

Introduction

Radical Cartesianism in Context

Il ne me reste qu'à témoigner à Robert Desgabets la reconnaissance que j'ay au nom de tous les Cartésians des avis qu'il leur donne si souvent de se garder des préjugez. Il ne me reste, dis-je, qu'à lui témoigner ma reconnaissance par l'avis, que je crois lui devoir en cette occasion, de se défendre avec application, de la pente qu'il a un peu trop naturelle à s'imaginer que ce qui est le plus outré dans les sciences est le plus vrai.

It remains for me only to show Robert Desgabets the recognition that I have in the name of all the Cartesians of the advice that he gives to them so often to guard against prejudices. It remains for me, I say, only to show by the warning that I believe I owe him on this occasion to defend himself carefully against the inclination that is a little too natural for him to imagine that what is the most extreme in the sciences is the most true.

- Cardinal de Retz, "Dissertations sur le cartésianisme" (R 219)

This passage, which dates from 1677, serves to introduce us to the early modern, French Cartesian Robert Desgabets, a figure almost entirely unknown in the English-speaking world. The reference here to the "extremity" of this individual's views reflects the fact that Desgabets insisted not only that matter cannot be destroyed even by God, but also that our ideas reveal directly the existence of a material world and that our thoughts are connected in an essential way to the union of our soul with body. On all these points, he was concerned to correct the principal fault in Descartes, deriving from his treatment of the "cogito," of holding that the existence of the self is "better known" than, and independent of, the existence of bodies.

Given the preoccupation in twentieth-century discussions of Descartes with the epistemological and metaphysical implications of his cogito argument, it may seem that I have made a mistake in characterizing Desgabets as a Cartesian. Yet Desgabets's contemporaries took him to be a committed, if somewhat idiosyncratic, follower of Descartes. Indeed, Desgabets was something of a purist in physics, opposing even those modifications



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to Descartes's views in this area proposed by his fellow Cartesians.¹ Moreover, he allied himself with the Cartesian project of founding physics on a metaphysical foundation derived from indubitable "clear and distinct" ideas, and he adopted a Cartesian dualism on which such ideas reveal that body, as an extended thing, is really distinct from mind, as a thinking thing. In metaphysics, however, Desgabets's allegiance to Descartes is indicated most clearly by the fact that he was one of the few to defend Descartes's controversial doctrine that God has freely created eternal truths and immutable essences.²

It is understandable that Desgabets's distinctive form of Cartesianism is unfamiliar today since most of his philosophical work was carried out behind the scenes. With the exception of opuscles on blood transfusion and the theology of the Eucharist, the only text published during his lifetime was a rather compressed response to a critique of the *Recherche de la vérité* of his Cartesian contemporary, the French Oratorian Nicolas Malebranche. Desgabets did circulate a number of other manuscripts and works in progress, which, as the passage cited at the outset indicates, were the source of some controversy in his day. After Desgabets's death, however, these unpublished writings were dispersed to various provincial Benedictine abbeys, and after the Revolution they were transferred to French municipal libraries, where they remained inaccessible to most of the scholarly community for a long time.

The situation has recently changed. An increasing interest in Desgabets over the past century among French scholars prepared the way for the publication in the mid-1980s of a definitive edition of various of his *œuvres philosophiques*.³ This publication presents us with the opportunity to return to a view in Desgabets that history has left behind. One reason to seize this opportunity is that Desgabets played a pivotal role in the initial French reception of Descartes in the decades following his death. Yet Desgabets's work also is philosophically significant since he attempted to reconstruct central elements of Descartes's epistemology and metaphysics.

