that can be conceived, unique, immutable, eternal, omniscient, omnipotent, good, simple, absolutely independent and necessary.⁵¹ The fact is that it is not obvious that the existential statements asserted at the end of each way each entail that God exists.

Following Duns Scotus, Suárez maintained that arguments which start from 'physical' changes, from the local movement of material things or from the operations of the human mind, are not suitable to prove God's existence, for they do not establish the existence of an immaterial being (*MD*, XXIX, 1, 6–19).⁵² According to Suárez, the existence of God can be demonstrated only through 'metaphysical reasons and means' (*MD*, XXIX, 1, 20). Descartes can be read as concurring with Suárez and Duns Scotus that the proofs of God must use causal principles which lead to the conclusion that an immaterial, immutable, supremely perfect being exists, while not agreeing with the claim that one cannot start such a demonstration from an 'operation of the human mind', namely, the idea of God. Furthermore, Descartes also accepted a requirement laid down by Suárez that all *a posteriori* proofs be supplemented with an *a priori* consideration of God's essence.

Suárez and Descartes were at odds on whether the existence of God could be demonstrated *a priori*. In Suárez's view this is impossible because 'God does not have a cause of His being by which His existence can be demonstrated *a priori*, nor if He had one, is our knowledge of God so exact and perfect that we can comprehend Him (so to say) through His own principles' (*MD*, XXIX, 3, 1; see also, 33–7). Still, Suárez conceded that 'once we have demonstrated something about God *a posteriori*, starting from some attribute of Him we can demonstrate another one *a priori*'. And he stated that 'once it is demonstrated *a posteriori* that God is a necessary and *a se* being, from this attribute it can be demonstrated *a priori* that apart from Him there is no other necessary and *a se* being and consequently that God exists' (*MD*, XXIX, 3, 2). Suárez argued that the proofs of the existence of an uncaused cause do not

establish that such a cause is God, unless they show that there can only be one uncaused being and that it is 'the true God' (*MD*, XXIX, 2, 1).

Suárez realized that this is in apparent opposition to St Thomas's widely held existentialist precept. He considered the following objection: 'once the quiddity of God is known, His being is demonstrated; for the quiddity of God is to be a being necessary and *a se*. But this is plainly unacceptable, since the question "what is it?" presupposes the question "is it?", as St Thomas correctly noted' (*MD*, XXIX, 3, 2). Suárez replied that 'formally and properly speaking, the existence of God is not demonstrated by the quiddity of God as such'. But he conceded that 'in God these two questions ["is it?" and "what is it?"] cannot be completely separated. For the being of God is His quiddity; and the properties of that being, by means of which it can be shown that such being is proper of God, constitute (so to say) the very quiddity and essence of God.' Suárez restricted the existentialism of St Thomas to the denial of the possibility of proving God's existence from His essence. But he accepted that in a sense the question *quid est* must precede the question *an est*. This departure from Thomist orthodoxy was one which Descartes also adopted and stressed in the First Replies and in the letter to Father Mesland. In the proofs of God, he was following in the steps of the essentialist critique already articulated by Suárez.

The Cartesian causal arguments for the existence of God come at the end of a tradition of criticism of the Five Ways, expressed in the essentialist considerations found in Suárez's *Disputations*.⁵³ When he generalized the essentialist order of inquiry, Descartes went beyond anything Suárez or the Aristotelian Scholastics could have allowed. We have seen how he followed this order when establishing the existence of the self; we have discussed the essentialism of his proofs of God's existence; and we have explored the intellectualist and innatist epistemological doctrines on which he grounded his reaction to the existentialism of his predecessors. Let us now turn towards the ontological side of Descartes's essentialist metaphysics and examine the Cartesian doctrines of substance and its essence.

Part III

Cartesian substances

7 The substantial tension

Existence *per se*

Throughout his writings Descartes refers to substance as what exists *per se* (see AT, III, 502; VII, 44, 228; VIII–1, 49; VIII–2, 348). At times he appears to take this as a definition. On its own, however, it says little. Descartes explains that something exists *per se* when it needs nothing but itself in order to exist (AT, VII, 226). But this is not adequate. Things need things in a wide variety of ways. So the intended sense must be outlined for the account to have a distinct content.

Substances are Descartes's fundamental entities. At a most abstract level the question 'what is there?' is answered 'substances'. Substances are well-defined things which can be determinately counted. They are the basic and independent things that there are. Philosophers have sought to capture the autonomy that pertains to these primary beings through various notions of substance. Substantiality has been understood as:

1. not needing a subject in which to inhere in order to exist
2. not needing a cause other than itself in order to exist
3. i. not needing parts or constituents in order to exist
ii. not needing something of which to be a part in order to exist
4. not needing instances or members in order to exist

The first and second phrases suggest somewhat more precise alternatives to the ambiguous Latin expression '*per se*': respectively, '*in se*' and '*a se*'. The first yields a notion of substance as ultimate subject (*in se*) opposed to properties which are in something else (*in alio*); the second as uncreated (*causa sui* or *a se*) and opposed to creatures which are produced by something else (*ab alio*); the third as simple opposed to complexes or as complete whole opposed to dependent parts; and the last as particular opposed to universals or to classes.¹

Some of the problems with Descartes's account are eliminated in these renderings. The phrases 'exist *per se*' and 'need nothing but itself' yield immediately circular explanations. Descartes makes this forcefully evident: 'the notion of substance is just this, what can exist *per se*, that is, without the

help of another substance' (AT, VII, 226). If one can understand substance in terms of subject and property, uncreated and created, simple and complex, whole and part, or particular and universal, then one is entitled to claim at least that there is no circularity peculiar to substance. Whether one can so understand substance and whether in the end there is no circularity will depend on how these pairs are expounded.

How did Descartes himself want to be understood? There are many passages where he means substance predicatively (sense 1) and also several others where he means it causally (sense 2). In the Fourth Replies he refers to it as whole (sense 3ii), though apparently he did not take this to be a primary use (AT, VII, 222). In Descartes's view there is God, the one principal uncreated being (sense 2) on which all else depends, and there are minds and body, the many created subjects of properties (sense 1). The first two are indeed Descartes's basic ontological notions. He marks a difference between particulars (sense 4) and subjects of properties. For he held that everything in reality is particular. But he held also that in reality there are things and the properties of things. So properties as they exist in reality are not universals. In this chapter I will examine the relation between the Cartesian accounts of substance as what exists *in se*, a bearer of properties which is not itself a property, and as what is *causa sui*.

The Scholastic understanding of corporeal substance involves reference to an ultimately undefinable subject of change, namely, matter (see *MD*, XIII and XIV, *passim*).² Without denying the many differences between diverse Scholastic accounts, it can be affirmed that, in this general sense, hylomorphism remains a constant feature in the concept of substance from St Thomas to Suárez. Though Suárez allows for individual substantial natures, he does not thereby abandon the hylomorphic precept that there is a material principle of bodies, irreducible to form and therefore not a possible object of understanding.

The abandonment of hylomorphism is characteristic of the anti-Aristotelian philosophies of the seventeenth century. But, again, there is here an important divide between Descartes and philosophers like Gassendi and Hobbes. Driven by his essentialist and intellectualist concerns, Descartes took substance to be an existing individual essence; he found a purely intelligible principle of unity in corporeal substance. Gassendi and Hobbes, on the other hand, proposed a reduction of the human concept of substance to sensorial contents.³ The three of them got rid of Aristotelian matter.⁴ But the differences between Descartes and the 'new' empiricists were as significant as those separating him from the Scholastics. For in Descartes's eyes nothing could be more grotesquely confused than Gassendi's advice to march 'out from the prison of the intellect, into the theatre of nature'!⁵ In the following sections I will present the Cartesian doctrine of substance against this empiricist background. We will find that here also Descartes's anti-Sc

holistic affinities with philosophers like Hobbes or Gassendi were not enough to overcome their profound differences. I believe, in fact, that Descartes would have preferred to remain an Aristotelian, rather than end up a ‘new’ empiricist. This, I take it, is intimated by his remarks in the *Discourse*: ‘I cannot by any means approve of those meddling and restless characters who . . . are forever thinking up some new reform . . . The sole resolution to abandon all the opinions one has hitherto accepted is not an example that everyone ought to follow’ (AT, VI, 14–15).

Over this and the next two chapters we will examine the ontological side of the Cartesian essentialist metaphysics, starting with Descartes’s account of substance and its properties. One surprising result of this chapter is the suggestion that Descartes came closer to indentifying substance as subject of properties with substance as uncaused existent than he himself would have acknowledged: his intellectualist treatment of substantiality heralds Spinoza’s pantheism.

The relation between a substance and its property is mirrored in the simple sentence formed by a subject and a predicate, ‘A is B’. But not all true predicative sentences attribute a real property to a substance. Descartes believed that, relations aside, there are four kinds of predicates. Monadic predicate expressions can refer to real substantial properties, to certain derivative attributes which differ only in thought from the essence of their subject, to proper objects of sense, or to universals. Below I will introduce these Cartesian categories. We are already acquainted with Descartes’s views on the proper objects of sense and on universals. In chapter 8 I will expound the relation between essence and the other real properties of a substance. We shall then examine the Cartesian account of derivative attributes such as existence, duration and number. In chapter 9, finally, we will explore the resulting ontology of minds and body. These are the objects of the science of nature as developed in the *Principles* and in *The Passions*. We will then have completed our discussion of the Cartesian metaphysics.

Descartes’s two notions of substance

At first glance these two descriptions do not appear coextensive:

1. what exists as subject without inhering
2. what exists uncaused

It seems that something with properties, even if it is not itself a property, need not be uncaused, and that if there are any uncreated subjects, then some of their properties are uncreated. So if both these descriptions are used to characterize substance, something should be said either to connect or to distinctly separate the two uses.

Descartes discusses what appears to be this very matter in the *Principles*. He states that ‘by *substance* we cannot understand anything but a thing which exists in such a way that it needs no other thing in order to exist. And indeed only one substance can be understood which absolutely needs no other, namely God’ (AT, VIII–1, 24). Here the independence of substance, which is that of God, is at least partly causal. Minimally, substance is what exists uncaused. Descartes continues:

In the case of all others, we perceive that they can exist only with the help of God’s concurrence. Hence, the term *substance* does not apply *univocally*, as they say in the Schools, to God and to those other things; that is, there is no distinctly intelligible meaning of this term which is common to God and to creatures.⁶

The first notion suggested in this text is that of substance as what exists uncreated in contrast to ‘creatures’. But there is implicit also a different notion. Descartes refers to creatures as ‘substances’ (the noun supposed by ‘all others’). And the term is said not to be univocal.⁷

In the following section of the *Principles* Descartes introduces a sense in which some creatures are substances:

Corporeal substance and . . . created thinking substance . . . can be understood to fall under this common concept: things which need only the participation of God in order to exist. However, a substance cannot be initially perceived solely by means of the fact that it is an existing thing, for this fact alone does not of itself have any effect on us. (AT, VIII–1, 24–5)

Substance is now what needs only God in order to exist. But, strictly, this is true of all existing things. So this is just to call ‘substance’ what is excluded from the former account: substance is everything that exists besides God. The consideration that ‘a substance cannot be initially perceived solely’ on account of its existence is not immediately helpful.

After the quoted passage, however, Descartes does appear to introduce an independent sense of substance:

But we can easily come to know a substance by one of its attributes, in virtue of the common notion that nothingness has no attributes and no properties or qualities. Thus, if we perceive some attribute to be present, we can conclude that some existing thing or substance to which that attribute may be attributed is also necessarily present. (AT, VIII–1, 25)

Created substance is what has properties. Since Descartes does not say much about how one should understand the relationship of ‘attribution’ or the notion of ‘having a property’, it is not yet clear that he has succeeded in characterizing substance as something different than what exists apart from God. Under one interpretation, saying that created substance is what has properties merely amounts to saying that it is what exists and is created. The

weakest reading of the quoted text has Descartes stating no more than this: if a property exists, then a substance exists.

Yet what Descartes intends to claim is fairly clear. Only God is substance in the sense of being absolutely, and hence causally, independent. Creatures, all of which depend causally on God, are not substances in this first sense; but they can be divided up into those that are properties and those that are subjects of properties. The latter are called substances in virtue of their predicative independence, in contrast to their dependent properties. This second notion, substance as subject, does not apply to God, for He is not strictly a subject of properties. Thus 'substance' is not univocal.

However, when Descartes discusses both notions together he does not set out his position explicitly. Suppose that we take substance to be what exists uncreated. Suppose also that only God exists uncreated and that, under the assumption that there is something apart from God, 'to exist uncreated' is equivalent to 'to be first cause'. The account can then be reformulated thus: substance is first cause. This same sense of substantial independence may be applied in a weaker or qualified way to other things besides God. Substance can be understood as what exists as a cause and depends causally on God alone, while, it is supposed, some existing things depend not only on God but also on other intermediate and dependent causes. The first and the second links in these causal chains may be called respectively, first and second substances. Or substance could be everything that is a cause. In that case, only what is solely an effect would not count as substance.

Or suppose that substance is an ultimate subject of properties. We can then distinguish between first substance and those of its attributes which are themselves subjects of properties. These could be called second substances. Suppose now that all creatures depend substantially on God. This amounts to the claim that all creatures are properties of God, and that they are at most second substances.

Nothing in all this suggests a connection between the relations of cause to effect and of subject to property. So unless something further is provided, one cannot immediately distinguish substance, as first or nth cause, from property.

Descartes did not want his accounts of substance to be read along these lines. He denied that there is a 'distinctly intelligible meaning' of the word common to God and to creatures. He would disallow a description of substance as what causes in a sense which holds both of God and of created things. And he would certainly have denied that creatures are God's properties.

In a letter of 1641 Descartes again suggests that substance is God in so far as He is absolutely self-subsistent and uncaused, while creatures are substances in the different sense of not being 'modes of things, like shape and number' (AT, III, 429). But again he does not offer much by way of articulating the relation between created substance and mode.

In 1647 there appeared a translation of the *Principles* into French by ‘one of [Descartes’s] friends’, Father Claude Picot (AT, IX–2, xxi). The translation was used by Descartes as an opportunity to expand and clarify the text.⁸ In the French version of the sections dealing with substance he added that ‘there may be an obscurity concerning the meaning of the phrase “need only itself”’ (AT, IX–2, 47). He explained that only God is such, properly speaking, for ‘there is no created thing that can exist a single moment without being sustained and conserved by His power’. This implies that the first notion of substance is causal. After the comment about the lack of univocity of ‘substance’ he added that: ‘since among created things some are of such nature that they cannot exist without others, we distinguish them from those that need only the common intervention of God, and call these substances and those the qualities or attributes of these substances’. The notion introduced for creatures is predicative. The reference to God’s ‘common’ participation acknowledges the possibility of the extraordinary creation of a property without a subject, maybe as in the Eucharistic sacrament. In the next section, however, Descartes reverted to the more general and ambiguous phrasing:

the notion . . . of created substance is applicable equally to all creatures, that is, both to immaterial as to material or corporeal things; for all that is needed to understand that they are substances is to see that they can exist without the aid of some other created thing. But when it comes to knowing whether one of these substances truly exists, that is, whether it is at present in the world, the fact that it exists without the aid of any created thing is not sufficient to make us perceive it; for that alone does not reveal to us anything which excites some specific knowledge in our mind. Rather, there must be some attributes to which we can attend; and any attribute will do, for it is a common notion that nothingness can have no attributes, nor properties or qualities. (AT, IX–2, 47)⁹

Descartes does not expound the concept of substance as subject of properties introduced at the end of the previous section; instead he repeats the unfortunate characterization in terms of existing ‘without the aid of some other created thing’. And he appears to treat consideration of attributes or properties as relevant only to the question of ‘knowing whether one of these substances truly exists’. In the translation, it is true, the fact upon which Descartes remarks is not that existence is not known by itself, but rather that what is not known by itself is existence ‘without the aid of any created thing’. But on its own this is not of much help.

When reading Descartes on caused and uncaused substance one hopes that he would sharply distinguish and clearly articulate the two different notions. But he never does; and the reader is inevitably disappointed.

The looming spectre was mentioned earlier: that creatures inhere in their creator. Of course it would be wrong to allege that Descartes seriously entertained such view; but given his imprecise treatment of the concepts of divine

and finite substantiality, there is a danger of discovering it in his writings.¹⁰ Some might even find support for a pantheistic interpretation in a letter to Claude Clerselier of April 1649. Descartes told his correspondent that

by *infinite substance* I mean a substance which has actually infinite and immense true and real perfections. This is not an accident added to the notion of substance, but the very essence of substance taken absolutely and bounded by no defects; these defects, in respect of substance, are accidents; but infinity or infinitude is not. (AT, V, 355–6)¹¹

Descartes may have wanted to refer only to God or the infinite substance; but he did write about ‘the notion of substance’ in general. So a question arises as to the relation between infinity and ultimacy as a subject. According to a pantheistic reading, creatures are substances only defectively both causally and predicatively. Things are not helped by the fact that in this letter Descartes was defending the *Meditations*, and while he wrote in French he put the quoted text in Latin, as if it came from the earlier work. Nothing like it is found there; and the view expressed, if taken literally, appears more like an addition than a restatement of what is said in the *Meditations* (see AT, VII, 34–52 *passim*, and in particular 40 and 44).

Descartes does not explicate the relation between the different senses of independence that define the substantiality of God and of creatures. His accounts are vague; he takes for granted the imprecise notion of independent existence (*existere per se*); and he is satisfied casting the distinction between God, created substances, and created properties in terms of unqualified or absolute independence and successively more qualified or dependent existence (see AT, VII, 185). He might have been unaware of the possibility of confusion here. But whether the matter can rest as mere carelessness or not deserves closer attention; for there is the possibility that the imprecision hides a deeper and unacknowledged tension between divine and finite substantiality. Furthermore, without an account of the relation between a substance and its properties, we cannot be said to have a Cartesian doctrine of created substance. But, notwithstanding the appeals to the ‘common notion that nothingness can have no . . . properties’, that is precisely what is lacking in these passages.

Substance as subject of properties

Descartes explains substance as subject of properties in the Appendix to the Second Replies:

Everything in which there resides immediately, as in a subject, or by means of which there exists anything that we perceive, i.e. any property, quality, or attribute, of which we have a real idea, is called a Substance; neither do we have any other idea of substance itself, precisely taken, than that it is a thing in which this something that we perceive or which is present objectively in some of our ideas, exists formally or

eminently. For by means of our natural light we know that a real attribute cannot be an attribute of nothing. (AT, VII, 161; see also 175–6 and 222)

Real properties and acts exist or inhere in substances. But what is ‘to inhere’ or ‘to exist in’?

Properties and acts are attributed to things. That much is uncontroversial. What acts or has a property is called substance. In this sense, substance is merely a grammatical category. The words for substances are the subjects of predicative sentences. But what is the ontological import of this notion? Does the grammatical form of such sentences reveal an ontological truth? Or is the claim that property B inheres in substance A simply another way of predicating B of A, regardless of what ‘A’ and ‘B’ stand for? The very short answer to these questions is that for Descartes to inhere is to determine, and to be a substance is to actually exist and be ultimately determinable. Some grammatical subjects do not refer to substances. But those sentences that do express substantial predications state the determination of an existing determinable subject by a determinate property.¹²

Descartes understood the inherence of a real property in a subject as the actual determination of a determinable nature by one of its determinates. Substance is an existing ultimate subject, a determinable essence which is not itself a determinate. But determining properties may be determinable: a certain direction is a determinate of movement, which is itself a determinate of extended nature. Descartes believed that in a moving body the direction of motion inheres in the movement which itself inheres in a part of material substance. He adopted this view explicitly in an exchange with Hobbes during the winter of 1641.¹³ Responding to earlier assertions by Descartes, Hobbes had asked:

How does he understand that the determination is in the movement? As in a subject? It is absurd; for movement is an accident. It is just as absurd to say that white is in the colour . . . But as absurd as it is to say that the determination is in the movement as an accident is in a subject, still Mr Descartes does not refrain . . . (AT, III, 343)

Descartes did not refrain because he saw nothing wrong with treating determinates as properties of the determinable natures which they determine. So he curtly dismissed Hobbes’s point.

The Englishman . . . uses a frivolous subtlety when he inquires whether the determination is in the movement as in a subject; as if it were here a matter of knowing if the movement is a substance or an accident. For there is no problem or absurdity in saying that an accident is the subject of another accident, as one says that quantity is the subject of other accidents. (AT, III, 354–5)

Descartes did not take Hobbes’s ‘frivolous subtlety’ very seriously. So he did not spell out in detail how he understood substance and the relation between existing subjects and their real properties. But he defended his claim that ‘the

determination is in the movement as in a subject' by arguing that 'an accident can be the subject of another accident'; and he mentioned that one commonly predicates one accident of another (for example, 'the quantity is large').¹⁴ It is clear that whatever the oddity of 'the determination is in what is determined' (or such particular cases as 'the circle is in the shape'), Descartes took 'B determines A', when both A and B exist in reality, to imply that B is in A as a property is in a subject. In addition, he took 'accident B inheres in substance A' to itself imply 'B determines A'. In Hobbes's eyes, on the other hand, Descartes was simply confusing the relation between substance or body and its accidents with the relation between different universals.

Hobbes approached these issues in a spirit profoundly opposed to the Cartesian metaphysics.¹⁵ He argued against Descartes from a position similar to that found in his later works.¹⁶ More radically than Gassendi, Hobbes made understanding dependent on sensation¹⁷ (see AT, VII, 178–81, 186–8, and 191–2). He began *Leviathan*, published in 1651, with a declaration of thorough empiricism: 'Concerning the Thoughts of man . . . The Originall of them all, is that which we call SENSE; (For there is no conception in a mans mind, which hath not at first, totally, or by parts, been begotten upon the organs of Sense). The rest are derived from that originall.'¹⁸

Like Suárez, Descartes and Gassendi, Hobbes believed that everything that exists is only particular and that universals do not exist as such in reality.¹⁹ Contrary to Suárez and Descartes but in agreement with Gassendi, he founded universality on the perception of similarities between sensory objects.

Hobbes denied the intellect all autonomy; in the end there are only sensorially perceivable individuals and the names applied on the basis of their sensory relations.²⁰ In the Third Objections he suggested that maybe 'reasoning is simply joining together and linking of names or labels by means of the verb "is"' (AT, VII, 178). If so, he added, 'our reason tells us nothing at all about the nature of things, but merely tells us about the labels applied to them', and in that case 'reasoning will depend on names, names on imagination . . .'²¹ In his replies Descartes bluntly asserted that in the *Meditations* he had explained 'the difference between imagination and a purely mental conception'. He expressed mock surprise that Hobbes's 'view should occur to anyone', for, he asked, '[w]ho doubts that a Frenchman and a German can reason about the same things, despite the fact that the words that they think of are completely different?' (AT, VII, 178–9).

Hobbes's empiricism is manifest in his account of substance:

The Word *Body*, in the most generall acceptation, signifieth that which filleth . . . some certain room, or imagined place; and . . . is a reall part of . . . the *Universe*. The same also, because Bodies are subject to . . . variety of appearance to the sense of living creatures, is called *Substance*, that is to say, *Subject*, to various accidents . . . And this diversity of Seeming . . . we attribute to alterations of the Bodies . . . & call them

Accidents of those Bodies. And according to this acceptation of the word, *Substance* and *Body*, signifie the same thing . . .²²

Subjects of accidents are here identified with material bodies known through their sensory appearances (see AT, VII, 172–3, 178, 180).²³ Hobbes distinguished between mere phantasms of the mind (e.g., colours or sounds) and real accidents or acts (e.g., sizes or motions).²⁴ But he held that human understanding of body and its real properties depends on the senses and the imagination.

Hobbes was not altogether clear about the relation between substance and its accidents. He explained that ‘as magnitude, or rest, or motion, is in that which is great, or which resteth, or which is moved . . . so also, it is to be understood, that every other accident *is in* its subject’.²⁵ But did he conceive substance as a congeries of singular accidents co-existing in a certain place? Or did he perhaps conceive it as a mysterious something ‘which filleth, or occupyeth some certain room’? (see AT, VII, 178 and 185).²⁶ However understood, bodies are Hobbes’s only substantial subjects, individual, fully determinate, and sensorially perceivable.

In the winter of 1641, Hobbes addressed Descartes from a position like the one I have just taken from his later works. Turning round an earlier comment by his critic, Descartes had charged that Hobbes committed a paralogism by putting ‘the determined movement in place of the determination that is in the movement’. Descartes explained that ‘the determined movement is to the determination itself of the movement, as the flat body is to the plane or surface of that same body’ (AT, III, 324–5).²⁷ Hobbes responded that this confused the relation between ‘subject’ and ‘accident’ with that between two terms for the same thing; for in actuality or as Hobbes put it, in ‘this or that’ movement considered in itself, ‘the determined movement and the determination of the movement are the same’ (AT, III, 343–4). So he objected that the

comparison should be thus: the determined movement is to the determination itself of the movement, as the determined surface (i.e., flat or round etc.) is to the determination of the surface (i.e., flat shape, round shape, etc.). Now, the flat surface differs from the flat shape of the surface as much as the determined movement differs from the determination of the movement. (AT, III, 344)

For Hobbes, the relation between accidents and the subject in which they inhere holds between substance and its sensorially perceivable real features; it holds between a (moving) body and its individual determinate movement. But when one says that the determination is in the determinable (e.g., ‘the direction is in the movement’) one is speaking about universals and saying, absurdly, that one universal inheres in another. A certain determined movement and its determinate direction differ in name but not in reality: ‘as Socrates and a man are not two men nor two things, but one man under two names (for the thing that is named Socrates is the same that is named a man), so also the

movement and the determined movement are one movement, and one thing under two names' (AT, III, 343).²⁸

In Hobbes's coarse empiricism Descartes saw nothing but confusion. The Englishman had succumbed to the prejudices of childhood and to trust in the senses. Descartes was surely not surprised that Hobbes failed to distinctly perceive the individual intelligible essences of things, and that, consequently, he had a muddled understanding of the relation between a substance and its properties. From Descartes's perspective, the anti-Aristotelianism of Hobbes or Gassendi was perversely misguided: it safeguarded the primacy of sensation, the root of Scholastic error, and attacked the significant truths that survived within the mass of obscure Scholastic doctrine (see, e.g., AT, VII, 177).²⁹

Descartes proposed to replace the empiricist existentialism of the Aristotelians with his own intellectualist essentialism. He rejected the hylomorphic account of substance. He argued that substance is an essence subsisting in reality, an entity defined through an intellectual principle of unity and identity. By conceiving inherence as determination Descartes was able to understand the relation between a substance and its properties in purely intelligible terms. The distinct and complete conception of a substance, which is just the conception of its essence, contains its possible modes or properties, in the same way in which a determinable contains its determinates. And the distinct conception of any accident or mode of a substance involves the conception of its nature, as a determinate involves its determinables.³⁰ The essence and some of the modes of Cartesian substances are both individual and determinable. For Descartes, there is the 'real' distinction between substances; and there is a lesser distinction, which is not just conceptual, that holds between two accidents or modes of the same substance, or between the essence of a substance and one of its modes. The distinction between two modes of a substance is not the mental distinction between a universal and the individuals which it names, or between two universal names applied to the same individual. Hence, Descartes rejected Hobbes's charges. He replied that he had not intended 'to compare the movement and the body as two substances, but only as two concrete things' (AT, III, 355–6). He acknowledged that movement is not a substance; but he made clear that he was not writing about a universal. The 'concrete' movement to which he was referring is a particular mode or determination of extended substance, an individual property inhering in an existing determinable essence.³¹

Descartes writes that 'we can . . . easily come to know a substance by one of its attributes'; and that 'if we perceive the presence of some attribute, we can infer that there must also be present an existing thing or substance to which it may be attributed' (AT, VIII–1, 25). These statements should not be read as in any way suggesting the notion of substance as a propertyless substratum. Descartes's substances are not the result of a Lockean 'supposition

of he knows not what support of . . . qualities',³² Gassendi alluded to this 'naked or . . . hidden substance' in his objections (AT, VII, 273):

Besides the colour, the shape, the fact that it can melt, etc. we conceive that there is something which is the subject of the accidents and changes we observe; but what this subject is, or what its nature is, we do not know. This always eludes us and it is a conjecture of sorts that leads us to think that there must be something underneath the accidents. (AT, VII, 271)

Gassendi did not conceal his doubts about this speculation: 'our idea of the unseen substance beneath [accidents] is confused and utterly fictitious' (AT, VII, 285–6). Yet he unwarrantedly supposed that Descartes was entertaining this notion in his reflection on the piece of wax.

The idea of a support of properties with a character not captured by any of its attributes is the result of confusion. A Cartesian substance is not this obscure and unmentionable something. If accidents or determinations inhere in what they determine, an ultimate subject is not a property-barren substratum but an essence that determines no higher determinable. In his conversation with Burman Descartes clearly rejected the idea of substance as a bare substratum when he said that 'all the attributes taken together are identical with the substance' (AT, V, 155). Substance is nothing beyond its real properties; but amongst real properties some are ultimate and independent subjects and others, modes of these natures.

When Descartes told Burman that 'in addition to the attribute which specifies the substance, one must think of the substance itself which is the substrate of that attribute', he was noting that an actual attribute presupposes some concrete entity (AT, V, 156). But this concrete substance is nothing more than an enduring individual essence. Cartesian substantiality is defined by the relation of determination. If something exists *in se*, it is a determinable that exists in reality and is not itself a determination of a higher order determinable. Accidents or modes exist *in alio* for they are determinations of a determinable substance. According to Descartes, it is such independent determinable essences or natures that 'we regard as things' existing outside our thought (AT, VIII–1, 22). Indeed, they are his fundamental ontological unities; and everything 'which we regard as . . . affections of things' and which exists in reality is an actual determination of those substances.

Descartes's distinctions: real, modal and conceptual

According to Descartes, all that exists is either a substance or a property of a substance (see AT, VIII–1, 22–3 and IX–2, 45). This basic ontological principle stands behind the Cartesian doctrine that actual things may differ in one of three ways: really, modally or conceptually.³³ In one sense, all these distinctions are real, for they all have a basis in reality: 'I do not recognize any distinction

... which has no foundation in reality ... All three [distinctions] can be called real ...' (AT, IV, 349–50; contrast *MD*, VII, 1, 4–5). In another sense, only the first two are real; for a conceptual distinction holds between things which in reality 'are in no way distinct' (AT, IV, 350). To differ conceptually is to differ only in thought: a conceptual distinction holds between two ways of thinking about what is, in reality, one thing (yet it does have some 'foundation in reality').

Properly, however, only substances are really distinct one from the other (see AT, VIII–1, 28). In virtue of the distinction between their subjects, the real properties of different substances are derivatively also really distinct. Substances are existing highest-order determinable essences; they are distinct and individual with the difference, incomparability and individuality of such determinables.³⁴ Descartes's 'real distinction' holds between terms that exist in reality and are independent; terms A and B are independent, if, and only if,

1. A and B are determinables or determinates
2. if A, B, or both are highest-order determinables, then it is possible that something is A and nothing is B, and it is possible that something is B and nothing is A
3. if neither A nor B is a highest-order determinable, then it is possible that one exist and that no determinable of the other exist.³⁵

Descartes is careful to provide epistemic criteria for each of his three distinctions. He explains that 'we can perceive that two substances are really distinct simply from the fact that we can clearly and distinctly understand one apart from the other' (AT, VIII–1, 28). The paradigmatic grasp of a real distinction is obtained from the clear and distinct ideas of the complete, independent determinable natures of two substances. Substantial completeness itself is grounded on the autonomy, uniqueness, and difference of highest-order determinables:

the mind can be perceived distinctly and completely (that is, sufficiently for it to be considered a complete thing) without any of the forms or attributes by which we recognize that body is a substance ... And similarly body can be understood distinctly and as a complete thing, without any of the attributes which belong to the mind. (AT, VII, 223; see also 176 and 219–28)

The ideas of A and B are ideas of complete things if their objects can be distinctly understood to exist on their own in reality. By clearly and distinctly attending to A and B, we may come to know that they are independent. In that case, we can truly affirm that if A and B exist, then they are two different substances and there is between them a real distinction.³⁶

From Descartes's account of the distinction between substances it follows that the essence of a substance is individual in the strong sense that if it is possible that A has a certain essence, then it is not possible that anything other than A have that same essence. The 'nature and essence' of a substance

is constituted by the ‘one principal property’ that numerically individuates it and identifies it across change (AT, VIII–1, 25). Descartes’s ‘real’ distinction is founded on the possibility that the essence of any created substance (understood as a supreme determinable) actually exist and the essence of no other created substance actually exist. A Cartesian substantial difference is an essential difference. Substantial essences are not shared. They might be similar to each other, like two minds are similar. But they cannot be intelligibly identical, for they would not then be two distinct supreme determinables.

An essence is not made individual by being in a substance; rather the essence makes a substance individual. So Cartesian substantial natures are not individual as a result of the numerical unity of the substance in the manner in which, for example, Suárezian ‘formal unities’ are individual. (See, e.g., *MD*, VI, 1, 11 and 15; on the other hand, on individual essences see *MD*, V, 2, 7–40; and on individuation, *MD*, V, 6).³⁷ Cartesian essences are individual and distinct one from the other in an intrinsic intelligible manner. The independence of a substance, its singularity and uniqueness, can be understood and known by the pure unaided intellect without reference to any extrinsic individuating properties or relations. So Descartes was committed to articulating an account of the different individual essences of creatures as separate highest-order determinables capable of existing on their own.³⁸ We shall see in chapter 9 that for neither body nor minds did Descartes successfully discharge this commitment.

A modal distinction holds between a mode and its substance or between two modes of one substance. A ‘mode’ is a real property of a substance other than its essence. According to Descartes, we

can clearly perceive a substance apart from the mode . . . whereas we cannot, conversely, understand the mode apart from the substance . . . [W]e are able to arrive at knowledge of one mode apart from another, and vice versa, whereas we cannot know either mode apart from the substance in which they both inhere. If a stone which is square is in motion, I can understand the square shape without the motion, and conversely, the motion without the square shape; but I can understand neither the motion nor the shape without the substance of the stone. (AT, VIII–1, 29; see also VII, 223 and VIII–2, 350)

If two terms are modally different, then they are either two separate determinates of the same determinable or one is a determinate of the other. If A and B are clearly and distinctly understood to be one a determinate of the other, or both determinates of a third common determinable, and they are known to exist, then they may be truly said to be modally distinct, as a substance and one of its real properties (other than its essence), or as two of its real properties.

Some qualifications are called for at this point. Real properties of a substance are not structured exactly mirroring determinables and their determinates. Substances admit of simultaneous determination in different orders. Thus,

body is determined in size, figure, and motion or rest. And we must distinguish between the determinations that hold of material substance as a whole, and the diverse sizes, shapes, and movements of its parts. Several different modes can simultaneously determine the many parts of body. On the other hand, a mind may be determined both as to will and as to perception (see AT, III, 372; VII, 377; VIII–1, 18).

If a determinate mode exists, then its determinable subject or substance exists also; and if a substance exists, then some of its modes must also exist. But there is an asymmetry of dependence here. The substance can exist without any one particular mode.³⁹ It is possible to be something that thinks but not be something that thinks about the final judgement, or to be an extended thing and not be triangular. But it is not possible to be triangular and not be extended, or to hope for salvation and not be a mind.

For Hobbes, determinables are universal names; in reality there are only fully determinate things. In his view, that something can think and not hope but nothing can hope and not think simply expresses the fact that the more determinate term refers to individuals which are all included among the individuals to which the other term refers but not vice versa. According to Descartes, however, existing individual substances are themselves determinable essences. The modal distinction between a Cartesian determinable substance and its real determinate properties applies to concrete existing individuals, not to universals having as such no possible existence outside the mind.

Descartes's third distinction between actual things is called 'conceptual' or 'distinction of reason' because it is 'made by thought' and it is satisfied by terms that are neither really nor modally different (AT, IX–2, 53). It holds 'between a substance and some attribute of that substance without which the substance is unintelligible' (AT, VIII–1, 30; see AT, IV, 348–50).⁴⁰ A substance differs conceptually from its essence, existence, duration, or number; and the difference between these attributes (for instance, the essence and the existence of a substance, or its existence and duration) is also conceptual (AT, VIII–1, 30–1; see V, 164).

Descartes explains that when two terms differ conceptually, we are unable 'to form a clear and distinct idea of [one] if we exclude from it the [other]' (AT, VIII–1, 30). In the French translation of the *Principles* he offers the following example:

in general all the attributes that make us have different thoughts about one same thing, such as the extension of the body and its property of being divided into many parts, do not differ from . . . each other, except in so far as we sometimes think confusedly of one without thinking of the other. (AT, IX–2, 53; CSM, I, 215, n. 1)

We have mentioned above that a distinction of reason has a 'foundation in reality'. Descartes remarks that 'when I think of [two conceptually distinct

things], these two thoughts, as thoughts, even taken objectively, differ modally in the strict sense of the term “mode” (AT, IV, 350). That is, if A and B are conceptually distinct, then the acts of apprehending A and B differ as to their objects. The idea of extension has a different object than the idea of divisibility into many parts. But in an actual thing being extended and being divisible are neither really nor modally different. They are not two different real properties in corporeal substance; they are, so to say, two ways of thinking about the essence of matter.

If there is a distinction of reason between A and B, then ‘A’ and ‘B’ refer to the same thing in reality; but the thought of A and the thought of B have different objects, though one cannot be understood distinctly without the other.⁴¹ Descartes’s conceptual distinction applies between an existing real essence and its substantiality, existence, duration, order and number. These are not different independent real properties, nor is any one a determinate mode of any other. Being a substance, existing, enduring, or being one are not different in reality from being extended or thinking. Rather, as second-order or derivative properties, they are the objects of ‘different thoughts’ about ‘one same’ property.

