The Origins of Cartesian Dualism

ABSTRACT: In the recently discovered Cambridge manuscript, widely regarded as an early draft of Rules for the Direction of the Mind, Descartes does not describe the mind as a 'purely spiritual' force 'distinct from the whole body'. This has led some readers to speculate that Descartes did not embrace mind-body dualism in the Cambridge manuscript. In this article, I offer a detailed interpretation of Descartes's mind-body dualism in the established Charles Adam and Paul Tannery edition of Rules, and argue that, while differences between the Cambridge manuscript and the established version of Rules are significant, the relevant passages in the Cambridge manuscript preclude interpretation along both materialist and hylomorphic lines. I then offer an account of the development of Descartes's mind-body dualism between the Cambridge manuscript and the established version of Rules. What the Cambridge manuscript reveals is not Descartes before dualism, but rather Cartesian dualism in its barest form.

KEYWORDS: Descartes, mind-body dualism, substance dualism, method, early modern metaphysics

I thank John Carriero, Stephen Fallon, Robert Goulding, Denis Kambouchner, Yitzhak Melamed, Tad Schmaltz, and Phillip Sloan for comments on a previous draft of this article. I also thank Stephen I. Wagner, Patrick Brissey, and Jack Stetter for comments on a previous draft of this article presented before the Descartes Society at the American Philosophical Association Central Division Meeting on February 21, 2018, in Chicago. I owe special thanks to Richard Serjeanston and Michael Edwards, who kindly shared a draft of their forthcoming translation of the Cambridge manuscript at an international seminar organized by Daniel Garber at the Institut d'études avancées de Paris on April 19, 2018 (many thanks to Dan for his invitation). During a visit to Cambridge University on October 17, 2017, Richard generously provided me with access to the Cambridge manuscript. All translations in this article are my own and are based on the original manuscript; respecting their request not to cite prior to publication, I have not cited the Edwards-Serjeanston translation. I also thank the University of Notre Dame's Institute for the Liberal Arts for a grant that enabled me to travel to Paris to participate in the seminar on the Cambridge manuscript. I thank the journal's two anonymous reviewers for their excellent comments. I dedicate this article to my loving wife, Constance de Font-Réaulx.

Unless otherwise indicated, all references to Descartes are to the Adam-Tannery (1996) edition, abbreviated 'AT', followed by volume number and page. All English translations are based on Descartes (1985–1991), abbreviated 'CSM' (vol. 1–2) or 'CSMK' (vol. 3), followed by volume number and page. Citations of the Cambridge manuscript are abbreviated 'CM'. When distinguishing between the Cambridge manuscript and the edition of *Rules* found in the Adam-Tannery edition, I employ the following subscripts: *Rules* and *Rules* respectively. Subscripts are also used for individual rules (e.g., Rule 12_{CM}, Rule 12_{AT}). Where the Cambridge manuscript agrees with the Adam-Tannery edition, I reproduce, with occasional modifications, the translation of *Rules* found in Cottingham et al. (based mostly on the Adam and Tannery edition). All other translations from the Cambridge manuscript are my own.

In Rule 12 of Rules for the Direction of the Mind, Descartes describes the mind (vis cognoscens) as a 'purely spiritual' force 'distinct from the whole body' (AT 10:415; CSM 1:42). Nevertheless, it is not self-evident that Descartes embraced mind-body dualism in Rules. Some scholars assume that Descartes did embrace mind-body dualism in Rules (see, e.g., Beck 1952: 283-84; Rozemond 2014: 237; and Schuster 2013: 315), but it is not obvious that he did and it has been denied by others (Alquié 1950: 72-73; Hoffman 1986: 351; Clarke 2003: 200; Marion 1975: 126 remains agnostic). Descartes makes no claims in Rules about the mind and the body as two distinct substances, and he certainly makes no claims about the immortality of the soul. At one point in Rule 12, he describes the mind in an Aristotelian manner as the 'form' of the body (AT 10:411; CSM 1:40). If 'dualism' adequately describes Descartes's claims about mind and body in Rules, a more refined sense of what 'dualism' can and cannot mean here is clearly needed. Things are further complicated by the fact that in the recently discovered Cambridge manuscript, Descartes does not describe vis cognoscens as 'distinct from the whole body', but only as 'distinct from the phantasy' (CM fol. 16v). This leaves open the possibility that vis cognoscens is not distinct from the whole body, but only from one part of it, perhaps as one body part is distinct from another (first raised in Serjeanston 2013; see also Garber 2015: 6, who claims that the lack of 'apparent reference to Descartes' dualism' in Rules_{CM} 'suggests that the Cambridge manuscript may have been written before Descartes came to be a dualist').