This attempt had a profound influence on the thought of Pierre-Sylvain Regis (also Régis), who called Desgabets "one of the greatest metaphysicians

¹ As I indicate later, Desgabets vigorously rejected the atomistic modifications to Descartes in the work of the Cartesian Geraud de Cordemoy. But he also resisted the more modest modifications proposed by two Cartesian Oratorians, Nicolas-Joseph Poisson and Nicolas Malebranche. His response to the modifications to Descartes's mechanics in Poisson's 1668 *Traité de la méchaique de Descartes* is contained in an unpublished set of *Remarques* (in MS Epinal 64, 699–704), and he mentioned in a 1677 letter to Poisson (in OCM 18:126) a commentary, now lost, on Malebranche's *Recherche* that criticizes the modifications to Descartes's laws of motion in that text.

² On the mixture of Cartesianism and anti-Cartesianism in Desgabets, see Beaude 1979.

³ See, for instance, the 1974 "Journée D. Robert Desgabets" in *Revue de synthèse*, 74. Geneviève Rodis-Lewis, Jean-Robert Armogathe, and Joseph Beaude are the French scholars who have done the most to foster an interest in Desgabets. In the English-speaking world, Thomas Lennon and Richard Watson have been Desgabets's most active promoters.



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of our century."⁴ Regis is familiar to historians of early modern science as one of the principal defenders of Cartesian natural philosophy in late seventeenth-century France. What is not widely appreciated, though, is that Regis adopted central elements of Desgabets's distinctive form of Cartesianism. Thus, Regis took as his starting point the development in Desgabets of Descartes's created truths doctrine. Moreover, he followed Desgabets in insisting not only that our idea of body requires the real existence of its object, but also that all our thoughts depend on the body to which our soul is united. The goal of this study is to revisit the puzzling but intrinsically interesting elements of a version of Cartesianism in Desgabets and Regis that played an important though now unappreciated role in the reception of Descartes in early modern France.

I.1 DESGABETS AND REGIS

Robert Desgabets was born in 1610 to Jean des Gabets and Barbe Richard in Ancemont in the Lorraine diocese of Verdun, a region annexed by France in 1552.5 He entered the Benedictine order in 1636 and served that order in various ecclesiastical and academic posts thereafter. In 1653, Descartes's literary executor, Claude Clerselier, drew Desgabets into battles over Descartes's views on the Eucharist, sending him the unpublished correspondence with the Jesuit Denis Mesland in which Descartes presented his own speculations concerning the Real Presence of Christ in this sacrament by means of a miraculous transformation, or "transubstantiation," of the eucharistic elements into His body and blood. In correspondence and unpublished manuscripts, Desgabets defended these speculations against those who condemned them to Clerselier as heretical. His defense depends crucially on the argument that transubstantiation cannot involve the annihilation of the elements since matter itself is "indefectible," that is, immutable and indestructible. Desgabets argued for the indefectibility of matter in his "Traité de l'indéfectibilité des creatures," a work that he started at about the time of his exchange with Clerselier.

In 1658, Desgabets's ecclesiastical duties took him to Paris for an eight-month stay, during which time he participated in the discussions of Cartesianism in the capital. He was a member of the scientific academy of Habert de Montmor and offered for discussion a short *Discours* on a technique for the transfusion of blood. The French physician Jean Denis included this text in the *Lettre escrite à M. Sorbière*, published in 1668, in

⁴ In a marginal note in his *Usage*, at 639. In §5.3, however, I indicate the irony that this note is found in a section of the *Usage* where Regis was concerned about distancing himself from Desgabets. Even so, it will become clear in what follows that Regis was, in fact, profoundly influenced by Desgabets.

⁵ For a more complete biographical chronology of Desgabets, see RD 1:xvi-xx.