Cartesian categories

Substance is that in which a property, quality, or attribute ‘of which we have a *real* idea’ exists; it is that in which the object of ‘*some* of our ideas’ exists formally (AT, VII, 161; my emphasis). Indeed, Descartes distinguishes between several kinds of ideas, not all of which have objects capable of existing outside the mind (see AT, VII, 27–8, 37–47, 72–81; and VIII–1, 22–3, 25, 26–8, 32–3). All true predications are ultimately about possible substances and their real properties, but they do not all predicate a real property of a substance. Predicates may refer to one of the following:

1. real properties of a substance:
 - a. substantial essences (extension and thought);
 - b. substantial accidents or modes (determinates of extension in the orders of size, figure and movement, as a whole and internally; and determinates of thought, including those arising from the ‘close union’ of mind and body);
2. derivative attributes such as substantiality, existence, duration, order and number;
3. proper objects of the five senses;
4. universals.⁴²

Corresponding to each of these five sorts of referents we may introduce five Cartesian categories of predicates. The first two (categories 1a and 1b) are ontologically primary.⁴³ Everything that really exists (apart from God) can be fully described using only those predicates that refer to extension, thought, and their determinates. All other predicates result from the operation of

thought upon this reality. Descartes argued that the ‘original’ of all the identifiable objects of the mind is found in the intellectual innate essences of body and the self; he thus subverted the basic Scholastic principle, shared by Hobbes and Gassendi, that ‘nothing is grasped by the intellect which was not first known . . . by the senses’⁴⁴ (*CM*, I, I, q. 4, 3; see *AT*, III, 474–6). These Cartesian real essences are intelligible wholes which can be clearly and distinctly understood to exist on their own as complete things.⁴⁵

Predicates of the third sort (category 2) refer to properties that differ only conceptually from the essences of the substances to which they may be truly attributed. Descartes writes that in an existing substance ‘essence and existence are in no way distinct’ (*AT*, IV, 349). To exist, for Descartes, is just to have a real property. Likewise, he maintains that ‘we should regard the duration of a thing simply as a mode under which we conceive the thing in so far as it continues to exist. And similarly we should not regard order or number as anything separate from the things which are ordered and numbered’ (*AT*, VIII–1, 26).⁴⁶ And, finally: ‘Thought and extension can be regarded as constituting the natures of intelligent and corporeal substance; they must then be considered as nothing else but thinking substance itself and extended substance itself – that is, as mind and body’ (*AT*, VIII–1, 30–1). We will discuss the relation between essence and these attributes, particularly existence, more closely in the next chapter. Let us now just note that a certain category of predicates is constituted from them; and that they are products of the understanding which are merely conceptually distinct from the real essences of things.

Predicates of the fourth kind (category 3) refer to colours, tastes, odours, sounds, and other proper objects of sensation. These objects are ‘merely sensations or thoughts’; they are not ‘real things existing outside our mind’ (*AT*, VIII–1, 33). Nothing like such objects can, on its own, exist, or endure, or be one. In the end, a true predication in this category either attributes a certain objective content to a mind – it describes an act of sensation – or it refers to a state of corporeal substance to which the sensation is related by way of occasional causation.

Universals, finally, exist only within the mind (see *AT*, VIII–1, 27). As we have seen, predicates of this kind (category 4) result from an operation of the intellect; they refer to nothing in reality over and above the real properties of things. The use of a universal term is dependent on the perception of singular natures. The apprehension of intelligible similarities is founded on this primitive intellectual intuition. Accordingly, universals may differ ontologically by reference to the real properties of things; but in themselves, all universals are mere mental groupings. For example, there is no ontological difference between the universals ‘thought’ and ‘cloud’ *qua* universals; they are, as such, nothing outside the mind. But ‘thought’ is grounded on a simple similarity between particular real essences, while ‘cloud’ refers to a more circumstantial

and, to that extent, arbitrary, collection. In any case, all universals are the result of the intellect applying one term to many particulars; and there is a possible universal corresponding to each possible collection of individuals. The ontological import of universals ultimately refers back to the real properties of substances.

The substantial tension

Cartesian created substances exist *in se*; they are intellectually or conceptually independent subjects of properties. Creatures are fully determined highest-order determinable natures. All these substances and their modes exist as effects of something else (*ab alio*); they are all creatures of God who alone exists from Himself (*a se*).

Descartes suggested that the substantiality of creatures is qualified or compromised. Creatures are at best second-class substances: ‘A substance is more of a thing [*magis res*] than a mode . . . [A]n infinite and independent substance . . . is more of a thing than a finite and dependent substance. All this is completely self-evident’ (AT, VII, 185). In its fuller and unqualified sense, substance is infinite, perfect, and wholly independent or self-caused. Thus taken, substance is, in the words of Augustine, ‘God . . . outside Whom there is nothing, . . . in Whom is everything’.⁴⁷ How, then, does the dependent substantiality of creatures relate to this Absolute Reality? Before we address this question, let remark briefly on Descartes’s notion of substance as self-caused.

Descartes’s self-caused substance, as we saw in chapter 6, does not contravene the universal demand for causal accountability (see AT, VII, 108 and 164). The Cartesian absolute substance exists uncaused but is not causally unexplained. Confident as always in the power of the intellect, Descartes affirmed that those

who follow the sole guidance of the natural light will spontaneously form a concept of cause that is common to both an efficient and a formal cause: that is to say, what is ‘from another’ [*ab alio*] will be taken to be from that as from an efficient cause, while what is ‘from itself’ [*a se*] will be taken to be as from a formal cause, that is, because it has an essence such that it needs no efficient cause. (AT, VII, 238; see also 236, 239)

A self-caused essence entails its necessary existence; it is God, the supremely perfect being, which is, ‘in a sense, its own cause’ (AT, VII, 109).

Created substances are produced at every moment of their duration by God, their ‘direct and immediate’ or ‘first and principal’ essential efficient cause, as Suárez and Aquinas put it (*MD*, XXI, 3, 2; *ST*, I, q. 104, art. 2). Since they are existing, highest-order determinable essences, Cartesian creatures are, despite their dependent nature, independent and complete realities, separate from God. Cartesian finite substances do not, strictly, exist in God; they are

not divine properties. However, this possibility, that creatures inhere in their cause, is not completely alien to Descartes's new metaphysics.

Our topic is the relation between strict productive causality and inherence, taken as the actual determination of a determinable nature.⁴⁸ Suppose that causation is understood, roughly, as follows: A causes B, if and only if, 'A exists and wills (or somehow determines) that B exist' entails 'something is B'. Now, from 'A exists', where A is a real substantial essence, it follows that 'something is C₁, or C₂, or C₃ ... or C_n', where C₁, C₂, C₃ ... C_n are the ultimate determinates of A.⁴⁹ Still, this falls way short of making 'A causes B' and 'B inheres in A (A is B)' equivalent.⁵⁰ We come somewhat closer to that if we take a substantial essence to contain within it the laws governing the succession of its determinations. Like Leibniz's monads, substantial essences would then be simple, conceptually independent, and causally autonomous, principles of development.⁵¹ And the modes of a substance would be, in a sense, its effects.

1. If B inheres in A, then A causes B.

But unless these essences are self-caused (and, consequently, all identical to God), they and their modes depend on some external producer to sustain them in being. And this causal dependence remains distinct from the determination of the essence by the mode, and from the parallel, internal, causation of the mode by the essence.

Consider Spinoza's assertion that 'a substance [that is, what exists in itself and is conceived through itself] cannot be produced by something else [*ab alio*]'.⁵² The relation between this doctrine and the Cartesian metaphysics is an important and interesting subject.⁵³ I will not explore it in detail here; but some comments are in order.

Let us start by noting Descartes's view that productive causality requires some similarity between cause and effect.⁵⁴

2. If A causes B, then A and B are similar.

Take, for instance, the causal relations between the human mind and body. They involve only an indirect or occasional link instituted and sustained by God's will. Even so, Descartes manifested sensitivity to the demand for similarity. In the *Treatise on Man*, he introduced certain 'animal spirits [*esprits animaux*]' to explain bodily interaction at the principal seat of its union with the soul. The animal spirits are undoubtedly material; but they admit of gradations. As a result of the heat of the heart and of filtering through the extremely fine ducts of the brain leading to the pineal gland, the blood becomes rarefied and subtle, so it can now be called a 'spirit' of sorts (AT, IX-2, 164-202, *passim*). Apart from its being in the centre of the brain and not being double, Descartes adduced the pineal gland's being 'so small and so

soft' in favour of his proposal that it is the 'principal seat of the soul and the place in which all our thoughts are formed' (AT, III, 19, 123, 362). These efforts at finding something material but so subtle and fine that it resembles something spiritual indicate Descartes inclination, in spite of himself, to transport the demand for similarity even to occasional causation.

In the *Comments* against Regius Descartes rejected the causal dependence of ideas on the body because 'there is no similarity between these ideas and the corporeal motions' (AT, VIII-2, 359). He asked rhetorically: 'Is it possible to imagine something more absurd than that all the common notions within our mind arise from such motions?' No corporeal motion 'can form in our mind a common notion'. The reason is that 'all such motions are particular, whereas the common notions are universal and bear no affinity with, or relation to, the motions'. Against Regius, Descartes left the required similarity fairly vague, referring only to this general 'affinity . . . or relation'.

The *Conversation with Burman* has Descartes stating that it 'is a common axiom and a true one that "the effect is similar to the cause"'. Now God is the cause of me, and I am an effect of him, so it follows that I am similar to him' (AT, V, 156). The text of the conversation does not report any further discussion of the matter; but it seems clear that the intended likeness is asserted of productive causes and effects. A stronger demand for similarity between Cartesian true causes and their effects is found in the Third Meditation: 'since I am a thinking thing and have with me some idea of God, it must be admitted that what caused me is itself a thinking thing and possesses the idea of all the perfection which I attribute to God' (AT, VII, 49). Throughout his writings, Descartes insists that '[w]hatever reality . . . there is in a thing is present either formally or eminently in its first and adequate cause' (AT, VII, 165; also see III, 428; VII, 40, 135, 367; VIII-1, 11-12).

3. If A causes B, then A contains formally or eminently 'whatever reality' is in B.

Descartes's account of formal and eminent reality is, as we have indicated, obscure. In particular, it is not clear how a substance can both preserve the intelligible independence of a Cartesian real essence, and contain 'whatever reality' there is in its substantially different effect. All the reality of a substance is constituted by its determinable essence, unique and intrinsically distinct from the nature of any other substance. Descartes does not want to hold that a substance, in order to possess the 'reality' of another substance, must share with it a real property.

4. If A contains formally or eminently 'whatever reality' is in B, then A and B share a real property.

Descartes cannot allow formal or eminent containment to be understood in

ways that compromise the individuality and independence of substantial essences as determinables of the highest order.

Consider now the general requirement that cause and effect be similar. Things are similar in a certain respect. Suppose that A and B are similar if they fall under a shared universal. Now, one can take any two things and refer to them with a common term which is defined as applying to just these two things. Since any two things can be similar in this way, this similarity does not require sameness of real properties.

5. It is possible that A and B are similar, and A and B do not share a real property.

Evidently, this sort of similarity is useless to throw light on 2 (cause and effect must be similar), for it makes it vacuous. The similarity between cause and effect points instead to the ontological foundation of the power to produce. In some way, cause and effect must be similar as to their real properties. One way of satisfying this is, of course, by sharing a real property.

6. If A and B are (causally) similar, then A and B share a real property.

Descartes, however, wants to make substances with *different* real properties similar in the required sense; and he wants to make different real properties differ intrinsically, in the manner of distinct highest-order determinables or their determinates. These constraints are partly satisfied in the case of similarity with respect to derivative attributes, like substantiality, existence, or duration (the referents of predicates of category 2). But, again, this similarity is not that required of cause and effect, for any two substances fall under the corresponding universals.

Descartes recognized ‘only two ultimate classes of things: first, intellectual or thinking things . . . and secondly, material things’ (AT, VIII–1, 23). The individual essences of minds are similar, of course, in that they are all thinking. Furthermore, a feature of thinking things, which body does not mirror, is that they can contain as objects the essences of other substances. In this way, a thinking substance can be similar to any other substance by having an idea of its real essence. In the Third Meditation, however, Descartes demanded that the cause possess the reality of the effect formally or eminently and not merely objectively, even when the reality in the effect is objective. But if ideas are innate by being the products of the soul that has them, and to produce an idea the soul must produce its object, then innate objective containment implies formal or eminent containment.⁵⁵ In this way, a mind is causally similar to any substance of which it has an innate idea, an idea which it can produce without the aid of any other substance. Descartes’s uncaused creator of the universe is an infinite intellect that contains within itself the ideas or ‘archetypes’ of all possible substances (see AT, VII, 42 and 181).⁵⁶

We have seen earlier that Descartes maintained that if two things share the same real property, then either they are identical or one is a mode of the other.

7. If A and B share a real property, then A is identical to B, or B inheres in A or vice versa.

From 2, 6 and 7 (or from 3, 4, and 7) it follows that the effect is either identical to its cause, or a mode of it.

8. If A causes B, then either A is identical to B, or B inheres in A or vice versa.

There is no question that Descartes wanted to avoid this conclusion. Whether he actually succeeded in doing so is another, more debatable, matter.

In the following two chapters we will look more closely at the Cartesian doctrine of the real properties of substances, and at his ontology of body and minds. For the moment, let us note that Descartes opens an avenue for discussion of the intelligible nature, identity and difference of finite substances, upon which would tread, each in his own way, Spinoza and Leibniz.

8 The essence and the existence of Cartesian substances

The essence of substances

Descartes wrote that ‘each substance has one principal property which constitutes its nature and essence and to which all its other properties are referred’ (AT, VIII–1, 25). In the last chapter we approached this claim from Descartes’s discussion of substance. I propose that we now examine more closely his views about essence.

I use ‘property’ to mean the reference of a predicate term, whatever its category. Thus, corresponding to the five Cartesian categories of predicates, there are real properties, which may be essential or accidental, derivative or second-order properties, properly sensorial properties, and universal properties. I take Descartes to assert, in the sentence quoted above, that each substance has one essential property, and that all its other real properties are ‘referred’ to this one ‘principal’ property. Elsewhere, he claimed to understand ‘nothing without which something can exist to be included in its essence’ (AT, VII, 219; see also III, 423 and VIII–1, 347). The essential property of a substance is a property which the substance cannot cease to have without ceasing to be. A Cartesian substance is an actual essence, an existing nature that cannot pass away without taking the substance which it is with it.

Descartes is careful to present being a property a substance must have, if it exists, as a necessary (but possibly not sufficient) condition for being its essence. In fact, he did not hold that any predicate that is necessarily true of a substance, if it exists, must designate its essential property. There are other conditions, apart from being the referent of such a predicate, which a property must meet in order to constitute the nature of a substance. In a passage just quoted, for instance, he suggests that there is a special connection between all properties inhering in a substance and its one essential property.

Descartes typically used modal terms to express the relation between essence and substance: no property which can (*potest*) change and its subject remain is essential. It is clear that he intended these modalities to apply *de re*. That is, he took them to belong to things themselves regardless of how one refers to them or describes them. An essential property constitutes its subject

as what it is in reality; it pertains to its substance with a necessity that is not merely nominal, analytic or *de dicto*. The being, the reality and identity of a substance are the direct result of its essence.

Over this and the next few sections I will present Descartes's doctrine of the essence of substances using a formal language. There is clarity to be gained by casting it in this symbolism. I ask the untrained reader to bear with me. Anything that I render formally I will also state in English. Thus, if so wished, the argument can be followed without taking notice of the logical formulae.¹

The following two propositions express claims made by Descartes regarding the essence of substances:

$$(1) \quad (x)(\exists\phi)\{(N\phi)x\}$$

$$(2) \quad (x)(\phi)[(N\phi)x \supset (\varphi)\{(N\varphi)x \supset \varphi=\phi\}]$$

Descartes maintained that (1) all substances have an essence, and that (2) the essence of a substance is constituted by one property. He also held that the essential property of a substance cannot change and the substance remain:

$$(3) \quad (x)(\phi)[(\exists t)t(N\phi)x \supset L(t')\{t'(x \text{ exists}) \supset t'(N\phi)x\}]$$

That is, (3) if at some time a substance has an essence, then, necessarily, at any time either it has that essence or it does not exist. With unmodalized predicates this would amount to the denial of the possibility of change in substances.

Individual essences

We know from the last chapter that, according to Descartes, two numerically distinct substances cannot both have numerically one and the same essence. This is the result of the general principle that everything that exists in reality is only particular, and the claim that substances are just essences existing in reality. Also, Cartesian substantial essences are individual in the sense that they individuate and uniquely identify their bearers: any object that could possess it is numerically identical with the bearer.² A Cartesian essence is something that could belong to only one individual, not in the weak sense in which any definite description can belong to only one individual but in the stronger sense that any individual which could have that property is one same individual. That is,

$$(4) \quad (x)(y)(\phi)[(N\phi)x \supset L\{(N\phi)y \supset x=y\}]$$

(4) only one substance can possibly have some one essence. This principle is non-temporal. This also holds when prefixed with a universally quantified

temporal variable; that is, it holds at all times. But does it exclude the possibility of two different substances having the same essence at different times?

If temporal continuity were part of the criteria for the identity of a substance, then the answer would be 'no'. It would be possible for a substance to have a certain essence during a segment of time and then go out of existence, and for another substance to be created at a later time with the same essence. Not being temporally continuous, these two would be pronounced numerically distinct. On the other hand, if, as Descartes appears to have believed, the cross-temporal identity of substances rests solely and strictly on the identity of their essences, then no two numerically distinct substances could have the same essence, even if one has it at one time and the other at another. One may of course convene to use the word 'substance' to refer only to the temporally continuous. Such use, however, would miss Descartes's intentions. A substantial essence or nature refers back to an archetype or exemplar in God. It might be that once God creates a substance He will not cease to recreate it at all subsequent times.³ But if He did, He could still create that same substance anew at a later time by again producing in reality the essence contained in the same Divine Idea. Cartesian created substances are constituted from such eternal real natures. Not even at different times could two different substances share the same essence.

(5) $(x)(y)(\phi)[(\exists t)t(N\phi)x \supset L(t')\{t'(N\phi)y \supset x=y\}]$

That is, (5) if a substance has an essential property at some time, then any substance possibly having that property at any time is identical to it.

Numerically different substances cannot have numerically the same essence. This applies generally, whether at different times or at different places. However, there is a feature of the Cartesian conception of space which dissolves the very possibility of different substances in different places.

Descartes held that place or spatial location is internal to extended or material substance, and that extended substance is not in space, nor are any other substances in space. There is only a distinction of reason between space and extension, the essence of material substance: 'space ... and the corporeal substance contained in it do not differ in reality, but only in the way in which we are accustomed to conceive of them. For in reality the extension in length, breadth and depth which constitutes a space is exactly the same as that which constitutes a body' (AT, VIII-1, 45). Space and material substance differ only in that the first is abstracted from the latter. So when

we attend to the idea we have of some body ... and leave out everything that is not essential to the nature of body ... we will see that nothing remains in that idea except that it is extended in length, breadth and depth. Yet this is just what is contained in the idea of space, not only of a space full of bodies but also of the space which is called 'empty'. (AT, VIII-1, 46)

Descartes's argument against the real existence of empty space, a true vacuum, follows immediately from these considerations (see AT, VIII–1, 50). A vacuum is space without matter. But matter or corporeal substance is just actual extension. So there is an evident contradiction in supposing actual space, that is, actual extension, without matter, that is, actual extension.

In reality different bodies are parts of one single extended substance. When Descartes discusses the real distinction in the *Principles* he gives the example of two bodies. But he is careful to make clear that these are two parts of one substance and that they are really distinct only relative to an act of thought: 'if [any corporeal or extended substance] exists, each and every part of it, as delimited by us in our thought, is really distinct from the other parts of the same substance' (AT, VIII–1, 28). Two different bodies may both be essentially extended; but they will be parts of one substance from which they are not really distinct. The division of matter into parts can take place only within the extended substance. Extension, the essence of corporeal substance, is not an aggregate of parts which could be separated from the whole. Though any two proper parts of matter, 'as delimited by us in our thought', can be conceived independently of each other, no part can be conceived without the whole substance. For any part is delimited in the extended continuum which is material substance. The reference to 'our thought' is important. Which parts count as proper parts of material substance depends on how the substance is divided or the parts are 'delimited by us'.

There is in fact an ambiguity in Descartes's use of the word 'body'. 'Body' might mean either the one material substance or the many material things around us. Descartes explicitly addressed this equivocation.

[W]e need to recognize that body, taken in a general sense, is a substance, so that it . . . never perishes. But the human body, in so far as it differs from other bodies, is simply made up of a certain configuration of limbs and other such accidents . . . [A] human body becomes another body from the sole change in the shape of some of its parts. (AT, VII, 14)

The identity of particular bodies, such as tables and animals, is the identity of determined or modified parts of extended substance. When Descartes called bodies 'substances' he was not denying that all such 'substances' are ultimately parts of one substance.⁴ Descartes's use of the word 'substance' to refer to extended parts is derivative, distinct in any case from the strict and primary use according to which there is only one body or material substance, the whole of extension.

Let us now retake the general thread of our argument. The singularity and numerical identity of substances is that of their essences. But what accounts for the individuality of a substantial nature? And how are essences identified and counted? Descartes's answer to these questions is found in the doctrine, presented in the last chapter, that substantial essences are intrinsically independent

intelligible wholes, distinct one from the other in the manner of supreme determinables. A substantial essence has an intrinsic, purely intelligible autonomy, such that the adequate and distinct ideas of two substances are separable in thought: ‘we can clearly and distinctly understand one apart from the other’ (AT, VIII–1, 28; see also VII, 223–7). The individuality of essential properties originates from this intrinsic independence: substances are counted as one counts different determinables.

Still, different substantial natures can be similar. On its own this is no great requirement, for any two things whatsoever are similar in an indefinitely large number of respects (for example, in both being the subject of possible thoughts or examples). Furthermore, all substances are similar in that they all exist, endure, and are numerically and intelligibly one. Descartes, however, wanted some substances to be alike in ways that are not shared by all substances; minds are all thinking things, as opposed to matter or body. The similarity between minds is similarity as to their essences and real properties. Descartes’s account of the similarity and difference of finite souls, which we will examine below in chapter 9, must preserve the intelligible independence of different substances and at the same time assure an essential resemblance.

A real essence can exist within a finite mind as the object of an idea. Descartes denied that an objective real essence within the soul is identical in all intelligible respects to the Divine Exemplar from where it originates or to a substantial real essence existing outside God and the soul⁵ (see AT, VII, 220–2). But the archetype in God and the real substance have identical intelligible contents. In that sense, they are both one essence. However, the substance is an essence existing as such in reality, while the essence existing within God is, in some analogical sense, a Divine Idea; and a real essence within a human soul is merely an ‘inadequate’ idea or act of a finite thinking thing, taken objectively (AT, VII, 220–1). In any case, two substances cannot have real essences which are identical in all intrinsic, intelligible respects. If they did, they would have numerically the same real essence, and they would be numerically one, contrary to the supposition that they are two.

Numerically different substances, and also numerically different parts of body, can fall under a common universal. Indeed, since any two things are similar in indefinitely many respects, they share correspondingly many universal properties. As we have seen, the interesting question concerns those universals which are grounded on the intelligible similarity between real properties. Above, I have mentioned ‘thought’, which is shared by all souls; but there are also many universals based on the resemblance of real properties, such as being a cone or being two cubic metres large, which may be shared by different parts of extended substance.

One real essence, extension, admits of many different simultaneous determinations, not only in the three different aspects of size, figure and motion,

but in a single one of those aspects. There is a distinction between modes of the whole corporeal substance and modes of one of its parts. Matter is determined as a whole only in respect to size: it is indefinitely or infinitely large. But its parts are determined simultaneously in the aspects of size, shape and movement. And two parts can have intelligibly identical modes: they can both be cones of the same size, moving at the same speed and in the same direction.

Existing modes may differ as determinates of different substances, or as different determinates of the same determinable essence. But intrinsically identical modes or real properties can be shared by different parts of matter. Parts are individualized by place, not by their modes. Predicates that refer to internal properties of body must include explicitly or implicitly a phrase of the form 'at X', where 'X' refers to a place in body. Without this, a real predicate refers to a property of the whole substance.

Essences and modes

Descartes constitutes each substance through one essential property, which individuates it and to which, since it contains all the reality of the substance, all its real properties are 'referred'. This capacity of an essence to constitute a substance originates in the essential attribute itself and not extrinsically in the way it is possessed, so that an essential property can only be had essentially. Descartes wrote that

extension in breadth, length and depth constitutes the nature of corporeal substance; and thought constitutes the nature of thinking substance. Everything else which can be attributed to body presupposes extension, and is merely a mode of an extended thing; and similarly, whatever we find in the mind is simply one of the various modes of thinking. (AT, VIII-1, 25)

The meaning of the verb 'presuppose' in this passage (and of 'be referred to' in the text quoted earlier) is clear from the last chapter: all real properties of a substance apart from its essence are determinates of its determinable essential property, and, consequently, can be understood only as being in something with that essence. Any real property of a substance involves the essence of the substance as a determinate involves its determinable; no real property is intelligible without the essence of its substance. Therefore, the essential property of a substance cannot be had by any other substance even if not essentially. It follows that an essential property is only an essential property. That is,

$$(6) \quad (x)(y)(\phi)[(N\phi)x \supset \{\phi y \supset (N\phi)y\}]$$

(6) if something has a property essentially then anything that has that property has it essentially.

Take 'D' to stand for the relation which holds between two properties such that the first is a determinate of the second; we then have

$$(7) \quad (x)(\phi)[(N\phi)x \supset (\varphi)\{(\phi x \ \& \ \sim(\varphi=\phi)) \supset \phi D\phi\}]$$

That is, (7) any real property of a substance which is not identical to its essence is a determinate of its essence.⁶ It is evident that if something has a property which is a determinate of some other property, then it also has this determinable. It is equally obvious that determination is not symmetrical. That is,

$$(x)(\phi)(\varphi)\{(\phi x \ \& \ \phi D\varphi) \supset \varphi x\}$$

and

$$(\phi)(\varphi)\{\phi D\varphi \supset \sim(\varphi D\phi)\}$$

With these two premisses it can be established from (7) that an essential property is an ultimate determinable, not itself a determinate of some other property,

$$(8) \quad (x)(\phi)\{(N\phi)x \supset \sim(\exists\varphi)\phi D\varphi\}$$

(8) if something is an essential property of a substance, then it is not a determinate of any determinable.

Now, (6) states only that if a property is the essence of some substance then any substance that has it, has it essentially. It does not state that there are properties which can only be had essentially, if they are had at all. It is clear, however, that Descartes did believe this to be the case regarding any property which could be the essence of a substance. For from

$$(9) \quad (\phi)\{M(\exists x)(N\phi)x \supset \sim(\exists\varphi)\phi D\varphi\}$$

and

$$(10) \quad (x)(\phi)(\phi x \supset [(N\phi)x \vee \{(\exists\varphi)(\phi D\varphi \ \& \ (N\varphi)x\}])$$

we can get to

$$(11) \quad (\phi)[M(\exists x)(N\phi)x \supset (y)\{(\phi y) \supset (N\phi)y\}]$$

That is, given that (9) possible essences are highest-order determinables and that (10) all real properties of a substance are either its essence or determinates of its essence, it follows that (11) no property which can be a substantial essence belongs to anything if not as its essence.

According to the Cartesian doctrine of essence no two different substances may share a real property. From (4), (6), and (10) it follows that

$$(12) \quad (x)(y)\{(\exists\phi)(\phi x \ \& \ \phi y) \supset (x=y)\}$$

Real properties are either essences or determinates of an essence. So any shared real property is either an essence or a determinate of an essence which is consequently shared. In either case, (12) substances sharing a property are identical.

Notice that (12) is stronger than the principle of the identity of indiscernibles. Consider the following formulation:

$$(13) \quad (x)(y)\{(\phi)(\phi x \equiv \phi y) \supset x=y\}$$

(13) if any two substances share all their real properties, they are numerically the same.⁷ Descartes's doctrine of the essence of substances requires not only that numerically distinct substances differ in some real property, but that they differ in all.

It is perhaps not amiss to stress that (12) does not affirm that two numerically distinct substances can share no properties; it states only that they can share no *real* properties. Obviously, different substances can share universal properties, as, for instance, Rosella and Antonio are both poets but obviously and fortunately not both the same embodied mind. Moreover, substances may share universal properties which are grounded on a similarity between essential properties, as both Rosella and Antonio, being poets, are thinking things. On the other hand, (12) is trivial if all it is taken to assert is that numerically identical instances of some property belong to one and the same thing. The import of (12) is missed by either of these interpretations. Its significance comes instead from the following Cartesian doctrines. First, real properties, which are individual entities existing in reality (not of course substantially, but rather inhering in substances), are intrinsically autonomous in the manner of supreme determinables and their determinates. And second, substances are numerically distinct exclusively in virtue of such intrinsic intelligible diversity.⁸

The essence and the existence, duration and number of substances

Having set out the main tenets of the Cartesian doctrine of substantial essence, I will now address Descartes's account of what I have called second-order or derivative properties, the referents of predicates of the third category (category 2) introduced in the previous chapter. These include existence, duration, order, number and substantiality. In the following discussion I will focus mostly on existence, though duration and number will also be mentioned.⁹ Our question is: what are these properties and how are they related to essence? Before properly engaging in our subject, allow me to emphasize that we are not now concerned with universal properties: numerically distinct substances all exist, endure and are one. Such universals are grounded on some intelligible resemblance between particular substances. Here we are interested in the singular

properties which are the basis for these universals. Our account deals with 'existence or duration in a thing which exists and endures'; that is, we examine existence, duration, and number not 'in the abstract or in general', but 'in . . . created things' (AT, VIII-1, 26-7).

Let us start by noting that, as Descartes points out, 'if a substance would cease to endure, it would also cease to be' (AT, VIII-1, 30). Similarly, something cannot cease to exist or be one without ceasing to be. So these properties, duration, existence and number, attach to substances necessarily *de re*: they are necessarily true of any existing substance, regardless of how it is referred to or described.¹⁰ As we have indicated, this does not entail that those properties are part of the essence of a substance.

There is no reason to believe either that, as has been fancied, Descartes thought that 'it is necessarily true that A exists or endures' follows from 'A exists or endures necessarily *de re*' or 'A must exist or endure, if it exists'.¹¹ For he distinguished between God's necessary existence and the contingent existence of creatures which 'cannot' be deprived of their essences. Suppose that 'F' designates a real essential property. It is of course true that if 'A is F' then 'A exists or endures'. But this has no bearing on whether it is necessarily true that something is F; that is, it does not address the question whether, given the notion of a real essence, F, it is necessarily true that there is a substance with that essence. Descartes addressed this issue in the *Principles*. He wrote that substances other than God 'do not . . . contain necessary existence, but merely contingent existence' (AT, VIII-1, 10). As we have seen, Descartes connected the notion of necessary existence with the conception of an essence which can exist without cause. The contingent existence of creatures results then from their essential dependence on an external cause; a contingent essence cannot account for its own existence. Hence, a substance exists necessarily, that is, it is a necessary truth that it exists, when its essence entails its existence (that is, when 'A exists' follows from the essential definition of A). On the other hand, a substance has contingent existence when this is not so and it is possible that its essence not be found in actual reality.

Bernard Williams has suggested that 'we should not, to understand Descartes, define "essence" as a particularly informative and distinctive sub-set of a thing's necessary properties; rather, a thing's necessary properties are to be understood as its essence and properties entailed by its essence'.¹² Admittedly, all the real properties of a substance are either its essence or modes of its essence, and Descartes did not independently articulate the notion of necessity. Nonetheless, it is Descartes himself who explains essence in terms of modal notions which, even if he does not discuss, may be examined. Furthermore, in the notion of essence he included other conditions apart from being necessary *de re*.

Descartes did not identify the necessity of an existence entailed by real essence (as holds exclusively of Divine Nature) and the necessity of the existence of any substance which must exist in order to exist.¹³ There are two different issues regarding the necessity of the existence (and duration and number) of substances. The first is addressed in the text just mentioned from the *Principles*; it concerns the necessary existence of God and the contingent existence of creatures. The second considers whether existence, duration and number are attributed *de re* necessarily to those substances to which they are truly attributed. Descartes appears to answer affirmatively when he acknowledges that these predicates cannot be denied of a substance without denying that it is. And it is perhaps in this sense that he says that such properties 'always remain unmodified' (AT, VIII-1, 26).

Still, after we have distinguished between these two necessities our question remains: what are these properties and how do they relate to the substantial essence? Descartes's answer, briefly stated, is that they are not, in actual substances, properties really or modally distinct from the essence, for they are just ways of considering the essence or substance. Descartes explained that 'we should regard the duration of a thing simply as a mode under which we conceive the thing in so far as it continues to exist. And similarly we should not regard order or number as anything separate from the things which are ordered or numbered, but should think of them simply as modes under which we consider the things in question' (AT, VIII-1, 26; see also 30). The same holds of the existence of a substance.

I take Descartes's view to be as follows. Existence, duration, and number are distinct only conceptually from the substances or natures which exist, endure, or are numbered; they add no reality to the reality of essence. Duration, for example, affirms the successive actuality of substance. An enduring essence can be conceived merely as successively actual, without consideration of its contents. When so conceived it gives rise to the notion of a duration, conceptually distinct from the enduring thing. Duration in the enduring thing is just the successive essence or substance itself.

For a substance to be actual, to exist or endure, is not for it to possess anything other than its essence and its determinates. Duration, existence and number do not properly attribute some reality; instead they express that some reality is truly attributed. Using contemporary terminology I have called them 'second-order' properties: not real properties inhering in substances, but rather different ways of expressing the property of having real properties.

The only Cartesian real properties of a substance are its determinable essence and the modes or determinates of its essence. Existence (and duration or number) is neither a determinate or mode of a substance nor an independent real property on the side of the essence and its modes. As we shall see shortly, the former was the opinion of Scotists, or followers of Duns Scotus,

and the latter that of Thomists. Descartes was opposing, I maintain, both these camps.

The grounds for this interpretation deserve close inspection. For the view that Descartes took existence to be a real property of substances is widely held amongst commentators.¹⁴ It is argued that, given Descartes's ontological proof, existence must attribute some reality or perfection and is, hence, a first-order property.¹⁵ My discussion will now focus almost exclusively on the existence of substances, though, as I have suggested, its results may be applied also to duration and number.

Descartes on essence and existence

In Burman's text of his conversation with Descartes we find the following exchange. In the First Replies Descartes had claimed: 'we are so accustomed to distinguish existence from essence in all other things, that we do not notice how closely it pertains to the essence of God as compared with that of other things' (AT, VII, 116). Burman asked: 'But is this right? Is it then that essence is prior to existence and that in producing a thing God produces nothing but existence?' (AT, V, 164). Descartes's reply, as reported by Burman was:

We are right to separate the two in our thought, for we can conceive [essence] without existence, as we conceive a rose in winter. But they cannot be separated in reality in accordance with the customary distinction; for there was no essence prior to existence, since existence is nothing but existing essence. So one is not prior to the other, nor are they separate or distinct.¹⁶

The problem for Burman arose from Descartes's claim that in creatures essence can be distinguished from existence. If this is taken to affirm a real distinction between one and the other, then in creation God does not produce an essence but merely adds existence to a prior or antecedently given essence.

This reasoning was common in Scholastic literature. Fonseca describes it as one of 'five main arguments' used by 'Nominalists' to support the view that 'existence and essence are not at all distinct':

If existence were distinguished from essence as something attached to it, creation would be nothing. The consequence is most absurd. Therefore, so is the antecedent. The major is proved thus. Creation is an action through which something is brought from not being into being, without at all supposing its entity. Now, if being is something added to essence, then this very essence which receives being through creation is, nevertheless, already supposed at creation. (CM, IV, 2, q. 4, 1)

Fonseca sets the Nominalists' view apart from the 'Thomist' position which Descartes appeared to take in the eyes of Burman: 'although in God the distinction between essence and existence is not one found in reality, in creatures the distinction is real, as of one thing from another thing'.¹⁷ At this

point the conversation between Descartes and Burman exactly mirrors an exchange between two Scholastics: a Thomist defender of a real distinction between essence and existence in creatures and his Nominalist critic.

That Descartes was aware of the parallel is evident from his reply. He alluded to the Thomist defenders of the real distinction by calling it 'customary'. Fonseca's own 'middle view', also known as the Scotist position, was that in creatures essence and existence are distinct in reality but only with a modal distinction: 'the existence of creatures is distinguished from the essence of creatures according to the nature of things, yet not formally but rather as its last intrinsic mode' (*CM*, IV, 2, q. 4, 4). Against both Fonseca and the Thomists Descartes took the side of the Nominalists. So he answered Burman (who had mistaken him for a Thomist) by denying that there is anything but a distinction of reason between essence and existence.

Fonseca's refutation of the Nominalist argument from creation runs thus:

The major premiss must be denied against [this] argument. Even though creation supposes no actually existing entity of a thing, it does suppose all its potentially existing essence, so that the thing may receive actual being by creation itself. Otherwise nothing could be created. Either all things would actually exist from themselves, or nothing apart from God could exist. In fact, only divine nature exists from itself. (*CM*, IV, 2, q. 4, 5)

Fonseca calls this 'a very powerful reason against opponents'. He is referring, it is manifest, to the Nominalists and not to the Thomists. Fonseca's position lies between both of these: there is a distinction in reality between the essence and existence of a creature, but not as of a thing from a thing. The point to notice is that for Fonseca there is a distinction in an existing thing between its potential essence and the existence which this essence receives. This is the source of his objection to the Nominalists. Fonseca's disagreement with the Thomists lies in that for him existence is an 'intrinsic mode' of the essence, that is, a 'mode which does not belong to [the essence] on account of another reality or entity' (*CM*, IV, 2, q. 4, 4).¹⁸ He gives as an example of an intrinsic mode, 'the mode by which an intensity of three degrees is distinguished from the whiteness of which it is the intensity'. But 'white of a determined intensity' and 'whiteness apart from the addition of a determination' are not two actual distinct entities or realities in a white thing.

Descartes's reply to the first part of Fonseca's refutation is not difficult to imagine. The only sense in which a 'potential essence' exists is as a real eternal nature, either eminently in God or perhaps as an exemplar or Divine Idea, or derivatively conceived within a created mind. For the thing to 'receive being' is for God to produce an essence in reality. Prior to this production there is no essence except in God. So nothing apart from God needs to be supposed in creation. More generally, Descartes has no room for the notion that potential essence has some sort of independent being.

Contrary to Fonseca, Descartes did not think that holding that there is just a distinction of reason between essence and existence contradicted the claim, on which he agreed with all the Scholastics, that ‘only Divine Nature exists from itself’. When answering Burman he not only did not withdraw the text from the First Replies asserting a distinction between essence and existence in creatures and not in God, but he went on to stress that in creatures ‘we can conceive of essence without actual existence’. Moreover, after Fonseca had written his commentary, Suárez had entered the dispute on the side of the Nominalists.¹⁹ He had extensively developed and defended the thesis that between essence and existence in an existing creature there is only a distinction of reason. Suárez, like all other participants in this debate, also believed that only God possesses necessary existence. Since it is beyond doubt that Descartes knew of Suárez’s views, it would appear that he followed him on this matter.

The Scholastics cast their dispute in terms of their Aristotelian doctrine of distinctions. Descartes shared with them the vocabulary and, with interesting departures, the notions of real, modal and conceptual distinctions. As we noted, his indebtedness to Suárez on this matter has been studied and stressed by commentators.²⁰ What I propose now is that Descartes was also influenced by Suárez when he held that in creatures essence and existence are distinct only by reason.²¹ This connection is suggested by the fact that Descartes adopts that view in a letter of 1645 or 1646 addressed to an unknown correspondent, probably Father Mesland.²² The letter is basically a discussion of the kinds of distinctions, strongly influenced by Suárez and starting with the phrase ‘I do not remember where I spoke of the distinction between essence and existence’ (AT, IV, 348).²³ As in aid of Descartes’s memory, Adam and Tannery refer to the Fifth Meditation (AT, IV, 348, note a). There, however, Descartes did not address the distinction between essence and existence in an existing creature, but between God’s necessary existence and the contingent existence of creatures. That these are independent issues was the opinion of Descartes and Suárez, if not of modern scholars and Scholastic defenders of the real and the modal distinctions between essence and existence.