The Cambridge manuscript seems to be a copy of an earlier draft of Rules. Much of the evidence for this view is based on the fact that the Cambridge manuscript is considerably shorter than Rules_{AT}. On the whole, the Cambridge manuscript contains only about 40 percent of RulesAT, with significantly shorter versions of Rules 1, 3, 4, 6, 7, 8, 12, and 13. Rule 12_{CM} contains no theory of simple natures. Rules 14-16_{CM} are more or less identical to Rules 14-16_{AT}. Rules_{CM} ends at Rule 16 (Rules_{AT} ends at Rule 21). Rule 8_{CM} contains Descartes's discussion of the method for deducing the shape of the anaclastic lens (the lens from which parallel rays of light are refracted towards a common focus). Descartes is known to have done serious research in optics and lens theory while in Paris in 1626-27 (see letter to Golius, February 2, 1632 [AT 1:240; CSMK 3:36]; letter to Huygens, December 1635 [AT 1:335-36]). Thus, Rule 8_{CM} is likely to have been drafted no earlier than 1626 or 1627. Other parts of the Cambridge manuscript may have been written earlier, but probably not later. Other evidence that the Cambridge manuscript represents an earlier draft of Rules depends on detailed comparisons between the Cambridge manuscript and the Hanover and Amsterdam manuscripts (compellingly interpreted by Serjeanston and Edwards in their forthcoming edition; see also Garber 2015).

If, as the evidence suggests, the Cambridge manuscript is a copy of an earlier draft of *Rules*, then the possibility of Descartes's endorsing materialism about the mind in the Cambridge manuscript is striking. Past discussions of Descartes's theory of mind in *Rules* have turned *inter alia* on whether he embraces a dualist or a hylomorphic theory of mind there (for hylomorphic interpretations, see Alquié 1950: 72–73;

Hoffman 1986: 351). The Cambridge manuscript introduces a third possibility, namely, that Descartes may have embraced a materialist theory of mind. If Descartes did endorse materialism about the mind in the Cambridge manuscript, it would mean that he initially regarded the mind (including the intellect) as an object of natural philosophy alone, and only later came to regard it as an object of metaphysics. The purpose of this article is to examine whether Descartes did, in fact, endorse materialism or hylomorphism about the mind in *Rules*_{CM} and *Rules*_{AT}, and the verdict is negative: he endorsed neither.