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part to draw the attention of the Royal Society to French research in this area. 6

Upon his return to the provinces, Desgabets worked to spread the teaching of Cartesianism in the local Benedictine abbeys. In the mid-166os, he also became involved in the controversies in France over "Jansenist" views of free will and grace and the moral rigorism associated with the convent of Port-Royal.⁷ Desgabets took the politically risky step of siding with the Jansenists and the Port-Royalists against the French religious establishment. Later, however, he later split with the Port-Royalists on the issue of the Eucharist. One occasion for the rupture was the publication in 1671 of Desgabets's Considérations sur l'état présent de la controverse, a work that drew on his development during the 1650s and 1660s of the account of the Real Presence in Descartes's correspondence with Mesland. The Port-Royalist theologians Antoine Arnauld and Pierre Nicole promptly denounced Desgabets's text in an audience with the Archbishop of Paris. The publication of this text also was linked to the first official condemnation of Cartesianism, in a 1671 decree that Louis XIV issued to the University of Paris. This condemnation led Desgabets's Benedictine superiors to interrogate him the following year and to censure his views on the Eucharist. The effects of the censure were felt even into the mid-eighteenth century, when the Benedictine authorities refused the request of some admirers of Desgabets to publish an official edition of his writings.⁸

Even so, the 1672 censure did not bring an end to Desgabets's philosophical activity. Two years later, he engaged in correspondence with Malebranche after the latter sent him a copy of the first volume of his Recherche. When Simon Foucher wrote a Critique that cast doubt on claims in Malebranche's text concerning mind-body dualism and the representative nature of ideas, Desgabets composed a Cartesian refutation of Foucher's skeptical position. Desgabets's Critique de la Critique appeared in 1675, and like his 1671 Considérations, it was published anonymously. Also like the Considérations, the Critique was something of a failure. Malebranche immediately disowned the work, primarily because it departed from his own views. However, what seemed bizarre to Malebranche and Foucher alike was Desgabets's dogmatic insistence in his Critique on the impossibility of any doubt of the existence of the material world. The full argument for this impossibility is provided not in this text but in Desgabets's commentary on the Meditations, the "Supplément de la philosophie de Descartes," which he finished in 1675 but which remained unpublished until 1985. The first part of the "Supplément" rejects

⁶ See Denis 1668 and the discussion in Rodis-Lewis 1974.

⁷ For more on these controversies, see §1.2.2.

⁸ An initial request from doms Ildefonse Catelinot (b. 1671) and Augustin Calmet (1672–1757) was refused in 1747 by authorities of the Lorraine congregation of Saint Vanne, of which they were members. Catelinot received the same response when he resubmitted his request in 1754. See the discussion of this failed project in Beaude 1974.



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Descartes's hyperbolic doubt of the material world on the grounds that temporal human thought bears an essential relation to bodily motion, while the second part argues that the idea of extension, like any other "simple" idea, requires the extra-mental existence of its object.

Toward the end of Desgabets's life, in 1677, there was a series of conferences on his thought at the chateau of the Cardinal de Retz in the Lorraine region of Commercy. Manuscripts pertaining to these conferences lay concealed until the early 1840s, when Victor Cousin and Amédée Hennequin independently discovered and published them.9 These manuscripts include the passage above warning against Desgabets's extremity, which is attributed to Retz himself. Retz was a politically ambitious cleric who was deeply involved in the Fronde, the rebellion against the French government that occurred in Paris during 1649-53. Retz, who at that time went by his given name, Jean-François-Paul de Gondi, was Paris Coadjutor to the Archbishop of Paris, his uncle, Jean-François, and the chief political rival of First Minister Cardinal Mazarin. In 1652, Gondi became the second Cardinal de Retz (his uncle Henri having been the first). Later that same year, Mazarin had Retz arrested and imprisoned, though he escaped and lived for a time under papal protection in Rome. In 1654, upon the death of his uncle, Retz was made Archbishop of Paris in absentia. His activities during this early period in his life are chronicled in his famous Mémoires, which consists mainly of Machiavellian reflections on his political battles with Mazarin that are spiced with occasional reports of dalliances with mistresses.¹⁰

In 1662, after Mazarin's death, Louis XIV forced Retz to resign the archishopric in exchange for a pardon. Louis also banished him from court, and Retz was forced to take up residence in his ancestral estate in the semiindependent provincial territory of Commercy. In the mid-1670s, Retz attempted to resign his cardinalate for the purpose of taking up a life of contemplation at the neighboring Benedictine abbey of Saint-Mihiel. Rome refused to accept the resignation, but the attempt strengthened Retz's ties to the prior of the abbey, dom Hennezon, a friend of Desgabets who shared his interest in Cartesian philosophy.