Commenting on Descartes’s answer to Burman John Cottingham correctly states that the point made is ‘that the distinction between existence and essence is merely a *distinctio rationis*’.²⁴ To Cottingham, however, ‘this looks very strange’. In support he mentions the letter to Hyperaspistes: ‘the whole essence of a triangle can be correctly understood even if it is supposed that there is in reality no such thing’ (AT, III, 433). Without looking that far Cottingham could have referred to the text itself on which he was commenting. If Burman reported the reply correctly, and the claim that essence and existence are distinct only by reason is in some obvious way incompatible with it being possible to conceive an essence as not existent, then Descartes

made quite a fool of himself in front of Burman. And this would certainly be very strange. Maybe the fool was Burman and he did not report the reply correctly. Happily, however, there need be no fools in this story, nor need the passage remain submerged in obscurity.

In the letter of 1645 or 1646, two or three years before the encounter with Burman, Descartes wrote that essence and existence are not really distinct in actual things, even though one may consider an essence as not existing (AT, IV, 348–50). In the *Principles*, written even earlier, he stated that ‘the distinction between a substance and its duration is merely one of reason’, when he certainly did not want to deny that the essence of a substance can be conceived without supposing that the substance exists, let alone endures (AT, VIII–1, 30). So to Burman Descartes was just repeating a view he had held for many years, namely, that the essence and the existence of an existing creature are distinct only by reason but the former can be conceived without the other.²⁵ The question then is: how can the distinction between the essence and the existence of an existing creature be solely of reason and it not be necessarily true that the creature exists?

This is a question to which Suárez and the Scholastic Nominalists must have had some answer, even if in the end unsatisfactory. As Gilson has put it, if the issue of the distinction between essence and existence were immediately settled by the difference between the necessary existence of God and the contingent existence of creatures, ‘all theologians and philosophers of the Middle Ages should have taught the [real] distinction of essence and existence, for, indeed, all of them have realized the distinction there is between the self-existent Being, Who is God, and the being of His creatures, who have it only because they receive it. But it is not so.’²⁶ Furthermore, the Scholastic opponents of the Nominalist position, such as Fonseca, used exactly this argument against their targets: ‘if existence differed in no way from essence, either in God or in creatures, then it would not be exclusive of the divine essence to be His existence. But this is contrary to the opinion of all theologians’ (CM, IV, 2, q. 4, 1). From the point of view of the defenders of a distinction of reason between the essence and the existence of an existing substance, including Suárez and Descartes, Fonseca’s objection failed; and surely not because created substances exist necessarily.

Descartes held, then, that an existing created substance could have lacked existence but that in reality its essence and its existence are not distinct. He never affirmed that existence is part of its essence. Indeed, he stated the contrary: the essence of any creature can be thought as not existing. He did not mean that the essence of an existing substance could be separated in reality from its existence without destroying it, since then the essence would be really or modally distinct. An existing essence can be conceived merely as existing, without consideration of its contents; equally, it can be conceived

merely as the essence it is, without consideration of its existence. This is how the notion of existence comes to be framed. For a substance to exist is nothing more than for the substance to actually have its essence. It is in this sense that the essence and the existence of an existing substance are distinct only by reason.

According to Descartes, existence cannot be, strictly speaking, a mode of the essence. As we have seen, Fonseca's 'intrinsic modes' are close to Cartesian determinates. But 'existence' and 'non-existence' cannot be, in this sense, modes of a common term. As Descartes states, 'if by essence we mean a thing as it is objectively in the intellect, and by existence the same thing in so far as it is outside the intellect, it is manifest that the two are really distinct' (AT, IV, 350). An existing essence and a merely possible essence, that is, an essence as objectively in the intellect or in some analogous way in God, refer to two different substances: the substance which is formally the essence and the substance which objectively (or eminently) contains it. In this case, the distinction between an existing essence and the same essence not existing is real, not modal. Taken in another sense, an existing and a non-existing essence are distinct as something from nothing. This distinction is not properly real, since it does not hold between two substances. Nevertheless, it is clear that such distinction, whatever it is called, is as strong or stronger than a proper real distinction. In this case also, existence cannot be treated as a mode of some one term.²⁷

Descartes held that a non-existing but possible essence, although nothing in the sense that on its own it has no place alongside 'what really is', is yet an eternal real nature. As such it exists in God. Whatever the views of Fonseca's 'Nominalists', Descartes could have appealed to this doctrine if he were replying to the refutation of the argument from creation. Suárez had a similar position regarding non-existing essences. He too acknowledged a sharp real distinction between potential essence and actual essence. And he used the notion of a real eternal nature in replying to the objection from the contingency of creatures.

The essence of a creature need not ever exist, while God's nature exists necessarily. Suárez and Descartes correctly distinguished this point from the claim expressed in modern terms that existence is the second-order property of truly having an essence. For, given that existence is such a property, there is still a genuine question as to whether for some essence it is a necessary truth that a substance has that essence.

Suárez on essence and existence

The Scholastic dispute concerning the distinction between the existence and the essence of creatures is not the product of Scholasticism, in the negative

sense of an idle obsession with classification, distinctions and terminology. It is not far from the truth to say that, at least as it was understood by Suárez and by Fonseca, the question at issue was whether in an existing substance essence and existence are two independent real properties, or one a mode of the other, or, finally, in neither sense two different properties? On the face of it, this question seems genuine.

The problem is not restricted merely to contingent creatures but also to actual or existent ones. Using Aristotelian terminology Gilson wrote that the problem concerns the 'act in virtue of which [a creature] is'.²⁸ The three Scholastic alternatives, as presented by Fonseca, are that this act is really distinct from the act of the essence; that it is distinct from the act of the essence as its mode; and that it is distinct only by reason from the act of the essence but not in reality. In the *Disputations* Suárez identifies the same three options (*MD*, XXXI, 1).

These alternatives can be expressed using instead our terminology. The first is that in an existing created substance the essence and the existence are two different real properties, that is, they can be conceived independently each one from the other; the second, that one is a mode of the other; and the third, finally, that they are neither really nor modally distinct but can still be conceptually separated. Now, it is true that Descartes stated that a real distinction obtains between two substances. And it is clear that the Scholastic supporter of a real distinction between essence and existence did not want to claim that existence is a substance.²⁹ But it is clear also that this should be treated as a verbal point. Descartes formulates his doctrine of distinctions taking into account his belief that essence and existence are distinct only by reason. So he leaves no room for the notion that essence and existence be really but not substantially distinct. Nevertheless, his views on substance, essence, and existence can be dialectically put aside to address without prejudice, but from within his own philosophy, the question of the distinction between the essence and the existence of an existing creature. Thus, in Cartesian terms essence and existence are really distinct if they are two separate properties, each expressing an independent reality.

Descartes took the side of those who, as Suárez, defended the distinction of reason between essence and existence in an existing creature. In the conversation with Burman Descartes grounded his view, implicitly referring to his opponents in the School, on the claim that 'there was no essence prior to existence'. This is a rebuttal of both the real and the modal distinctions because it reduces the distinction between existing and non-existing essence to a distinction between something and nothing. Thus, it deprives the Thomists of a real term to separate from existence; and it denies the Scotists the common term to be intrinsically modified by existence and non-existence. This exactly parallels Suárez's argument.

After clarifying the terminology and laying out the three positions on this question, Suárez starts his discussion by considering ‘what is the essence of a creature before it is produced by God’ (*MD*, XXXI, 2).³⁰ He writes: ‘We must begin by establishing that the essence of a creature, that is, a creature of itself and before being made by God, has in itself no real being, and in this sense, apart from the being of existence the essence is not some reality but completely nothing’ (*MD*, XXXI, 2, 1).³¹ He points out that no ‘Catholic doctor’ could think ‘that the essence of a creature, from itself and apart from the free efficiency of God, is some true thing with some true real being distinct from the being of God’ (*MD*, XXXI, 2, 3).

Suárez then addressed a possible objection taken from John Capreolus, the fifteenth-century ‘prince of Thomists’, which he quotes: ‘there was, beyond the nothingness which is the lack of actual existence, an essence with essential being . . . [This essence] considered by itself is always something in the order of essences . . .’³² The objection, as formulated by Suárez, that ‘God created all things from the nothing of existence but not from the nothing of essence’ is in fact the same as that used in Fonseca’s ‘refutation’ of the Nominalist position quoted in the last section (*MD*, XXXI, 2, 4; *CM*, IV, 2, q. 4, 5). To this Suárez replied with the point that Burman later presented to Descartes, that if ‘what has no existence’ is not ‘simply and completely nothing’, then

God did not create, absolutely and simply, everything from nothing . . . and . . . He did not properly create any being (*ens*) but produced one from another, as from a receptive or unproduced real potency, namely, He produced existence or an existing thing from a real essence which is said to be the potency receptive of that being, and unproduced.

For the real distinction to work there must be, in the existing thing, an essence separable from its existence. However, according to Suárez, when existence is taken away from an existing creature nothing remains. So for him, the pure ‘essential being’ of Capreolus and the ‘potentially existing essence’ of Fonseca are, in an actually existing substance, ‘simply and completely nothing’. As he states, ‘in created things, being (*ens*) in potency and in act are distinguished immediately and formally as being and non-being (*ens et non ens*) *simpliciter*’ (*MD*, XXXI, 3, 1; see also 3, 3).

It must be stressed, for reasons that will become apparent in the next section, that here Suárez intends to speak about the being of the essence in an actually existing substance and not about the being of the essence in general. He makes this clear when he produces the following argument: ‘when existence and the efficiency of the first cause are removed, completely nothing remains *in the effect* . . . Therefore, an essence cannot remain under some true real being distinct from the being of the creator’ (*MD*, XXXI, 2, 4; my emphasis). In an actual substance essence without existence is nothing. Consistently with this one may hold that a purely potential essence has objective reality within some thinking substance.

Though Suárez does not bring this point to bear directly against the ‘modal distinction between actual essence and existence’, it is implicit in his argument (*MD*, XXXI, 6, 9). He maintains that if existence is properly a mode of an existing essence, then the latter considered apart ‘from the mode is a positive and real being (*ens*) in act; otherwise, the distinction will be either of reason or of the sort that can be given between a being and a non-being (*ens et non ens*)’. Since prior to existence the essence is not an actual real being, it follows that existence is not a mode of essence in an existing substance.

Now, all this does not yet tell us what existence is. It refutes those views which hold that in reality there is a distinction between the essence and the existence of an existing creature. But it gives no account of how essence and existence are in fact distinguished. To Burman, Descartes added that ‘existence is nothing but existing essence’. He thus suggested his own positive view on the matter: that existence adds no reality to a substance apart from the reality of essence, and that, therefore, in an existing substance existence is nothing over and above the actuality of the essence. Still, as he explained to Burman, ‘we are right to separate the two in our thought, for we can conceive of essence without actual existence’. Here also Descartes’s reasoning compressed what was found expanded and developed in Suárez.

Following on his criticism of those who believe in a distinction found in reality between the essence and the existence of creatures, Suárez writes that existence is the act of the essence (see *MD*, XXXI, 4, 4). If existence were distinct in reality from actual essence, then it would not constitute the act of essence. Actual essence and existence are, therefore, distinct only by reason. Suárez’s argument is straightforward: for something to exist is for an essence to be actual. This, he states,

is made manifest from the proper nature of existence. For the being of existence is nothing other than that being by which some entity is formally and immediately constituted outside its causes, ceasing to be nothing and starting to be something. But such is that being by which formally and immediately a thing is constituted in the actuality of essence. Therefore, this is the true being of existence. (*MD*, XXXI, 4, 6)

Existence is the act of an essence. There is no act of an essence prior to its existence, and there is no existence apart from the act of an essence. Suárez allows that there can be ‘a real exemplar in God’ of a possible but non-existing essence; but the exemplar of existence is ‘not different from the exemplar of the essence itself’ (*MD*, XXXI, 2, 10 and 6, 17). So Suárez concludes that ‘in creatures existence and essence are distinguished either as being (*ens*) in act and in potency, or, if both are taken in act, only with a distinction of reason with some foundation in reality’ (*MD*, XXXI, 6, 13).

What exactly is the conceptual distinction involved here and how is it grounded in reality? Suárez’s account is as follows:

[E]ssence and existence are the same thing. It is conceived as essence in so far as on account of it the thing is constituted under a particular genus and species ... [T]his same thing is conceived as existence in so far as it is conceived as being in reality and outside its causes. Since the essence of a creature is not necessarily, from its own power, an actual entity, when it receives its entity we conceive something to be in it, which is the formal character of being outside its causes ... [W]e call this existence. Although in reality this is not something different from the very entity of the essence, it is still conceived by us under a different aspect and description. This suffices for a distinction of reason. (*MD*, XXXI, 6, 23)

When an existing creature is conceived under the aspect of essence, we conceive 'what is expressed by a definition or by some description, by which we explain what the thing is or what is its nature'. When, on the other hand, an existing creature is conceived under the aspect of existence, we conceive it as being in reality and 'outside its causes'. The reference to causes should not be taken to imply that existence is a relation: 'the existence of an absolute thing is not a relation but something absolute' (*MD*, XXXI, 6, 18). The phrase '*extra causas*' alludes to the opposition between actual and potential essence; for, though on its own nothing in reality, potential essence in a sense exists within what could cause it.

In the passage quoted, Suárez suggests that what makes this conceptual distinction possible is that we can conceive a created essence without existence. A contingent essence does not have to be actual. So we can conceive it whole but in abstraction of its existence. Conversely, its existence can be conceived as the actuality of the essence, which we leave aside to consider the actual essence *qua* essence and not *qua* actual. But existence is nothing apart from the actual essence.

Suárez explains in some detail how it is that the contingency of created substances grounds the conceptual distinction between their essence and their existence (see *MD*, XXXI, 6, 23). He distinguishes between a negative and a prescisive abstraction. The former results from denying some feature of the thing considered. When essence is conceived as not existing it is positively conceived as potential essence. A purely potential essence is negatively abstracted from actual essence. A prescisive abstraction, on the other hand, does not deny any features of the thing considered. Rather, it considers the thing without considering whether or not it has certain features. When an existing essence is conceived prescinding from its existence, the result is not a conception of a purely potential essence but of the actual essence independently of its existence. For, using Suárez's comments elsewhere, potential essence 'is not properly predicated of existing creatures as such, since they are not in potency but in act' (*MD*, II, 4, 11). Thus, if we perform a negative abstraction of existence on an actual essence we obtain a term, purely potential essence, distinct from the initial one as nothing is distinct from something. But if we perform a prescisive abstraction of existence on an actual

essence we conceive that existing essence exclusively *qua* essence; and then we conceive existence as its act. The foundation in reality for this abstraction is the fact that the essence of a creature does not exist necessarily. So we can conceive the whole created essence distinctly while yet prescinding from its existence.

Consider now the notion of a necessarily existing being, a being with an essence such that, necessarily, there is a substance with that essence.³³ It is not clear how we could properly abstract the notion of existence from the concept of this essence; for existence follows from it considered in itself. In other words, though existence adds no reality to the reality of essence, it still follows necessarily from that essence itself that it is actual: a conception of the essence in abstraction from its existence entails that it exists. In principle, a distinction could be drawn between the first-order predicate of the essence and the second-order predicate of existence. But the first-order predicate entails the second-order predicate: the essence cannot be merely possible, for it contains its actual existence. So our distinction would have no foundation in reality.

Earlier, we resisted the unwarranted supposition that Descartes confused the necessity which attaches to the existence of any substance which in order to exist, must exist, with the necessity pertaining to the existence of God. Suárez also separated the two. He conceded that if by ‘creature’ we mean ‘existing creature’, then ‘the creature essentially demands existence in act in order to be a creature’ (*MD*, XXXI, 6, 24). But he then added that though ‘existence is inseparable from the creature without destroying it’, it is incorrect to infer from this that

the creature could not be deprived of existence, for it follows only that it cannot be deprived of it without being destroyed and ceasing to be . . . [S]ometimes to have being essentially signifies having it from itself and not from another, in which way no creature ever has being essentially, even if it is in act. However, now we do not speak in that way, but in so far as that which is the first and formal constituent of a thing is said to be of the essence . . . even if it does not have it from itself but from something else. In this way, then, existence can truly be said to be of the essence of a creature in so far as it is constituted in act or created. Yet when it is denied that existing in act is of the essence of a creature, the creature must be taken in abstraction or prescission from created and creatable creature, whose essence is objectively conceived in abstraction from actual being or entity. Thus, it is denied that to exist in act is of the essence of creature, for it does not fall in its essential concept so abstracted. A distinction of reason, or a real negative distinction as between potential and actual essence, suffices for all of this.

According to Suárez, then, it can consistently be said of an existing creature, first, that unlike God it does not exist necessarily; second, that it exists necessarily *de re* in the sense that, no matter how we refer to it, it cannot exist without existing; and, third, that its existence and essence are not really distinct.

We can now appreciate ‘in what sense’, according to Suárez, ‘it is most truly said that to exist in act is of the essence of God, and not of the essence of a creature. For, indeed, God alone by virtue of His nature has existence in act without the efficiency of another; but a creature by virtue of its nature does not have existence in act without the efficiency of another’ (*MD*, XXXI, 6, 14). Though existence is, in this way, of the divine nature, Suárez recognized that we can ask two different questions about God: ‘whether He is and what He is’ (*MD*, XXXI, 7, 8). We can distinguish these questions on account of our confused conception of God’s essence. Of course, it is easier to separate them once we are equipped with a notion of existence obtained from actual creatures.

This interpretation is confirmed by the contrast which Suárez himself draws between the distinction of reason which holds of the essence and the existence of God and that which holds of the essence and the existence of creatures. He states that ‘a distinction of reason suffices’ to differentiate between the questions after God’s existence and after His essence. ‘But’, he tells us,

there is a difference with respect to this between God and creatures. For in God these questions are distinguished only from our way of conceiving of the relation or connection of the predicate with the subject . . . We sometimes conceive some predicate to pertain to some subject without distinctly conceiving how it may belong . . . Thus, of God Himself we can first know that He is, while in doubt as to how being pertains to Him and whether it is of His essence. On account of this, though in reality being itself is of the quiddity of God, we distinguish the questions whether He is and what He is . . . [W]ith a much greater reason, founded . . . on reality itself, the question ‘is it?’ is distinguished from the question ‘what is it?’ asked about a created thing, namely, because, absolutely speaking, existing in act is not of the quiddity of the creature.

Suárez’s distinction of reason between the essence and the existence of creatures, far from conflicting with their contingent nature, is grounded on it.

To Burman Descartes repeated these two claims: ‘we are right to separate the two in our thought, for we can conceive essence without existence’ and ‘one is not prior to the other nor are they separate or distinct’. Placed in the context of Suárez’s discussion in the *Disputations*, Descartes’s reply makes perfect sense. Still, a problem remains regarding Descartes’s ontological argument, which, it has been claimed, commits him to a view of existence as a real property. Before turning our attention towards this issue, however, we should return to a doctrine presented in chapter 3 and examine the status of non-existing essences. Neither for Suárez nor for Descartes is the whole story told when a purely possible essence is relegated to nothingness. For they both believed that some truths about contingent essences demand something necessary to account for their necessary truth.

The eternity and reality of contingent essences

Gassendi criticized Descartes's claim that there are 'countless ideas of things which even though they may not exist anywhere outside me still cannot be called nothing; for . . . they are not my invention but have their own true and immutable natures' (AT, VII, 64). Gassendi found it 'hard to propose that there is any "immutable and eternal nature" apart from almighty God' (AT, VII, 319). As noted in chapter 5, Gassendi explicitly linked Descartes's claim to Scholastic doctrine. He argued that unless there were some a real distinction between the essence and the existence of a creature, there could be no eternal truths about such essences. But if one holds that there is such a real distinction and there are such eternal truths, then one must say that independently of God there are eternal and immutable things, namely, the essences of creatures. And then Gassendi could ask, as Burman would do later and some Scholastics had done earlier: 'since what is most important in things is their essence, does God do anything very impressive when he produces their existence?'

Instead of attributing the real distinction to a party within Scholasticism, Gassendi wrote loosely and imprecisely of 'what is asserted in the School'. Scholasticism had by then definitively lost the centre stage in philosophical discussion. Their disputes were theirs; and a practice was taking shape, in no small measure thanks to Descartes himself, by which one chose what one wanted from their views to fabricate a strawman to confirm one's own doctrines. None the less, whatever Gassendi's ignorance of Scholastic metaphysics, Descartes was certainly well informed about many of its details and subtleties. In his replies he did not bother to put his indefatigable opponent right about what was thought in the School about the distinction between essence and existence.³⁴ On the question of the reality of essence, on the other hand, Descartes did take Gassendi up.

What Descartes first settled is that he had not proposed that there are 'existing things' which are 'immutable and eternal apart from God' (AT, VII, 380). Next he stated: 'I do not think that the essences of things, and the mathematical truths which we can know concerning them, are independent of God. Nevertheless I do think that they are immutable and eternal . . .' Here Descartes was referring in particular to extension and its science. It is customary to take the Cartesian discovery of analytic geometry as the reduction of geometry to algebra and arithmetic. But from Descartes's perspective it might in fact be more appropriate to describe this as the reduction of algebra and arithmetic to geometry. As the quoted text suggests, Cartesian mathematics is the science of extended essence. This essence is immutable and eternal, thus providing an ontological foundation for the necessity of mathematical truths; but as such it is not an independently existing entity. As we have seen in chapter 3, it exists in God.

Descartes's answer to Gassendi is that before creation contingent essences are nothing *qua* existing things. It was clear to Descartes that only the defenders of a real or a modal distinction would have problems here. He, on the contrary, did not uphold such distinction. But, though in an actual thing the distinction between essence and existence is only of reason, for Descartes there is still science of necessary truths about contingent creatures. It is founded on the eternal and immutable real essences in God. The eternal science of non-eternal creatures is, then, a science of objects within God.

Fonseca reports the following argument in favour of a real distinction by the Dominican Francis Sylvester de Ferrara:

What does not belong to something because of a producing cause is distinguished in reality itself from what belongs to it only because of some such cause. Essential predicates do not belong to creatures because of any producing cause. (Indeed, such propositions as 'man is animal', 'man is substance', and similar ones, have always been true, even before God made anything.) The predicate with which existence is affirmed of created things, on the other hand, does belong to creatures only because of some efficient cause. There is no doubt, therefore, that the essence and the existence of creatures are distinguished in reality itself. (*CM*, IV, 2, q. 4, 2)³⁵

In the *Disputations*, when first presenting the view of those who uphold the real distinction between existence and essence, Suárez mentioned this argument in Ferrara, Aquinas and others (*MD*, XXXI, 1, 3–4). Later he referred back to it as an objection to his own position: 'if, upon the removal of existence, the essence perishes, then those propositions in which essential predicates are predicated of a thing are not necessary nor perpetually true; yet the consequent is false ...' (*MD*, XXXI, 12, 38). When formulating this objection one must be careful not to confuse an existential with a definitional predication. In the first case it is implied that the subject exists in reality. In the second the attribution 'only signifies that the predicate is of the nature of the subject, whether the terms exist or not' (*MD*, XXXI, 12, 44). Properly taken, the objection concerns the grounds for these latter truths, which are necessary and eternal.

Suárez began his discussion by establishing that, as we have seen, prior to existence essence on its own is nothing. In his refutation of the objection inspired by a text of Capreolus, which was quoted above, Suárez turned their source against the Thomists: 'in the end Capreolus expressly acknowledges [that] ... " ... before [the essence] has being it is nothing, except perhaps in the creating intellect, where it is not a creature but a creating essence"' (*MD*, XXXI, 2, 3). Suárez argued that even if they do not exist creatures have real essences in virtue of their creator, for 'the whole creatable being is contained in the potency of God before being made ... And in this way also such essence is said to be real before it is made, not by a true and proper reality which it actually has in itself but because it can ... [receive] from its cause a

true entity' (*MD*, XXXI, 2, 2). He explained that 'the being which they call essential, before the divine efficiency or creation, is merely an objective potential being ... or a being by an extrinsic denomination from the potency of God and by a non-repugnance on the part of the creatable essence' (*MD*, XXXI, 2, 1 and 2). As we saw in chapter 3, this latter feature of a real essence distinguishes it from the impossible beings which are also objects of God's knowledge (see *MD*, LIV, 2, 23). Suárez explained further that the connection between the subject and the predicate of an eternal essential truth 'is nothing other than the identity of the terms ... which ... in reality is nothing apart from the very entity of the thing' (*MD*, XXXI, 12, 46). This entity, in the case of all possible creatures, is ultimately nothing but the reality of God.

In conclusion, we find in Suárez the following doctrines. First, in an existing creature essence without existence is nothing. So the distinction between an actual and a possible essence, in the realm of existing reality, is the distinction between something and nothing. In this, Descartes would later follow him. Secondly, a merely possible essence, though nothing real in itself, still exists in what could create it or, 'since God does nothing except as an intellectual agent', objectively in divine thought (*MD*, XXXI, 6, 17). This is what Suárez calls an 'objective potential essence', borrowing the notion from Duns Scotus. Here also, Descartes would later advocate similar views. Thirdly, a real essence has a 'non-repugnance' to existence in as much as it is derived by limitation from God. This possibility of existence denotes a positive capacity on the part of the essence. Furthermore, when so considered an essence does contain all the predicates that necessarily belong to it. Thus, it serves as a foundation for the science of necessary essential truths.³⁶ Again, a similar doctrine is found in Descartes.

In Section 2 of the Disputation on the essence and the existence of creatures Suárez states, 'with St. Thomas', that 'there has been no truth from eternity in those propositions except in so far as they were objectively in the divine mind' (*MD*, XXXI, 2, 8). And later, in Section 12, he states that 'it is not sufficient ... to answer with St. Thomas ... that, the existence of creatures being destroyed, these statements are true not in themselves but in the divine intellect' (*MD*, XXXI, 12, 40). These two statements do not manifest a tension in Suárez's thought; nor do they arise from an unacknowledged but problematic switch from objective being to logical potency. Rather, they respond to two different but related issues to which Suárez offers a consistent solution.

The first issue concerns the existence of propositions which are true from eternity. According to Suárez, they exist as such only as objects within God. Correspondingly, real but non-existing essences share from eternity in the existence of God, for they exist within Him. Apart from this objective being in God and, when created, from their existence in reality, contingent essences are absolutely and simply nothing.

The second issue concerns the truth of these propositions eternally existing within God, including necessary truths about what exists only contingently. Suárez's answer is that their necessary truth is intrinsic to them. In a parallel manner, the character of real but inexistent essences, found in reality only within God, pertains to them in themselves. In other words, neither the necessity of necessary eternal truths nor the nature of real eternal essences derives merely from their being within God eternally as objects. Instead, it flows from themselves, which is to say, it flows from God's very being, not in so far as they are objects of God but as they express the very necessity and reality of God Himself. This explains Suárez's refusal to ultimately refer the truth and reality of essences to the Divine Ideas or Exemplars:

it would not be satisfactory if we were to say that, the existence of things being suppressed, this [necessary] connection remains only in the divine exemplar, and that it derives such necessity from it . . . [F]or, though the truth of these connections in so far as it is real and actual truth does not remain but in the divine intellect . . . nevertheless the necessity of this truth and the first root and origin of such connection cannot be referred to the divine exemplar. For the divine exemplar itself had the need to represent man as a rational animal, without being able to represent it with another essence. This does not derive from anything but that man cannot have a different essence. For, by the very fact that it is a thing with another essence, it is not a man. Therefore, this necessity comes from the object itself and not from the divine exemplar. (*MD*, XXXI, 12, 46)

It is not simply because they are objects in God's mind that necessary truths are necessary and real essences, true possible substances. As we saw earlier, from eternity God also knows contingent truths and beings of reason. There must be something in those objects themselves which distinguishes them from these other eternal divine objects.

However, the necessity which constrains God in framing the Divine Exemplars need not suppose any source other than God Himself. For, inasmuch as He contains all reality, this necessity derives from His own being. If one allows this manner of speaking, the point may be expressed as follows. When God, who contains within Himself all reality, thinks His own being as limited and made finite in the determinate reality that is the essence of human beings, He must think it in a certain way, thus giving rise to the objective potential essence of human beings which, therefore, contains in itself and intrinsically the real possibility of its existence and the necessary predicates of its reality. If the potency of real essences involves anything apart from objective potential essence it is the being of God Himself.³⁷

It is at this place that Descartes's divergence with the Eximious Doctor concerning the dependence of necessity and possibility on God's will comes into play. Both in Suárez and in Descartes the treatment of the distinction between the essence and the existence of an existing creature, and the articulation of

the foundations of the necessity of essential truths, are independent from that dispute. As I have argued, Descartes's views on these philosophical questions were strongly influenced by Suárez. They both held, consistently and without lapsing into extra-deical Platonism that in existing creatures existence is just the having of an essence, that prior to its existence the essence itself is nothing in reality but an object within God, and that there are real, immutable and eternal essences, ultimately reducible to God Himself, which serve as the ontological grounds for the necessary truths which constitute the science of what there is.

Cartesian existence is not a real property of a substance on the side of its essence and the modes of its essence; it is a mere second-order property, the property of actually having an essence. Similarly, the duration and number of a substance are properties which can be distinguished from its essence only in thought but not in reality. Duration expresses the successive existence of the essence; and number, its unity. Clearly, this has no implications as to the unreality of time. It asserts solely that there is no reality to time apart from the reality of enduring substances. Similarly, it does not deny the divisibility of matter. When Descartes states that extension is infinitely divisible he is referring to an internal divisibility. He means that any extension is composed of parts which are themselves extended. But extension as an intelligible whole is substantially indivisible. So the thought of extension as one single real essence, like the thought of my consciousness as one true essence, can account for the notion of unity or one.³⁸

The ontological argument and the distinction of reason between essence and existence

Since Kant's *Critique of Pure Reason* it has become commonplace to argue against any ontological proof of God by claiming that existence is not a first-order property of substances. The gist of the criticism is that in attributing existence one does not attribute any reality or perfection separate from the reality or perfection of the other properties of a thing. So, it is maintained, the idea of God cannot be held to contain existence solely from the fact that it is the idea of the greatest or most perfect conceivable being, for the possession or the lack of existence neither augments nor diminishes the perfection contained in the idea.

Kant's contribution was not to have been the first to maintain that existence is not a first-order or real property of a substance, nor to have first deployed this consideration against a formulation of the ontological argument. If anything, it was to have generalized it against all *a priori* arguments from the sole concept of God. Gassendi put forward that same objection against Descartes's version of the argument in the Fifth Meditation: 'neither in God

nor in anything else is existence a perfection; instead, it is that without which there are no perfections' (AT, VII, 323). Gassendi explained that,

what does not exist has neither perfections nor imperfections. And what does exist and has several perfections does not have existence as one of its individual perfections, but as that by which both the thing itself and its perfections are existent, and without which we cannot say that the thing possesses the perfections or that the perfections are possessed by it. Hence we do not say that existence exists in a thing in the way perfections do; and if a thing lacks existence, we do not say it is imperfect . . . but say instead that it is nothing at all.

None the less, if my reading of Suárez's conceptual distinction between essence and existence is correct, the merit of having first proposed that existence is not a real property of substances must be recognized as his and not as Gassendi's.³⁹ Still, it seems that it was Gassendi who first brought this doctrine to bear against a formulation of the ontological argument.

Information about who first made what philosophical point, satisfying of curiosity as it may be, is not on its own of philosophical interest. The relevance of these comments lies in the fact that Descartes availed himself of the ontological argument, while, as I have argued, following Suárez's view that existence is not a real property. Two questions arise here. The first is whether or not it is inconsistent to hold both that an ontological argument is valid and that existence is not a real property of substances. The second is whether or not, granting that in general there is no such incompatibility, Descartes's version of the argument conflicts with that doctrine about existence. Let me say at the start and before addressing these questions that even if the first received an affirmative reply, it does not immediately follow that my interpretation of Descartes's distinction of reason between essence and existence must be rejected. There is always a last refuge: the possibility that he was unknowingly inconsistent, even if, as was the case, he was confronted with the inconsistency.

With respect to the first question, things have been made considerably easier for us by the recent work of Alvin Plantinga. In *God and Other Minds* Plantinga examined Kant's objection against the ontological argument that existence is not a real property.⁴⁰ After discussing Kant's own statement of the objection and several contemporary restatements, he concluded that 'none of the attempts to give a general or wholesale refutation of the ontological argument and its variants has succeeded'.⁴¹ I agree with this conclusion and know of no proposal which casts doubt on it. Basically, this settles our first question: for all we know, the answer to it is 'no', it is not inconsistent to hold both that the ontological argument is valid and that existence is a second-order predicate or that it is not a real property. In *The Nature of Necessity* Plantinga provided further support for his conclusion by actually producing a formulation of the ontological argument which by-passes the problem of whether existence is a real property or not.⁴² Since Plantinga's 'victorious modal

version' of the ontological argument is clearly valid, this definitively decides the issue at hand.

The validity of an argument does not signify its soundness. Whether Plantinga's ontological argument succeeds in establishing its conclusion depends on the truth of its premisses. In particular it depends on the truth of the following premiss: 'unsurpassable greatness is possibly exemplified' or 'there is an essence entailing unsurpassable greatness'.⁴³ Unsurpassable greatness is the property of *necessarily* being omniscient, omnipotent and morally perfect. That the ontological argument should hinge on the possibility of God is no surprise. Leibniz concluded precisely this and dedicated considerable thought towards demonstrating that God is possible.⁴⁴ Prefacing my discussion of the Cartesian version of the ontological argument, I will remark on the fact that Descartes did take the idea of God to be the idea of a consistent or possible being. His grounds, admittedly, were not very solid. Descartes believed that the concept of 'God or a supremely perfect being' is coherent because it can be understood clearly and distinctly (AT, VII, 65; see also, e.g., IV, 64, VII, 40, 45–6, 68, 150–1, VIII–1, 12). Of such a procedure one is rightly moved to say that it embodies 'a rather too optimistic assessment of the problem of consistency. The concept of a ruler and compass construction of a square equal in area to a given circle has a place in the thinking . . . of human beings . . . Many people have been convinced they knew of such construction. But this does not make the concept consistent.'⁴⁵ All the same, the fact remains that Descartes did think that he knew that God is possible.⁴⁶ With that we pass now to our second question.

Is Descartes's version of the ontological argument incompatible with the claim that existence is not a real property of substances? Descartes offered several formulations of the argument: in the *Discourse*, the *Meditations*, the Appendix to the Second Replies, and the *Principles*, to mention only those contained in the systematic expositions of his metaphysics.⁴⁷ In these formulations he usually proceeds by claiming, as he did in the *Discourse*, that

when I looked . . . at the idea . . . of a perfect being, I found that this included existence in the same way as – or even more evidently than – the idea of a triangle includes the equality of its three angles to two right angles, or the idea of a sphere includes the equidistance of all points on the surface from the centre. Thus I concluded that it is at least as certain as any geometrical proof that God, who is this perfect being, is or exists. (AT, VI, 36)

The notion that existence is contained in the idea of a supremely perfect being is common to all his formulations. In the Fifth Meditation he explained how this is so. It is contradictory, he stated, 'to think of God (that is, a supremely perfect being) as lacking existence (that is, as lacking some perfection)' (AT, VII, 66). Later on, he repeated this thought: 'whenever I . . . think of a first and supreme being . . . it is necessary that I attribute all perfections to him . . .

And this necessity plainly guarantees that, when I . . . realize that existence is a perfection, I correctly conclude that a first and supreme being exists' (AT, VII, 67). Descartes explicitly maintained that existence is a perfection, something which, it would seem, adds some positive reality to the reality of the other properties of a substance. It appears, then, that Gassendi's objection was justified.

We must remark, however, that on its own the statement that existence is contained in the notion of a supremely perfect being does not entail that existence adds any reality to the reality of the essence. It may be read as asserting that the notion of God is such that upon consideration it must be agreed that it is the notion of an actual being. In other words, it may be taken to affirm merely that there is an essence which cannot be thought not to exist. This is compatible with the view that existence is not a real property. For it need be taken to say no more than that from the character of that essence, or the definition of that being, it follows that it exists. This, precisely, is what an ontological argument holds; and we have seen that an ontological argument need not depend on the claim that existence is a real property. The difficulties arise when Descartes explains how it is that the entailment from the concept of God to His existence proceeds. For then he holds, at least in the Fifth Meditation, that the concept of God entails His existence because it is the concept of a being with all perfections and existence is a perfection. He does not argue, in Leibnizian fashion, from the possibility of a supreme being, through its necessity, to its actuality. Rather, he appears to hold that existence is a real property or positive quality which such a being, defined as lacking no reality, could not lack. His reasoning seems, therefore, to assume what Gassendi objects to and what I have argued he did not believe, namely, that existence expresses something more than 'existing essence', that is, more than simply the having of an essence in reality.

Descartes replied to Gassendi as follows:

I do not see what sort of thing you want existence to be, nor why it cannot be said to be a property just like omnipotence, taking, of course, the word 'property' to stand for any attribute, or for whatever can be predicated of a thing; and this is exactly how it should be taken here. Moreover, necessary existence is truly a property of God in the strictest sense, since it applies to him alone and it forms a part of his essence as it does of no other thing. Hence the existence of a triangle must not be compared with the existence of God, since the relation between essence and existence is manifestly different in God and in the triangle.

To count existence among the properties which belong to the essence of God is no more a *petitio principii* than to list among the properties of a triangle that its angles are equal to two right angles.

Nor is it true that essence and existence in the case of God can be thought one apart from the other, as in the case of the triangle. For God is his own being, but this is not true of the triangle. I do not, however, deny that possible existence is a perfection in

the idea of a triangle, as necessary existence is a perfection in the idea of God; for this makes it superior to the idea of those Chimeras, which cannot possibly be supposed to exist. (AT, VII, 382–3)

Let us focus first on this last claim: necessary existence is a perfection in God and possible existence is a perfection in the idea of a triangle; chimeras, on the other hand, lack even the lesser perfection of triangles for they cannot exist at all. Descartes is here suggesting a hierarchy of perfection: from impossible things through possible things to necessary things. The question is: is he suggesting this hierarchy on the basis of the claim that existence is a property expressing some peculiar positive reality, which the lowest members can never have, the middle members have if at all contingently, and the highest, necessarily? Is it that necessary existence expresses more of this positive reality than possible existence (perhaps actual but contingent existence should be placed in between)?