I begin with a detailed interpretation of Descartes's mind-body dualism in $Rules_{AT}$ (section 2). Casting a retrospective glance at $Rules_{CM}$, I then argue that while the differences between $Rules_{AT}$ and $Rules_{CM}$ are significant, the relevant passages in Rule 12_{CM} preclude interpretation along both hylomorphic and materialist lines (section 3). I also offer an account of the development of Descartes's mind-body dualism between $Rules_{CM}$ and $Rules_{AT}$ (also section 3). What Descartes discovered in $Rules_{CM}$ for the first time in his career, I argue, is that the operations and objects of the intellect do not in any way depend on the phantasy (a corporeal faculty located in the brain). This discovery constituted a radical departure from mainstream, Aristotelian theories of the intellect, according to which intellectual cognition is dependent on the presence of a phantasm in the imagination—a theory Descartes himself adhered to in the early 1620s (see AT 10:217-19; CSM 1:4-5) but could now definitively abandon. Descartes's discovery of the autonomy of the intellect would lead him to enumerate the intellectual simple natures and the material simple natures as two wholly distinct classes of object in Rules_{AT.} It would also enable him to demonstrate that there is no necessary conjunction between these two classes of simple nature, such that that mind and body are really distinct. Descartes had not yet developed the theory of simple natures in Rule 12_{CM}. Nevertheless, his mechanization of Aristotelian faculty psychology, his description of vis cognoscens, and his discovery of the autonomy of the pure intellect lead him to endorse a recognizable, albeit minimal form of mind-body dualism in Rules_{CM}, deducible from the following four properties of vis cognoscens: (1) its ontological simplicity or indivisibility; (2) its ability to be both active and passive; (3) its per se existence; and (4) its independence, qua 'pure intellect', from all other (corporeal) cognitive functions. What Rules_{CM} reveals is not Descartes before dualism, but rather Cartesian dualism in its barest form, before even the theory of simple natures, let alone Descartes's metaphysics of substance, attribute, and mode.

2. Descartes's Dualism in Rules_{AT}

Because Cartesian dualism developed over time, when comparing *Rules* to later texts, it is difficult to identify a definition of dualism that embraces them all. Below I focus on how many of the elements, if any, of Descartes's mature dualism in *Meditations* and *Principles* can be found in *Rules*_{CM} and *Rules*_{AT}. I understand Descartes's dualism in *Meditations* and *Principles* to be the thesis that mind and body are two really distinct things or substances, which can be understood apart from one another, and which enjoy per se existence (see *Meditations* VI, AT 7:78,

CSM 2:54; Principles I. 60 [AT 8A:28-29; CSM 1:213]. For definitions of Descartes's dualism, see Baker and Morris 1996: 11-23, 59-69; Rozemond 1998: 1-38).

There are three passages in *Rules* in which Descartes seems very clearly to endorse mind-body dualism. In Rule 7, he claims that the proposition 'The rational soul is not corporeal' ('animam rationalem non esse corpoream') can be demonstrated by means 'sufficient enumeration', which here requires grouping 'all bodies together into several classes so as to demonstrate that the rational soul cannot be assigned to any of these' (AT 10:390; CSM 1:26-27). Later, in Rule 12, he famously writes, 'The force by which we know things in the strict sense should be conceived as purely spiritual, and is no less distinct from the whole body than blood is distinct from bone, or the hand from the eye' ('concipiendum est. . .vim illam, per quam res proprie cognoscimus, esse pure spiritualem, atque a toto corpore non minus distinctam, quam sit sanguis ab osse, vel manus ab oculo') (AT 10:415; CSM 1:42; translation modified). Finally, toward the end of Rule 12, he presents the proposition 'I understand, therefore I have a mind distinct from body' ('intelligo, ergo mentem habeo a corpore distinctam') as an example of a necessary conjunction between simple natures (AT 10:422; CSM 1:46; translation modified). Descartes nowhere characterizes the mind as a 'substance' in Rules. Thus, whatever dualism Descartes may be endorsing in these passages, it cannot be straightforwardly characterized as 'substance dualism', at least not without serious qualifications.

Nevertheless, it is clear that Descartes does regard vis cognoscens as 'purely spiritual' and 'distinct from the whole body'. This certainly suggests that vis cognoscens is really distinct from body as one substance is distinct from another. But note a residual ambiguity: Descartes says vis cognoscens is 'no less distinct' from body than one body (or body part) is distinct from another (blood from bone or hand from eye). Even if two body parts are parts of one and the same body, they can exist apart from one another. This seems to suggest real distinction. In Fourth Replies, Descartes argues that the hand, when considered on its own and not referred to the body, is a complete substance: 'Thus 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' (AT 7:222; CSM 1:157). However, once a part of the human body is separated from the whole, it ceases to function. Is the same true of vis cognoscens? Descartes does not say, but if vis cognoscens does functionally depend on the body in the way that a hand does, then it is not really distinct from the body: in the case of mind, real distinction requires functionality after separation. If vis cognoscens, like severed or dead body parts, cannot continue to perform any of its functions after separation from the body, then perhaps it is the form of the body in some sense after all.