Hennezon was among the "disciples of Descartes" from local Benedictine abbeys who joined with Retz to examine critically Desgabets's corrections to

⁹ See Cousin 1842 and Hennequin 1842. In 1887, an editor of Retz's Œuvres, R. de Chantelauze, published the most complete record of the conferences (in R), although it leaves out a discussion between Desgabets and Retz concerning "objective being" (reproduced in RD 7:301–305). See the corrections to this record in Rodis-Lewis 1981a. For a discussion of the conferences themselves, see Delon 1979.

¹⁰ Retz 1987. For discussion of Retz's involvement in the Fronde, see Salmon 1969.

¹¹ From Retz's time onward, there was controversy over whether the attempt was sincere or rather motivated by a desire for fame. Compare Gazier 1875, which argues for the sincerity of Retz's act, and a review of this work in Chantelauze 1877 that presents this act in a decidedly less flattering light.



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Descartes's views. Retz's devoted friend and cousin by marriage, the marquise de Sévigné, expressed alarm that the gout-ridden cardinal was engaging "in metaphysical distillations and distinctions with dom Robert, which will kill him." Retz (identified in the record as "Rais") served as the main respondent to Desgabets, attempting for the most part to defend Descartes against Desgabets's objections. Another participant at the conferences was the Italian scholar Jean de Corbinelli, a distant relative and confidant of the cardinal who arrived in Commercy in June 1677 and who contributed a text summarizing Desgabets's views on the soul–body union and the temporality of human thought. Further topics considered at Commercy included Desgabets's views on the intentionality of ideas and the indefectibility of substances, as sketched in "Descartes à l'alambic, distillé par dom Robert" and the aptly titled "Défauts de la méthode de Descartes."

The impact of the discussions with Retz was felt beyond Commercy. A session of Cartesians held in Paris in August or September 1677 was devoted to Desgabets's critique of the cogito. Corbinelli apparently defended this critique, while Malebranche provided the response on behalf of the assembled Cartesians. ¹⁶ Corbinelli also appears to have been responsible for bringing the issues considered at Commercy into the salons of Sévigné and of her daughter, the comtesse de Grignan (who may well be the unnamed woman to whom Retz addressed his *Mémoires*). ¹⁷ Desgabets was able to contribute little to the further consideration of these issues, however, since he died in March 1678 at his home abbey of Breuil, near Commercy.

Desgabets had something of a following in the provincial Benedictine monasteries, and as is indicated by the failed attempt in the mid-eighteenth century to publish an edition of his writings, he continued to have such a following well after his death.¹⁸ Nonetheless, his most prominent disciple was someone outside of the Benedictine order, namely, his younger contemporary Regis. Regis was born in 1632 to a wealthy family in Salvetat de

¹² In a 15 October 1677 letter, in Sévigné 1974, 2:575f.

¹³ The one notable exception is an exchange at the end of the record of the conferences in which Retz presented an instrumentalist understanding of Copernican theory, while Desgabets defended the literal truth of Descartes's cosmological views (see R 49–60). Also, Retz sometimes served merely in the role of summarizing the main issues separating Desgabets and Descartes.

¹⁴ See R 292f. On Corbinelli's role in the conferences, see Plasance 1981.

¹⁵ Literally, "Descartes from the Still, Distilled by dom Robert." According to Chantelauze, this is the title that Retz gave to the work (see R 211, n. 1).

¹⁶ A brief record of this session was published in 1961 in OCM 18:122-24.