That these were not Descartes's thoughts is suggested by the claim that 'God is his own being'. Hyperaspistes asked him about this and he replied that he meant that 'it pertains to the essence of God to exist; for the same cannot be said of a triangle, whose whole essence can be correctly understood even if it is supposed that there is no such thing in reality' (AT, III, 433). The sense in which existence belongs to God's essence is that divine nature cannot be correctly supposed not to be in reality. To possess existence is not, then, to possess any other positive reality than the positive reality of the essence; rather, it is to possess the essence in reality. This reading is confirmed in the First Replies. There Descartes considers the notion of a 'supremely perfect body' and states that 'existence does not arise out of the other bodily perfections, because it can be affirmed or denied of them' (AT, VII, 118). He then passes on to consider the idea of God or a 'supremely powerful being'

when we attend to the immense power of this being, we shall be unable to think of its existence as possible without also recognizing that it can exist by its own power; and we shall infer from this that this being really does exist and has existed from eternity, since it is quite evident by the natural light that what can exist by its own power always exists. So we shall come to understand that necessary existence is contained in the idea of a supremely powerful being ... because it belongs to the true and immutable nature of such being that it exists. (AT, VII, 119)

Thus, when Descartes replied to Gassendi that existence is a property 'just like omnipotence', he was right to qualify this claim so that he would be taken to mean simply that it can be attributed to a subject.⁴⁸ And when he added that 'necessary existence' is a 'property [*proprietas*]' of God 'in the strictest sense' (i.e., *proprius*) he meant that only in God's case is existence entailed by essence and is in this way *proper* to Him. It is for this reason that he referred, by way of contrast, to the case of a triangle, where the whole essence can be coherently thought not to exist.

Maybe Descartes 'radically' changed his mind on how to treat existence within the essence of God after he wrote the Fifth Meditation.⁴⁹ It seems to me more likely that he was careless in the way he put things in the earlier piece. The fact is that in his considered thought Descartes did not take existence to be a real property, a property contributing some peculiar reality. Though through his form of expression he had given rise to a justified complaint on the part of Gassendi, he typically treated his opponent unfairly but still made his point clear. One last remark before we proceed: it is significant, from the perspective of our interests here, that Descartes did not confront Gassendi's objection and affirm that existence adds some positive reality or perfection to the reality of the essence. The reason, of course, is that he did not believe that it does.

However, this leaves us with a problem. For now we need to give some account of why it is that existence is entailed by the divine essence. Since existence signifies no peculiar positive reality, the argument that a supreme being contains all perfections and existence is a perfection will no longer be adequate. Here I will not discuss the matter beyond proposing a straightforward inference which appears to be suggested in several Cartesian passages, including that quoted from the First Replies. The notion of a supremely perfect or infinite being is the notion of a being that exists from its own power; it is the thought of a being such that it is necessary that it have its essence in reality, from itself and without need of any independent cause. But this being is possible. Therefore, it exists.

This argument simply infers from the possibility that it is necessary that God exists, that God indeed exists. One might object that once the thought of a being such that it is necessary that it exists is granted, the argument proceeds all too swiftly. But the crux of the proof lies in the claim that such a being is possible. Thus, the thought of a triangle such that it is necessary that it exist in reality gets us nowhere unless we can demonstrate the possibility of a necessarily existing triangle. But if it is granted that any triangle can be consistently thought not to exist, any triangle that is proposed as necessarily existing is also a triangle that possibly does not exist. It will not do to say that a necessarily existing triangle cannot not exist. For a necessarily existing triangle, according to Descartes, is a triangle of which it is simply stipulated that it exists necessarily; in God's case, on the other hand, necessary existence is not overtly or covertly added on to the essence. The whole argument rests, therefore, on the claim that there is a possible necessarily most perfect, greatest, or infinite essence. As James Cargile has remarked, 'everything turns on whether a necessarily supreme being is possible. That so much should turn on such a simple question is . . . a fascinating fact of metaphysics.'⁵⁰

The body and the minds

In the last two chapters we have examined Descartes's doctrine of substance, its essence and its existence. Cartesian substances are subjects that bear their properties as determinables are determined by their determinates. A Cartesian essence is one property, an intelligible whole which constitutes and individuates its substance, and is itself distinct in the manner of a highest-order determinable. Hence, each one of the real properties inhering in a substance serves to individuate its subject in a purely intelligible way and without reference to extrinsic, trivially individuating properties. The existence of a substance is a second-order or derivative property which consists solely in something being that essence, and which adds nothing beyond the reality of the essence. Now we move from these general metaphysical doctrines to Descartes's ontology, from the pure theory to its application. In this chapter we will consider the Cartesian account of what there actually is, of us and the world around us.

When commentators write about Descartes's real distinction, they usually refer to the distinction between the human body and the human mind. However, a real distinction holds between any two substances; and though Descartes did believe that a human mind is a substance, he took the human body to be a modified or determined part of the single corporeal substance. In a passage quoted earlier he states that 'the human body . . . is simply made up of a certain configuration of limbs and other such accidents', and that it 'becomes another body from the sole change in the shape of some of its parts' (AT, VII, 14). So the real or substantial distinction holds between the one extended substance and the human mind. But on Descartes's view there are many human minds. Women and men, and presumably also angels, are each a different thinking substance, all composing a vast assembly of minds. Strictly, then, the real distinction obtains between the one material body and a plurality of souls or finite minds.

The only substance left out from this list is God, the unique uncreated and self-caused substance. Descartes fluctuates between the claims that God's

essence is infinity and that it is thought (see, for example, AT, VIII–1, 26 for God as thinking, and AT, VII, 113 and VIII–1, 15 for God as infinite). The two, of course, come together in the notion of God as infinite thought. As we saw earlier, Descartes's understanding of the relation between God and creatures involves reference to obscure notions of degrees of being, participation, and eminence in reality, notions which are not at home in post-Cartesian metaphysics.

In this chapter I focus on Descartes's treatment of finite substances. There are a plurality of creatures in Descartes's universe each with an exclusive and unique individuating essence. I will use the expression 'thought_n' (where *n* can be any natural number smaller than or equal to the number of all the minds that there are or will be) to refer to the individual essences of finite minds which God has created or will create.¹ The set composed of extension and thought_n is, atemporally, the set of all actual creatures. This Cartesian ontology is our subject for the following sections.

The real distinction

What are the grounds for Cartesian 'dualism'?² Why did Descartes claim that extension and thought_n are essential properties each constituting a different substance? And why did he maintain that extension and thought_n are, for all we know, the only possible essences of created substances?

Let us remind ourselves of what is needed, within the Cartesian metaphysics, in order to show that the essence of any created substance is extension or thought_n. First, it must be determined that extension and thought_n can be clearly and distinctly conceived to exist in reality, on their own and as complete things. This establishes that we are dealing with the real essences of possible substances; and it excludes properly sensorial objects and universals (which cannot be conceived to exist outside an act of thought) and objects such as existence, shape or desire (which cannot be conceived to exist as 'complete' things, on their own and apart from 'the nature of body' or of mind) (AT, VII, 223). Secondly, it must be determined that extension and thought_n are 'by nature entirely distinct' from each other in the manner of supreme determinables which 'we understand one apart from the other' (AT, III, 266 and 567). This ensures that these are numerically different essences. (On these two requirements, see also AT, VII, 13, 78–9, 120–1, 132–3, 169–70, 354–5, 442–3; VIII–1, 28–30; VIII–2, 347–52; and IX–1, 207.)

Thirdly, in order to show that, for all we know, extension and thought_n are the only possible finite essences, Descartes must demonstrate that all the other non-relational properties of things can be understood in terms of those properties, either as their determinates or modes, or as derivative or second-order properties, or as proper sensory objects, or, finally, as universals. Having

done this, Descartes can safely conclude that extension and thought_n exhaust created reality, at least as far as we can know through natural means. To know this unqualifiedly would require ‘a special revelation of the fact’ from God (AT, VII, 220).

In the Fourth Objections, Arnauld questioned whether Descartes had in fact established the real distinction (AT, VII, 199–204).³ Arnauld first stated his point generally: ‘How does it follow, from the fact that he is not aware of nothing else belonging to his essence, that nothing else does in fact belong to it?’ (AT, VII, 199). Arnauld argued that in order to know that my essence and extension are two separate substantial natures I must have a complete understanding of each. One can clearly and distinctly perceive a certain figure to be a right-angled triangle but not perceive that Pythagoras’s theorem holds of that figure. This, of course, does not entail that something can be a right-angled triangle and not have the side opposite its right angle equal to the square-root of the sum of the squares of the other sides. Therefore, to show that some essence is really distinct from some other essence, the conceptions must be not just clear and distinct, but also ‘complete and adequate’ (AT, VII, 201; see 201–4).

Arnauld did not see how Descartes could discard the possibility that my thought is a species of body. He wrote that according to

those who maintain that our mind is corporeal . . . body would be related to mind as genus is related to species. Now a genus can be understood apart from the species, even if we deny of the genus what is proper and peculiar to the species . . . Thus I can understand the genus figure apart from my understanding of any of the properties which are peculiar to a circle. (AT, VII, 201)

Arnauld used the Aristotelian language of ‘the logicians’. Nevertheless, his objection can be formulated within the intellectualist and essentialist framework of the Cartesian metaphysics. One may ask: how can I ascertain that my clear and distinct ideas are not missing some aspect of extension and my thought, so that I fail to perceive that they are not independent, but instead one is a determinate of the other, or both are determinates of a third common determinable?

Finally, Arnauld argued that one’s conception of oneself might be the result of a ‘certain intellectual abstraction’ which renders it inadequate (AT, VII, 203).

Descartes sought to guide Arnauld towards the Cartesian truth. In the case at hand, for example, he borrowed Arnauld’s use of the terms ‘genus’ and ‘species’, but he also made clear that the relations at issue were not exactly those between any genus and its species: ‘we can easily understand the genus “figure” without thinking of a circle . . . But we cannot understand any specific differentia of the “circle” without at the same time thinking of the genus “figure”’ (AT, VII, 223). Descartes was replying to Arnauld’s charge that he had failed to exclude the possibility that body stands to mind as genus to

species. Arnauld had reasoned along the following lines. One may understand oneself as a thinking thing just as one may understand a human being as a rational thing. One may also clearly and distinctly deny that a thinking thing is extended and that an extended thing is thinking, just as one may clearly and distinctly deny that a rational thing is an animal (*vide* angels) and that an animal is a rational thing. In other words, one may understand thought apart from extension and vice versa, just as one may understand rationality apart from animality and vice versa. All the same, it would be unwarranted to conclude from this, as Descartes does, that I am not a body, namely a thinking body, just as it is a mistake to infer that a human being is not an animal, namely a rational animal. Descartes's rejoinder, using now our own terminology, is that figure relates to circle as determinate to determinable and not strictly as species to genus. In this case, there is no independent difference which added to the genus defines the species: a circle is in the end just a circular figure. If in fact my thought were a determinate of body, I could not have a clear and distinct understanding of myself as a thinking thing and not thereby understand myself to be a body. Descartes was telling Arnauld that he did not speak according to 'ordinary logic'; relations between the 'common universals' of the Aristotelians did not reveal the intelligible structure of reality.

Descartes pointed out that he had satisfied the two requirements needed to establish that my thought and extension are really distinct essences constituting different substances. He first cleared up a confusion: 'I took "a complete understanding of something" and "understanding something to be a complete thing" as having one and the same meaning' (AT, VII, 221). Then he explained that we understand something to be a complete thing when we clearly and distinctly conceive it to exist on its own in reality. And he maintained that this is the case with thought_n and extension, since we understand each to constitute 'an entity in its own right [*ens per se*]' (AT, VII, 120; see also 223). Unlike pain, thought_n and extension can be clearly and distinctly conceived to exist independently in reality. Unlike motion, shape, justice, or mercy, which cannot be conceived to exist in reality 'apart from the thing in which motion occurs, or . . . the thing which has the shape . . . [or] the person who is just, or . . . the person who is merciful', extension and thought_n are understood to exist, on their own, as complete things, without needing something in which to exist (AT, VII, 120–1). Thought_n and extension are each a supreme determinable, the conception of which does not involve the conception of any higher-order determinable.

Having established that thought_n and extension are real essences of possible substances, it remains to be determined whether they are separate essences each constituting a numerically distinct substance: can they be understood 'one apart from the other'? Descartes's answer is unambiguous: I can conceive extension clearly and distinctly while denying of it all attributes which I

distinctly perceive to belong to my thought, and vice versa, I can conceive my thought clearly and distinctly while denying of it all attributes which I distinctly perceive to belong to extension (see AT, VII, 223). Extension and thought_n (assuming that what holds for myself holds for other thinking natures) are, therefore, each a different real essence, constituting a numerically distinct substance.

Descartes next addressed Arnauld's example of a right-angled triangle (AT, VII, 223–5, and 227). He granted that from the fact that one might clearly and distinctly understand that something is a right-angled triangle without understanding that its three sides stand in the relation affirmed by Pythagoras's theorem, one should not infer that there could be a right-angled triangle whose sides are not related in that way. But, he first pointed out, 'though a triangle can perhaps be taken concretely as a substance having triangular shape, it is certain that the property of having the square of the hypotenuse equal to the squares on the other sides is not a substance' (AT, VII, 224). The example is not about 'complete things' or supreme determinables. Next Descartes noted the fact that, unlike thought_n and extension, the property of 'having the square on its hypotenuse equal to the squares on the other sides' and the property of being 'right-angled' are not intelligibly separable and independent (AT, VII, 224–5). We might distinctly conceive a right-angled triangle and not consider the relation between its sides. But we cannot clearly and distinctly conceive a triangle conforming with Pythagoras's theorem 'without simultaneously being aware that it is rectangular' (AT, VII, 225). And we cannot distinctly deny that the sides of a right-angled triangle stand in some relation to each other, nor that they stand in the relation stated in the theorem. Thought_n and extension, on the other hand, are intelligibly autonomous, as supreme determinable natures: 'we can clearly and distinctly perceive the mind without the body and the body without the mind . . . [T]he concept of body includes nothing at all which belongs to the mind . . . and the concept of mind includes nothing at all which belongs to the body.'

In the Fourth Replies Descartes did not take up in detail Arnauld's suggestion that maybe 'I conceive [myself] only inadequately, and by a certain intellectual abstraction' (AT, VII, 203). He simply referred back to the *Meditations*: 'those who . . . ponder on . . . the Second Meditation will be easily convinced that the mind is distinct from the body . . . not just by a fiction or abstraction of the intellect' (AT, VII, 229). Nevertheless, he took the subject up about a year later in a letter to Gibieuf cited earlier. He explained that if an idea had 'been made incomplete or "inadequate" by an abstraction of my mind . . . I [would] have derived it . . . from some other, richer or more complete idea . . . [by] turning my thought away from one part of the contents of this richer idea the better to apply it to the other part with greater attention' (AT, III, 474–5). But then the richer and the abstracted ideas would be 'joined in such

a way that although one can think of the one without paying attention to the other, it is impossible to deny one of the other when one thinks of both together' (AT, III, 475). In this way we can ascertain that 'the idea of [an extended] substance . . . is a complete idea, because I can conceive it entirely on its own, and deny of it anything else of which I have an idea. Now it seems to me very clear that the idea which I have of a thinking substance is complete in this sense.' In other words, once we have granted the Cartesian doctrine that substances are intelligible wholes existing on their own and bearing their properties as highest-order determinables are determined by their determinates, there really is no difficulty here.

One might concede that if Descartes's account of the substantial distinction is correct, then extension and thought_n (given that they can be conceived as Descartes suggests they can) are each the real essence of a numerically distinct substance. But, on Descartes's view, why should one grant his doctrine of substance and essence?

Commentators have searched for a strict proof of the assertion made in the *Meditations* that mind and body are distinct substances.⁴ Without success, they have looked for a deductive argument that does not suppose the Cartesian doctrine of substance and essence or the 'dualist' intuition, but instead proves them. After all, there is Descartes's apparent avowal that such proof is delivered in the *Meditations*. The title page of the second edition of that work seems to explicitly make that promise: '*Meditations on First Philosophy, In which are demonstrated the existence of God and the distinction of the human soul from the body*' (see AT, VII, xxi, xxiii, 17, and 17, note a). Descartes offered to demonstrate the real distinction. But 'to be demonstrated [*demonstratur*]' can mean something other than to be proved by strict deductive argument from evident premisses. Thomas Elyot's *Dictionary* of 1538 states that '*demonstro*' means 'to shewe openly'.⁵ What Descartes promised is not necessarily a strict proof, but a making manifest, a showing openly, a displaying.

Perhaps, then, the reason why this search has proved futile is that a deductive proof was never intended here. The texts appear to confirm this suggestion. In the Fourth Replies and in the letter to Gibieuf Descartes addressed this matter (see AT, VII, 225–6, and III, 476). In the Fourth Replies he referred to the doctrine of substance itself, without providing much argument in support: 'The answer is that the notion of a "substance" is just this – that it can exist by itself, that is without the aid of any other substance. And there is no one who has ever perceived two substances by means of two different concepts without judging that they are really distinct' (AT, VII, 226). To Gibieuf he did not mention the notion of substance, but again he did little more than restate assumed doctrine, in this case, the basic tenet 'that we cannot have any knowledge of things except by the ideas we conceive of them; and consequently . . . we must not judge of them except in accordance with these ideas,

and we must even think that whatever conflicts with these ideas is absolutely impossible and involves a contradiction' (AT, III, 476).

Descartes held that all the soul's knowledge issues from its clear and distinct intellectual perception of itself and the world within itself. He in fact believed that all the contents of the human mind are ultimately derived from the perception of these innate essences: extension, infinity, and its own consciousness. He took his metaphysics to uncover the intelligible structure of the inner world of essences. He naturally believed that the unprejudiced intellect, upon understanding the Cartesian doctrines, could not but be compelled to assent to them. After this, the only remaining doubts are answered with an appeal to God's guarantee of human faculties.

This interpretation of the Cartesian 'demonstration' of the real distinction can accommodate the claims in the 'Synopsis' of the *Meditations*: 'I have tried not to put down anything which I could not precisely demonstrate. Hence the only order which I could follow was that normally employed by geometers, namely to set out all the premisses on which a desired proposition depends, before drawing any conclusions about it' (AT, VII, 13). The reference to geometry should not confuse: the path of the *Meditations* is not one of strict proof from evident definitions, axioms and postulates. All Descartes meant was that he proposed to take the unbiased reader in an orderly way towards metaphysical understanding.

Though Descartes's doctrine of substance and essence is not supported by strict proof, it still has a claim to intellectual assent. And it must satisfy certain conditions. First, it must be coherent and free from obscurity. Secondly, it must be comprehensive, needing no supplement and leaving nothing to be accounted; it must, therefore, not only fit experience, but also explain it. I take it that Descartes claimed these virtues for his metaphysics, and that it is on these terms that he wanted it to be assessed.

The body or extended substance

There is, according to Descartes, only one material substance. The essence of this substance is one property, extension, which admits of determination in the orders of size, shape and motion. Its size is infinite, or as Descartes prefers to put it so as to distinguish it from God's positive infinity, 'indefinite':

the whole universe of corporeal substance has no limits to its extension. For regardless of where we feign the boundaries to be, there are always some indefinite extended spaces beyond it . . . [T]hese spaces contain corporeal substance which is indefinitely extended. For . . . the idea of the extension which we conceive to be in a given space is exactly the same as the idea of corporeal substance. (AT, VIII-1, 52)

The infinity of the material substance consists in a lack of limits: its extension goes on forever. Since this substance is not in any space which is not in reality the same as itself, it follows that as a whole it cannot possess any motion or rest. Since it has no boundaries, it has no shape or figure. There is, therefore, an asymmetry between size and the two other orders of modification of matter.⁶ Shape and motion are internal determinations; they are modes only of parts of matter. Size, on the other hand is both a mode of the whole substance and of its parts. In this sense, size has a certain priority over figure and motion.

The diverse material bodies around us are modified or determined parts of the one extended substance. They are shapes of a certain size preserved through movement:

the matter existing in the entire universe is one and the same, and it is always recognized as matter simply in virtue of its being extended. All the properties which we clearly perceive within it are reducible to its divisibility and mobility in respect of its parts, and its consequent capacity to be affected in all the ways which we perceive as following from the movement of its parts. If the division into parts occurs simply in our thought, there is no resulting change; any variation in matter or diversity in its many forms depends on motion. (AT, VIII-1, 52-3)

Corporeal substance is infinitely divisible: any part of extension can be divided into further parts. Thus, Descartes denied the existence of atoms or ultimate, indivisible parts of extension (see AT, VIII-1, 51).⁷ A surprising and highly relative picture of particular material bodies emerges from this.

Descartes's account of the plurality of material bodies in the universe can be illustrated as follows. One starts by specifying microscopic particles as certain microscopic shapes that are preserved through movement. As far as its size, the level at which this specification is done is irrelevant. One can work both ways, either into the smaller or the larger dimensions. The resulting picture is this. Take a flea, it moves across the head of a sailor, the sailor moves across the deck of a ship, the ship across an ocean, the ocean on earth across space in the solar system, the solar system across the stars, and so on. The flea is a particular body; but so is the sailor and the flea; and the flea, the sailor, and the ship; and the earth with them in it; and so on. What constitutes a particular body is just a shape preserved through movement; and there may be indefinitely smaller bodies contained in the volume of a larger body.

What accounts for the difference in the properties of two material things, say the sailor and the flea, is the motion of all the parts of matter that are in the volume occupied by each. The solidity of a body, for example, is explained as the resistance of its parts to separate motion (AT, VIII-1, 170-2).⁸ Descartes explains condensation and rarefaction using only change in figure:

Rarefied bodies . . . are those which have many gaps between their parts – gaps which are occupied by other bodies; and they become denser simply in virtue of the parts coming together and reducing or completely closing the gaps. In this last eventuality a

body becomes so dense that it would be a contradiction to suppose that it could be made any denser. Now in this condition, the extension of a body is no less than when it occupies more space in virtue of the mutual separation of its parts; for whatever extension is comprised in the pores or gaps left between the parts must be attributed not to the body itself but to the various other bodies which fill the gaps. (AT, VIII–1, 43)

A particular body is defined by its size and shape. But corporeal substance could lose that shape in that part; and the particular body would cease being the body that it was. The underlying corporeal substance, however, does not perish with any such change. The body of the sailor, that part of extended substance, could turn into a multitude of fleas and still be the same part of the same substance. No substance annihilation need be supposed to explain that change; for the essence of material substance, extension, remains immutable through that mutation. Descartes's account of why certain changes in nature cannot take place is founded on the laws governing the movement and interaction of the different parts of extension. If it is not possible for a sailor to turn into a large flea, it is because the shapes and movements of the parts of matter involved in the constitution of a sailor are barred, by the laws of physics, from becoming the shapes and movements that are a large flea.

Descartes's picture of the material world as an extended continuum, with its different parts distinguished as diverse figures preserved through motion, invites a devastating and definitive criticism. As Leibniz observed in his *Critical Thoughts on the General Part of the Principles of Philosophy*, such conception is vacuous and utterly meaningless.⁹ C. D. Broad effectively presents Leibniz's point:

the notion of an extended object essentially involves the notion of some *non-geometrical* quality which is diffused continuously and simultaneously . . . [T]here must be some real extensible quality in extended objects which *really* is continuously and simultaneously different . . . To talk of anything being *merely* extended, without any extensible quality which fills and marks out its area or volume is to talk nonsense . . .¹⁰

On its own, extension cannot constitute the whole essence of a material body. When Descartes says that matter is distinguished from space as substantial extension is distinguished from the same extension considered merely as a three-dimensional expanse, he does not succeed in making the conceptual distinction that he purports to make (see AT, VIII–1, 46). The word 'substantial' adds nothing to the notion of pure space. For there to be an extended body, there must be some quality, other than mere space, which is present continuously throughout the extended expanse occupied by that body. A thing that is just space is just nothing (compare AT, VIII–1, 42–3 and 45). Furthermore, as Broad continues,

to talk of *motion* in a completely homogeneous continuous fluid [having nothing but geometrical and kinematic qualities] is also to talk without thinking. For just try to

consider what would happen. A portion of the fluid would move out of a certain region and would continuously be replaced by other portions of the fluid . . . Now that which flowed into any region would be exactly like that which flowed out of it. There would have been a change only in name.¹¹

The idea of different bodies as pure shapes moving in an extended continuum is indeed vacuous. That Descartes could have proposed it with the conviction with which he did, reveals the strength of the hold which geometry held over him (see AT, VIII–1, 78–9). His greatest and most enduring scientific achievement was, without doubt, the discovery of analytic geometry in his youth.¹² And it dominated his thought for the rest of his life, curtailing his considerable mathematical genius, and informing his metaphysics and his science of nature.

Descartes's geometrical conception of material substance excludes a true notion of mass. Hence, his physics does not have genuine concepts of force, momentum, or energy. It is an impressive demonstration of his ingenuity that Descartes was able to construct a physics armed only with extension and time. Cartesian physics, however, was by that very reason destined to fail. Moreover, the notion of mass cannot be introduced into it without thereby revising its whole metaphysical foundation. It is not a question of simply supplanting mass for extension or of placing mass on the side of size, shape and movement. If mass constitutes the nature of corporeal substance, then the real properties of matter can no longer be all determinates of one essence; for in no sense are shapes determinates of mass. And the idea that there is one single material substance would also have to be abandoned. Equally, if mass is conceived as on the side of size, figure and movement, then the straightforward reduction of all real corporeal properties to one essence as determinates of a single determinable must be cast aside. The lack of a notion of mass is, therefore, not a superficial feature of Cartesian physics. Its incorporation demands profound changes in Descartes's most fundamental metaphysical doctrines.

Unequipped with the concept of mass, Descartes ultimately grounds his post-Galilean, mathematical science of nature on a principle of the conservation of movement. To allow for the interaction between minds and the material substance, he excludes the vectorial dimension from the requirement of conservation. Thus, he can make room for the occasional causation of changes in the direction of the motion of the pineal gland and, consequently, of the subtle particles of matter that reach it.¹³ This forces him to explain all collisions in terms of curved movements of changing vector but equal total absolute speed. When something bounces off a rigid and immobile surface, its speed remains constant throughout the event, all else being equal. The appearance of a motion that diminishes to zero and then increases back in the opposite direction is just that, an appearance. What really happens, according to Descartes, is that what bounces off describes an extremely closed curve at a

constant speed (AT, VIII–1, 65–6). All movement is in fact closed. The Cartesian material world is a plenum of vortices.

Apart from the insurmountable difficulties which this account will face when confronted with the actual dynamic interaction between bodies, the Cartesian general principle of the conservation of motion turns out to be hollow even in the context of Descartes's conception of extended substance. In the *Principles* this general law is formulated as follows:

In the beginning [God] created matter along with its motion and rest; and now ... he preserves the same amount of motion and rest in the material universe as he put there in the beginning ... [M]otion ... has a determinate quantity; and this ... may be constant in the universe as a whole while varying in any given part. Thus if one part of matter moves twice as fast as another which is twice as large, we must consider that there is the same quantity of motion in each part; and if one part slows down, we must suppose that some other part of equal size speeds up by the same amount. (AT, VIII–1, 61)

When calculating the total amount of motion, one must be careful to count only the 'proper' motion of each shape or volume, and not those that it has in virtue of the larger bodies of which it is a part (AT, VIII–1, 57–8). Descartes's law, then, is that the sum total of the product of each volume that makes up the material substance by its proper motion remains constant. Let V_i be the size of a moving volume or proper part of matter and M_i be the amount of absolute proper motion, necessarily greater than zero, of each corresponding moving volume. Then

$$(a) \quad \sum_{i=1,n} V_i$$

is the total moving volume of the universe and

$$(b) \quad \sum_{i=1,n} V_i M_i$$

is the total amount of absolute movement, speed without vectorial quantity, in the universe. Descartes's general principle of conservation requires that there be a constant quantity, N , such that

$$(c) \quad \sum_{i=1,n} V_i M_i = N$$

Now,

$$(d) \quad \sum_{i=1,n} V_i = \infty$$

For the size of the universe is infinitely, or indefinitely, large; and there are infinitely many moving parts as we traverse the indefinitely expanding limits of the universe (see AT, VIII–1, 47, 90–2; and IX–2, 70). It follows that

$$(e) \quad \sum_{i=1,n} V_i M_i = \infty$$

Therefore, the addition or subtraction of any finite amount of motion does not add to the total amount of motion in the universe, which remains constant at

infinity. So the problem is not only that, since the general law of conservation must 'operate in an infinite plenum, the gap between principle and verification would seem almost impassable', but more strongly, that the law does not exclude the addition or subtraction of finite amounts of movement.¹⁴

Stephen Gaukroger has written that, excluding his work on optics, Descartes's 'contribution to the development of classical physics is minimal'.¹⁵ This is not an unfair appraisal. Nevertheless, it would be a mistake to ignore the overwhelming influence that some aspects of Descartes's conception of matter and natural science have exercised to our day. One of these most attractive of ideas is contained in the claim that there is, thought apart, only one kind of substance in the universe. It is commonly expressed in the view that all that there is in reality is ultimately what physics speaks about, some qualitatively homogeneous stuff.

This ontological reductionism, originating in Descartes's substitution of the material forms of the Aristotelians with his own geometrical conception of matter and carried on into the atomism of subsequent generations, has been accompanied by another Cartesian inheritance, the epistemological reductionism which is suggested by the *Treatise on Man* and by Part IV of the *Principles*. Descartes explicitly set it forth in the Preface to the French edition of the *Principles*. There he spoke of certain 'principles of philosophy ... which enable us to deduce the knowledge of all the other things to be found in the world' (AT, IX-2, 10-11). This Cartesian ideal, extraordinary as it is, was surely another result of Descartes's own circumstances, understandable given the general epistemic optimism of his age, and his obsession with the mathematical paradigm of knowledge. But it lived on in the epistemological goal that the laws of all science would be deduced from the laws of physics.¹⁶

Souls or the many thinking essences

The Cartesian account of material substance fails to fit experience and to attain internal coherence. We now turn to Descartes's treatment of thought,_n the other side of his 'dualist' ontology.

Descartes believed that there are many different thinking substances or minds, each with its own individual nature constituted by one property which is presupposed by all its other real modes as determinates presuppose a determinable. To stress their individual character as supreme determinables, I have referred to these properties with the expression 'thought_n', thus providing each one with its own name. On his part, Descartes commonly writes in general about 'thought' and 'the mind' (see AT, III, 394; VII, 7-8; VIII-1, 25 and 30; and V, 161 where he writes of 'mind' as a universal). All these intelligibly independent essences are, indeed, similar in the way required to ground the universal 'thought'; they are each a token consciousness or mind. *Prima*

facie, it is not difficult to grasp what they have in common; it is at least not more difficult than it is to understand universals and types like ‘mind’, ‘thought’, ‘awareness’. The intelligible singularity of each thinking nature, on the other hand, is not as easy to discern.

How is it, then, that each thinking essence is ‘a particular nature’ (AT, V, 221)? Let me first insist on some general features of Descartes’s answer to this question. Each thinking nature is intelligibly individual in some intrinsic, non-trivial way: there is, so to say, an intelligible character of each mind which accounts for its singularity as a unique supreme determinable. But whatever it is that constitutes the individuality of each mind is an integral part of its essence, intelligibly inseparable from it. Each real essence is an indivisible conceptual unity, and these two aspects of a spiritual nature, its particularity, whatever it may be, and its awareness or thought, form an intelligible whole. Let us pause here for a moment.

A particular mind is not a determinate of a common determinable thought. If it were, two numerically different minds would not be two substances, but two modes of one substance. It is certain, however, that Descartes did not want to treat each mind as a different property of a single substance. Neither are Cartesian essences divisible in the manner of Aristotelian essences: the intelligible individuality of each mind and those features captured in the universal ‘thought’ cannot be related to each other as, say, rationality and animality are combined in human nature according to the Aristotelian scheme. While we can clearly and distinctly perceive a non-rational animal, or conceive of a rational non-animal, we cannot make sense of the intrinsic individuality of a mind separated from thought or consciousness. Of course, falling under the universal ‘thought’ cannot on its own entail having any particular individuating character. To this extent, the entailment relations between these two aspects of thinking essences are similar to those between a determinable and its determinates. None the less, if minds were modes, they would be exclusive modes: something which is one mind cannot at the same time also be another mind (like two different shapes at the same place, but unlike understanding and will, given that one substance can both understand and will at the same time). But more than one mind can be conceived to exist at any one time (and in this case there is no analogue of place). When taken to be a mode, a Cartesian mind cannot be clearly understood.

It seems better, therefore, not to think of Cartesian minds as having two aspects, their individuality and their thought, as if thought could in some way be conceptually prior to individual minds. Instead, we should think of a mind as an individual nature which resembles other similar essences in the ways captured by ‘thought’, and which is itself intelligibly separate from all other natures as a highest-order determinable. It is this unique conceptual unity, the real essence, which is primary. Its individuality is not separable in any way; it

wholly permeates it. Any non-essential real property, since it is just a determinate mode or way of being of the essence of the substance in which it inheres, entails this essence. Accordingly, each real property of a mind is intelligibly individual in the manner of its substance. The intelligible individuality of a thinking substance can be grasped through the clear and distinct perception of any of its real properties.

In chapter 3 I suggested that Descartes did not conceive substantial essences as principles of development. Laws governing change in Cartesian creatures are founded on God's nature. According to Descartes, the distinct and complete idea of a real essence is not *per se* determined with respect to its actual modifications in time; such an idea, though, does grasp the intelligible individuality of its object and can be used in ascertaining a real distinction. In other words, within the Cartesian metaphysics it is not an option to follow Leibniz in requiring community not just in one real property but in all, and to distinguish intelligibly (and without recourse to extrinsic, trivially individuating properties) between different substances in terms of their different histories and not as distinct supreme determinables. Two different Cartesian minds could share all the same universal properties (and, in this sense, have the same histories), and yet be different substances.

Let me restate and summarize: the distinct perception of a mind or of any of its acts is the grasp of an individual thinking nature, independent and separate from the natures of all other substances in the manner in which a highest-order determinable differs from other highest-order determinables. What Descartes's account must provide for each mind is, then, the clear and distinct conception of an intelligible thinking unity, a supreme determinable nature which can be understood to exist on its own as a complete thing, which is such that all the real properties of the mind are its determinates, and which allows the conception of other substances that are like the mind in being thinking, but differ from it and each other as supreme determinables.

One way to state Descartes's view is to say that a Cartesian mind or thinking nature is the referent of 'I'.¹⁷ Notice first some straightforward points. The referent of 'I' changes from user to user; but, presumably, it remains constant given one user. 'I' names many different things; yet each user of 'I' can use it to designate only one thing, which can be called 'I' only by that user. Furthermore, the use of 'I' ensures the existence of the referent of 'I'. All this, however, is compatible with the referent of 'I' being a certain body, even under the supposition that the user of 'I' is not a body. For 'I' could name a body uniquely connected to the user, without which the user would not exist.

Notice now that a user of the Cartesian 'I' cannot make a mistake in its application: 'I' always hits its mark.¹⁸ If someone makes a declarative statement in the first person singular it makes no sense to question whether she got her reference right: 'are you sure that what you are calling "I" is the

referent of your "I"? is an absurd question, unlike, say, 'are you sure that what you call "Yula" is Yula?' When 'I' is used, it has a referent; and this referent is what the user calls 'I'.¹⁹ This does not mean that the referent of 'I' is what it pleases the user to call 'I', as if this could be anything or change from use to use. We have supposed that the referent of 'I' remains constant for a given user; so, for each user, there is only one object which that user can call 'I'.

Whether 'I' can name a body now depends on whether a body could be given to the user of 'I' so that it would be available in the requisite fashion and the user could not mistake something else for it. If the mind is aware of bodies only *a posteriori* or with the aid of the senses, then 'I' cannot name a body or something which is partly a body. For any body would be such that the namer could mistake something else for it. Suppose 'I' names something which is partly the body of the user of 'I'. The user could take the wrong body to be his body. He could be, for instance, a sailor who has unknowingly gone through an amputation. Upon waking up, he sees a leg at the end of the bed. It is a crowded ship and the limb he sees is not his leg, but he mistakes it for his leg and even feels it there. So he calls the thing that is partly the leg that he sees 'I', while intending to refer to the thing which is partly his body. This would be to misidentify the referent of 'I'. But the sailor cannot misapply 'I'.

Consequently, whatever it is that 'I' refers to must be given to each user in a special, privileged way, so that she cannot but succeed in referring to it whenever she tries. Notice that it is unhelpful to say that with 'I' the user refers to herself. What we want now is to know why a user cannot be wrong about what she takes herself to be: how is it that the user cannot misidentify herself? In one sense this question is misplaced, for the user could misidentify herself. This is the sense in which 'herself' just stands for 'the user', an embodied person exhibiting a certain behaviour. For the user might wonder whether she is the user: 'it seems so, but am *I* really speaking?' But there is no sense in which she might wonder whether she is herself in the sense of 'herself' in which it stands for 'what she calls "I"'. Whatever this thing is, it must be given to her in such a way that she cannot but correctly identify it and apprehend it in its full intelligible individuality. One can never be in a position where it makes sense to doubt: 'I wonder whether what I am calling "I" is in fact I?'

So what is this privileged way in which the referent of 'I' is given to the user of 'I'? It is, according to Descartes, the reflexive awareness which each mind has of itself, and which we have called 'self-consciousness'. Each mind or thought_n has a direct grasp of itself as an individual thinking nature. This awareness is a non-mediated, clear and distinct perception not, as in all other cases, of an object existing within the mind, but of the mind itself existing on

its own. Self-awareness cannot miss its mark, for it is the clear and distinct thought of the thinking, necessarily available to itself. The object thus known is understood as a fully determined, individual, thinking substance. Each thought_n is aware in this way only of its own nature; and the nature of each thought_n is known in this manner only to itself.

In the Second Meditation Descartes isolates the unique reflexive perception which the mind has of ‘this puzzling “I” which cannot be pictured in the imagination . . . [and] which is true and known – my own self’ (AT, VII, 29). After the doubts of the First Meditation, Descartes finds that there is one object which still presents itself to him clearly and distinctly as an existing thing and which he calls ‘I’. He cannot doubt the existence of this object, his ‘own self’. He asks ‘what is this “I” that I know?’ and he answers that if ‘the “I” is understood strictly as we have been taking it, then it is quite certain that knowledge of it does not depend on things of whose existence I am as yet unaware’ (AT, VII, 27). The reason for this is that the I is directly and distinctly present to the mind; for, strictly, the way in which Descartes had been taking the I is as the referent of ‘I’, that is, as an object presented to the mind in the privileged way we have mentioned above.

As noted earlier, the mind ‘cannot initially become aware [of itself] merely through its being an existing thing, since this alone does not have any effect on us’ (AT, VIII–1, 25). The I must be perceived through some of its real properties. Indeed, in self-consciousness the mind knows itself as a thinking thing: ‘thought . . . this alone is inseparable from me . . . I am, then, in the strict sense only a thing that thinks . . . I am a true thing which truly exists. But what kind of a thing? As I have just said – a thinking thing’ (AT, VII, 27). The ‘close inner awareness’ which each one has of her own mind ensures that she will have ‘a clear idea’ of it (AT, VII, 443).

It is in the nature of thinking things to know themselves reflexively in self-awareness. The mind is essentially thinking, and to think is to know what thought is: ‘in order to know what doubt and thought are, all one need do is to doubt or to think. That tells us all that it is possible to know about them, and explains more about them than even the most precise definitions’ (AT, X, 524). Since every act of thought is accompanied by self-understanding, each mind knows itself better than anything else (see AT, VII, 33–4). Moreover, Descartes denied ‘that the thing which thinks needs any object apart from itself in order to exercise its activity’ (AT, IX–1, 206). Self-consciousness pertains necessarily to the mind; and it is sufficient for the mind to be fully determined.