Note also that Descartes refers to the mind-body union as a 'composite' ('composito') in Rule 12 (AT 10:411: CSM 1:40). This, too, is ontologically ambiguous, and does not definitively decide in favor of a dualist interpretation. On the one hand, 'composite' may mean that the human being is composed of two distinct substances (Descartes often refers to the human being as an entity composed of two distinct substances. See, e.g., Comments on a Certain

Broadsheet [AT 8B:351; CSM 1:299] and letter to Hyperaspistes in August 1641 [AT 3:422; CSMK 3:189]). On the other hand, it may instead mean that the human being is a single substance composed of form (soul) and matter. The latter interpretation would bring Descartes closer to an Aristotelian view. In De Anima II 412a16-17, Aristotle argues, 'every natural body which has life in it is a substance in the sense of a composite $[\sigma \upsilon \nu \theta \acute{\epsilon} \tau \eta]$ of matter and form (Aristotle 1984: 656; see also Aquinas 1945: I, q. 75, art. 4, 688; Pasnau in Aquinas 2002: xvii; Pasnau 2011: 99-102). But it should be remembered that Descartes describes the mind as a 'substantial form' even after Meditations (see letter to Regius in January 1642 [AT 3:505; CSMK 3:208]; Principles IV. 189 [AT 8:315; CSM 1:279]. For a hylomorphic interpretation of these passages, see Hoffman 1986: 349-69. For a dualist interpretation of these passages, see Rozemond 1998: 139-72). The mere use of the term 'form' does not by itself make Descartes an Aristotelian, neither in *Rules* nor elsewhere. On the contrary, it raises the question of whether there is a distinctively 'Cartesian' sense of the term 'form' when Descartes employs it in these contexts (I return to this point below).

Similarly, read in isolation, the proposition in Rule 7, 'The rational soul is not corporeal', could easily be interpreted along Aristotelian lines. Many scholastics employed the expression *anima rationalis* as shorthand to denote the rational *part* of the soul: the intellect (see, e.g., Aquinas 1945: I, q. 75, art. 5, 690 and the references in Rozemond 1998: 38–64). No Aristotelian scholastic would have disagreed with Descartes about the incorporeity of the intellect. Nor, finally, would they necessarily have disagreed with the proposition Descartes introduces later in Rule 12, 'I understand, therefore I have a mind distinct from body'. *Mens* (mind) and *intellectus* (intellect) were interchangeable terms in scholastic Aristotelianism (see, e.g., Aquinas 1945: I, q. 75, art. 2, 685). If all Descartes is claiming here is that the intellect is not corporeal, again, this is not a terribly controversial proposition, and it is certainly not one that clearly commits Descartes to mind-body dualism in *Rules*.

One can already see from these considerations that the passages in which Descartes seems to endorse mind-body dualism in *Rules* are more ambiguous than they first appear to be. One must, at least initially, avoid the natural tendency to interpret these passages as early expressions of Descartes's mature dualism, not in order to deny that they can be so interpreted, but rather in order to emphasize that it is not *obvious* that they can. Taken in isolation, these passages remain resistant to interpretation along dualist lines. But not totally resistant. When placed in their proper context and read as an ensemble, they add up to more than the sum of their parts. By paying closer attention to Descartes's theory of the faculties in Rule 12, it can be shown that these passages express a form of mind-body dualism that is distinctively Cartesian, and which coincides neither with materialism about the soul nor with an Aristotelian, hylomorphic theory of soul. Indeed, these passages constitute enduring contributions to Descartes's mature dualism.