¹⁷ See L 253–56. Compare Deprun 1973.

¹⁸ On Desgabets's success in converting other Benedictines to Cartesianism, see Taveneaux 1960, 116–23. For a discussion of certain writings of former Benedictines toward the end of the seventeenth century that seem to have been influenced by Desgabets's writings, see Rodis-Lewis 1979.



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Blanquefort, in the county of Agenois. ¹⁹ Like Descartes, but unlike Desgabets, Regis received a Jesuit education, in Regis's case, at the Jesuit college of Cahors. He was offered a professorship at the university there, but decided instead to study theology at the Sorbonne. Regis arrived in Paris in 1655, and at some point began to attend the famous Wednesday conferences (popularly known as the *Mercredis*) of the Cartesian physicist Jacques Rohault, which were already underway by 1659. Regis may have met Desgabets during the late 1650s, when both were in Paris, though we have no decisive evidence to that effect. What we do have, however, is the linguistically tortured report of Desgabets's disciple, dom Ildefonse Catelinot, that the two "wrote to each other, exchanged objections, illuminated by the thorniest difficulties."²⁰

Regis's exposure to Cartesian natural philosophy prompted him to give up his theological studies and to devote himself to Cartesian philosophy. In 1665, he accepted Rohault's invitation to travel as a Cartesian missionary to Toulouse, where he lectured with great success as a member of the philosophical Société des Lanternistes. While in Toulouse, Regis met the marquis François-René de Vardes, who became his patron. He followed Vardes to Aigues-Mortes and then to Montpellier, where he continued his popular lectures on Cartesianism. In 1680, Regis returned to Paris, in part to revive Rohault's conferences (Rohault having died in 1672) and in part to seek publication of his massive *Système de philosophie*. Due to the political firestorm created by the controversies over the Cartesian explanation of the Eucharist, however, Regis was forced to suspend his public meetings, and permission to publish his *Système* was denied. He did receive this permission in 1688, though, and the work itself was finally published in 1690.

The *Système* is divided into three volumes composed of books devoted to logic, metaphysics, physics, and ethics. These were the four main topics covered in the standard course in philosophy taught in the *collège de plein*

- ¹⁹ For the details of Regis's biography, I am drawing on the eulogy that Fontenelle, in his role as secretary of the Académie des sciences, presented for him in 1707. See Fontenelle 1989–94, 6:143–52.
- MS Epinal 64, 822, cited in RD 1:xvii. Kirwan also reports, without documentation, that there is a letter in which Desgabets "congratulates his correspondent for having been able to be led by him to the philosophy of Descartes, and which appears to have been addressed to Sylvain Regis" (Kirwan 1903, 399).
- The society was founded in 1634 and, after an interruption of several years, began again in 1667 at the home of Nolet. The group received its name from the fact that its meetings were held in the evening and began with a procession of members carrying lanterns. For more on the society, see Desbarreaux-Bernard 1858.
- ²² On Fontenelle's report, however, Regis continued to hold private sessions, and his clients included not only members of the nobility such as the duc de Condé but also the same Archbishop of Paris who had advised him to discontinue his public lectures (Fontenelle 1989–94, 6:15of).



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exercise.²³ Regis's treatment of logic follows the Cartesio-scholastic line laid down in the Port-Royalist Art de penser (first published in 1662), while his treatment of physics borrows heavily from Rohault's *Traité de physique* (1671). Regis's discussion of ethics is less dependent on the standard Cartesian discussions,²⁴ but his discussion of metaphysics will receive most of our attention. For it is the book of the *Système* devoted to metaphysics that provides the best support for the claim, in a 1712 historical dictionary, that "Regis had a great deal to do with Father Desgabets, and he profited greatly from his illuminations [lumières] and from his method in the three volumes of philosophy that he has published."25 At the start of this book, Regis endorsed the argument, found in Desgabets, that the mere fact that we have an idea of extension suffices to establish the existence of an external material world. He also followed Desgabets not only in endorsing Descartes's doctrine of the free creation of the eternal truths but also in linking this doctrine to the thesis of the indefectibility of created substances. Finally, Regis's discussion in this book reflects the position in Desgabets that the union of the human soul with body serves to distinguish all human thoughts from the thoughts of a purely intellectual mind.