Let me stress that the reflexive knowledge which the mind has of itself is of the *individual* thinking thing it is.

Is it not one and the same ‘I’ who is now doubting almost everything, who nonetheless understands some things, who affirms that this one thing is true, denies everything

else, desires to know more, is unwilling to be deceived, imagines many things even involuntarily, and is aware of many things which apparently come from the senses? ... The fact that it is I who am doubting and understanding and willing is so evident that I see no way of making it any clearer. But it is also the case that the 'I' who imagines is the same 'I' ... [I]t is also the same 'I' who has sensory perceptions. (AT, VII, 28–9)

In self-consciousness, each mind is immediately presented with its own nature actually existing in reality; and, if it attends to this awareness, it cannot fail to understand itself as a thinking substance in its full intelligible individuality. Indeed, self-consciousness reveals the essence of the mind better than the 'most precise' definition of 'the Schools' (AT, X, 523–4). (As Descartes himself points out, on its own this understanding is compatible with ignorance as to whether the 'I' is identical to some body.)

This account, however, does not yet tell us how a mind knows other thinking natures. Nor does it even make explicit the intelligible individuality of the self's own essence; for it is at best unclear that the Cartesian recipe, to rely on 'that awareness or internal testimony which everyone experiences within himself', actually reveals the individuality of 'this puzzling "I"' (AT, X, 524). However, let us grant for the moment that it does, and turn our attention to the former issue: how does the mind know other minds?

All a mind understands about minds, it obtains from this knowledge it has of itself. In other words, self-consciousness is the sole origin of the objective reality of the mind's ideas of other finite thinking essences. As we have seen, Descartes believed that all the contents of the mind are derived from certain 'basic ideas', in particular, the intellectual perception of the real essences of God, of matter, and of the mind (that is, of one's own mind) (AT, VII, 443; see also III, 474–6; VII, 140–1; and IX–1, 205–6). According to Descartes, one knows the real properties of other thinking substances only in their generality. These universals, 'thought', 'doubt', 'understanding', 'will', 'imagination', 'sensation', and the like, are obtained from the direct intellectual intuition of oneself. In the Latin translation of *The Search for Truth* Descartes writes:

I would never have believed that there has ever existed anyone so dull that he had to be told what existence is before being able to conclude and assert that he exists. The same applies to doubt and thought. Furthermore, the only way we can learn such things is by ourselves: what convinces us of them is simply our own experience or awareness – that awareness or internal testimony which everyone experiences within himself when he ponders on such matters. (AT, X, 524)

Having framed these notions we can conceive of many thinking things; and though we each perceive distinctly only our own intelligible individuality, we can clearly conceive that all these minds differ from each other as supreme determinables.

This alone, however, would not permit us to refer to another mind, so to say, in its singularity. I take it that in Descartes's view we achieve this extrinsically. We may refer to some particular mind through reference to a body which is connected in a certain way solely to that mind: e.g., 'the occasional cause of the intelligent behaviour of that part of matter'. The knowledge necessary to individuate minds in this way depends on the divine guarantee. Nevertheless, this does not give us any understanding of the purely intelligible individuality of another mind as a supreme determinable; it provides a trivial, extrinsic individuation.

An interesting consequence follows from this: there is a sense in which I cannot have a clear and distinct idea of the acts or of the essence of any particular mind other than my own. To appreciate this point, imagine someone, Red, who can see or imagine only one colour, red, though he can see different tones of it. Suppose also that Red has the concept of colour. Red does not have any idea of the appearance of green, yellow, or any other non-red colour. But he does have the concept of a colour different from red: if he could see some cerulean blue, say, he would recognize it as a colour other than red. Regarding other minds, we are all in a position similar to Red's regarding non-red colours. Like Red and the universal 'colour', we each have the idea of the type 'mind'. Furthermore, we also know that other minds exist. But, like Red and green, blue, or yellow, each one of us has no distinct idea of the intrinsic singularity of any particular mind different from her or his own. We can imagine how Red could refer to other colours, like we can each refer to other minds. Suppose Red knows that some person, Miss Green, sees and imagines only a certain non-red colour (green in fact). Like Red knows this colour, we each know other minds: through an extrinsic individuating relation. Red knows green as the colour that Miss Green sees; and I know Mili's mind as the mind that intelligently animates Mili's body.

Descartes himself compares the knowledge we have of thought with the knowledge the non-blind have of some colour: 'it would be pointless trying to define, for someone totally blind, what it is to be white: in order to know what that is, all that is needed is to have one's eyes open and to see white. In the same way, in order to know what ... thought [is] ...' (AT, X, 524). We can put our point thus: though no human mind is blind to thought and to its own individuality, all human minds are blind to the intelligible individuality of another mind as a highest-order determinable nature. But we must be careful. The analogy between colour and thought breaks down when we focus on the difference between colours and between minds. The intrinsic, phenomenal singularity of a colour is not perceivable purely intellectually; its grasp in the end involves sensation. The individuality of a mind, on the contrary, is given to the unaided intellect, without the participation of the senses. Cartesian self-consciousness is an act of the pure intellect, entirely *a priori*

and independent of sensation or imagination (see AT, VII, 27–8). Let us, then, reformulate our point.

My idea of a certain thinking substance different from myself is, in a sense, never distinct, never ‘so sharply separated from all other perceptions that it contains within itself only what is clear’ (AT, VIII–1, 22). Suppose I were asked to articulate non-trivially the difference between one mind standing in the relation through which I extrinsically individuate it and a different mind standing in the same relation. I cannot do this; I cannot distinguish the mind I am referring to from the indefinitely many other minds which, for all I know, could be the mind I was referring to. My idea of an individual mind other than myself is in that measure confused and indistinct. This is compatible with my knowing that another mind exists. For this knowledge is the result of assent only to the existence of what is clearly and distinctly perceived in the idea of another mind; and that is an individuating extrinsic relation and the type ‘thinking thing other than myself’, which is grounded in self-consciousness.

Consider a mind which is completely deprived sensorially and which can intellectually perceive no shape other than square. Suppose also that this mind understands shape in general. Here one naturally wants to know why this mind cannot understand triangles, since everything needed to do so is already given in the understanding it is supposed to have. We might stipulate this limitation into the case, but for us here stipulation will not do. We need an account of the intellectual limitation which stops each one of us from distinctly understanding another mind as each of us understands his own self.

Descartes believed that the purely intelligible individuality of a mind is grasped only by that mind itself, that, in fact, only in self-consciousness is a mind known as the highest-order determinable nature which it is.²⁰ Self-consciousness does not just provide me with a first and privileged access to my individual nature; it provides the sole access anybody can have. In this sense, the mind is a ‘private’ object.²¹ The objective intellectual content of self-consciousness is at least in part incommunicable or ineffable. The only idea I have of a thinking nature in its full intrinsic individuality is the reflexive direct awareness of myself as an existing mind, an awareness which accompanies all my acts and real properties. If, after this account, we still ask why each of us can know only her or his own mind in its intrinsic individuality, and know it only in self-consciousness, Descartes’s answer would be, I think, simply that this is the way things are: minds just are this sort of private objects. Curiously, whatever plausibility such a reply might have, it has when applied to sensorial objects and contents, things which are vested with peculiar *qualities*; when applied to supposedly purely intellectual objects and contents, it is utterly obscure and should satisfy nobody.

Descartes’s conception of the mind as something knowable *per se* solely in self-consciousness is manifested in his use of ‘I’ in the Second Meditation.

Descartes had, of course, other reasons for writing the *Meditations* in the first person singular (for example, to engage the reader and force her to enact the reflections for herself). But, regarding the issue at hand, the use of ‘I’ is not a matter of choice. This becomes apparent when we note that, unlike our knowledge of God and body, the full ‘knowledge of myself which I possess’ cannot be rendered in the third person (AT, VII, 28). The only understanding which one can have of the intrinsic properties of another mind is in terms of universals shared by all minds. Descartes tells us that the identity of ‘the “I”’ is ‘so evident’ that there is ‘no way of making it clearer’. But it is clear also that, most obscurely, it is ineffable and accessible only from the first person.

We find confirmation of this in the treatment of the real distinction between minds in the *Principles*. Rather than articulating the distinction from a general, third-personal perspective, Descartes requires each one of us to establish it in his or her own case: ‘from the mere fact that each of us understands himself to be a thinking thing and can exclude in thought all other substances, whether thinking or extended, from his very self, it is certain that each of us, regarded in this way, is really distinct from every other thinking substance and from every corporeal substance’ (AT, VIII–1, 29). Each mind must distinguish itself from all other minds as a highest-order determinable nature, a unique intelligible whole. When referring to another mind we must use the third-personal perspective and assume that this individuality is given, so we can rely on individuating extrinsic relations.

Earlier I stated that Descartes needed to provide, for each mind, a clear and distinct conception of its individual nature. What Descartes does not do is provide any one of us with indefinitely many conceptions, all separate as different determinables but alike as minds. What he could claim to have done is provide each one of us with the conception of her or his own individual nature. Regarding simple, basic notions, Descartes ultimately appeals to the intellectual intuition of their simple objects (see AT, II, 597; VII, 20; VIII–1, 8; X, 425–7 and 523–4). In his writings he attempts to elicit the relevant intuitions in each reader. In the case of the individual nature of a mind, however, he fails to elicit the intuition of any one same object in all his readers. Instead he gives each a recipe to intuit a thinking nature, but each will be bound to intuit and fully understand a different one. At best, Descartes could hope to have made available a conception of the individual thinking nature of each mind by providing each mind with a way to attain for itself the conception of its own nature.

‘This puzzling “I”’

This, then, is Descartes’s obscure account of thought_n. Is he entitled to it? Does he in this case succeed in articulating a coherent view which fits experience? As is already clear, the answer is ‘no’. But before I outline some

further reasons for rejecting this side of Descartes's ontology, we should at least acknowledge the fact that, whatever its shortcomings, Descartes's view of the mind had a major influence on subsequent philosophy. It is no exaggeration to state that modern metaphysics has been centrally occupied with the exploration of 'this puzzling "I"'. It is true also that in the hands of Descartes's successors, from Locke, through Hume and Kant, to Ludwig Wittgenstein's *Tractatus*, the I suffered considerable transformations. Indeed, the real Cartesian self was dead and buried long before 'post-modern' authors started proclaiming the news of its demise (in their case, a not surprising instance of confusion). But this is another story.

The first and more evident difficulty which I wish to propose now against the Cartesian doctrine of mind is rather straightforward: introspection yields no distinct object to serve as the term of Cartesian self-awareness. Suppose we do grant Descartes's confused notion of a direct intellectual intuition of an ineffable and private object. Even so, we appear to have nothing which each of us intimately, privately and incommunicably recognizes as his 'own self'. We search for an individual entity corresponding to our own substantial nature, as Descartes claims we should each perceive, and find none. Suppose we also grant Descartes's doctrine of substance and essence. All we need now is to find, in our awareness of any act of thought, the perception of the intrinsic individuality of the act. But again, even assuming its ineffability and privacy, there is no distinct content to take this place. When we focus on, say, some pleasure we may feel, we find nothing corresponding to its individuality; we find no distinct content in the feeling or our awareness of it which makes it mine and not somebody else's.

If this is so and there is in fact nothing in our consciousness to take the place of Descartes's individual thinking nature, then why did he think there was? In a letter to Arnauld Descartes explained that 'thought, or a thinking nature, of which consists, I take it, the essence of the human mind, is far different from any particular act of thinking' (AT, V, 221). In the same letter he also stated that 'by "thought" [he did] not mean some universal which includes all modes of thinking, but a particular nature, which takes on these modes'. I take it that Descartes believed he was justified in assuming this individual real essence, different from a particular mental act and from the universal 'thought', ultimately for two reasons. First, he believed that it was required and guaranteed by his intellectualist ontology. Secondly, he thought it was manifested in the peculiarly certain 'I think' and 'I am'. The first affords an explanation for Descartes's conviction, but the philosophical support for it comes wholly from the second.²²

Accordingly, let us strip the Cartesian account of its intellectualism so that we are left with the notion of an entity, designated by 'I', available first-hand exclusively to its own awareness. This entity is constitutively given in the

first person, as thought aware of itself. It is held also that there is a fact of the matter as to whether, given two occurrences of 'I', they do or do not designate the same entity. This self is a private entity.

Is this notion acceptable? We have seen above that no such thing is actually found in introspection. Now we ask: is a private self even possible? In fact, it is not, since it is not possible to satisfy these two conditions: that the self be constitutively given only in the first person; and that it be a well-defined, identifiable individual. No content can be given to the idea of two perceptions of the same private self. Wittgenstein writes: 'Always get rid of the idea of the private object in this way: assume that it constantly changes, but that you do not notice the change because your memory constantly deceives you.'²³ Wittgenstein's point is not that if we make the assumption, then there is a fact, that the object has changed, which must pass unnoticed. It is, rather, that no sense can be made of there being a fact here. So the upshot is not that one could never know whether the object had changed, but that here there is no place for the notion of the object changing or remaining the same.

What change, which passes unnoticed as Wittgenstein describes, could befall a private object? We can have no conception of such change because any conception would have to be framed from the perspective in which the change is necessarily unnoticed. All notions of the self are ultimately parasitic on the first-personal conception; but from the first person the unnoticed change cannot be incorporated. The reason why the notion of such change appears to make sense is that we frame a picture from the third person, viewing the changing object and the first-personal representations of it side by side. But this is what cannot be done. Third-personal conceptions of the self send back to the privileged awareness of the first person. Consequently, these two statements do not describe distinct states of affairs: 'my self is the same self', and 'my self is another self but I cannot notice it'. It is not just that we cannot discover which of the two is true; it is rather that we have no conception of what would make one or the other true. For any conception of the unchanged object, not just any conception we happen to have but any conception possible in principle, is going to be the same as a conception of the changed but unnoticed object.²⁴

We must conclude, therefore, that Descartes failed to articulate a coherent account of thinking substance. Indeed, neither side of the Cartesian ontological 'dualism' survives the tests proposed at the start of our discussion. But Descartes's doctrine of the mind, as his doctrine of body, is one of a piece with his intellectualist essentialism. By appealing to the certainty of self-consciousness Descartes was satisfying the demands of his doctrine of substance, essence and knowledge. If this appeal fails, we are left with no way of furnishing the Cartesian metaphysics with a satisfactory ontology; and this is reason enough to reject it.

Cartesian essentialism confirmed

I have maintained that in his account of knowledge of the mind's existence Descartes abides by the essentialist dependence thesis. The gist of my argument has been that Descartes took the certainty of 'I exist' to be founded on the direct intellectual apprehension of the mind's existing essence. I will now briefly develop this point following the discussion of the previous sections.

The denial of the essentialist dependence thesis is the affirmation of the existentialist independence thesis, which in this case holds that 'I exist' is known in ignorance of the essence of the 'I', that is, of 'I am essentially a thinking thing'. But, if we remain within the Cartesian view, how could this be possible? According to Descartes, the use of 'I' supposes the clear and distinct perception of the mind it designates. The indubitability of 'I exist' is founded on this manner of presentation of the I which is nothing other than the direct intellectual intuition of its existing nature. In order to know 'I exist' I must be able to use 'I' and that requires awareness of the individual thinking essence of the 'I'. To use 'I', the 'I' must be *given* as what it is. This is, within the Cartesian framework, a condition of the reference of 'I'.

We may also approach the issue from this angle: what is needed to know 'I am essentially a thinking thing'? As we have seen, Descartes states: 'in order to know what . . . thought [is], all one need do is . . . think' (AT, X, 524). Ask now the following two questions. First, could this knowledge of thought be anything but knowledge of thought as *my* thought? And secondly, could 'I exist' be known without thinking? Descartes would certainly answer 'no' twice; it is indeed this connection between 'I am thinking' and 'I am' which he highlighted in the famous formulation *cogito, ergo sum*. Can we, however, get from 'I am thinking' to 'I am essentially thinking'? Consider what I know about the essence of the 'I' merely from this knowledge that I am thinking. As a result of a direct, clear and distinct intuition, I know that I am thinking. From this it follows that whatever my nature is, it is the nature of something that thinks. And, in Descartes's view, from this it follows that I am essentially a thinking thing.

But one might object: why must I consider the question of my nature if I am to know 'I exist'? In other words, even if it is granted that if I know 'I exist', then I also know 'I think', it is not granted that Descartes's account requires that in addition I know 'I am essentially thinking'. Note first that Descartes's essentialist theses assume a knower who is an attentive, rational, and unprejudiced inquirer, and knowledge (dispositionally understood) which is absolutely certain. Now, it is true that we can conceive a knower who can attend exclusively to 'I exist' (and the objection amounts to no more than this). But this is irrelevant. For this situation is correctly described thus: this knower knows, but cannot attend to, 'I am essentially thinking'. The mind

that knows ‘I exist’ or ‘I think’ has immediately and in that very knowledge, the knowledge of its essence. The thought ‘I exist’ provides everything necessary to answer ‘what is my essence?’, in as much as ‘I am essentially thinking’ is an answer.²⁵

Perhaps what causes difficulties here is the supposition that ‘I’ has an assured reference without there being any question as to how that reference is attained. But Descartes never explicitly claimed anything amounting to this, and there is no need to suppose that he believed it. This is like supposing that ‘this’ has an assured reference without there being an answer to the question ‘this what?’ But that is a muddled supposition. Similarly, we need an answer to the question ‘I what?’ The answer will be ‘I, *this* thinking thing’. Descartes believed he could give content to the indexical in that phrase: my awareness of ‘this . . . “I” which . . . is true and known – my own self’ is an act of clear and distinct intellectual perception, and its object is an existing substantial nature. This awareness is presupposed by ‘I exist’, and it amounts to awareness of my essence. This is Descartes’s view; and that is, finally, all that is at issue here.

Cartesian trilateralism or the union of body and soul

Before we conclude our discussion of Descartes’s ontology we must refer to his account of ‘the close and intimate union of our mind with the body’ (AT, VIII–1, 23). In chapter 4 I suggested that the relation is causal and that it ultimately consists in the fact that a mode of one substance is an occasion for the production of a modification in the other substance. It follows from this that the modes of each substance remain separate, each a determinate of a distinct essence. Thus, despite Descartes’s insistence on describing the relation between mind and body in a human being as a ‘substantial union’, the only relation he truly articulates between the two is causal.²⁶ (AT, VII, 228; see also III, 460 and 492–3).

In his writings, Descartes offered differing accounts of the unity of human beings. In the Fourth Replies he wrote that

a hand is an incomplete substance when it is referred to the whole body of which it is a part; but it is a complete substance when it is considered on its own. And in just the same way the mind and the body are incomplete substances when they are referred to a human being which together they make up. But if they are considered on their own, they are complete. (AT, VII, 222)

The comment which this passage immediately invites is that there is a disanalogy between the relation of a hand and the body to which it belongs and the relation of the mind and body of a human being. In the first case we are talking of two parts of one substance where one part is a part of the other part. In the second case the only whole is a composite of two substances. So

the first case can hardly be used to explain how it is that those two substances form a single whole.

In the *Comments* against Regius the explanation has shifted.

A composite entity is one which is found to have two or more attributes, each one of which can be distinctly understood apart from the other. For, in virtue of the fact that one of these attributes can be distinctly understood apart from the other, we know the one is not a mode of the other, but is a thing, or an attribute of a thing, which can subsist without the other. A simple entity, on the other hand, is one in which no such attributes are to be found. It is clear from this that a subject which we understand to possess solely extension . . . is a simple entity; so too is a subject which we recognize as having thought . . . as its sole attribute. But that which we regard as having at the same time both extension and thought is a composite entity, namely a man – an entity consisting of a soul and a body. (AT, VIII–2, 350–1)

Mind and body are not parts of a human being as a hand is a part of a body. Rather, mind and human body are two substances (or, strictly, a substance and a part of a substance) that are said to make up a composite entity. Though this is a better statement of the relation between the two substances that form a human being, it does not contain an account of how the composite human is constituted. We could take any two simultaneously existing substances and use the name ‘X’ to refer to the ‘entity’ formed by both of them. It would then be the case that X has the properties of each of the two substances. The only connection between a human mind and body that Descartes did mention was one of occasional causation; and this would be enough to distinguish between human beings and arbitrarily concocted wholes. A human being, then, is simply a composite of two substances joined by causal interaction.

In the winter of 1641 and 1642, before the public confrontation of 1648, Descartes wrote to Regius regarding some theses in which the latter had asserted ‘that man is an *ens per accidens*’ (AT, III, 460). He told his follower and friend that he ‘could scarcely have said anything more objectionable and provocative’. Descartes was not worried about the claim that ‘a human being is made up to two things which are really distinct’, or such that each can exist without the other (AT, III, 492). This is the sense in which, Descartes assumed, Regius had intended his assertion. But as Descartes told him, ‘the expression *ens per accidens* is not used in that sense by the Scholastics’. And what Descartes found objectionable was the claim that a human being is an *ens per accidens* in this latter, Scholastic sense.

We can understand Descartes’s concern if we turn to Suárez’s account of *entia per accidens*. Suárez explains that ‘everything which is constituted from different things without a physical and real union binding each to the others, is strictly an entity *per accidens* and not *per se*’ (MD, IV, 3, 13).²⁷ He adds that ‘in an entity which is one *per accidens* there is variety, and in this variety there is more or less’ (MD, IV, 3, 14).²⁸ He identifies three kinds of entities

per accidens. The first are mere congeries ‘in which many entities complete and perfect *per se* are brought together without any union and without any order’. It is exemplified by ‘a heap of wheat or stones’. Things of the second kind are made up from ‘complete entities *per se* between which there is no physical union, but which manifest a certain order, such as an army, a republic, a house, and other similar artificial things’. Finally, the ‘third genus of entities *per accidens*’ includes those ‘composed of a substance and an accident inhering in it’. Things of the first kind are ‘maximally *per accidens*’. An entity of the third kind, on the other hand, is closer to a true ‘unity *per se*’, though ‘it be simply and absolutely one *per accidens*’.

Against this Scholastic background, it is clear why Descartes wanted to avoid stating that a human being is an ‘*ens per accidens*’. He wrote to Regius that one should say that mind and body are joined ‘by a true mode of union, as everyone agrees, though nobody explains what this amounts to’ (AT, III, 493). He pointed out that by stating that ‘body and soul, in relation to the whole human being, are incomplete substances’, Regius had already conceded that a human being is an *ens per se* (see also AT, VII, 219–23). Descartes took this to be compatible with the claim that it is ‘in a sense . . . accidental for the body to be joined to the soul, and for the soul to be joined to the body’ (AT, III, 460). But he mentioned that ‘[i]t may be objected that it is not accidental for the human body to be joined to the soul, but its very nature . . . Moreover, it may be objected that it is not the soul’s being joined to the body, but only its being separated from it after death, which is accidental to it’ (AT, III, 460–1). Descartes’s recommendation was that Regius

should not altogether deny this, for fear of giving further offence to theologians; but . . . these things can still be called accidental, because when we consider the body alone we perceive nothing in it demanding union with the soul, and nothing in the soul obliging it to be united to the body; which is why I said above that it is accidental in a sense, not that it is absolutely accidental. (AT, III, 461)

Once we see through Descartes’s aim to avoid unnecessary conflict with the School, what are we left with here? In one phrase, nothing which contradicts the view that human beings are composites of two separate substances united by occasional causal interaction.

None the less, in the Sixth Meditation Descartes appears to want to go further:

Nature . . . teaches me, by these sensations of pain, hunger, thirst and so on, that I am not merely present in my body as a sailor is present in a ship, but that I am very closely joined and, as it were, intermingled with it, so that I and the body form a unit. If this were not so, I, who am nothing but a thinking thing, would not feel pain when the body was hurt, but would perceive the damage purely by the intellect, just as a sailor perceives by sight if anything in his ship is broken. Similarly, when the body needed food or drink . . . [T]hese sensations of hunger, thirst, pain and so on are

nothing but confused modes of thinking which arise from the union and, as it were, intermingling of the mind with the body. (AT, VII, 81)

The relevant modes of a human body do not cause the mind to which it is joined merely to understand that it needs food or water, or is being damaged; they cause it to feel hunger, thirst or pain. Elsewhere, Descartes maintained that disembodied souls cannot have sensory feelings (AT, V, 402; see also III, 493). Presumably, they can at most have an intellectual apprehension of thirst or pain occurring in another substance. Hence, Descartes seems to distinguish between feelings and the other mental properties which are occasionally caused by the body.

In the *Principles* Descartes added other items to those mentioned in the passage from the Sixth Meditation, and, furthermore, he stated that they must all be 'referred' not solely to the mind, but to the whole human being composed of soul and body:

we experience within ourselves certain other things which must not be referred either to the mind alone or to the body alone. These arise . . . from the close and intimate union of our mind with our body. This list includes, first, appetites like hunger and thirst; secondly, the emotions or passions of the mind which do not consist of thought alone, such as emotions of anger, joy, sadness and love; and finally, all the sensations, such as those of pain, pleasure, light, colours, sounds, smells, tastes, heat, hardness, and other tactile qualities. (AT, VIII-1, 23)

This text comes immediately after Descartes claims to recognize 'only two ultimate classes of things' and to distinguish between thought and its modes, 'perception, volition and all the modes both of perceiving and of willing', and extension and its modes. So it might appear that Descartes was introducing a third set of real properties of substances which belong to both mind and body. If this were so, then we would have to reject the interpretation of Descartes's doctrine of substance and its essence offered in the last two chapters. For it would follow that there are real properties of a substance which are not determinates of its essence and that some such real properties are shared by two different substances.

Cottingham has recently attempted to do justice to these Cartesian passages, while acknowledging that Descartes does not allow for a distinct ontological category apart from thought and extension.²⁹ Cottingham proposes a 'Cartesian trialism' which is 'to be construed attributively rather than substantivally'.³⁰ The peculiar modes to which Descartes refers constitute a category not of substances but of real properties of substances, corresponding 'to a distinct aspect of a thing's nature, not to a distinct type of thing'. Cottingham's suggestive proposal finds clear motivation in Descartes's text. And he is careful, as others who have sought to make room for a true union of mind and body within Cartesian metaphysics have not been, to try to make it compatible with Descartes's explicit and constant ontological

dualism. For all its merits, however, Cottingham's trialism faces insuperable problems.

Descartes required that all the real properties of a substance refer back to its one essential attribute. He explicitly stated this requirement in the *Principles*, two pages after the text quoted above. As I have argued, this should be taken to mean that all the real properties of a substance are determinates of the determinable which constitutes that substance. So Descartes cannot admit a distinction between substantive and attributive categories. If the members of Cottingham's third class of properties are neither modes of extension nor modes of thought, then they cannot be real properties of any substance, nor can they reveal any distinct 'aspect of a thing's nature'. To be fair, Cottingham accepts as much; but it is then unclear that he has succeeded in making room for a 'third category or "primitive notion" alongside of thought and extension'. At best, Cottingham has underscored the tension between Descartes's metaphysics and ontology and his talk about a close and peculiar union of soul and body revealed in emotions, appetites, feelings and sensations.

Furthermore, the passage quoted from the *Principles* need not be read as establishing a third sort of real property different from thought and its modes, and extension and its modes. For it can be taken to mean simply that those properties are to be attributed to minds only in so far as they are causally connected to a part of matter. Otherwise we run the risk of ascribing to him an inconsistency in two passages coming one shortly after the other. Similarly, the text from the Sixth Meditation can be interpreted as asserting that in the case of feelings (and also emotions and appetites) the participation of the body as occasional cause is an indispensable requirement for their production.³¹ Since there appear to be no texts which necessitate a reading opposed to this interpretation, we may conclude that Descartes's treatment of the 'close and intimate' union between mind and body in humans can be accommodated within his doctrine of substance and its essence, in spite of 'the "trialistic" flavour', on which Cottingham rightly remarks, of the letters to the Princess Elizabeth, *The Passions* and other texts. Those texts are better read, then, as dealing with the phenomenology of human feelings and emotions, rather than with any ontological or metaphysical facts.

Epilogue

Descartes was born at the end of the sixteenth century when the humanist revolution of the Renaissance and the Late Scholastic revival which accompanied it were coming to an end. At the time of his early schooling, Galileo and Johannes Kepler had already laid the foundations of modern physics; and the new secular philosophies had already started displacing the inheritance of the School. Yet his education, as much as it was up-to-date, impressed on him the continuity of his circumstances with earlier times. He had a conservative bent and his upbringing was morally and socially traditional. Though intellectually progressive, his schooling was in the hands of men devoted to the preservation of the wisdom of St Thomas and the Doctors of the Church. It was from within such a milieu that he conceived his revolutionary philosophic and scientific project. By the end of his life, however, that world was a living corpse. Though he, as much as anybody, contributed to its demise and to his personal alienation from what was left of it, he was a stranger in the new surroundings. The early hope and enthusiasm gave way to a certain melancholy.

In May 1648 Descartes left Holland and travelled to Paris for the last time in his life. Shortly after arriving he wrote to Pierre Chanut that

this air [of Paris] disposes me to entertain chimeras instead of philosophical thoughts. I see here so many persons that go wrong in their opinions and calculations, that this seems to me a universal malady. The innocence of the desert from where I come pleases me so much more that I do not believe that I can prevent myself from returning there shortly. (AT, V, 183)

The frivolity of Paris, a remarkably secular feature of its intellectual circles, alienated Descartes. Political upheavals and the chance of war confirmed the wisdom of leaving France and in August he returned to his 'desert' in Egmond. While in Paris he had made his peace with Gassendi, surely an action springing more from his gentlemanly manner than from genuine philosophical respect for his celebrated antagonist. On the other hand, he saw Father Mersenne become fatally ill. His trusted correspondent and devoted friend died in September of that year.

Alone in his retreat Descartes pursued the scientific programme he had set up and clarified his views through correspondence. By the spring of 1649 he

had finished the last revisions to his treatise on *The Passions*. In September of that year, reluctantly and without much conviction, Descartes left his Dutch sanctuary for Stockholm in response to an invitation of Queen Christina and urged by his friend Chanut who was to take the office of French ambassador to the court. Before leaving he wrote to the Abbé Picot putting his affairs in order, conscious of the chance ‘that [he] might die in the journey’ (AT, V, 407).

Once in Sweden, Descartes found himself estranged from the court. Not long after arriving he realized there was little chance that the Queen would want anything more from his presence than the addition of a famous name to the list of those that she had assembled there.¹ Within five days of his arrival he wrote to the Princess Elizabeth about the ‘return to my solitude, away from which it is difficult that I will advance anything in the search after truth’ (AT, V, 430). The next few months were spent in idleness. His services were required for the celebration of the birthday of the Queen and the first anniversary of the Peace of Westphalia. It was for long thought that Descartes wrote a ballet, *The Birth of Peace*, for this courtly feast.² During this time he is reported to have also written a theatrical comedy. But he could not be part of the intrigues and frivolity of the court: ‘I do not hear anybody speak about anything, so it seems to me that here the thoughts of men, like the water, freeze during winter’ (AT, VII, 467). By the end of the year he had decided to go back to Holland in the spring.

Stockholm was a provincial copy of the metropolis Descartes had visited a year earlier. A grotesque incident which occurred not long after he had been there paints a not altogether inaccurate picture of the atmosphere of the court. In 1652 a certain Mark Meibom came to present Queen Christina with an inscribed copy of a book he had written on the Greek muses. Acting on the instigation of her favourite and physician, Pierre Bourdelot, the Queen asked Meibom, who apparently had neither voice nor ear for music, to sing some Grecian songs and her librarian Naudé, who suffered from severe gout, to dance along. Unable to refuse, the two victims submitted to the humiliation. Later that day Meibom was able to catch Bourdelot away from the Queen’s protection and gave him a deserved beating before fleeing from Sweden.³ A court and a monarch given to such antics could hardly have been less suited to the character and disposition of our philosopher.

Descartes would never return to Holland. His friend Chanut caught pneumonia in late January 1650. Descartes, who lived in the residence of the French ambassador, tended to him. On 2 February he was struck by the same illness. The severity of the Scandinavian winter, the toll which visits at dawn to the Queen had surely taken on his strength, and the congenital frailty of his respiratory constitution, all conspired so that Descartes would not recover from the disease. The night of 10 February he dictated a letter to his family and embraced Chanut. His agony was peaceful, comforted by confession and

prayer. He died during the early hours of 11 February. Thus, the man who inspired by the Jesuits at La Flèche set out in his youth to supplant Aristotle and Aquinas in the School left this terrene life a disenchanted courtier. He had created, in spite of himself, a new world for philosophy, the world of the mind and its ideas, plagued by the threat of scepticism and inexorably bound to follow the path that lead to idealism and with it to the dissolution of ontology.

In chapter 1 we set out to examine the Cartesian metaphysics against the background of the Scholastic philosophies which it was designed to replace. In particular, I proposed that we approach it starting from Descartes's claim that knowledge of essence is prior to knowledge of existence. Our first discussion of the rationale of Cartesian essentialism revealed Descartes's strong intellectualism; and it suggested two areas for exploration, one centred around his notions of substance and mode, and the other around his views on the intellect, the senses, and a certain world of essences within the mind. In subsequent chapters we have examined these subjects: Descartes's non-realist theory of ideas and perception; his causal and cognitive innatism, his critique of the senses, and the corresponding account of the primacy of the intellect; his doctrine of substance as a simple, determinable essence existing on its own, and of its properties as its determinates; and, finally, his dualist ontology, with its conception of matter as geometrical quantity and its reduction of all quality to private, individual thinking natures. Our study has focused largely on the relation between Descartes and his Scholastic predecessors. But, inevitably, I have also referred both to his non-Scholastic contemporaries, and to philosophers who developed his insights. We have now gained a fuller picture of Descartes's essentialist reaction to the empiricist existentialism of the School. And we have also found intimations of how, resulting from the Cartesian Platonist reaction, there emerged a fresh set of philosophical problems.

It is not surprising, and less so in his case than in most others, that Descartes misunderstood the significance of his own metaphysical contributions. He conceived his views in no small measure as responses to the problems which faced his Scholastic predecessors. But they came to be seen as the first and forceful articulations of a radically new philosophical framework, built, one might say, around the question of the self and its relation to what there is. Descartes's revolution was indeed successful, but not in the way he intended. His intellectualist essentialism did not become the orthodoxy of the new age. Instead, when we look at the Cartesian metaphysics from the perspective of contemporary interests, we are struck by how unconvincing Descartes's own positive doctrines appear to us, while we do find the issues and problems which arise from his reflections so close to our sensibilities.

The Cartesian search after truth, that solitary undertaking of an elusive I, is a paradigm of modern philosophical inquiry. In radical opposition to the Scholastic realist doctrine that 'all our knowledge originates in the senses'

and so presupposes a direct causal and epistemic relation to a real, extramental world, Descartes maintained that the true source of science is to be found in the mind alone when it is directed to itself (*MD*, I, 6, 27). Descartes's philosophy shaped the atomistic assumptions of modern reason, though he himself was neither a material nor a temporal atomist. His analysis of sensory experience into simple, discrete sensorial contents in the reflection on the wax in the Second Meditation marks a crucial departure from Scholastic holism and announces the reductionist programmes of modern empiricism, from Locke to the logical positivists. More significantly still, the Cartesian ego became the true atom, both social and natural, of modern metaphysics. Descartes's conception of the self as a private, inner theatre, the pure realm of subjectivity, with the corresponding idealization of quality and quantification of natural reality, is a cornerstone of modern thinking.

Given Descartes's worries about the effects his use of scepticism might have on 'weak minds' who 'might avidly embrace the doubts and scruples . . . and afterwards be unable . . . to remove them', it is ironic that the new philosophy which he helped to bring about was centred around sceptical questions regarding the justification of belief, the attainability of knowledge, and ultimately the validity and point of reason (*AT*, I, 350). As epistemology took the centre stage of philosophy, so the exploration of the self took over metaphysical thinking. But as the modern self became detached from its Cartesian intellectualist and essentialist roots, a dialectic was generated which led to idealism, the doctrine that real entities are ideal or mind-dependent, that for them to exist is to be perceived, thought, or otherwise be intentionally given to a subject.

Any investigation into the history of idealism will have to mention the role that the notion of the Christian God had in bringing it about. If there is an omniscient creator and sustainer of things, then there is a sense in which what is real is circumscribed to what is thought. But what made true idealism unavoidable was the combination of three elements: first, the Cartesian conception of the subject as an inner theatre constituted solely by thought, which necessitated an ideal or subjective world as immediate term of any act of thought, and reinforced the old notion that to conceive is to perceive; second, the claim that properly sensorial qualities are essentially ideal or subjective; and third, in direct opposition to Descartes's intellectualism, the view that all perceivable entities are sensorially perceivable, that is, are endowed with properly sensorial qualities.⁴ Idealism itself suffered a transformation from Berkeley's first formulation as a form of ontological dualism, admitting of non-ideal mental substances and ideal physical objects, through Hume's phenomenalism and the rationalist transcendental idealism of Kant, which distinguished between the knowable phenomenal world and the merely thinkable world of noumena, to its later incarnation in the empiricist transcendental

idealism of Wittgenstein's *Tractatus*, which reduced the realm of noumena to unspeakable, nonsensical mysticism.

Transcendental idealism is ultimately an unstable doctrine. Whether unthinkable or just unknowable, the noumenal self and its noumenal universe, the mystical I which converts the world into 'my world', could not in the end serve as foundation for all science and knowledge.⁵ Rather than solve the problems that had disposed of the Cartesian self, transcendental philosophers just covered them up and pretended to deny one the right to pose them. The inevitable demise of the transcendental projects announced the death of ontology. The exploration of the Cartesian self eventually turned into the free play of subjectivity. Philosophy came to be seen as at best an interesting conversation without any point but itself, the self-absorbed practice of an onanistic community. After its peculiar Cartesian introspective metamorphosis, the Socratic dictum 'know thyself', which was originally a call to the recognition of human finitude when facing the gods, an injunction to acknowledge one's place in nature, ended up as a call to live content within the pointless point of view that one is, to be satisfied with being entertained and to seek nothing beyond that.

We must now surely be at the end of the subjectivist road that Descartes unintentionally opened for us. It is no wonder, given the tortuous road it has been, that this demise has been announced so many times before in the last 100 years. Hopefully, however, a new beginning is truly in sight, when philosophy frees itself from the mentalistic assumptions that have seduced it for the last four centuries and recovers a sense for the real, for the preconceptual and pristine intelligibility of things. We will be helping to ensure that this is so if we take care not to project what we have become into what we were when we started on this idealist road, if, that is, we understand the Cartesian metaphysics as it actually was in its Late Scholastic origins.

Notes

PROLOGUE

- ¹ See Sebbas (1964), Chappell and Doney (1984) and the ‘Bulletin Cartésien’ published in the *Archives de philosophie* since 1972.
- ² I, 2, 403b 20–3 in Aristotle (1984), I, p. 643. See also *Metaphysics*, I, 3, 983a–983b in Aristotle (1984), II, p. 1555.
- ³ Taylor (1984), pp. 22 and 20–1.
- ⁴ See Rorty R. (1984). For a brief overview see the entry under ‘Historiography’ in Becker and Becker (2000). For an example of how lack of philosophical understanding can lead to historical error, see Secada (1990), pp. 62–3, note 20.