Above, I argue that no Aristotelian scholastic would have disagreed with Descartes about the incorporeity of the intellect. However, they would have strongly disagreed with anyone who believes that the intellect and the soul are

identical (or, equivalently, that the soul is *reducible* to the intellect), as they generally recognized the existence of other, corporeal faculties or parts of soul (the vegetative, appetitive, sensitive, and locomotive faculties, all of which inhere in the human soul-body composite as their subject) (see, e.g., Conimbricenses [1598] 1604: lib. 2, cap. 3, q. 2, art. 1, 145). It is well known that Descartes's theory of the faculties in Rules is purely mechanical: all faculties other than the intellect and the will are reduced to parts of the body (sensory organs, nerves, and parts of the brain), and their respective functions are explained by the causal interactions between them and their overall contribution to cognition. Like the impression of a seal on wax, the shape of the sense organs is modified by the motions received from the environment, and like the motion of a pen, these modifications (figures) are instantaneously communicated (via the nerves) higher up the cognitive chain to the common sense and the phantasy, which is located in the brain and 'moves the nerves in different ways', thereby setting in motion 'all those operations which we perform without any help from reason', including all physiological functions. These physiological functions (such as digestion and blood circulation) are one and all performed in and by the body alone, and they do not distinguish human beings from animals (see AT 10:414-15; CSM 1:41-42). Sense-perception, the common sense, the imagination, and the motive power are explained as parts of the extended body-machine. They are not parts of vis cognoscens, but rather parts of the body that communicate their respective motions to vis cognoscens.

Descartes's mechanization of the Aristotelian soul in Rule 12 places the passage in Rule 7, 'The rational soul is not corporeal', in a new light. This passage can be interpreted along Aristotelian lines only if the rational soul is an incorporeal part of the soul alongside other, corporeal parts. But as discussed above, there are no corporeal parts of the soul in Rule 12; those functions usually attributed to the soul by Aristotelians have been mechanized as functions of the body. The same holds for the passage later in Rule 12, 'I understand, therefore I have a mind distinct from body'. 'Mind' cannot be interpreted here as a part of the soul existing alongside other, corporeal parts. What about Descartes's description of *vis cognoscens* in Rule 12? Due to its importance, I reproduce it here in full:

Fifthly, and lastly, the force by which we know things in the strict sense should be conceived as purely spiritual, and is no less distinct from the whole body than blood is distinct from bone, or hand from the eye [vim illam, per quam res proprie cognoscimus, esse pure spiritualem, atque a toto corpore non minus distinctam, quam sit sanguis ab osse, vel manus ab oculo]. It is one single force [unicamque esse], whether it receives figures from the common sense at the same time as does the phantasy, or applies itself to those which are preserved in the memory, or forms new ones which so preoccupy it that it is often in no position to receive ideas from the common sense at the same time, or to transmit them to the power responsible for motion in accordance with a purely corporeal mode of operation. In all these functions the cognitive force [vis cognoscens] is sometimes passive, sometimes active [interdum patitur, interdum agit]; sometimes resembling the seal,

sometimes the wax. But this should be understood merely as an analogy [per analogiam tantum], for nothing quite like this force is to be found in corporeal things [neque enim corporeis aliquid omnino huic simile invenitur]. It is one and the same force [una et eadem est vis], when applying itself along with imagination to the common sense, it is said to see, touch, etc.; when applying itself to the imagination alone, insofar as the latter is invested with various figures, it is said to remember; when applying itself to the imagination in order to form new figures, it is said to imagine or conceive; and lastly, when it acts on its own [sola agat], it is said to understand [intelligere]. How understanding comes about I shall explain at greater length in the appropriate place. According to its different functions [functiones], then, the same force is called either pure intellect, or imagination, or memory, or sense-perception. (AT 10:415–16; CSM 1:42–43; translation modified)