A third edition of the *Système* appeared in Amsterdam in 1691 with the new title, *Cours entier de philosophie*. That same year, Louis XIV issued his second directive to the University of Paris pertaining to the teaching of Cartesianism. This directive required the signature of a formulary condemning various Cartesian and Jansenist propositions. Some of the propositions concerned Descartes's method of doubt and his appeal to clear and distinct ideas, two issues that the Cartesian critic Pierre-Daniel Huet had highlighted in his 1689 *Censura philosophiæ cartesianæ*. In 1692, Regis took it upon himself to publish a response to the *Censura* on behalf of the Cartesians, and that

²³ For the details of the teaching of philosophy in the French colleges, which was supposed to prepare students for study of the higher sciences of theology, law, and medicine in the university, see Brockliss 1987, chs. 4 and 7. As Brockliss indicates, traditionally logic and ethics were taught in the first year of coursework, and physics and metaphysics, during the second year. By the middle of the seventeenth century, however, metaphysics began to be taught before physics (see ibid., 187f). Regis's nonstandard placement of ethics (*la morale*) as the last topic of discussion reflects his allegiance to Descartes's position that the study of morals presupposes a knowledge of metaphysics and physics (see AT 9-2:14).

²⁴ Bouillier has claimed that Regis seemed to be inclined in ethics "more to Gassendi or even to Hobbes than to Descartes" (Bouillier 1868, 1:519). The Gassendist connection is most evident in Regis's emphasis in the *Système* on the fact that actions are guided by a love of self (*amour propre*) (see *Système* 3:404f), while the Hobbesian connection is most evident in his claim there that we can best escape the inconveniences of a "state of nature" by entering into a "contract" in which we cede our rights to a state that has absolute power (3:412–16, and 3:451–57). To explicate the precise nature of these connections, a more detailed examination of Regis's ethical and political theory is required, one which I do not provide in this study.

²⁵ Moréri 1712, 2:602.



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same year he engaged in an exchange with the Paris professor Jean Du Hamel that concerned both his *Système* and his reply to Huet.

Following this debate triggered by Huet's *Censura*, there was a dispute internal to the Cartesian camp in which Regis again was prominent. This dispute started with the publication in 1693 of Malebranche's response to the specific objections to his *Recherche* in Regis's *Système*. Regis reacted in 1694 by publishing his own reply to Malebranche, and that same year one of Malebranche's disciples, Henri de Lelevel, defended a Malebranchean line against claims in Regis as well as in Huet and Du Hamel.

In 1699, Regis's reputation as an expositor of Cartesian natural philosophy was such that he was appointed, along with his nemesis Malebranche, to an honorary position in the newly reformed Académie des sciences. Due to failing health, Regis was unable to participate in the life of this institution. However, he did complete his second major work, *L'Usage de la raison et de la foy*, which was published in 1704. This text emphasizes the distinction between the realms of faith and reason, and the account of reason there draws heavily on the *Système*, including the views in the book on metaphysics that bespeak the influence of Desgabets. Regis wrote his *Usage* under the patronage of the duc de Rohan, who had accepted Regis into his household upon the death of his father-in-law, the marquis de Vardes, in 1688. Regis himself died in January 1707 in Rohan's apartment in Paris. After Regis's death, Desgabets's views ceased to play any serious role in discussions of Cartesianism.