1 DESCARTES’S ESSENTIALIST METAPHYSICS

- ¹ Gouhier (1978), p. 184; and Kenny (1968), pp. 64–5.
- ² See Kenny (1968), *ibid.*; and Loeb (1981), p. 92. Gouhier (1978) suggested a link between, on the one hand, the opposing Scholastic and Cartesian doctrines about the order of knowledge of essence and of existence and, on the other, ‘deux philosophies de la connaissance . . . deux anthropologies . . . deux théodicées’ (p. 185). But Gouhier apparently took Descartes’s doctrine to apply only to the demonstration of God’s existence and did not examine it in any detail even within this restricted context; see pp. 184–6. Gilson (1975) claims that in the proof of God’s existence from the idea of God ‘comme ailleurs, le “*quid est*” passe avant le “*an est*”, et il peut passer avant, parce que’ à la différence de la scolastique, le cartésianisme admet que “*a nosse ad esse valet consequentia*” (p. 211). Nevertheless, this obscure suggestion is not developed. See also Beyssade (1979), p. 278, n. 5; and Gilson (1912), pp. 67, 70–1, and 72–3.
- ³ I generally use the term ‘Cartesian’ and its cognates to refer to doctrines or conceptions which Descartes explicitly avowed or which follow from what he did explicitly maintain, according to deductive principles he accepted. Terms such as ‘Aristotelian’, ‘Platonic’, ‘Thomist’ and their cognates are used much more loosely to describe notions or beliefs associated with the corresponding authors or their followers. My use of ‘Scholastic’ and its cognates is similarly imprecise. The Scholastic philosophers whom I will usually have in mind are St Thomas and the sixteenth-century Jesuits Suárez, Pedro de Fonseca, and Francisco Toledo.
- ⁴ The text in Aristotle is II, 7, 92b 4–8; Aristotle (1984), I, p. 152.
- ⁵ Differences of opinion as to the distinction between essence and existence have no bearing on views on the priority of knowledge of existence over knowledge of

essence. Informed readers will have noticed that the three main Scholastic positions on the distinction between essence and existence are represented by the authors quoted. Fonseca, like most Scotists, upheld a modal distinction; Suárez together with the ‘nominalists’, a distinction of reason; and St Thomas and most Thomists, a real distinction. See below, chapter 8, pp. 215–30.

⁶ Descartes’s use of the phrase ‘essential definition’ follows Scholastic texts; see *ID*, V, 5 and *AT*, VII, 78. See also *AT*, III, 383, where Descartes identifies an ‘innate’ idea with an idea of a ‘true, immutable and eternal essence’ and with Aristotle’s ‘true definition of a thing’.

⁷ ‘Essentialism’ is currently used to mean the doctrine that there are *de re* necessary properties; see below chapter 3, pp. 56–9. ‘Existentialism’ also has an accepted use in reference to philosophers like Jean-Paul Sartre and to their view that concrete human existence is in some sense prior to human essence. Gilson (1952) and Brunschvicg (1904) use the terms to mean yet other doctrines.

⁸ This formulation of the dependence of knowledge of existence (or essence) on knowledge of essence (or existence) is agent-relative. In the quoted texts both Descartes and Aquinas hold that someone who knows the one cannot but know the other. However there are weaker, agent-independent doctrines which we might consider: that if someone knows the one, then someone (not necessarily the same person) knows the other. Yet other relevant views are concerned with the logical relations between ‘A exists’ and ‘A is essentially F’.

⁹ See Descartes’s discussion of the nature of material things in the Fifth Meditation (‘Of the essence of material things . . .’) and his demonstration of their existence in the Sixth (‘Of the existence of material things . . .’). (*AT*, VII, 63–5, 71, and 79–81). See also the explicit statement in *AT*, VII, 520. In the passage noted in the text, Toledo considers the possibility of knowing essence and existence simultaneously.

David Wiggins’s deictic-nomological account of natural-kind terms is committed to an existentialist dependence thesis; see Wiggins (1980), p. 82. See also Putnam (1980a).

¹⁰ Here Fonseca’s *CM* (1577) expands a parallel text in Toledo’s *TPA* (1572), I, 14; II, p. 369. Compare *AT*, VI, 37.

¹¹ See *ID*, V, 8; I, p. 314. While discussing how it is that ‘no one ever knows the essence of what does not exist’, Fonseca is careful to distinguish between the merely non-existent and ‘what cannot exist’. He explains that the latter does not ‘have a true quiddity or essence which could be made manifest by a real definition’.

¹² See *On Generation and Corruption*, II, 11, 337b30–338a3 in Aristotle (1984), I, p. 553.

¹³ See below chapter 3, n.13, where I suggest a way of interpreting the passage cited earlier from St Thomas’s *Commentary on the Posterior Analytics* (II, 6, 2) without contradicting his view that there are essences of what does not, never has, and never will exist.

¹⁴ The Scholastic conception of natural science allows neither for the formulation of general laws determining natural necessity and possibility in the appropriate way, nor for the conception of extrapolable essential properties (as, e.g., ‘has atomic number x’). A qualified existentialist dependence thesis is compatible with the claim that in some cases one can know that F is the essence of a possible substance without knowing whether there is anything that is F. It could be maintained that knowledge of the existence of substances with essential properties appropriately

related to those of the possible but non-existent substances is required in order to know the essence of these empty kinds, and that it is from such existential knowledge that knowledge of the possibility of non-actual essences is obtained. Aquinas and the Scholastics were not, in any case, confronted by these problems.

¹⁵ However, see the following note.

¹⁶ Scholastic discussions appear not to give due weight to the difficulties in formulating an account which strictly defines a natural kind. Fonseca, for instance, though he held that ‘biped, featherless animal’ is a description and not a definition, still writes as if this phrase succeeds in applying to all humans; see *ID*, V, 3; I, p. 290; and V, 11; I, p. 320 where he writes that the addition of ‘biped’ to ‘animal with reason’ is merely ‘superfluous’. Fonseca states that a definition must be ‘neither more nor less extended than what it defines’ (*ID*, V, 10; I, p. 318). But he is clearly insensitive to how difficult it might be to achieve this for natural kinds through immediately available descriptions. This attitude is not unconnected to the Aristotelian conception of science as classification based on careful but straightforward observation. I take it that the modifications implicit in my account avoid obvious difficulties while not distorting the Scholastic doctrine.

¹⁷ ‘Inhere’ is of course as much of a technical term as is ‘intrinsic’. See below chapter 7.

¹⁸ On Cartesian substances and properties, and the notions of determinate and determinable, see below chapter 7, pp. 189–94, in particular, n.12.

¹⁹ I translate ‘*attributa*’ as ‘properties’ to convey the inclusion of modes, which is clearly intended here. See *AT*, VIII–1, 26. *CSM*, II, 248 more literally uses ‘attributes’.

²⁰ These Cartesian views are examined in part III.

²¹ I take this claim about Descartes’s foundationalism to be compatible with the views advanced in Schmitt (1986). It is compatible also with more traditional interpretations of Cartesian foundationalism to which Schmitt refers in p. 508, n.4.

²² Descartes writes: ‘I call a perception “clear” when it is present and accessible to the attentive mind . . . I call a perception “distinct” if, as well as being clear, it is so sharply separated from all other perceptions that it contains within itself only what is clear’ (*AT*, VIII–1, 22). Clear is the opposite of obscure; distinct, of confused. See Alquié (1963–1973), III, p. 118, note 1.

As an example, Descartes mentions that a sensation of pain might be clear even if indistinct. See also *AT*, IX–2, 44. I take this to be compatible with what I have claimed above. First, Descartes is not always consistent, even in the course of a few lines, about the scope he intends for the adjectival phrase ‘clear and distinct’, now applying it to a perception, now to a thing perceived. Secondly, there is an ambiguity regarding Descartes’s treatment of pains: whether they should be viewed as objects of sensations (as in other cases of sense perception), or instead be viewed as sensations themselves. Thirdly, if we adopt the former interpretation (which I take to be closer to the texts though less satisfactory philosophically), then it is Descartes’s view that a pain is never directly perceived clearly and distinctly. He holds that any feeling of pain presents the pain as an existing thing or the property of an existing thing, and he leaves no doubt that such an object, a pain existing by itself or inhering in something existing by itself, can never be perceived distinctly. See *AT*, VIII–1, 23 and 33. Finally, though the perception of a proper object of sense is never distinct because it presents its object as if it were an existing thing, a sensation of pain can nevertheless be clearly and distinctly perceived intellectually in self-awareness.

²³ Contrast Popkin (1979), p. 184. Popkin’s claim that in the Appendix to the Second

Replies Descartes uses ‘the method of doubt’ is unsubstantiated. What Descartes does do is request that the reader turn away from the senses and towards the intellectual contemplation of the mind and the world of essences and truths within it.

- ²⁴ This holds both of the ontological proof and of the causal arguments, and indeed, in Descartes’s view, of any successful proof of God’s existence. See below chapter 6, pp. 161–6.
- ²⁵ There is an evident difference between Descartes and the meditator of the *Meditations*. There is also a difference, perhaps less obvious, between the meditator and the reader. However, these distinctions are not relevant for our purposes here. I have, therefore, mostly ignored them in what follows.
- ²⁶ See Duns Scotus (1966). Later reprints of this work have eliminated an appendix with a pertinent selection from Scotus’s *Lectures on the First Book of Sentences*, d. 2, qq. 1 and 2.
- ²⁷ Descartes’s claim to originality should of course not be assessed by reference only to Scholasticism. However, given the terms he uses, such restriction might not be all that unjustifiable.
- ²⁸ These Cartesian views are discussed below in chapter 2, pp. 33–8 and chapters 4 and 5.
- ²⁹ Gassendi’s own answer appears less clear and consistent: contrast the ‘private meditation’ which he claims would occupy a sensorially deprived mind in AT, VII, 310 with the adoption of the unqualified dictum ‘Whatever is in the intellect must previously have existed in the senses’ in AT, VII, 267.
- ³⁰ When asking whether the soul knows itself ‘through its essence’ Aquinas distinguishes two different senses of this question: whether in self-knowledge the soul knows its essence rather than some of its accidents; or whether self-knowledge occurs by means of the essence of the soul. It is the latter sense that he has in mind; and it is to that second question, not to the former, that he gives an affirmative answer. See DV, X, 8.
- ³¹ In AT, VII, 36, at the start of the Third Meditation, Descartes comes back to this conviction that he is something so long as he thinks he is something. He makes clear that even such certainty is in danger if the hypothesis of an evil god remains unanswered.
- ³² Descartes’s words are not merely compatible with the claim that the meditator has *some* understanding of ‘what this “I” is’, they actually suggest it: ‘*Nondum vero satis intelligo, quisnam sim ego ille ...*’ (AT, VII, 25). The French translation, on the other hand, might indicate otherwise: ‘*Mais je ne connais pas encore assez clairement ce que je suis, moy qui suis certain que je suis ...*’ (AT, IX–1, 19). However, the continuation of the text both in Latin and in French (AT, IX–1, 19–20) leaves no doubt that in Descartes’s mind my certainty that I am depends on my knowledge of what I am.

2 SCEPTICISM, SCHOLASTICISM AND THE ORIGINS OF DESCARTES’S PHILOSOPHY

- ¹ On the *noblesse de robe* see Bonney (1991), pp. 340–5. On Descartes’s life, see Baillet (1691); Haldane (1905); Adam (1910); Sirven (1928); Rodis-Lewis (1995); and Gaukroger (1995). On Descartes’s family, see Barbier (1897) and Tapié (1975), p. 435.

- ² Descartes was apparently misinformed about this: see AT, IV, 220–1; see also Adam (1910), pp. 9, 10, and 14–15.
- ³ For Descartes's dates of schooling, see Gilson (1976), pp. 103–5, and 125–6; Sirven (1928); Gaukroger (1995), p. 424, note 1; and Rodis-Lewis (1995), pp. 25–7. Baillet gets Descartes's dates at La Flèche wrong. The issue is difficult to decide; though it is certain that Descartes did not enter in 1604. I am inclined to believe, with Sirven and Rodis-Lewis against Gilson, that his professor was Father Noel. So I take it that Descartes remained at La Flèche until 1615. We know from the Jesuit *Plan of Studies* that the philosophy assistant was a student of theology (see below note 11). Gilson appears not to take into account that, when Descartes sent a copy of the *Discourse* with Plempius, his professor already had a copy; see Gilson (1976), p. 105.
- ⁴ See the descriptions of the school by British visitors in the earlier part of the seventeenth century in Lough (1984), pp. 279–80.
- ⁵ *Constitutions*, IV, 14, 3 [470] in Loyola (1963), p. 514. Apparently, some items concerning schools and universities might not be from Loyola but from his secretary Juan de Polanco; see Loyola (1963), pp. 397–401; and also Polanco (1916a), pp. 50f, 65ff, 81f, 84, 88, 99, 108, 119ff, 154, 166ff, 172, and Polanco (1916b), pp. 729ff, 739–44, 780. Some of Loyola's contemporaries, under consultation with the saint, and the General Congregation of 1588 introduced minor changes. Also see Thomson (1972); and, on Loyola, Elorduy (1956).
- ⁶ Salmerón (1907), p. 713.
- ⁷ Salmerón (1907), pp. 712 and 713.
- ⁸ Lukács (1986), p. 11. The opinion is of A. Desa, SI, member of the commission in charge of studies in the General Congregation of 1581. Desa also claimed that in a Spanish Jesuit school 'they waited for me to turn my back on them so they could turn their backs on the teaching of St. Thomas'.
- ⁹ Salmerón (1907), p. 716.
- ¹⁰ The *Plan* is quoted and paraphrased from Lukács (1986), pp. 397–402 and 450–2. I have also consulted the editions of 1593 and 1616. See Bangert (1972), pp. 106–7.
- ¹¹ The *Plan* specified that this must be a Jesuit student of theology, a fact relevant to the determination of the exact years that Descartes spent at La Flèche. See above note 3.
- ¹² Fonseca's *Institutio dialecticarum* was printed at La Flèche in 1609. See Sirven (1928), p. 33, n. 3; and Rochemonteix (1889), IV, p. 27.
- ¹³ Lukács (1986), p. 398.
- ¹⁴ Rochemonteix (1889), IV, pp. 27, 28 and 32 mentions the *Posterior Analytics* being used at La Flèche for the study of the general theory of science. See also Sirven (1928), p. 33. It is unclear whether de Rochemonteix is doing anything more than inferring from the *Plan*.
- ¹⁵ Lukács (1986), p. 399.
- ¹⁶ The library at La Flèche possessed not only the principal Scholastic works, but most probably also an extensive and representative collection of classical, scientific, and mystical authors.
- ¹⁷ Sirven (1928), p. 32.
- ¹⁸ Schopenhauer (1974), I, p. 52.
- ¹⁹ Commentators commonly suggest that Descartes's autobiography in the *Discourse* is not reliable, that he recomposed his life to suit his intellectual designs. Now,

Descartes never intended the *Discourse* to be read as a work of fiction. So unless there is evidence to the contrary I shall assume that within the bounds of his information Descartes was telling the truth, and that, again within the bounds of his fortune and capacity, he led an examined and planned life. This still leaves ample room for hermeneutical discussion. Once the issue of Descartes's honesty is settled there remains the matter of putting the account written in 1635 or 1636 against the history of his development from 1619 to 1628: one is surely not always the best source for one's own past views. More generally, there is the question of accurately detecting the prudence exercised in composing written texts. In Descartes's case, this is compounded by his plans to establish his philosophy within the Church. And, finally, there is the 'habit of the time to wrap one's discoveries up' while making them public (Williams B. (1978), p. 24). On the other hand, see Leroy (1929) and Loeb (1986).

²⁰ On the difference between the *mathesis universalis* and the method, see Weber (1964), pp. 3–17.

²¹ See Schuster (1980) and Weber (1964).

²² On the difference between the first and second characteristics, see Gaukroger (1980a), p. 100.

²³ Contrast Alquié (1963–1973) on Descartes's vain search for unity in I, p. 552; see also I, p. 555 where the issue of the 'conscience' on the 'exactitude historique du *Discourse*' is mentioned.

²⁴ For example, concerning the mathematization of the objects of knowledge from the *Rules* to the *Principles*; or concerning the doctrine of ideas, which we shall examine below.

²⁵ Compare Schuster (1980), p. 56.

²⁶ Notice Rule XII: 'if I exist, then God exists' (AT, X, 421). This seems to indicate that Descartes had arguments along the lines of those developed in the *Discourse* and later works already in 1627 or 1628. However, see the pertinent remark in Marion (1975), p. 181: 'les *Regulae* . . . ne reprentent qu'épistémologiquement des thèmes métaphysiques . . . [L]a présence matérielle de thèmes métaphysiques ne suffit aucunement à attester une méditation métaphysique suivie.'

²⁷ The phrase is '*nulla prorsus rerum cognitio*'. CSM correctly translate '*cognitio*' as 'awareness'. This translation is straightforward and makes sense in the context. Moreover, the considered Cartesian view is that animals lack awareness and not merely knowledge. But CSM should have stuck to 'awareness' in translating the immediately following passage, for this is clearly the intention of the qualification in '*proprie cognoscimus*' and it establishes more than a mere epistemic difference of degree of certainty with what has come before.

The use of the term 'idea' in the physiological account should confuse nobody: in Rule XII 'we conceived of the imagination, along with the ideas existing in it, as being nothing but a real body with a real extension and shape' (AT, X, 441).

²⁸ See O'Neil (1974). O'Neil is not sufficiently sensitive to the crucial ontological contrast with the Aristotelians which I point out below, and to the significance of Descartes's remark that nothing real is transmitted from the things to the common sense to the imagination.

²⁹ Some sources for the Scholastic account, apart from Suárez's *DA*, are St Thomas's *ST* and *SG*, and Aristotle's *De Anima*. The reference to Aristotle in CSM, I, 41, note 1 seems inexact; 425a14 refers to the common sensibles not to the common sense;

- see III, 1; Aristotle (1984), I, p. 676. Appropriate references would be 431a17ff or 450a10ff (III, 7 and *On Memory*, 1; Aristotle (1984), I, pp. 685 and 715).
- ³⁰ II, 12; 424a17–21; Aristotle (1984), I, p. 674. See Brentano (1977), p. 55.
- ³¹ The diverse senses and the relevant texts are mentioned in chapter 5 of Kenny (1968), pp. 96–125, Kenny (1970), and Chapell (1986); see also Kenny (1966) and McRae (1965).
- ³² O'Neil (1974), chapter 3, §1, appears to mix the causal and the intentional. Descartes himself might be conflating issues in his treatment of colours in Rule XII. There are two different strands of argument in this passage. On the one hand, there is the point that in proposing the hypothesis that the causal origin of sensations in the brain involves only shapes he is not introducing 'some new entity'. He can view the difference between diverse sensibilia as analogous to the difference between diverse shapes; and he runs no risk of running out of shapes to correlate with the multiplicity of different sensory contents. On the other hand, there is the claim that shape is 'so common' that it is 'involved in all sensibilia'; a claim which is then argued specifically for the case of colour. Here Descartes might be alluding to a similar doctrine found in Aristotle and some Scholastics. It is puzzling that he touches on this matter in the context of the treatment of the other, causal, issue. It could be that he just meant that shape is involved in the external object of any one of the senses, not in the proper object of each.
- ³³ See Kenny (1984); and also Kenny (1980a), p. 80.
- ³⁴ See Marion (1981), pp. 231–63. Marion appears to slide much to quickly from a causal relation between corporeal figures, figures as 'ideas' in a gland, and sensations in the mind, to a representative and intentional relation; see p. 235.
- ³⁵ On the meeting see Adam (1910), pp. 95–7; Sirven (1928), pp. 332 and 452; Gaukroger (1995), pp. 183–6; and Pintard (1943), I, pp. 203, 206 and 208. Pintard quotes a letter by Naudé about di Bagno's 'grandissima prattica a Parigi con questo Mr Des Cartes' and di Bagno's description of Descartes as 'intelligentissimo et altrettanto modestissimo et sprezzatore di tutte le sue cose' predicting that, hence, 'haveremo difficilmente altri suoi libri!' (II, p. 607.) See AT, I, 212–13. See also the letter of 1640 to Mersenne where Descartes asks his correspondent to explain to Naudé that 'the only thing that has stopped me from publishing my philosophy until now is the defence of the movement of the earth ...' (AT, III, 258); see also AT, III, 258, note c.
- There are some doubts as to the exact date of the meeting, whether it took place in late 1627 or late 1628. For our purposes here, however, nothing much hangs on how this is resolved; see Rodis-Lewis (1995), pp. 100ff.
- ³⁶ Adam (1910), p. 95. See Buckley (1987), pp. 68–77.
- ³⁷ Baillet (1691), I, pp. 217–18; Adam (1910), p. 96.
- ³⁸ The subsequent history of M. de Chandoux is not without interest, as it sadly confirms his tendency to pass one thing for another. A few years after the famous Paris meeting the unfortunate Chandoux was once more found out. This time he was passing base metal as precious. Tried and condemned, he died hanged by the neck. See Baillet (1691), I, pp. 230–1; and Adam (1910), p. 95. At the Nuncio's Chandoux probably advocated some kind of empiricism. Descartes's view was that Scholasticism, as well as Chandoux's proposals and the 'new' philosophies of Hobbes and Gassendi, all went wrong at the base, for they relied on sensation as the source of knowledge; and, if anything, it was the Scholastics who were closer to the truth.

³⁹ See note 35 above.

⁴⁰ See Popkin (1979); Brunschvicg (1944); and, more recently, Paulson (1988). Paulson, however, seems confused about the course that Descartes followed at La Flèche; see pp. 1 and 15–16. Also compare Montaigne (1962), II, p. 61 with AT, VI, 1–2. On the other hand, note Gaukroger (1995), p. 184.

⁴¹ Brunschvicg (1944), p. 115.

⁴² On Descartes's use of scepticism to establish the epistemological foundations of his metaphysics and science, see Garber (1986).

⁴³ There are dualistic tendencies in Christianity from its very origins. In the cross, Christ told the good thief, 'I assure you: today you will be with me in heaven' (Luke, 23, 43). If one believes this assurance, then, given certain other assumptions, one is committed to the claim that the good thief is not his body. While some of the Early Fathers held that salvation takes place only at the end of time (see Tatian in Roberts and Donaldson (1975–1979), II, p. 70), statements of the separability of the soul and of its continued existence after death are found in St. Justin, St. Irenaeus, Clement of Alexandria, Origen, and others; see I, pp. 191, 198, 386, 411, 531, 534, 576; II, pp. 70, 105, 492; III, pp. 186–97; IV, p. 240; VI, p. 59. Also see Gilson (1955), p. 35; and Daniélou (1980), II, p. 416.

On the other hand, Bracken (1986) is completely off target with the remark that 'Augustine . . . appears to distinguish mind from body along lines Descartes later pursues' (p. 67). That Augustine has nothing like the Cartesian notion of mind as a substance wholly constituted by thought is clear from the fact that he, like Aristotle before him and the Scholastics after him, places sensory intentionality on the side of body. In *On the Trinity* Augustine writes: 'the mind . . . is more inward, not only than these sensible things which are obviously outside, but also than their images which are in a part of the soul that animals have too, though they lack intelligence which is proper to mind'. (X, 8, 11 in Augustine (1991), p. 295; Augustine (1955), p. 142; and Augustine (1968a), pp. 324–5). In Books XI and XII of the same work St. Augustine distinguishes between the inner and the outer man and places the body, sensation and lustful desire, all together on the side of the outer man. See Augustine (1955), pp. 160–218 and 250–60; Augustine (1968), pp. 333–58 and 374–80; and Augustine (1991), pp. 303–24 and 334–7. I do not know of any text where Augustine identifies an entity constituted merely in terms of thought. Neither, for that matter, do I know of any text by a medieval author in which that is done; contrast Bracken (1986), p. 68.

⁴⁴ *On the Trinity*, VIII, 7, 11 in Augustine (1968a), pp. 285–6; Augustine (1955), pp. 60 and 62; and Augustine (1991), pp. 252–3.

⁴⁵ Some commentators appear to have missed this point. See Garber (1986), p. 101: 'Descartes tells us that having established the existence of the knowing subject, we must establish the existence and nature of its creator before anything can be known for certain (AT, VII, 34–6).' The fact is that nowhere in the beginning of the Third Meditation (to where Garber refers) does Descartes say exactly that. What he does say is that *nothing at all* can be known if we do not know whether there is a true God or an evil demon, and have not disposed of the sceptical threat. He explicitly includes knowledge that 'I am not nothing so long as I continue to think'. See also Alexander (1972), p. 115; Tweyman (1972), pp. 123–5 and p. 123, note 1; and Gómez (1984), pp. 65 and 71. Gómez quotes the claim in the Third Meditation that unless we know whether there is a deceiving God we cannot 'alcanzar certeza de cosa

alguna' (p. 80; my emphasis) but he appears not to see that it contradicts his interpretation. On the other hand, see Curley (1978), pp. 93–5 and 123–4; Gueroult (1968), I, pp. 155–9; and Gueroult (1984), I, pp. 103–6. See also Curley (1988), p. 5; Professor Curley has told me that he still adheres to the view presented in Curley (1978) and that this last text should not be read as denying it.

⁴⁶ There is a genuine question as to how even a malignant god could make it that two and three not equal five. Descartes resorts to obscure theology: 'whenever my pre-conceived belief in the supreme power of God comes to mind, I cannot but admit that it would be easy for him ... to bring it about that I go wrong even in those matters which I think I intuit most evidently with my mind's eye' (AT, VII, 36). See Cronin (1960), p. 554, n. 15. This passage *could* be taken to contradict Cronin's remark that 'in the texts of Descartes the question of the eternal truths is never joined ... to those concerned with the hyperbolic doubt'. Also see below chapter 3, pp. 60–2, and chapter 8, pp. 226–30.

⁴⁷ The Cartesian sceptic cannot just assert that the most simple truths of reason are false. He must offer some reason for doubt, however slight: a story incompatible with them and unknown to us to be false independently of the evidence of these truths, i.e. other than on the grounds of its entailing, by design, the falsity of these truths. In the Third Meditation Descartes examines whether the radical scepticism of the First Meditation has actually satisfied this weak requirement. There is no circularity here. See AT, VII, 214, 140–6, and 245–6. Descartes never 'inculcated' that 'species of scepticism ... which ... recommends an universal doubt ... of ... our very faculties', as Hume would have him do. (*An Enquiry Concerning Human Understanding*, Section XII, Part 1 in Hume (1986), p. 149.) On the Cartesian circle, see Frankfurt (1970a); Frankfurt (1970b); Kenny (1968), pp. 188–99; Curley (1978), pp. 96–124; Williams B. (1978), pp. 189–212. I generally follow the results established by Williams and Curley and ultimately inspired by Frankfurt. Gómez (1984) emphasizes the doubt within Descartes's philosophy, but he is quick to concede the circle criticism and uncritically to grant cogency to the most radical stage of the doubt. See also Doney (1987); and Rodis-Lewis (1987).

Gouhier (1978), p. 119, n. 14 finds a significant distinction between the hypotheses of a malignant demon and of a deceiving God. On the other hand, see Kenny (1968), pp. 34–6.

On Descartes's historical sceptical opponent, the pyrrhonist, as committed to reasons, see Curley (1978), pp. 117–18.

⁴⁸ *Itinerary of the Mind to God*, Prologue in Bonaventure (1956), p. 32.

⁴⁹ I, 1, 2 in Augustine (1986), p. 5; and Augustine (1948), p. 27. Referring to this passage in the *Retractions*, Augustine admits that 'it could be objected that many who are not pure know many truths'. But he implies that the claim in the earlier work can be made right by defining 'what is truth [and] what is to know' in this context. Augustine (1902), pp. 22–3; Augustine (1984), p. 14; and Augustine (1950), p. 291.

⁵⁰ This Cartesian attitude only defines one important strand in subsequent thought. Dr Clark Thompson has pointed out to me that one interesting exception is Pascal.

Rorty A. (1986a) draws illuminating parallels in style and method between the *Meditations* and other works in the meditational tradition, such as St Bonaventure's *Itinerary* and Loyola's *Spiritual Exercises*. I am more interested in the place of Descartes's metaphysics within the larger essentialist and mystical traditions in

which the meditational genre was cultivated. In this context, the differences are as important as the similarities. On the other hand, see Lachterman (1981). Referring to AT, VI, 61–2, Lachterman writes that if that passage from the *Discourse* ‘can be taken as revealing Descartes’ chief philosophical (and human) ambition, then the “project of pure enquiry” will turn out to have been significantly less than “pure”, to the extent, that is, that purity is measured by epistemological single-mindedness’ (p. 201). But Descartes himself was not a ‘pure’ inquirer (nor did Williams suggest he was)!

⁵¹ Burnyeat (1984), p. 248.

⁵² *Enquiry Concerning Human Understanding*, Section XII, Part 2, 127–8 in Hume (1986), pp. 159–60.

⁵³ See Burnyeat (1984); nor is the point the secularization of philosophy.

⁵⁴ On Descartes’s ethics see Marshall (1999). Note how Descartes’s *morale par provision* should not be understood as a provisional or temporary morality. See Le Doeuff (1989) pp. 57–99; and Gómez (1984), pp. 41–2 and 105–16.

⁵⁵ See Benavides (1982–1983). In these remarks from the French Preface to the *Principles*, Alberto Benavides finds ‘a remnant of Augustinism’ (p. 28).

⁵⁶ It seems any paradox could be used to support a kind of universal scepticism. For it may be argued that if any paradox stands, the whole edifice of reason falls. So the comparison with Cartesian scepticism is not unfair.

⁵⁷ See Tapié (1975). Briefer accounts can be found in Wedgewood (1974) and Briggs (1977). Also useful is Maland (1970). On the French sixteenth century, see Febvre (1977).

⁵⁸ Useful accounts and bibliographic information can be found in Kretzmann, Kenny and Pinborg (1982) and Schmitt, Skinner, Kessler, and Krayer (1988).

⁵⁹ Schalk (1991) sees an opposition between Descartes’s revolutionary thought and his conservative political views. Perhaps intellectual historians will welcome my interpretation, as it makes available to them a coherent picture of Descartes’s thought: the Cartesian philosophy was a natural result of the French Catholic Reformation.

On the peculiarities of the French social structure at the end of the sixteenth century and beginning of the seventeenth, see Lough (1984), pp. 91–8; and Huppert (1977).

⁶⁰ See Evennett (1986).

⁶¹ It is totally unwarranted to use Descartes’s plan to publish anonymously, or his adoption of the motto ‘*bene vixit, bene qui latuit*’, as evidence that in any of his published writings one must seek out ‘hidden intentions’ or doctrines behind his ‘official teachings’ (AT, I, 286; and Lachterman (1986), p. 435). The whole point of *publishing* anonymously was for Descartes to see the reaction to *his* views. There is no evidence to support the claim that he was engaged in a further, incomprehensible act of concealment by keeping secret his own views!

⁶² See Le Bossu (1674), which tries to show that Cartesian and Aristotelian physics are compatible. The extent to which Descartes’s appreciation of the effects of the dissemination of his own views, and of the significance of Aristotelianism within European cultural institutions in the mid-seventeenth century, was off the mark is manifested by the fact that le Bossu’s was an attempt to revitalize the increasingly irrelevant and antiquated Aristotelian physics. Shortly after, Jacques Rohault’s widely read Cartesian *Traité de Physique* (1671) itself became a thing of the past, replaced by Newton’s physics.

3 CARTESIAN REAL ESSENCES

- ¹ The continuity between Descartes's philosophy and that of his Scholastic predecessors has been pointed out since at least the earlier part of this century. Here, I should mention Gilson's pioneering work in *Index Scolastico-Cartésien* (1912), *La Liberté chez Descartes et la Théologie* (1913), his commentary on the *Discours de la méthode* (1925), and his *Etudes sur le Rôle de la Pensée Médiévale dans la Formation du Système Cartésien* (1930); see Gilson (1912), Gilson (1982), Gilson (1976) and Gilson (1975). More recently, Jean-Luc Marion has systematically explored the relations between Descartes and the Late Scholastics in Marion (1975), Marion (1981), and Marion (1986b). Marion's impressive and erudite work is inspired by a Heideggerian, speculative, outlook centred around the question of the constitution of metaphysics and being. But Marion is not always as clear as he could be about the philosophical issues he discusses; see, for example, Curley (1984) and in particular p. 570, note 3. From a similar Heideggerian stance, Courtine (1990) devotes some attention to the connections between Suárez and Descartes. Finally, I must refer to Carriero (1990), an insightful study of the relation between Aquinas's philosophy and Descartes's First and Second Meditations. On Renaissance Scholastic conceptions of metaphysics, see Lohr (1988).
- ² *Exercitationes paradoxicae adversus Aristoteleos*, II, 6, 1 in Gassendi (1959), p. 436 and Gassendi (1658), vol. III, p. 192b. The quoted translation by Richard H. Popkin and Betty Diumstra is from the selection included in Popkin (1966), p. 112. In *Quod nihil scitur* Francisco Sánchez writes that '*scientia est perfecta rerum cognitio*'. Sánchez (1988), p. 111; see also p. 200, n. 70.
- ³ See Gilson (1955), p. 447.
- The remote origins of the contrast between essentialism and existentialism are perhaps to be found in the 'paradox of inquiry' and its solution in Plato's *Meno*, and in Aristotle's commentary on that text; see *Meno* 80d–81e and *Posterior Analytics* I, 1; Plato (1997), pp. 879–80 and Barnes (1984), I, pp. 114–15. See also White (1976), pp. 25–61; Bluck (1961), pp. 8ff and 271ff; and Barnes (1975), pp. 94–6. In Henricus Aristippus's Latin translation of the *Meno* (c. 1154) the question in the 'paradox' is rendered '*quid sit?*' Kordeuter (1940), p. 21.
- ⁴ On *de re* necessity see Plantinga (1978). See also Hughes and Cresswell (1968) and Wiggins (1976).
- ⁵ In this essay I use 'nominalism' to refer to several different doctrines; see note 12 below; chapter 5, p. 117; and chapter 8, p. 215.
- ⁶ Throughout this essay I generally use 'essentialism', as opposed to 'existentialism', in the sense articulated in chapter 1. Nevertheless, I will occasionally, and particularly in this chapter, use 'essentialism' to mean the wider doctrine that there are real essences and true *de re* modalities. Bearing in mind these two uses, there should be no difficulty in determining the intended meaning.
- ⁷ It is not my intention to suggest that Scholastic existentialism and Cartesian essentialism exhaust the possible varieties of essentialism in its broader meaning. For examples of contemporary existentialist essentialisms see Kripke (1980), Putnam (1980b) and Wiggins (1980), chapters 3–5.
- ⁸ Ayer (1948), p. 5.
- ⁹ Ayer (1948), pp. 5–6.
- ¹⁰ Compare Wiggins (1980), pp. 105–6 and 114–15, which discuss Ayer (1973).

- ¹¹ Ayer (1948), p. 6.
- ¹² I do not wish to imply that essentialism, in the more general sense of the term, must deny Ayer's dichotomy. It is at best a disputed matter whether essentialism commits to Platonism. See Wiggins (1980), chapters 3–5, where we find a conception of natural essences (tied to an account of the identity of certain substances), an explicit existentialist dependence thesis, and the denial that there are separated real essences of what does not exist. Wiggins suggests that talk of 'sortal predicates' (standing for 'sortal concepts' which are just 'what it is to be an A') is 'fully compatible with nominalism in that reasonable acceptation of the term in which both Aristotle and Leibniz are to be reckoned nominalists, or held (in effect) that they were' (pp. 7–8).
- ¹³ Though the doctrine that there are essences of what does not exist is probably a departure from Aristotle, it does not contradict Aquinas's own reading of the *Posterior Analytics*. On Aristotle on definition and knowledge of existence see Sorabji (1980), pp. 185–208. As we noted, St Thomas paraphrases Aristotle: 'since there is no essence or quiddity of a non-being, no one can know the nature of what does not exist' (*PA*, II, 6, 2). This text is compatible with the claim that there are essences of what never has existed, does not and never will exist. For in this context to be a 'non-being (*non ens*)' is not the same as being 'what does not exist (*id quod non est*)'. A non-being does not merely lack existence; it cannot possibly have it. It is an impossibility. As we have seen earlier, Aquinas believed that one may know that something is possible, and hence not a non-being, only by knowing that it is actual. Thus, Aquinas's paraphrase need not be interpreted as a statement of an Aristotelian view with which he himself disagreed. Rather, it should be read as follows: since there is no essence of the impossible, no one can know the essence of what does not exist; for one knows things to be possible by knowing them to be actual.
- ¹⁴ Descartes suggests a contrast between an essential definition and a 'mere verbal definition' in *AT*, VII, 141–2. When Descartes criticizes the use of 'definitions' (e.g. in *AT*, VIII–1, 8 and X, 523 and 525), he is explicitly not referring to the knowledge that results from the clear and distinct intellection of essences.
- ¹⁵ XLVI 1 and 2 in Augustine (1975), pp. 70 and 73 and Augustine (1952), pp. 123 and 127.
- ¹⁶ On the origins and early history of the doctrine of Forms as thoughts in God, see Armstrong A. (1960); Armstrong A. (1970); Jones (1926); Loenen (1956); Loenen (1957); Rich (1954); Wolfson (1961); Wolfson (1970), pp. 257ff; Witt (1937); Cherniss (1938); Dillon (1977). On the understanding of God as mind in this context see Stead (1982) and Merlan (1969), chapter 2.
- ¹⁷ XLVI, 2 in Augustine (1975), p. 71 and Augustine (1952), p. 125.
- ¹⁸ XLVI, 2 in Augustine (1975), p. 72 and Augustine (1952), p. 127.
- ¹⁹ See Alanen and Knuuttila (1988), one of the more promising reconstructions of the doctrine that logical truth depends on God's will. I am unsure, however, whether their Cartesian 'voluntarist constructivism' succeeds in avoiding the charge of irrationalism. Other discussions are found in some of the papers in Doney (1987); and in Cronin (1960) and (1966), Wells (1961) and (1980–1981), the discussion of Cronin's book in Wells (1967–1968), Bréhier (1970), Funkenstein (1980), Marion (1981) and Alanen (1985).
- ²⁰ See below chapter 8, pp. 226–30, particularly notes 36 and 37.
- ²¹ See Curley (1984), pp. 592–6, where Descartes's position is restricted to contingent essences.