In this passage, Descartes enumerates four properties of *vis cognoscens*, each of which distinguishes it from body: (1) its simplicity or indivisibility; (2) its ability to be both active and passive; (3) its per se existence; and (4) its independence, qua 'pure intellect', from all other cognitive (corporeal) functions. Regarding its simplicity or indivisibility, *vis cognoscens*, Descartes insists, is 'one single force', which remains 'the same', whether it is called 'pure intellect, or imagination, or memory, or sense-perception' (see also *Meditations* VI [AT 7:86; CSM 2:59]). These faculties are 'functions' of 'one and the same force'. The terms 'sense-perception', 'common sense', 'memory', 'imagination', and 'pure intellect' denote functions of *vis cognoscens*, not parts of which it is composed (see also Rozemond 2014: 237), and it performs these functions in collaboration with parts of the body (principally, the brain), except when it acts on its own as 'pure intellect'. *Vis cognoscens* is essentially simple, and all of the other 'modes of knowing' ('cognoscendi modis') (AT 10:396; CSM 1:30) are only modes of its activity. Modes are not parts.

Regarding its ability to be both active and passive, *vis cognoscens* can be affected by the phantasy and the common sense, as well as spontaneously intervene in and regulate how the other, corporeal faculties are employed. This indicates that 'nothing quite like this force is to be found in corporeal things'. The property of *vis cognoscens* that most impresses Descartes is the fact that it is 'sometimes passive, sometimes active'. This property is unique to *vis cognoscens*: one body can act on another or be acted upon, but no body can spontaneously decide if and when to be active or passive. Furthermore, in the case of the corporeal faculties, the seal/wax analogy was meant literally (see AT 10:412; CSM 1:40). But when it comes to *vis cognoscens*, the analogy should be understood 'merely as an analogy'. Descartes clearly believes that the ability of *vis cognoscens* to be both active and passive constitutes evidence of its being 'purely spiritual', and he will soon include 'volition' in the class of purely spiritual intellectual simple natures (AT 10:419; CSM 1:44; see also *Principles* I. 32 [AT 8A:17; CSM 1:204]; *Passions* I. 17 [AT 11:342; CSM 1:355]).

Regarding the per se existence of vis cognoscens, this is strongly suggested by the fact that 'nothing quite like this force is to be found in corporeal things'. This means both that the existence of vis cognoscens could not have been caused by corporeal things, and that it does not *inhere* in corporeal things as in a subject, for it is nowhere to be found 'in' them. The fact that it is neither caused by nor inheres in corporeal things is perhaps one of the strongest bits of evidence in favor of its being regarded as a substance by Descartes, even though he does not explicitly assert that it is a substance in Rule 12 (I explain below why Descartes generally avoids the term 'substance' in Rules). Per se existence certainly constituted the preferred criterion for substancehood in standard scholastic definitions of substance (see Aquinas in Gilson 1979: 275; Suárez 1861: vol. 26, disp. 32, sec. 1.5, 313; Eustachius 1609: I, 96. For an overview of scholastic definitions of substance, see Pasnau 2011: 99-115).

Finally, regarding independence vis-à-vis all other cognitive functions, all acts of sense-perception and imagination presuppose acts of vis cognoscens, but its acts do not presuppose acts of sense-perception or imagination whenever it acts alone (or, as Descartes puts it, whenever it 'understands'). Clarke (2003: 200) denies that the pure intellect can act independently of 'brain activity' in Rules. But in Rule 12, Descartes explicitly argues that what distinguishes the pure intellect from all other cognitive functions is the fact that it can act 'on its own' (AT 10:416; CSM 1:42). Not only the content of the thought, but also the act does not depend on brain activity (see also Fifth Replies [AT 7:358; CSM 1:24]; Des Chene 2006: 315-40; Cottingham 2017: 46). In Meditations VI, Descartes will similarly argue, 'there is an intellectual act included in their [sense-perception and imagination] essential definition', but not vice versa (AT 7:78; CSM 1:54). He takes this to entail that imagination and sense-perception are modes of the intellect when the latter is united to the body. This parallel between Rule 12 and Meditations VI strongly suggests that vis cognoscens is really distinct from body. If vis cognoscens is not a mode of body, while all other cognitive functions are modes of vis cognoscens ('cognoscendi modis') (AT 10:396; CSM 1:30), and if, moreover, there is 'nothing quite like this force in corporeal things' (that is, per se existence), then, once more, vis cognoscens does not depend on body for its existence (neither as cause nor as subject of inherence). All of these considerations would eventually lead Descartes down the path of defining vis cognoscens as a simple, indivisible substance really distinct from body. Many of the key components of Descartes's dualism in Meditations can, therefore, already be found in Rules.