I.2 FRENCH CARTESIANISMS

Historians of philosophy frequently appeal to certain constructed "isms" named for some pivotal thinker (e.g., Aristotelianism, Thomism, Marxism). ²⁶ Such constructions are difficult to avoid, especially if the concern is to map trends or countertrends in intellectual history. Even so, there are practical difficulties in the appeal to the constructed ideologies that derive from the absence of precise criteria that serve in all cases to indicate whether particular individuals are properly characterized as belonging to the targeted movement. ²⁷

There are, of course, also ideological constructions not so named. Perhaps the most familiar to those who work in early modern philosophy are rationalism and empiricism. I sometimes speak of particular doctrines as rationalist or empiricist in senses that I hope will be clear from the context. However, the distinction between rationalism and empiricism is somewhat less important with respect to my discussion of Desgabets and Regis than the distinction between idealism and realism.

²⁷ There is the reasonable Wittgensteinian counter that intellectual movements are to be characterized not in terms of necessary and sufficient conditions but rather in terms of overlapping positions that bear a certain "family resemblance" to each other. Compare the suggestion in Grant that the term "Aristotelian" denotes not a species with a fixed essence



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The difficulties in the case of Cartesianism are illustrated by the recent comment that "there was hardly a doctrine, view, or argument that was advanced by everyone thought, and rightly thought, to be a Cartesian." Even if we bracket out national and religious differences by focusing on the case of Catholic France, we find disagreement among Descartes's successors with respect to the "metaphysical core" of his system, namely, his doctrine that the essence of body consists in extension and that the essence of mind consists in thought. For Descartes, the portion of this doctrine concerning the essence of body entails the impossibility of both atoms and the void; atoms, because extension is divisible without end (or indefinitely, as Descartes put it), and the void, because space does not really differ from the extension of a particular body. Yet in the 1666 Discernement du corps et de l'âme, the Cartesian Geraud de Cordemoy argued for the conclusion that there are indivisible atoms in nature.

Desgabets was sent a copy of the *Discernement* by his friend Clerselier, who was in turn a friend of Cordemoy. Desgabets wrote back to Clerselier to protest the fact that "Cordemoy thoughtlessly causes a schism that is all the more serious since it all of a sudden removes from the true philosophy one of its strongest columns and notably strengthens the camp of Gassendi, which already seems only too likely to support itself and to overcome that of Descartes." For Desgabets, it was essential that Descartes's plenism be distinguished from, and defended against, the atomism of Gassendi and the Gassendists. Beyond Cordemoy, however, there were other followers of Descartes in France, such as the Oratorian Fromentier in Angers and the Minim Maignan in Toulouse, who confused the issue by offering atomistic versions of what was widely taken to be a kind of Cartesian physics. 33

In contrast to the orthodoxy of his rejection of Cordemoy's atomism, Desgabets challenged the Cartesian doctrine – which Cordemoy's *Discernement*

but rather something like a population in the sense used in evolutionary biology, which can exhibit considerable variation among members (Grant 1987, 347–53). Presumably, the analogue to reproductive isolation is some sort of derivation of later positions from the doctrines of the founding member. Further precision would, of course, be required for those concerned with defending Grant's suggestion.

- ²⁸ Lennon and Easton 1992, 1.
- ²⁹ See AT 8-1:49 and 51f. On Descartes's rejection of atomism, see Garber 1992, ch. 5.
- ³⁰ Cordemoy charged that there is a circularity in Descartes that derives from the fact that he defined motion in terms of the transference of individual bodies but also held that bodies are individuated by their transference or motion. He held that Cartesians can cut this Gordian knot by defining bodies in terms of indivisible atoms that are distinguished by their shape rather than their motion (see Cordemoy 1968, 95f). For more on Cordemoy's position, see Battail 1973, chs. 3–4.
- ³¹ From an unpublished 1666 letter quoted in Prost 1907, 158.
- 32 I return in §2.4.1 to Descartes's Cartesian opposition to Gassendist physics.
- ³³ On the perception in the second half of the seventeenth century that Descartes belonged to the same camp as the atomist Gassendi, see Lennon 1993, 9–17.