- ²² I do not intend to imply that such theistic Platonism could be made ultimately plausible. In fact, Descartes's conception of God and His relation to creatures, which was to a large degree taken from the writings of his Scholastic predecessors, is in the last analysis too obscure to be deemed plausible or even coherent.
- See the Symposium on 'Descartes's Ontological Argument' in Margolis (1969), pp. 18–62.
- ²³ Given the general character of our present discussion, I wish to leave undecided whether there are individual essences or not, a matter on which Descartes and at least some of his Scholastic predecessors disagreed.
- ²⁴ See Doyle (1987) and (1988); and Karofski (1997).
- ²⁵ Descartes believed that all ideas present their objects as truths or as substances or the properties of substances. In this sense, all ideas present their objects either as existing and, *per force*, as possibly existing, or as true (see AT, IX–2, 45; and VII, 166). This is compatible with the claim that the thought of a non-existing triangle is not the thought of a contradiction. A thought of a non-existing triangle is the thought of a triangle which is judged not to exist outside the mind. So nothing is taken to be both existing and not existing at the same time. The thought of a triangle involves no judgement as to whether the triangle, presented as if it were existing, actually does exist. So it does not conflict with the other constituent of the thought of a non-existing triangle: a judgement that the object of this thought does not exist outside the mind. Similarly, to think of something as impossible is to think of something and to judge that the object of that thought is contradictory, an incoherence or an impossibility.
- ²⁶ Compare Sergeant (1700), chapter I, §6 p. 5.
- ²⁷ Descartes states: 'Were I to [posit] the least thing that is obscure, this obscurity might well conceal some hidden contradiction (*repugnance*) ... and hence ... I might be supposing something impossible. Instead, since everything that I [posit] can be distinctly imagined, it is certain that ... God can ... create it ... For it is certain that He can create everything we can imagine' (AT, XI, 36). This text does not settle the matter of whether Descartes held that being imaginable, in the literal sense, entails being possible. For here 'imagine' should be taken in its secondary sense. For examples of uses of 'imagine' in this sense, see AT, VII, 111, 143, 144; VIII–1, 15, 18, 81.
- ²⁸ In this passage Descartes does not deny that a chimera is possible, only that it actually exists. See also AT, I, 25; VII, 24; and XI, 344. But, as we noted, he also uses 'chimera' when his intention is undoubtedly to refer to an impossibility. In AT, VIII–1, 10 Descartes contrasts an 'idea which was invented by the mind, or which represents some chimera' with one which 'represents a true and immutable nature'.
- ²⁹ There is room for dispute here; see Williams B. (1978), pp. 286ff.
- ³⁰ Bernard Williams has argued this point in Williams B. (1978), pp. 265–77. Descartes's views seem to have evolved from a conception of science as more completely *a priori*, progressively making room for *a posteriori* contributions. See Larmore (1980).
- ³¹ Descartes's deduction of the laws of nature from the consideration of God as 'universal and primary cause' undermines this interpretation (AT, VIII–1, 61–6).
- ³² See Gueroult (1980), pp. 196–7 and 200–1.
- ³³ See 'Primary Truths' in Leibniz (1976), pp. 267–71 (translated as 'First Truths') and Leibniz (1989), pp. 30–4.

- ³⁴ For Aquinas on the individuation and definition of purely spiritual substances see the *Disputed Questions on Spiritual Creatures* particularly qq. 1, 5, and 8 in Aquinas (1925), vol. III and Aquinas (1949).
- ³⁵ See also Aquinas's *Commentary on Aristotle's Metaphysics* VII, 10, §§1492–6 in Aquinas (1977), p. 363, and in Aquinas (1961), pp. 563–4.

4 IDEAS AND THE WORLD IN THE MIND

- ¹ There is a significant shift in the meaning of 'idea' between Descartes's earlier and later works. In the *Rules* Descartes uses that term to refer not only to spiritual cognitions but also to corporeal shapes and images. He continues this practice in the works immediately following, such as the *Treatise on Man*. See AT, XI, 176 and 178ff; and Cronin (1966), p. 227, note 20. In the years following these early writings, Descartes decided that it would avoid confusion if he clearly distinguished between corporeal and mental or spiritual ideas in terminology and not only in concept. In early 1641 he wrote that 'it is not only the images depicted in the imagination which I call "ideas". Indeed, in so far as these images are in the corporeal imagination, that is, are depicted in some part of the brain, I do not call them "ideas" at all; I call them "ideas" only in so far as they give form to the mind itself ...' (AT, VII, 160–1; see also 181 and III, 392–3). Following Descartes's later decision I shall use 'idea' to refer only to something mental.
- ² By 'idea' Descartes generally understood, in later works, either an act of consciousness, or the immediate object of such act, or both. In what follows, 'idea' will generally mean a mental act, unless a different sense is explicitly indicated.
- ³ I am here omitting, for the sake of simplicity, the case of the self's perception of itself. Cartesian self-consciousness is the direct apprehension of an existing substance.
- ⁴ Cronin (1966), pp. 34–6.
- ⁵ Kenny (1968), p. 141. Also see Cottingham (1986), p. 53; Williams B. (1978), pp. 135–8; Anscombe and Geach (1985), p. 81, n. 1.
- ⁶ See below chapter 6.
- ⁷ Normore (1986), pp. 226–7 offers an account of the Cartesian hierarchy of reality which, however, seems not to distinguish between the predicative dependence of modes on their substances and the causal dependence of everything on God.
- ⁸ See Wells (1990), an erudite and illuminating examination of the connection between Descartes and the Late Scholastics on ideas. However, Wells does not give due weight to Descartes's divergence from the Scholastics on the question of the structure and intentionality of ideas.
- ⁹ Kenny (1984), pp. 82–3.
- ¹⁰ Compare the misleading account of Aristotle's 'similitude theory of reference' in Putnam (1981), pp. 57ff.
- ¹¹ For the sake of simplicity I am excluding consideration of the mind's awareness of itself. In self-consciousness the soul has an immediate, intellectual perception of itself as an actual thinking thing. Descartes is not presenting an indirect or mediated account of the soul's directedness towards an object. His conception of perception is indirect or mediated only relative to outer things, things other than the thinking soul itself. Cartesian thought is a simple essence, known by unmediated acquaintance with actual awareness in self-cognition. It is in the nature of the soul to be

aware of its objective contents and of itself as a thing that is aware. This intentional difference between first-order thought and second-order or reflexive consciousness is assumed throughout this essay.

- ¹² See Kenny (1970) reproduced as chapter 5 of Kenny (1968), pp. 96–125; Danto (1978); and Chappell (1986). Also see Aquila (1974–1975) and Marion (1981), pp. 119–40.
- ¹³ See Lennon (1974); Lennon (1980); Arbini (1983); Cook (1975); and Nadler (1989), pp. 143–78.
- ¹⁴ Unfortunately any claim to originality is, as we have seen, unfounded: Arnauld read Descartes as a direct realist.
- ¹⁵ Rorty himself adopts the standard interpretation in Rorty R. (1979).
- ¹⁶ Leibniz (1989), p. 203.
- ¹⁷ Though self-awareness does introduce a substantially existing entity, it does not of course introduce as object any entity independent from the mind itself.
- ¹⁸ Yolton (1984), p. 38.
- ¹⁹ Regarding the text in AT, VI, 559 see Alquié (1963–1973), I, p. 605, note 3 and Gilson (1976), pp. 318–23. Costa (1983) objects to reading the passage in AT, VII, 8 as expressing an indirect or immanent doctrine. However, his arguments are weak and, as is common among those who attribute to Descartes a realist doctrine of ideas, he appears to confuse a causal relation between a mental act and what occasions it with an intentional relation between such an act and its object. Typically, texts like AT, VI, 112 from the *Optics* are used to claim that Descartes substituted the intentional species of the Aristotelians for movements or images in the brain: just as the realist Scholastics had forms structuring the mind towards its objects, so for Descartes the soul is ‘stimulated’ towards things in the world by certain corporeal events. But in this and similar passages Descartes is dealing with the causes of mental acts, not with their intentionality. In the case of the passage from the *Optics* just mentioned this is made evident in 113–14, where Descartes writes that the bodily events in question are ‘what occasions’ ideas. To ‘occasion’ is to cause, not to structure or direct. The verb translated as ‘to stimulate’ in 112 is ‘*exciter*’.
- ²⁰ Anscombe (1981b), p. 11. Intentional species, on the other hand, may be ‘true positive beings’ or ‘real entities’; see *DA*, d. V, q. 2, 1.
- ²¹ See Marion (1981), pp. 121–2.
- ²² On the other hand see Marion (1981), pp. 122–3, and also pp. 128–9.
- ²³ See Marion (1981), pp. 136–7.
- ²⁴ See Kenny (1968), pp. 117–25 and Wilson (1978b), pp. 101–19. For a corrective, see Wells (1984). Arguing from Wilson’s interpretation, Bolton (1986) introduces some needed modifications. Wilson revised her views in Wilson (1990).
- ²⁵ Thus, supporters of a direct realist reading of Descartes reap no benefits from their criticism of the view that Descartes took the immediate terms of consciousness to be representative images or pictures; see Arbini (1974) and Costa (1983).
- ²⁶ See above chapter 1, note 22.
- ²⁷ Compare Kenny (1968), pp. 123–5.
- ²⁸ We might speak here of the ‘substantial content’ of an idea. An idea has weak substantial content if the reality it presents objectively could also exist formally; it has strong substantial content if its objective reality actually does exist in the world. Materially false ideas have objective reality but they fail as to substantial content. The paradigms of material falsity, the proper ideas of sense, have no

substantial content. Other materially false ideas might lack only strong substantial content.

- ²⁹ It has been suggested in Wilson (1978b), p. 105 that ‘under criticism from Arnauld’ Descartes retreated ‘from the *Meditations* position – which in fact had led him into incoherence’. Since I do not take this to be the case, I have indistinctly used passages from the *Meditations* and from later works to establish Descartes’s view. My account dissolves the problems which Wilson finds in Descartes’s texts.
- ³⁰ Arnauld (1986). See also Malebranche (1966). On Arnauld’s views, see Verga (1972); Nadler (1989); Cook (1974); Radner (1976); and del Noce (1937).
- ³¹ Arnauld (1986), pp. 43–60. Since he takes Descartes to have been a direct realist, Nadler (1989) fails to fully appreciate the question of Arnauld’s complex relation to Descartes. On the other hand, note the suggestive remark in Ayers (1986), p. 11: ‘Arnauld attempts to graft the Aristotelian logical tradition on to Cartesian metaphysics and epistemology.’ See Arnauld (1964), Part I, pp. 31–98.
- ³² Contrast Wells (1984), pp. 43–4, note 110. It is not the case that Arnauld’s ‘objective being’ is ‘exactly’ the same as that ‘which Descartes had laboured . . . to make plain to Caterus’. In the replies to Caterus Descartes sides with Suárez in taking ‘objective being’ to mean the being of the object as term or object of thought. For Arnauld the objective content is not the content provided by the immediate object of an idea, but by the very act itself in so far as it is structured to an object which may in fact exist wholly outside the mind. This shift in the notion of ‘objective reality’ might perhaps be connected to Late Scholastic developments in the treatment of intentional forms. But that is a different matter. And I doubt that anything in Suárez suggests Arnauld’s reading of ‘objective being’.
- ³³ Arnauld (1986), p. 54.
- ³⁴ Contemporary commentators sometimes repeat Arnauld’s mistake even when they do not interpret Descartes as a direct realist. In common with Arnauld, they take material falsity to involve the failure of an idea to represent its object correctly, and they too cannot understand how the idea can represent what is nothing as if it were something. See Wells (1984) and Bolton (1986).
- ³⁵ This ‘sensation’ does not seem to be the act of perception which Arnauld (1989), pp. 52–3 interprets as the immediate object of the mind in self-consciousness. It is not clear how an act could be mistaken for cold, though perhaps this can be explained within a direct realist account.
- ³⁶ The term ‘absence’ (*privatio*) is technical, and probably used because of its familiarity to Scholastic readers. Nothing hinges on it; we may safely substitute ‘cold is nothing’ for ‘cold is an absence’.
- ³⁷ On Descartes’s ‘innatism’, see McRae (1972).
- ³⁸ In the *Essay*, II, I, §§2–4; VI; and VII, §§1–9 in Locke (1985), pp. 104–6 and 127–32.
- ³⁹ Contrast Alquié (1963–1973), II, p. 434, note 3.
- ⁴⁰ Notice that this is a different distinction from that between ‘primary and proximate’ and ‘secondary and remote’ causes.
- ⁴¹ Though in AT, VIII–1, 62 Descartes writes of these laws being themselves the causes of motions, in VIII–1, 65 he states, more properly, that the causes are ‘included under’ or ‘covered by’ the laws. In the first passage he might have been thinking of the determinations of God’s will.
- ⁴² Sometimes Descartes speaks of occasional causes as ‘proximate’ when what he intends is temporal proximity; see AT, XI, 347. So though occasional causes need

not be temporally proximate, they can be so. In any case, unlike efficient causes or true producers, they clearly are not required to be strictly simultaneous.

- ⁴³ I take Descartes to be committed to occasionalism, the doctrine that God is the only active (non-occasional) cause, to the extent that he recognized only one fundamental, irreducible *kind* of true causal dependence. This, together with the claim that creatures must be recreated by God at all moments of their existence, commits him to the tenet that only God is truly cause. The pertinent difference between Descartes and his Scholastic predecessors lies in the Cartesian tendency to reduce all causation to God's productive efficacy. See Secada (1990).
- ⁴⁴ The problematic causal relation between spirit and matter in human beings informs Suárez's treatment of the production of the intelligible species which directs the intellect towards its object. There, as indicated in Gilson (1975), p. 30, Suárez propounds an incipient form of occasional innatism.
- ⁴⁵ In the cited text from the *Principles* (AT, VIII–1, 40–1) Descartes uses the verbs '*efficio*' and '*exhibeo*', I take it, to mark a difference between a purely causal relation and one that may also involve a representative or an intentional element. CSM, I, 223 translate '*exhibeo*' as 'produce'. This is literally admissible, but perhaps insensitive to the nuances of the Cartesian text.
- ⁴⁶ See also AT, VII, 214 and 246–7. This implies that the mind is in constant intellection of its own nature. Descartes would appear to deny this in *The Passions*: 'when [the mind] applies itself to consider something that is purely intelligible and not imaginable, for example, in considering its own nature' (AT, XI, 344). To Arnauld he writes that 'thought, or a thinking nature, which I think constitutes the essence of the human mind, is far different from any particular act of thinking' (AT, V, 221). Since the nature of the mind is different from any particular action of the mind, so too must their respective acts of apprehension be different. The mind is conscious of its thoughts and acts and, given that these are determinations or modes of its essence, there is a sense in which the mind is constantly aware of its essence through its acts. To consider its nature, however, the soul needs to consider the determinable to which each of its acts stands as a determinate. This simple nature is indeed immediately present to the mind, for it is the mind itself; but the mind need not attend to it.
- ⁴⁷ For Descartes's treatment of formal existence. See below chapter 8, pp. 212–30.
- ⁴⁸ Contrast Arbini (1974), p. 332, which apparently denies that 'there could be a visual sensation of figure'. But it seems evident that a sensation of a patch of colour is a sensation of an extended expanse, possessing perhaps some definite shape. Furthermore, whatever limitations there are in the purely sensory apprehension of shape relative to an understanding of shape, these are also found in the pure sensation of colour relative to the understanding of colour, which, for Descartes, requires the intellection of the *sensation* of colour, *not* of the colour. As we shall see in the next chapter, it is only the intellect which truly identifies the inner objects of the mind, but the senses can still perceive the same objects. See AT, VII, 31.
- ⁴⁹ Descartes presents an account of the relation between sensation and judgement towards the end of the First Part of the *Principles*. When examining this text it is instructive to compare the original Latin with the French translation due to the Abbé Claude Picot. (AT, VIII–1, 32–7; IX–2, 55–60.) Descartes not only read and approved the translation, he used it to incorporate significant changes and additions. That the French version of an authoritative Cartesian text is firmly established by

the confirmed reports of a transcription of parts of it made in Descartes's own handwriting. See AT, IX–2, vii–xx, particularly, xi; and Alquié (1963–1973), III, 84–5. On the other hand, see the qualifications in Miller and Miller (1981).

- ⁵⁰ Unless the principle that all the objects of thought are ultimately taken from sensation is assumed against Descartes, the Cartesian position is not open to that standard criticism of representationalism, suggested by Locke's rhetorical question: 'how can I know that the picture of anything is like that thing, when I never see that which it represents?' (*An Examination of P. Malebranche's Opinion of Seeing All Things in God*, §52 in Locke (1905), II, p. 454).

5 MY WAX, MY INTELLECT AND I

- ¹ Berkeley denied that there are objects common to diverse senses; see Berkeley (1948–1957), II, p. 245. Much of *An Essay Towards a New Theory of Vision* argues for the claim that 'we never see and feel one and the same object' (§49 in Berkeley (1948–1957), I, p. 189).
- ² See below chapter 7, pp. 190–3.
- ³ See Armstrong D. (1978), I, p. 12: 'the fundamental contention of Nominalism is that *all things that exist are only particulars*.' Armstrong takes this to be denied by the claim that 'there are universals . . . which exist independently of the classifying mind' (p. xiii). For a survey of contemporary discussion of the ontology of universals, see Loux (1983).
- ⁴ See J. J. E. Gracia's 'Glossary' of Suárezian terminology in Suárez (1982), pp. 175–279. Also see the 'Select Bibliography of Recent Discussion on Suárez's Metaphysics' in pp. 281–7.
- ⁵ The rather obscure view that universals exist in particulars amounts to the claim that in reality and prior to any operation of the mind there is one same thing (a universal) which exists in each of many distinct individuals. Two numerically distinct substances, then, would both share one identical constituent, which would exist whole in each one separately. This view has been revived in Armstrong D. (1978); contrast, however, Armstrong D. (1989).
- ⁶ On Gassendi's 'nominalism' see Gassendi (1959), II, 2, *passim*, pp. 273–309; and Gassendi (1658), III, pp. 157a–65a. Gassendi replied to Descartes's replies; see Gassendi (1962), pp. 469–91; Gassendi (1658), III, pp. 374b–39a. See also Bloch (1971), particularly pp. 110–47; and Gregory (1961).
- ⁷ Compare Gassendi's allegations with Suárez's own statements in *MD*, VI, 7, 7. Gassendi also attributes to the 'schoolmen' the view that 'talking of the essence of things is one thing and talking about their existence is another' (AT, VII, 319). Strictly taken, Suárez would not have disagreed with this. Still, Suárez believed that between the essence and the existence of a creature there is only a distinction of reason, as between a property (essence) and the property of having that property (existence). Descartes followed Suárez on this issue; see below, chapter 8, pp. 212–30. I take it that Gassendi also held the same view, and that he was misinformed about Scholastic doctrine (wrongly taking a variety of Thomism as the only view held by philosophers in the School), and mistaken about the implications of his claims; see AT, VII, 322–4.
- ⁸ A position similar to Gassendi's is defended in Locke's *Essay*, II, 11, 9–11 and III, 3, 6–13 in Locke (1985), pp. 159–60 and 410–16. A contemporary version can be

- found in Price (1969). For critical assessments see Russell (1911–1912), pp. 8–10; Pears (1970), pp. 41–2; Bambrough (1970); Geach (1971), pp. 11–44; and Sellars (1963), pp. 127–96.
- ⁹ Gilson (1975), p. 30, indicates, to my mind correctly, that Suárez’s account of the operation of the agent intellect amounts to a form of causal innatism. However, it would be an error (which of course Gilson does not make) to confuse Late Scholastic intentional species (whether intellectual or sensorial) with the terms or objects of acts of thought. See Leroy Loemker’s not altogether unambiguous claim – bringing in, as it does, the notion of mediation – in Leibniz (1976), p. 329, note 30. Leibniz’s own critical remarks in *Discourse on Metaphysics* §26 do not assume that the supposed species or ‘messengers’ are objects or terms of perceptual acts; see Leibniz (1976), p. 320 and Leibniz (1989), p. 58.
- ¹⁰ On St Thomas and abstraction, see Geach (1971), pp. 38–44 and 130–1.
- ¹¹ Compare Geach (1971): ‘the mind *makes* concepts, and this concept-formation and the subsequent use of the concepts formed never is a mere recognition or finding . . . In all cases it is a matter of fitting a concept to my experience, not of picking out the feature I am interested in from among other features given simultaneously’ (p. 40).
- ¹² For a Platonic treatment of the agent intellect, contemporary with Aquinas, see Ghent (1520), a. 1, q. 2; I, ff. VII and VIII. See also Gilson (1955), p. 452.
- ¹³ While Descartes took the being of universals to be an ontologically and causally significant ‘existence’ inside the mind, for Suárez, that universals are mere mental objects relieves them, in so far as they are so considered, of ontological import. Accordingly, Descartes’s and Suárez’s agreement as to the objective being of universals rides on two very different conceptions of their ontological import.
- ¹⁴ Bloch (1971) identifies two basic ‘themes’ in Gassendi’s ‘nominalism’: the ‘inseparability of essence and existence’; and the ‘separation of essence and idea’ (p. 120). If I understand these themes correctly, the second asserts that the real essence of substances is not known by the human intellect (a view opposed by both Suárez and Descartes); and the first asserts that essence and existence are not in reality two separate properties (a view found in Suárez and Descartes; see below chapter 8, pp. 212–25). However, in Gassendi’s views on the relation between essence and existence Bloch finds a central piece of his *empiricist* thought, linking him, through Locke, with Kant (p. 121). Bloch’s claim is misguided. In chapter 8 I show that there is no disagreement between Gassendi and Descartes regarding the distinction between essence and existence.
- ¹⁵ Suárez and Descartes apparently held the doctrine which Armstrong D. (1978), I, p. 58 calls ‘particularism’; see also pp. 25–7 and 77–87.
- ¹⁶ See Geach (1971), pp. 35–6.
Descartes might perhaps not have distinguished sharply between the ‘idea of colour’ as the sensory perception of an individual colour patch and as apprehension of the universal term ‘colour’ (see AT, X, 438 and VII, 360 and 363) All the same, as far as I know nothing in Descartes is strictly and unambiguously incompatible with this distinction.
- ¹⁷ It is illuminating to contrast Descartes’s innovative proposals with Suárez’s and Aristotle’s treatments of quantity. See *MD*, XL, 1–6 and XLI, 4–5; *Categories*, 6 and 8; Aristotle (1984), I, pp. 8–10 and 16; and *Metaphysics* V, 13, 1020a 7–33; Aristotle (1984), II, p. 1611. Also see Hatfield (1985), pp. 149–50. For Late Scholastic doctrines

roughly contemporary with Descartes Hatfield refers to the *Summa* of Eustache of St. Paul and the Coimbra *Commentaries on Aristotle's Physics*; see AT, III, 185 and 232.

- ¹⁸ CSM, II, 262 translate the beginning of this passage thus: 'Geometrical figures are composed ...' The Latin text, however, does not contain an explicit subject; and its implicit subject is clearly the figures '*quales a geometris considerantur*' (AT, VII, 381). The difference is important. For the figures studied by geometers are only a subset of all strictly mathematical figures, as opposed to rough and vague indeterminate approximations; and Descartes's account hinges on this fact, as will become clear below. In addition, the claim that such figures are composed of straight lines 'for the most part' makes better sense if one takes the subject to be the figures studied by geometers rather than geometrical figures in general.
- ¹⁹ The Latin text is '*irregulares et undulatum ... incurvas*'. The French translation by Clerselier has '*irréguliers et courbés ... comme des ondes*'. Descartes did not include this text in the 1647 French edition which he revised and approved. See Alquié (1963–1973), II, pp. 380 and 829.
- ²⁰ CSM, II, 262 unjustifiably translate '*at nequidem unquam ulla pars lineae, quae revera recta esset, sensus nostros movit*' as 'yet no part of a line that was really straight could ever affect our senses' (AT, VII, 381).
- ²¹ Contrast Aaron (1967), p. 94.
- ²² I take it that here Descartes identifies 'particular instances' with the objects given in sensation.
- ²³ In Descartes's eyes Gassendi's criticisms had already been pre-empted in the Second Meditation. Consequently, he simply rebuked his opponent for maintaining that the understanding of a triangle depends on the sensory perception of individual triangles, and substituted instead his intellectualist doctrine.
- ²⁴ On Descartes's reflection on the wax, see Gueroult (1968), I, pp. 119–53 and Gueroult (1984), I, pp. 75–101; Williams B. (1978), pp. 213–27; Curley (1978), pp. 211–16; and Wilson (1978b), pp. 76–92.
- ²⁵ On the notions of 'determinable' and 'determinate' see below, chapter 7, pp. 189–98, particularly note 12.
- ²⁶ The Latin text uses the expression '*quid sit haec cera*'. In this and other passages, CSM have 'the nature of this wax' instead of my 'what this wax is' (CSM, II, 21 and 22). Their translation is strictly justified, though mine is literal. I prefer it because it avoids confusion and because Descartes never once uses in this context the expression '*natura cerae*'.
- ²⁷ The Latin text has '*sola mente*' and '*mente*'. The French text has '*entendement seul*' and '*l'entendement ou l'esprit*' (AT, VII, 31; IX–1, 24).
- ²⁸ See *Monadology*, §§14–19 in Leibniz (1976), p. 644 and Leibniz (1989), pp. 214–15.
- ²⁹ Compare Descartes's reasoning with the following. For something to be given as a determinate individual is for it to be given as a subject of possible identity claims. But all claims of the form ' $A = B$ ' require the intelligible specification of A and B. If to be given as an individual is to be given as an identifiable and reidentifiable something, that is, as the subject of possible statements of identity, then this supposes an intelligible determination of the individual. See Shoemaker (1971) and Wiggins (1980), chapters 1 and 2.
- ³⁰ Berkeley appears to misunderstand Descartes here; see his *Philosophical Commentaries*, §784 in Berkeley (1948–1957), I, p. 94; and also VIII, pp. 25–6. In

AT, VII, 30 the reader is invited to ‘consider those things which people think they understand most distinctly . . . not indeed bodies in general, for such general perceptions are usually somewhat confused, but one body in particular’. Berkeley takes this to somehow contradict the passage cited in the text from AT, VII, 31.

³¹ Cf. Price (1969), pp. 20–3.

³² Given his reliance on primitive acts of intellectual inspection, Descartes himself is in the end open to similar criticism.

³³ See Kenny (1984), Geach (1976) and Geach (1971), §§5 and 11.

³⁴ Compare A271/B327 in Kant (1965), p. 283.

³⁵ Contrast with *ST*, I, 87, 1 which holds that the mind does not ‘understand itself by its own essence’. Aquinas argues that ‘since it is connatural for our intellect in the present life to look to material, sensible things . . . it follows that our intellect understands itself according as it is made actual by species abstracted from sensible realities . . .’ The Second Meditation can be read as a critique of this Thomist doctrine.

³⁶ For an interesting discussion of the unity of the Second Meditation against the background of Aquinas’s views on knowledge of the nature of the soul, see Carriero (1986).

³⁷ My reading fits well with the change of *attitude* towards the sceptical arguments from the Second to the Third Meditations. At the start of the Second Meditation the sceptical ‘doubts’ are declared to be ‘so serious’ that they have taken complete possession of the inquirer (AT, VII, 23–4). At the beginning of the Third Meditation, however, the supposition of an evil demon is said to provide only ‘a very slight and, so to speak, metaphysical [reason for doubt]’ (AT, VII, 36). On my reading, this has nothing to do with the sceptic having been addressed and refuted. In fact, that is not done until *after* these passages. The change is to be understood, rather, as the change in attitude towards what starts as a useful instrument in the search for truth and then, outstaying its welcome, turns into an extravagant bother.

³⁸ Anscombe (1981a), p. 21 may be an exception. Also see Hobbes in AT, VII, 173.

³⁹ The ‘I’ of the *Meditations* is, of course, not Descartes. Nevertheless, this distinction should not lead to the assumption that Descartes and the meditator in the end hold different views. Descartes would not have rejected any doctrine to which he intended to lead his reader. Moreover, he avows to have himself enacted the reflections of the *Meditations*: ‘I will set out the very thoughts which have enabled me, in my view, to arrive at . . . the truth’ (AT, VII, 10).

⁴⁰ See Gassendi’s reply to Descartes’s reply to his objections against this part of the Second Meditation; II, 1, 3–6 in Gassendi (1962), pp. 71–87 and in Gassendi (1658), III, pp. 286b–90a.

⁴¹ See Ayer (1956), pp. 45–54; Williams B. (1970); Hintikka (1970); Feldman (1973); and Gombay (1972).

⁴² An analogous distinction between intuitive and discursive understanding is found amongst mystics; see Ruiz (1991), pp. 207–50. In this 1650 treatise the Jesuit Antonio Ruiz de Montoya opposes the ‘silence’ of mysticism to the ‘voices’ of Scholasticism (p. 113). He distinguishes ‘three degrees in the knowledge of the First Cause. The first is discourse or meditation . . . The second is simply intelligence . . . The third and most sublime degree occurs when the understanding is suspended . . . in the simple intelligence and unadorned concept of the divine essence . . .’ (pp. 118–19).

I do not wish to suggest that the notion of an entirely non-discursive intellectual intuition does make sense. I use the distinction presented above, which is taken from Descartes himself, to make the following point: it is at least clear that in the *Meditations* there is no knowledge of one's existence without the direct intuition of one's essence. I argue further that knowledge of one's existence requires a discursive understanding of one's nature. My case is not damaged by the claim that there is no intelligent direct acquaintance which does not involve some discursive understanding. Notice also that I do not deny Descartes's explicit assertion that the essence of mind is different from any particular act of thought; see AT, V, 221.

⁴³ See below chapters 7, pp. 189–98 and 8, pp. 205–12.

6 ESSENTIALISM AND THE EXISTENCE OF GOD

¹ Gueroult (1968), I, p. 23 and Gueroult (1984), I, p. 8.

² They are found in Part Four of the *Discourse*, the Third and Fifth Meditations, the Appendix to the Second Replies and the First Part of the *Principles*. There is a controversy as to whether there are two or three proofs in Descartes's *Meditations*. See below pp. 151–5.

³ See Marion (1981), pp. 140–59; and Marion (1986a).

⁴ Gouhier (1978), p. 131. Wilson (1978b), p. 136 seems to adopt this same interpretation, for it mentions only one Cartesian proof from effects. However, Wilson (1986), p. 339 suggests there is more than one argument for God's existence in the Third Meditation.

⁵ Somewhat similar interpretations have been offered in García (1976), pp. 93–9; and in Curley (1978), chapter 6. I find Professor Curley's to be one of the most lucid accounts of Descartes's causal arguments. Though my agreements with him are many, there are substantial differences in our readings, enough to justify the ensuing discussion. See also Koyré (1922), pp. 162–71.

⁶ Gilson (1975), p. 212.

⁷ *Ibid.*

⁸ This is intended as a presentation of Descartes's argument, not as a strict rendering of the proof.

⁹ Cottingham (1986), p. 56. See Williams B. (1978), pp. 151–2.

¹⁰ I am not suggesting that either Williams or Cottingham must claim that Descartes would have answered 'yes'. My point is rather that Descartes believed that a finite mind could not cause itself independently of whether it has the idea of God or not; so the fact that I have the idea of God appears to be unnecessary in order to establish this.

¹¹ The French text (AT, IX–1, 38) suggests that if I derived my existence from myself I would be 'independent of every other being'.

¹² Curley (1978), pp. 134 and 136–7 offers a detailed account of Descartes's reasoning leading to the claim that he is not his own cause. My discussion suggests that there is here a more direct argument.

¹³ See Secada (1990).

¹⁴ That the first proof involves the impossibility of an infinite regress in a series of causes is evidenced by AT, VII, 42: 'there cannot be an infinite regress here'. The rejection of an infinite regress in the *first* proof follows immediately from the principle that what is objectively in an idea must exist formally in the first and principal

cause. Still, in both the first and the second causal proofs we are dealing with simultaneous series; see below and AT, VII, 50. Curley (1978), p. 134 appears to miss this point in the first proof.

- ¹⁵ I read the phrase ‘all the perfections of which it has an idea’, which I have omitted in the quote, purely extensionally, meaning, that is, ‘all the perfections which I conceive to be in God’.
- ¹⁶ Compare Curley (1978), pp. 138–40.
- ¹⁷ In the ontological argument the existence of God follows from His bare possibility. See Cargile (1975), p. 69 and below chapter 8, pp. 230–5. Descartes apparently would have distinguished between the ‘existence’ of non-substantial mathematical objects, founded on their consistency, and the substantial existence of God. See AT, VII, 66–7.
- ¹⁸ I presented a similar argument to the Moral Sciences Club at the University of Cambridge during the Lent Term of 1984, under the title ‘God and Essence’. On that occasion an objection was put forward: a definition does not count as a statement of essence unless what is defined exists. This stipulation has no bearing on the matter at issue. Taken this way, essentialism is immediately contradictory and the corresponding existentialism trivially analytic. Such empty doctrines, however, are not those over which Descartes and the existentialist Scholastics were in opposition.
- ¹⁹ Kant (1978), p. 21.
- ²⁰ For the sake of simplicity I am excluding relations, apart from formal ones (e.g., identity), from this claim. A fuller discussion would demand treatment of them. Briefly put, the claim here is that a property F belongs to God if, and only if, (1) ‘being F’ follows from ‘being God (i.e., having the divine nature)’ or (2) ‘being God’ follows from ‘being F’. (1) allows God to have properties in common with creatures. (2) allows God to have properties He could have lacked.
- ²¹ It has been maintained that these are names of natural kinds, and that, therefore, they refer to some essence. See Kripke (1980) and Putnam (1980b). Descartes did not consider animals, plants or elements to be substances. Furthermore, in so far as something does have a real and knowable essence, according to Descartes this can be known *a priori*. I am here putting these views aside for the sake of argumentative clarity without intending to judge on their correctness.
- ²² Such response is suggested by Timothy McDermott OP in Aquinas (1964–1980), II, p. 187. Also see *ST*, I, q.2, a.1, *ad 2*.
- ²³ See Swinburne (1986), pp. 1–3.
- ²⁴ A605/B633 in Kant (1965), p. 509.
- ²⁵ See A583/B611–A630/B658 in Kant (1965), pp. 495–524; and Kant (1978), pp. 31–9 and 58–69. Also see Remnant (1959).
- ²⁶ See Cargile (1975).
- ²⁷ Descartes’s main concern when deciding the place within the *Meditations* of the different demonstrations of God’s existence was heuristic; the ontological argument, he thought, ‘may easily be regarded as a sophism’ (AT, VII, 120). Gueroult has argued that according to the Cartesian ‘order of reasons’ the causal proofs must come first. I find Gueroult’s argument unconvincing: he is mistaken about the force of the Cartesian Circle objection and about what is needed to refute the sceptic. See Gueroult (1968) and (1984), chapter 8; and Gueroult (1955). Gueroult is followed by Beck (1965), pp. 231–7. For criticisms of Gueroult’s view, see Gouhier (1954)

and Curley (1978), pp. 157–64. For a more general discussion, see Gouhier (1957) and Gueroult (1957).

- ²⁸ See also AT, III, 396: ‘the simple consideration of such a Being leads us so easily to the knowledge of His existence that it is almost the same to conceive God and to conceive that He exists’. However, Descartes added that ‘none the less the idea we have of God as a supremely perfect Being is quite different from the proposition “God exists”, so that the one can serve as a means or premiss to prove the other’. See Curley (1978), pp. 134 and 138–9.
- ²⁹ Kenny (1980b), p. 36.
- ³⁰ My own translation, based on McDermott’s in Aquinas (1964–1980), II, and also on Kenny (1980b), p. 34.
- ³¹ For an assessment, sympathetic to Aquinas, of the Cartesian criticism of the Thomist initial premisses, see Curley (1978), pp. 126–7.
- ³² *De Principiis Naturae*, V, 364 in Aquinas (1973), p. 127.
- ³³ This does not state that things cannot spring into being without being produced; it affirms rather that if something is produced, its producer must exist at the time of the production.
- ³⁴ There is a difference between, on the one hand, what is accidental and what is essential to a *per se* cause and, on the other hand, essentially (*per se*) and accidentally (*per accidens*) ordered causes. See Brown (1966). I use the phrase ‘essential or *per se* cause’ to mean the members of an essentially ordered series.
- ³⁵ For further discussion of essential causality see VI, 1–3 in Avicenna (1980), pp. 291–319; *De Principiis Naturae*, V, 362 in Aquinas (1973), p. 126; *Commentary on Aristotle’s Metaphysics*, V, 2, 773 and 3, *passim* in Aquinas (1977), pp. 213, 214–17; and Duns Scotus (1966), pp. 2–37. An earlier source for the doctrine of essential causality might be the *Liber de causis*, a monotheistic adaptation of views found in Plotinus and Proclus; see Pattin (n.d.) and the Introduction to Brand (1984).
- ³⁶ Kenny (1980b), p. 40.
- ³⁷ See Duns Scotus (1966), p. 4: ‘Even though the prior should produce its effect necessarily and consequently could not exist without it, it would not be because the prior requires the posterior for its own existence, but it is rather the other way around.’
- ³⁸ Descartes seems to imply that Scholastics required efficient causes to be temporally prior to their effects. However, he might not have intended to claim this, for he was careful to add a qualification: ‘the term “efficient” is taken to apply only to causes which are prior in time to their effects, or different from them’ (AT, VII, 108). Since he believed that a cause is properly a cause only when producing its effect, Descartes must have been thinking of a cause being ‘different’ from its effect while not temporally prior when he wrote that ‘[t]here are some who attend only to the literal and strict meaning of the phrase “efficient cause” and thus think it is impossible for anything to be the cause of itself’ (AT, VII, 109). Yet a few pages before these texts he contrasts his argument with ‘one taken from St Thomas’ saying that ‘I asked concerning myself . . . not what was the cause that originally produced me, but what is the cause that preserves me at present’ (AT, VII, 106–7).
- ³⁹ In *ST*, 104, 1 Aquinas uses the classic instance of an architect being the cause of the coming into being of a house, an example which Descartes himself uses in the passage quoted earlier.

⁴⁰ Kenny (1980b), p. 41.

⁴¹ Kenny (1980b), p. 40.

⁴² See also Duns Scotus (1966), pp. 2–39.

⁴³ See below chapter 8, pp. 219–25.

⁴⁴ The transitivity of the series on its own does not yield the desired result either, contrary to the suggestion in Brown (1966), pp. 231–3. What Brown's otherwise lucid account lacks is the view that in such series all effects are the same effect. Contrast the alternative but confused attempt at a reconstruction of St Thomas's argument in Bobik (1965), pp. 175–82.

⁴⁵ Kenny (1980b), p. 44, and also p. 26; also see Williams C. (1960). For a reply by a contemporary Thomist, see Owens (1962). On the other hand, this criticism is adequately dealt with in Brown (1966), pp. 219–21; see also his discussion of Williams's views in pp. 222–3.

⁴⁶ See Duns Scotus (1966), p. 173: 'All causes in anyway intermediate . . . are caused. Therefore the whole concatenation of intermediary causes is caused. Hence, it is caused by something which is outside the concatenated series. Hence, there is a first.' This argument does not rest on the fallacy of proceeding from the fact that all members of a series of intermediate causes are each caused to the claim that the series as a whole is caused by a non-intermediate cause. Rather, it relies on the view that in any series of intermediate causes there is some one effect in need of a cause which is not itself a member of the series, i.e. not itself a caused cause and hence not a reiteration of the effect.