So much, then, for the evidence based on Descartes's description of vis cognoscens in Rule 12. I now discuss the role played by the theory of simple natures and the theory of conjunction in Descartes's dualism in Rules. Later in Rule 12, Descartes presents the proposition 'I understand, therefore I have a mind distinct from body' (AT 10:422; CSM 1:46; translation modified) as an example of a necessary conjunction. Descartes's reference to 'necessary conjunction' here can easily be overlooked, but it is very important. Descartes's theory of conjunction in Rules contains a theory of distinctions and is a part of his broader theory of simple natures. These tools enabled him to articulate the distinction in terms of which he would consistently expresses his dualism throughout his career:

the real distinction. In Rules, the simple natures are the 'atoms of evidence' (Hamelin 1921: 86) from which all of our ideas of things are composed. Each one can be intuited (clearly and distinctly perceived) by the intellect. Descartes divides the simple natures into three classes: intellectual (knowledge, doubt, ignorance, volition; Descartes also mentions 'understanding' earlier in Rule 12); material (extension, shape, and motion); common (existence, unity, duration, and common notions, such as 'things that are the same as a third thing are the same as each other') (see AT 10:419; CSM 1:44-45). Whether a simple nature belongs to the class of intellectual or material simple natures depends on whether intuiting it requires the intellect alone or the intellect aided by the imagination (a corporeal faculty). Since the intellect is required in both cases, the distinction between the intellectual and material simple natures ultimately depends on whether or not intuiting them requires the imagination in addition to the intellect. The material simple natures of extension, shape, and motion are corporeal, since they are intuited by the intellect aided by the imagination. The intellectual simple natures are not corporeal, since they are intuited by the intellect alone. The intellectual simple natures are cognized 'without the aid of any corporeal image' or 'corporeal idea' in the imagination (AT 10:419; CSM 1:44). Each of the intellectual simple natures names an act of the intellect or will (volition). Descartes would later term these acts 'modes' of mind. The principal act—understanding—is, as previously mentioned, presupposed by all acts of sense-perception and imagination, whereas acts of understanding do not depend on either of the latter two faculties. This means that the intellect can be intuited entirely on its own. The intellectual simple natures—above all understanding—constitute what Descartes would later refer to as the 'complete idea' of mind: I can intuit the mind entirely on its own by means of the intellectual simple natures, excluding imagination and sense-perception (as well as the material simple natures). In First Replies, Descartes argues that a real distinction only obtains when the relevant ideas are of 'complete things', such that no other ideas are needed to perceive them clearly and distinctly (see AT 7:121; CSM 1:86; Fourth Replies [AT 7:222; CSM 1:156]; letter to Gibieuf, January 19, 1642 [AT 3:475; CSMK 3:202]). Similarly, the material simple natures include extension, which Descartes would later term the 'principal attribute' of body, and which enables me to intuit body entirely on its own (Principles I. 53 [AT 8A:25; CSM 1:210]). The other two material simple natures (shape and motion) are what he would later term 'modes' of extension (Principles I. 61 [AT 8A:29; CSM 1:214]). The intuition of extension has priority over shape and motion: the latter two simple natures presuppose the first, but not vice versa. The material simple natures, then, constitute what Descartes would later refer to as the complete idea of body: when I intuit body as extension, I can intuit it entirely on its own, excluding shape and motion (as well as the intellectual simple natures). The intellectual and material simple natures may be contingently conjoined (for example, in a human being), but they are not *necessarily* conjoined, which means that I can 'conceive. . . [both] of them distinctly if I judge them to be separate from each other' (AT 10:421; CSM 1:45). I can do this because only my intellect is required to intuit the intellectual simple natures, whereas both my intellect and my imagination are required to intuit the material simple natures. The distinction between these two faculty configurations (intellect alone; intellect aided by the imagination) is what ultimately grounds the thesis that there is no necessary conjunction between the intellectual and material simple natures. In general, there is no necessary conjunction between any two simple natures (or classes of simple nature) if, and only if, I can distinctly conceive (intuit) both simple natures (or classes of simple nature) when I judge them to be separate from each other.