⁴⁷ IV, 27 in Aquinas (1973), p. 13.

⁴⁸ In *MD*, XXIX, 1, 32–3, Suárez considers the possibility of an infinite series of accidentally ordered causes of the same species and argues that in that case also the whole series is dependent.

⁴⁹ Hence, the charge in Wilson (1978b), pp. 137–8, that Descartes initially conceded that objective reality is less than formal reality but then stipulated that this inferiority is not enough to permit the self to cause the idea of God, is unwarranted.

⁵⁰ There is also the problem of showing that there is only one first cause of change.

⁵¹ See Koyré (1922), p. 168.

⁵² See Duns Scotus (1966), p.170.

⁵³ See Koyré (1922), pp. 167–1.

7 THE SUBSTANTIAL TENSION

¹ See Bennett (1965); Bennett (1966), pp. 182–3; Bennett (1974), pp. 42–4; Brunschvicg (1904); Kneale (1939–1940); Mabbot (1935); and Stebbing (1929–1930).

² Both Aquinas and Suárez affirmed the existence of non-material created substances, such as angels and, in some fashion, the human soul. See above, chapter 3, note 34; and *MD*, XIII, 14.

³ See Gassendi's *Disquisitio Metaphysica*, II, 5, 2 and 3; 6, 2; and 7, 2 in Gassendi (1962), pp. 143–9, 175–9 and 187–91, and Gassendi (1658), III, 302a–3b, 309b–10a and 312a–13a. See Bloch (1971), pp. 98 and 166–7. For Hobbes, see below, pp. 191–3.

⁴ On the relation of Aristotelian and Late Scholastic matter to Gassendi's substance, see Alberti (1988), pp. 77ff; and Brundell (1987), pp. 54–9. On the other hand, regarding Hobbes see Sorrell (1986), p. 57.

- ⁵ *Disquisitio Metaphysica*, V, 2, 2 in Gassendi (1962), p. 502, and Gassendi (1658), III, 382a.
- ⁶ Contrast Gassendi, *Exercitationes Paradoxicæ Adversus Aristoteleos*, II, 3, 9 in Gassendi (1959), p. 335, and Gassendi (1658) III, 170b: ‘both the name and the definition of substance truly and formally fit God and creatures; consequently . . . the abstracted concept of substance . . . fits them univocally’. See II, 3, 3, 6 and 9 in Gassendi (1959), pp. 317–19, 325–9 and 335–7, and Gassendi (1658), III, 166b–7a, 168b–9a and 170b–1a.
- ⁷ On Descartes and analogical language, see Marion (1981), pp. 70–139; in particular on substance, see pp. 110ff.
- ⁸ See chapter 4, note 49.
- ⁹ CSM, I, 210 does not indicate in detail the differences between the Latin original and the French translation. *Pace* CSM, I, 178 in this case the French translation does improve somewhat ‘the splendid clarity and precision of Descartes’s Latin’.
- ¹⁰ Commenting on AT, III, 429, quoted above, Alquié (1963–1973), II, 368, n.1 states that by holding that ‘God . . . truly exists by Himself [*par lui-même*] and alone fully merits to be called substance . . . Descartes announces Spinoza’.
- ¹¹ As far as I know this is the last text in which Descartes discusses the notion of substance.
- ¹² On ‘determinable’ and ‘determinate’ see Johnson (1921), I, pp. 173–85, Searle (1959), and Searle (1967).
- ¹³ Mersenne asked Hobbes for objections to the *Meditations* which Descartes received towards the end of January 1641. Independently of this, Mersenne also collected from Hobbes some writings on physics and some criticisms of Descartes’s views. Apparently, Mersenne did not reveal Hobbes’s identity. The texts discussed come from these letters: AT, III, 287–92, 300–32, 341–8 and 353–7. See Brandt (1928), pp. 93–7, 111–19, 129–42.
- ¹⁴ Descartes could have had Suárez in mind when he referred to what ‘one says’ in this context. See *MD*, XLI, 5 concerning ‘which properties are attributed to quantity’.
- ¹⁵ See Sorrell (1986), Rossini (1988), and Laird (1968).
- ¹⁶ For a discussion of Hobbes’s views at the time of the exchange with Descartes see Brandt (1928). Sorrell (1995) has refuted, to my mind conclusively, Tuck’s view that by 1641 Hobbes had developed ‘his general philosophy’ in detail and as a result of issues raised in Descartes’s *Discourse*. (Tuck (1988), p. 16.)
- ¹⁷ When assessing the relative importance of scientific and of metaphysical considerations within Descartes’s own thought, we should take into account his relation to Hobbes and Gassendi. It was their metaphysical and epistemological views which disposed Descartes so decidedly against them, in spite of their common anti-Aristotelianism and their agreements on many scientific matters. That he had no blind enmity towards Hobbes is established by Descartes’s later praise for him as a moral and political philosopher. There is a report that they had dinner together in Paris in 1648. Gassendi was also at that table. He was apparently a good friend of Hobbes, with whom he shared empiricist and materialist inclinations. See AT, IV, 67; V, 118, 199–20. On the role of the intellect in Gassendi see Bloch (1971), pp. 118–19; on his materialism, see pp. 155–71 and 350–78.
- ¹⁸ *Leviathan*, I, 1 in Hobbes (1991), p. 13. This statement inaugurates the modern empiricist tradition; see *Essay*, II, 1, 1–9 in Locke (1985), pp. 104–8; and *Treatise*,

- I, 1, 1 in Hume (1986), pp. 1–7. Kant confronts this doctrine at the beginning of the introduction to the first *Critique*, A1 in Kant (1965), p. 41.
- ¹⁹ See *Leviathan*, I, 4 in Hobbes (1991), p. 26; and also the first section of the *Elements of Philosophy: Concerning Body*, I, II, 4–11, and VI, 1–2; *Human Nature*, 2, 1–4, and 5, 1–6 in Hobbes (1839–1845), I, pp. 16–22 and 65–8, and IV, pp. 3–4 and 19–22.
- ²⁰ See *Leviathan* I, 4 in Hobbes (1991), p. 26.
- ²¹ See also *Leviathan*, IV, 46 in Hobbes (1991), pp. 462–5.
- ²² *Leviathan*, III, 34 in Hobbes (1991), pp. 269–70.
- ²³ Also see Hobbes (1839–1845), IV, pp. 426–7.
- Hobbes individuates bodies through place. See *Concerning Body*, II, XI, 2 in Hobbes (1839–1845), I, p. 133. And he takes place to be a ‘phantasm’, an idea or image in the mind arising from a body’s ‘quantity and figure’: ‘*place* is nothing out of the mind, nor *magnitude* any thing within it’ (II, VIII, 5 in Hobbes (1839–1845), I, p. 105). But Hobbes does not offer an explanation of how, in the things themselves, two magnitudes are numerically distinguished. By treating individual bodies as parts of one single material substance, Descartes, unlike Hobbes, had access to the notion of an actual extended magnitude in which individual bodies are found.
- ²⁴ See *Concerning Body*, II, VIII, 2; and IV, XXV, 10 in Hobbes (1839–1845), I, pp. 103 and 404.
- ²⁵ *Concerning Body*, II, VIII, 3 in Hobbes (1839–1845), I, p. 104.
- ²⁶ See Hobbes (1839–1845), IV, p. 427.
- ²⁷ The determination in question is the direction of the movement.
- ²⁸ Hobbes must have meant that the determined movement is the same as the determination of the movement (and not just the movement). But Descartes could not let this slip go by; he wrote to Mersenne that ‘the determined movement and the movement are not different at all, but yet the determination is something different from the movement’ (AT, III, 355).
- ²⁹ Hobbes’s *De Cive* was published in 1642. Gassendi’s *Exercitationes*, Book I was published in 1624, and his *Disquisitio Metaphysica* in 1644. I take it that Descartes was acquainted with Hobbes’s and Gassendi’s anti-Aristotelianism, at least in broad outline, from direct exchanges and personal contact with them and with others familiar with their opinions and activities.
- ³⁰ If B is a determinable and $C_1, C_2, C_3 \dots C_n$ are its possible determinates, then ‘A is C_1 , or C_2 , or $C_3 \dots$ or C_n ’ follows from ‘A is B’. For example, ‘A is a triangle, or a square, or a circle, or an ellipse, etc.’ follows from ‘A is a plane closed figure’. And ‘A is C_x ’ (where ‘x’ ranges over 1, 2, 3 ... n) entails that ‘A is B’, as ‘A is a shape’ follows from ‘A is a triangle’.
- ³¹ See Leibniz’s discussion of extension and substantiality in Leibniz (1976), pp. 619–27, and Leibniz (1989), pp. 257–68.
- ³² *Essay*, II, 23, 2 in Locke (1985), p. 295.
- ³³ On the influence of Suárez on Descartes’s doctrine of distinctions see Gilson (1912), pp. 86–90, particularly the comment inserted in text no. 148, p. 87; Wells (1966); and Zubimendi (1984).
- ³⁴ See Johnson (1921), I, p. 175.
- ³⁵ ‘Something is A’ is taken as equivalent to ‘A exists in reality’. According to Descartes, it is not possible for something like a proper object of sense to exist in reality. So, for example, it is not possible that something be red in this sense. The

requirement that A and B possibly exist in reality excludes universals and properly sensorial objects; the requirement that they be determinables or determinates excludes second-order or derivative properties. Strictly, only substances (which are actually existing things) are really distinct. So the distinction between something that exists objectively in the mind and something that exists in reality is not properly a real distinction. However, since whatever exists objectively exists in virtue of the real existence of an act of thought, a real distinction applies by extension also between an object of thought and any substance other than the mind within which the object exists.

Substantial independence suggests a connection with causality understood in terms of the entailment of the effect by the cause. See AT, VII, 49; Curley (1978), p. 140; and Curley (1988), p. 25 and p. 147, note 34.

³⁶ A real distinction between A and B is *not* established from the mere possibility that A exist and B not exist, and vice versa. For that also holds of real properties or modes of a substance which are separate determinates of the same determinable.

Descartes uses ‘body’ to mean both the one single material substance and some one of its parts; see AT, VII, 14. Sometimes he calls the latter a substance; e.g., AT, VIII–1, 28. One motivation for this might have been to soften the impact of his counter-intuitive ontology, particularly within a Scholastic context. Not only do Cartesian animals and plants differ merely in degree of complexity from rivers and volcanoes, but all these are just parts of a single homogeneous substance. Maybe Descartes was seeking to preserve some substantiality (even if only nominal) for animals, plants and elements. Contrast with Curley (1988), p. 8. Also see AT, VII, 222–3.

³⁷ Hence, Suárez’s conceptual distinction between the ‘formal’ and ‘numerical’ unities of one substance is not strictly parallel to the Cartesian distinction of reason between a substance and its essence; see above chapter 5, pp. 119–28.

³⁸ Two numerically distinct Cartesian substances differ as separate, intrinsically distinct intelligible wholes. On the relation between this doctrine and Leibniz’s identity of indiscernibles, see below chapter 8, pp. 210–12.

³⁹ See Williams B. (1978), p. 125.

⁴⁰ Descartes claims to use the term ‘attribute (*attributum*, *attribut*)’ to mean ‘whatever we recognize as being naturally ascribable to something, whether it be a mode which is susceptible of change, or the absolutely immutable essence of the thing in question’ (AT, VIII–2, 348; but see VIII–1, 26 and also IX–2, 53 quoted above). Essences, modes, and derivative properties such as number or existence are of course significantly different.

⁴¹ Any two ideas differ objectively in the sense that objects of thought are individuated by the corresponding acts of thought. In the present context objective difference means difference in the content of the objects, understood in abstraction from their corresponding acts of apprehension.

⁴² This is not intended as an exhaustive list of Cartesian categories; it does not include relations such as causality and identity.

⁴³ True predications in the first category, taken as applying to possible substances and in abstraction of their actual existence, either constitute real essential definitions or imply them; see above chapter 3.

⁴⁴ Apart from real essences (including God’s), Descartes’s innate intellectual contents include general ‘self-evident propositions’ (AT, VII, 162).

- ⁴⁵ It seems that Descartes might be able to avoid commitment to a myriad of intractable ‘Meinongean pure objects’. See Kenny (1969), and the comments by Bernard Williams and Ernest Sosa and the reply by Kenny in Margolis (1969), pp. 55–62. Descartes appears to rely instead on the innate real essences of substances (extension, thought and infinity) and on the intellectual powers of the soul to understand and operate on these essences. In turn, innate substantial essences ultimately refer to God and the Divine Ideas within Him. Descartes’s ontology may be ineliminably obscure and unsatisfactory, but perhaps not by way of the incoherence and unintelligibility of Meinongean pure objects.
- ⁴⁶ See Frankfurt (1987), pp. 461–2.
- ⁴⁷ *Soliloquies*, I, 1, 4 in Augustine (1948), p. 32, and Augustine (1986), pp. 8–9.
- ⁴⁸ Compare the ensuing discussion with the argument up to Proposition 16 of Spinoza’s *Ethics*, I in Spinoza (1914), I, pp. 37–51, and Spinoza (1985), I, pp. 408–25. See also Curley (1988), pp. 3–50; Bennett (1984), pp. 7–79; Donagan (1973); and Donagan (1980).
- ⁴⁹ This, I take it, is one thing Descartes meant with the claim that substance or essence is ‘more of a thing than a mode’. Of course, from ‘something is C_x’ it follows that ‘something is A’. The point is that while A contains all its determinates, any particular determinate, as distinct from the essence, is just a concrete mode of being of the essence, in exclusion from any other determinate.
- ⁵⁰ ‘A causes B’ means A is the essential efficient producer of B. On the formal causation of accidents by their substances, see *De ente et essentia*, VI, 36 in Aquinas (1973), p. 17.
- ⁵¹ For Leibniz, substantial natures need not differ as separate determinables. The relation between a monad and its intrinsic properties is not that between a determinable and its determinates. See below chapter 8, pp. 205–12.
- Leibniz does not satisfy the reader about a decisive point: how is causation, which is impossible among finite monads, possible between God and creatures? Leibniz does not in the end explain how a real relation, that ontological freak, can hold between God and finite monads without assimilating the monads into God. See chapter 4, p. 87, note 16.
- ⁵² *Ethics*, I, Prop. 6, Corollary in Spinoza (1914), I, p. 40, and Spinoza (1985), I, p. 412.
- ⁵³ See Curley (1988), p. 3; and Bennett (1984), p. 15.
- ⁵⁴ Contrast Loeb (1981), pp. 136–40. Loeb, however, is insensitive to the Cartesian distinction between true efficiency and occasional causation, and to the ontological dependence of the latter on the former. More generally, Loeb misses the crucial importance of Scholastic doctrines for Descartes’s own understanding of causation.
- ⁵⁵ Ideas are innate if they are produced by the sole mind that has them, supposing only that God preserves it in existence. This supposition allows the idea of God to be treated as innate. But the first argument for the existence of God in the Third Meditation relies precisely on the fact that the idea of God, unlike any other idea, cannot have causally originated from the reality of the soul alone.
- ⁵⁶ But how are different thinking things similar? Of course they are all similar in that they are all thinking things. This is similarity in respect of a universal. And here we must suppose an account of how two minds differ and are similar in terms of their intelligible real essential properties. It is on this similarity that the universal term ‘thought’ is grounded. See below, chapter 9, pp. 247–55.

8 THE ESSENCE AND THE EXISTENCE OF CARTESIAN SUBSTANCES

- ¹ I use standard modal predicate logic with the following qualifications and additions. Individual variables range over substances and predicate variables, over their real properties. I use quantification over time variables: to capture statements about change I introduce expressions of the form ‘ ap ’, where ‘ a ’ is a temporal variable ($t, t' \dots$) and ‘ p ’ a well-formed sentence in the formal language, to be read ‘ p is true at a ’. Expressions of the form $(NF)a$, where a is any individual variable or constant and f any predicate variable or constant, are to be read ‘ a is essentially f ’. What is expressed by ‘ $(NF)a$ ’ is not equivalent to ‘ a is F necessarily *de re*’; for it is not entailed by it, since to be had necessarily is not sufficient to be an essential property. ‘ Nf ’ abbreviates ‘ $Na_1 \dots a_m f a_1 \dots a_n$ ’, where m is equal to or smaller than n . In its full form this allows indication of which variables are bound by the essential operator in the case of n -place predicates. One can distinguish, for example, between ‘John is essentially the son of Peter’ and ‘Peter is essentially the father of John’. Since I will only refer to monadic predicates, this syntactic complication has been ignored. On a predicate operator for *de re* necessity, see Woods (1971), Wiggins (1976), Wiggins (1979), and Baldwin (1979). On modal logic in general, see Hughes and Cresswell (1968). On temporal logic, see Rescher and Urquhart (1971).
- ² See Wiggins (1980), chapters 3, 4, and 5; and Kripke (1980). See also Putnam (1980b); the papers in Linsky (1977) and Schwartz (1977); and also Lososky (1987).
- ³ When explaining his argument for the immortality of the soul in the *Meditations*, Descartes states that ‘all [created] substances . . . are by their nature incorruptible and cannot ever cease to be unless they are reduced to nothingness by God’ (AT, VII, 14). He then implies, apparently on the grounds of faith and divine immutability, that God does not exercise His power of annihilation; He does not deny His conservational support to what He has brought into existence.
- ⁴ This is compatible with the claim, correctly attributed to Descartes in Shiffer (1976), p. 25, that ‘while particular bodies – tigers and human bodies, for example – could perish, no quantity of matter could perish’.
- ⁵ On the other hand, Descartes’s tendency to attribute the limitations of human thought to a failing in the act (confused, inattentive, careless) rather than in the immediate object (materially false ideas are perhaps an exception to this tendency) might suggest the opposite.
- ⁶ This must be qualified to allow for the case of shape, size, and movement which are not strict, mutually exclusive determinates of extension. Rather than being proper modes, they in a way constitute corporeal nature itself, revealing its three aspects of determination. And there is also the asymmetry between size, which is a mode of the whole and the parts, and shape and movement, which are only modes of the parts.
- ⁷ See Wiggins (1980), pp. 55–7. Since the values of ‘ x ’, ‘ y ’ and ‘ f ’ include only substances and their real properties, (12) and (13) exclude from the scope of ‘ f ’ both identity and related properties presupposing what Wiggins calls ‘thing-individuation’, and also properties that individuate through time and place. Reference to these properties requires derivative or second-order predicates (in the case of identity and time), or individual variables ranging over parts of substances (in the case of place). Wiggins rightly points out that use of properties which presuppose ‘place-, time-

and thing-individuation' converts the antecedent of (13) into a 'trivial condition' for identity. It is unclear why Wiggins affirms that the identity of indiscernibles then 'excludes the existence in this world (in my pocket, say) of a symmetrical object'. Since according to Leibniz (who is the main subject of Wiggins's discussion) spatial relations are well-founded phenomena, it would seem that the different hemispheres of a sphere would be *qualitatively* diverse, as they internally mirror the rest of the non-symmetrical universe from differing perspectives. See Leibniz (1976), pp. 269–70, 600, 648–51, and 675–721 *passim*. Still, Ludwig Wittgenstein's two spheres in *Tractatus* 5.5302, mentioned by Wiggins, and Kant's incongruous counterparts in *Prolegomena to Any Future Metaphysics* §13 do present Leibniz with a conceivable situation whose logical possibility he must nevertheless deny.

- ⁸ It might be objected against several of the preceding Cartesian doctrines that some substance may have a certain property (F) essentially and some other substance have a different property (G) accidentally so that the disjunctive property formed out of the essential property of the one and the accidental property of the other (F or G) belongs to the first essentially and to the second accidentally. Similarly, the disjunctive property formed out of the essences of two different substances would belong to both substances essentially. One may deal with such objections by stipulating against the use of disjunction to connect predicates (and not only open or closed sentences), or by regulating the use of the term 'essence' when dealing with disjunctive properties. This cavalier dismissal of the objection is ultimately grounded on the fact that the point behind talk of essences is that they pick out fundamental ontological entities. *Ad hoc* predicates are constructed to create trouble. Part of the trouble they create is that any object ends up having an infinity of different essential properties and some essential properties in common with each and everything else. One aim when talking about essences is to refer to natural kinds and substantial individuals. This is defeated once we admit arbitrarily concocted properties without also providing *ad hoc* means to distinguish between them and true essences. If this requires certain syntactical rules, then it is up to the objector to give reasons for their rejection.
- ⁹ I have omitted order and substantiality because the first is covered, I take it, by number, and the second demands no special treatment given the ensuing discussion and the account of substance in the last chapter. On the other hand, regarding duration and number, I do not purport to offer anything more than a sketchy and at best suggestive treatment. I am inclined to believe that Descartes himself had no more developed thoughts on these properties than that. For a somewhat fuller discussion, see Lauer (1981).
- ¹⁰ Descartes would not have wished to affirm, nor do I wish to imply that he did, that God is in time; only finite substances endure.
- ¹¹ See Shiffer (1976), p. 22, note 3.
- ¹² Williams B. (1978), p. 119.
- ¹³ I am *not* suggesting that Williams, like Shiffer, has supposed this.
- ¹⁴ See, on the other hand, Gueroult (1968), I, pp. 373–80 and Gueroult (1984), I, pp. 270–4.
- ¹⁵ See Williams B. (1978), pp. 118–19.
- ¹⁶ The word 'essence' is missing from the manuscript. AT added it in their edition.
- ¹⁷ By referring to these views as 'Nominalist' or 'Thomist' (below I add a third, 'Scotist' view) I do not intend to settle any disputes as to who actually held each

- position. The terms are a mere convenience for easy reference. See *De ente et essentia* in Aquinas (1973), pp. 1–18; Giles of Rome (1930); Thomas de Vio Cardinal Cajetan, *Commentary on Aquinas Being and Essence*, V, q. 12 in Cajetan (1964), pp. 217–37; Gilson (1952); Gilson (1972); Gilson (1983); Maritain (1957); Henry (1911); Fabro (1958); Reese (1960–1961); Geach (1969); Kennedy (1972); Kenny (1980a), pp. 53–60; Wippel (1982); and Beuchot (1986).
- ¹⁸ *MD*, XXXI, 1, 12 states that Fonseca’s adoption of a modal distinction is only ‘verbal’. Though maybe there are some grounds for Suárez’s view, Fonseca explicitly and unambiguously adopts a true modal distinction between the existence and the essence of creatures. See also *MD*, XXXI, 7, 6.
- ¹⁹ I do not intend to imply that there were no significant differences on this very issue between Suárez and earlier defenders of a distinction of reason between essence and existence.
- ²⁰ See chapter 7, note 33.
- ²¹ The relation has been suggested in Wells (1966) and in Wells’s ‘Translator’s Introduction’ to Suárez (1983), pp. 26–7. However, it has not yet been adequately explored or developed.
- ²² See Alquié (1963–1973), III, 629, note 2; and *AT*, IV, 348.
- ²³ See Wells (1966), pp. 122–33.
- ²⁴ Cottingham (1976), p. 94.
- ²⁵ It is surprising to find Alquié excluding the letter of 1645 or 1646 from his edition of the philosophical works of Descartes on the grounds that ‘le texte, confus et semblant hâtif, obscurcit plus qu’il n’explique . . . On peut douter qu’il nous soit parvenu sous une forme correcte’ (Alquié (1963–1973), III, p. 630, note 2 from p. 629). Alquié also leaves out from his edition the text of the conversation with Burman.
- ²⁶ Gilson (1952), p. 63.
- ²⁷ Suárez called this distinction between a being and nothing a ‘negative real distinction’. See *MD*, XXXI, 6, 24, quoted below.
- ²⁸ Gilson (1952), p. 63. See also Heidegger (1988), pp. 89 and 99–100.
- ²⁹ On the formulation of the real distinction between essence and existence as between ‘two things’ see Wells’s ‘Translator’s Introduction’ in Suárez (1983), p. 7 and p. 30, note 33.
- ³⁰ Suárez also discusses existence and its distinction from essence in *De Incarnatione*, XXXVI, 1, in particular §23, in Suárez (1860), pp. 260–70 and p. 268. See also Hellín (1956), Owens (1956–1957), Gómez Caffarena (1959), and Wells (1962).
- ³¹ There is some question as to the placement of the comma after ‘*in hoc sensu*’. See Suárez (1983), p. 32, note 66; p. 57; and p. 64, note 1. In the end not much hangs on this, as Wells himself appears to indicate. I follow the Vives edition.
- ³² Suárez quotes the text in *MD*, XXXI, 2, 2. He addresses the objection in 2, 4. See also Wells (1960–1961).
- ³³ Throughout I have used the term ‘substance’ in a way that accords with Descartes’s use, without paying attention to Scholastic views.
- ³⁴ This is conclusively established from the following. Descartes sent Mersenne the completed text of the Fifth Replies on 23 June 1641. Less than two months later he answered a letter discussing these replies from the anonymous ‘Hyperaspistes’, who referred to Gassendi as a ‘most subtle philosopher’ (*AT*, III, 398). See *AT*, III, 397; and Alquié (1963–1973), II, 358, note 1. Descartes wrote: ‘Of course a man

whose eyes are unsteady may take one thing for two, as men often do when drunk; and the Philosophers may do the like, [but] not when they distinguish essence from existence, for normally they do not suppose any greater distinction between them than there really is . . .’ (AT, III, 435). Evidently, those philosophers included Suárez and some of his Jesuit followers.

Rodis-Lewis (1971) points out that it is probable that one of Descartes’s teachers at La Flèche held Nominalist views about ‘categorical relations’ which were censured by the Order in 1613 (p. 43).

³⁵ Fonseca’s text incorrectly refers to Ferrara’s *Commentary on St. Thomas’s Summa contra Gentiles*, II, c. 53; the correct reference is chapter 52. The argument is found compressed in Ferrara’s commentary and in the *Contra Gentiles*, both published together in Aquinas (1918–1930), XIII, pp. 387 and 389.

³⁶ It has been suggested that Suárez contradicted himself in his claims that potential essence is nothing, existing only within God, and that potential essence involves a true possibility. Norman Wells has stated that it is only because he ignores the ‘tension’ between these doctrines that Suárez ‘can initially agree with Aquinas . . . that the eternal truths are only eternal by enjoying existence in the . . . deity, and . . . later on disagree with this position of Aquinas’ (Suárez (1983), p. 25; see also p. 32, note 66). Arguing along similar lines, John Doyle had earlier gone as far as to maintain that Suárez espoused a certain Platonism of the essences of creatures, independent from and prior to God, and the further and even more outrageous thesis that God is dependent on these real eternal essences. Alluding to the deity in the *Timaeus*, who looks upon the Forms as models for his creation, Doyle wrote that Suárez’s doctrine ‘outstrips anything which Plato ever said about the dependence of the Demiurge on the Forms’ (Doyle (1967–1968), p. 47). These criticisms rest on an improper grasp of the Suárezian doctrines; see below.

³⁷ So it is not accurate to state that for Suárez, ‘eternal truths and their foundation in essence as essence, which is not actually existent or identical with God, are wholly independent of God’ (Cronin (1961–1962), p. 23). See also Cronin (1960–1961), pp. 280–8. Compare the considerably more careful treatment in Curley (1984), pp. 586–7. Suárez’s position is that necessary truths, while independent of God in the sense that He could not have made them other than they are (on this Descartes would later oppose him), are not independent from God in supposing any extra-deical ontological foundation. Descartes may have indeed thought that Suárez was committed to some such independent foundation, but it is not so.

It is a similar failure to grasp Suárez’s position that leads Doyle to his extreme interpretation. Doyle misreads Suárez’s claims that, briefly put, even if God did not exist, necessities and possibilities would still be what they are and, conversely, if they were not what they are, there would be no God (quoted in Doyle (1967–1968), pp. 46–7). It is evident that any such statements incorporate an implicit *per impossibile* qualification. They do not imply any ontological dependence or posteriority on the part of God; for they express only the ultimate modal structure of all being and reality, a structure which is founded in God, the only necessary substance.

³⁸ Claims about anticipation can easily lead to distorting simplification and to the reification of ‘ideas’. With that warning in mind, let me note the interesting fact that the Cartesian treatment of existence and number bears some similarity to that found in the earlier Frege.

- ³⁹ This should be qualified. One would need to show that pre-Suárezian defenders of a distinction of reason between essence and existence in creatures did not intend to convey the same point; and more generally that no others upheld the view. Against this there is a suggestion by Schopenhauer that Aristotle had done so; see the reference in Curley (1978), p. 143, note 12.
- ⁴⁰ Plantinga (1990), pp. 26–63; see also Plantinga (1966).
- ⁴¹ Plantinga (1990), p. 64.
- ⁴² Plantinga (1978), pp. 196–221.
- ⁴³ Plantinga (1978), pp. 216–17.
- ⁴⁴ See *Discourse on Metaphysics*, 23 and *Monadology*, 45 in Leibniz (1976), pp. 318 and 647; see also pp. 199–200 and 292–3.
More recently, Cargile (1975), p. 69 has stressed this same point, stating that the ‘question about the consistency of the concept of God is the fundamental question in the ontological argument’.
- ⁴⁵ Cargile (1975), p. 72.
- ⁴⁶ In *ST*, I, 2, 1, *ad* 2 Aquinas objects against a version of the ontological argument that ‘[u]nless one is given that something than which nothing greater can be thought exists in reality . . . the conclusion that God exists does not follow’. Aquinas does not develop his criticism and what he intended is difficult to make out from the text. One interesting possibility is that he was appealing to his doctrine that humans can know the possible only through the actual. See above chapter 1, pp. 11–12. If this is right, Aquinas was not making the confused point that the ontological argument holds only in thought but not in reality, as he is sometimes read; instead, he was correctly noting that the argument assumes that God is possible, and then adding by way of refutation that this begs the question as it can only be known by knowing God is actual.
- ⁴⁷ See the texts cited in Gilson (1912), p. 72. See also Kenny (1968), pp. 146–71; Williams B. (1978), pp. 153–62; Curley (1978), pp. 141–69; Wilson (1978b), pp. 172–6; and, for a discussion of the formulation in the Appendix to the Second Replies (and its divergence from Descartes’s other versions of the argument), Doney (1978).
- ⁴⁸ Those texts where Descartes explicitly calls existence an attribute of substances (e.g., in AT, VIII–1, 26) should not be read as stating that existence or duration are properties inhering in substances, separate from their essences and determinates, and properly contributing some reality or perfection. Contrast Williams B. (1978), pp. 118–19.
- ⁴⁹ See Wilson (1978b), pp. 174–5.
- ⁵⁰ Cargile (1975), p. 79.

9 THE REAL DISTINCTION OR THE BODY AND THE MINDS

- ¹ ‘Thought_n’ abbreviates the list of the essences of all minds. Apart from thought_n and extension there may be real essences of possible thinking substances which God will never create. Perhaps Descartes would have granted that there may be (as Spinoza would have it) an infinity of real essences (either possible or actual) which are neither extension nor thought and are beyond the comprehension of human minds. See AT, VII, 220.
- ² By ‘dualism’ I mean the doctrine that all created essences are either extension or thought. The issue of the sense in which Descartes is commonly called a dualist

in opposition to Spinoza's monism is raised and ingeniously settled in Bennett (1965).

³ On Descartes's real distinction, see Kenny (1968), pp. 79–92; Malcolm (1970); Curley (1978), pp. 193–206; Donagan (1978); Hooker (1978a); Wilson (1978b), pp. 185–200; and Cottingham (1986), pp. 112–18.

⁴ See Schiffer (1976); and Williams B. (1978), pp. 116–21.

⁵ Elyot (1538).

⁶ Compare Wilson (1978b), p. 167 which suggests that only parts of matter, not matter as a whole, have shape, motion or size. However, an infinitely large size is a size none the less. Wilson mentions a letter of 1647 and also a passage in the *Principles* distinguishing between 'infinite' and 'indefinite' (AT, V, 51–2; and AT, VIII–1, 14–15; see also AT, XI, 32–3). But, first, the difference is not, as Wilson suggests, between that which we can, and that which we cannot, know with metaphysical certainty to have no limits. It is instead a matter of the traditional distinction between a negative and a positive understanding of infinity, respectively as lack of limits and as utmost perfection. See AT, VII, 45; and similar texts in *MD*, XXVIII, 1, 19 and Duns Scotus (1966), pp. 138–9. Gilson (1955), pp. 448–9 places the origin of this positive conception of the infinite with Henry of Ghent; see Ghent (1520), II, ff. xi–xvi. Though Aquinas distinguishes between infinity as a privation and infinity when applied to God, even the latter seems to be purely negative; see *ST*, I, 7, 1, and 12, 1, *ad* 2. See also Koyré (1979) and Koyré (1965), in particular pp. 192–4. Secondly, in the letter of 1647 Descartes points out that it is not merely that there are no arguments to show that extension has boundaries, but that it cannot be 'conceived' to have any boundaries. Finally, if indeed Descartes intended to allow for the possibility that God has set limits to the size of matter though we cannot understand how He has done this, it does not follow that the corporeal substance has no size or that it has an undetermined size, but that it has a finite size. Wilson (1986) retakes this subject and argues for a view that does not entail that the whole material substance has no size.

I take Descartes's material substance to be infinitely large because I suppose, as one should, that he had a Euclidean conception of space. Within a Riemannian space lack of limits is compatible with finite size. See Einstein (1979), pp. 108–12.

For a general discussion of Cartesian corporeal substance, see Blackwell (1978).

⁷ Regarding the issue discussed in the previous note, in AT, VIII–1, 15 Descartes puts knowledge of the infinite divisibility of matter on the side of knowledge of its infinitely large size. For a brief discussion of Descartes's rejection of corporeal atomism (placed in the context of temporal atomism) see Secada (1990), pp. 65–6. Compare Leibniz (1976), p. 393.

⁸ See Descartes (1983), p. 152, note 121.

⁹ Leibniz (1976), pp. 383–412; see, in particular, pp. 390 and 392.

¹⁰ Broad (1975), p. 55.

¹¹ Broad (1975), pp. 55–6.

¹² For a discussion of Descartes's geometrical contributions see Scott (1976), pp. 84–157. Also of interest in assessing Descartes's place in the history of mathematics are Grosholz (1980) and Mahoney (1980).

¹³ That Descartes was conscious of the issue of the interaction of minds and body in this context is clear from the reference to it at the end of his formulation of the Third Law of motion in AT, VIII–1, 65. The exclusion of direction, which he

considers a ‘determination’ of the motion and hence changeable without altering the underlying determinable motion, allows him to propose simple arithmetical laws governing the collisions between two bodies. See AT, VIII–1, 65 and 68–70. Contrast, however, Remnant (1979).

¹⁴ Taliaferro (1964), p. 8. I have benefited from discussion of this issue with Dr Fabio Bevilacqua.

¹⁵ Gaukroger (1980a), p. 123. See also Frankfurt (1987), pp. 458ff. On the fundamental differences between Descartes’s law of inertia and subsequent formulations, see Gabbey (1980). On the history of Cartesian physics and on its place in seventeenth-century science, see Mouy (1934), Hall (1978), and Hall (1981).

¹⁶ Descartes’s reductionist ideals have served as powerful incentives in the development of science and in the construction of the extraordinarily successful methods of scientific inquiry since his lifetime. However, whether those ideals have a place beyond the purely methodological is a debatable issue which falls properly within the domain, not of natural science, but of metaphysics.

For a classic contemporary articulation of the conditions for an epistemological reduction see Nagel (1974), chapter 11. For an interesting and critical discussion of reductionism in the context of the biological sciences, see Ayala and Dobshansky (1974).

¹⁷ See Anscombe (1981a).

¹⁸ I have written ‘Cartesian I’ to acknowledge that it is a disputed matter whether ‘I’ behaves in the way indicated in what follows. The minimal claim I am making is that Descartes took ‘I’ to behave in that way; so the claim, ‘a mind is the referent of “I”’, is correct given Descartes’s understanding of ‘I’.

¹⁹ See Anscombe (1981a), p. 30.

²⁰ God is excluded from this; He knows all possible created essences in their individuality. He is able to understand the intrinsic difference between Alonso’s pleasure and Tati’s pleasure from the mere understanding of each, without the impossible feat of Himself feeling each pleasure. On the other hand, we can understand the individuality of a certain pleasure only by being reflexively aware of it as a determination of our own unique nature.

²¹ See Wittgenstein’s *Philosophical Investigations* I, §§246–8, 251, 256–64, 269–75 in Wittgenstein (1970), pp. 89–96.

²² Anscombe (1981a), p. 31 has argued that ‘if “I” is a referring expression, then Descartes was right about what the referent was’, namely ‘a Cartesian Ego’. Anscombe adds that there is an ‘intolerable difficulty’ which Descartes’s view must overcome, since it requires ‘an identification of the same referent in different “I”-thoughts.’

²³ *Philosophical Investigations*, II, xi in Wittgenstein (1970), p. 207.

²⁴ See A341–A405/B399–B432 in Kant (1965), pp. 328–83; and Williams B. (1978), pp. 95–101 and 292–3.

²⁵ On its own, this knowledge of my essence is compatible with ignorance as to whether ‘I am a body’ is true.

²⁶ Contrast Hoffman (1986).

²⁷ See also Aristotle, *Metaphysics*, V, 6–7, 1015b16–1017a23 in Aristotle (1984), II, pp. 1603–6; and Fonseca’s exposition of these passages in *CM*, V, VI and VII, *explanatio*.

²⁸ Contrast with the account in *CSM*, III, 200, n. 2.

- ²⁹ Cottingham (1986), pp. 122–34. Some of Cottingham’s arguments are developed further in Cottingham (1985). See also Mattern (1978). On the view that for Descartes sensations may perhaps not be conceivable clearly and distinctly ‘apart from any physical state or occurrence’, see Wilson (1978a) (p. 210).
- ³⁰ Cottingham (1986), p. 131.
- ³¹ Cottingham also mentions the passages in the Sixth Replies, which we examined in chapter 4, where Descartes identifies three different ‘grades of sensory perception’. But the first grade corresponds to occurrences in the body, and the other two can both be understood as modes of thought.

EPILOGUE

- ¹ After meeting the Queen Descartes wrote: ‘She has this great ardour for literary knowledge which now moves her mainly to learn the Greek language and to collect many ancient books; but maybe this will change’ (AT, V, 430). Note a letter by Naudé to Gassendi: ‘don’t suppose she is only learned in books, for she is equally knowledgeable in painting, architecture, sculpture, medals, antiquities, and all curiosities’ (quoted in Clarke (1970), p. 131).
- ² It is in fact almost certain that he did not compose the ballet, though he might have written a poem for the occasion. See Watson (1990).
- ³ See Clarke (1970), pp. 134–5.
- ⁴ See Secada (1999).
- ⁵ *Tractatus* 5.62 in Wittgenstein (1971), p. 115. See also 5.63–5.641 and 6.4–7 in pp. 117 and 145–51; and Wittgenstein (1961), pp. 49–50 and 72–91 *passim*. For Kant, see A123–A124, B131–B143, B278, A341–A405, B399–B432, and A532–A558/B560–B586 in Kant (1965), pp. 146, 152–160, 246–7, 328–83, and 464–79.

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