In both Meditations VI and Principles I. 60, Descartes infers the real distinction between mind and body from the fact that the ideas of mind and body can be clearly and distinctly perceived entirely on their own, independently both of one another as well as the idea of any other thing. Thus, in Meditations VI, Descartes famously concludes his argument for mind-body dualism as follows: 'Hence the fact that I can clearly and distinctly understand one thing apart from another is enough to make me certain that the two things are distinct... I have a clear and distinct idea of myself, insofar as I am simply a thinking thing; and on the other hand I have a clear and distinct idea of body, insofar as it is simply an extended, non-thinking thing. And accordingly it is certain that I am really distinct from my body, and can exist without it' (AT 7:78; CSM 2:54). And in Principles I. 60, Descartes argues similarly: 'From the mere fact that each of us understands himself to be a thinking thing and is capable, in thought, of excluding from himself every other substance, whether thinking or extended, 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 8A:29; CSM 1:213).

The similarities in Rules, Meditations, and Principles are manifest. In all three, Descartes infers the real distinction between mind and body from the fact that he can clearly and distinctly perceive or understand each entirely on its own. Nevertheless, Descartes's dualism in Rules is not quite identical to the dualism he defends in Meditations VI and Principles I. 60. Descartes's dualism in Rules is not articulated via a metaphysics of substance, attribute, and mode, whereas his dualism in *Meditations* VI and *Principles* I. 60 is. Descartes does not apply the category of substance to vis cognocscens, but describes it rather as a power or a force, which has diverse modes of activity, depending on whether and how it interacts with other parts of the body. The precise ontological sense of vis remains undetermined in Rules. In fact, there are two ontologically significant concepts Descartes does not employ in his description of vis cognoscens in Rule 12: substance and soul. Why? In Rule 6, Descartes emphasizes that the method 'instructs us that all things can be arranged serially into various groups, not insofar as they can be referred to some ontological genus (such as the categories into which philosophers divide things), but insofar as some things can be known on the basis of others' (AT 10:381; CSM 1:21). Here, Descartes explicitly rejects Aristotle's categories—among which the most important is undoubtedly the category of substance—as relevant to the type of serial epistemic order he prescribes in Rules. The 'isolated natures of things' (AT 10:381; CSM 1:21), as defined by some combination of Aristotelian categories, are explicitly rejected in favor of knowledge based on the combination of simple natures, which are not Aristotelian ontological categories (see also Marion 1996: 102-3). In Rules, Descartes regarded the category of substance as an impediment to his

methodological project. In other words, the category of substance needed to be *rejected*, not *reconstructed*. This placed serious constraints on his ability to express, in an ontologically robust vocabulary, his mind-body dualism in *Rules*.

Nevertheless, one should not make too much of the fact that Descartes refers to vis cognoscens as a 'force' in Rules, but refers to mind as a 'substance' in Meditations VI and Principles I. 60. In the case of mind, Descartes did not regard the difference between 'force' and 'substance' as radical. In a letter to More (February 5, 1649), Descartes writes, 'no incorporeal substances are in any strict sense extended. I conceive them as sorts of powers or forces [virtutes aut vires quasdam], which although they can act upon extended things, are not themselves extended' (AT 5:270; CSMK 3:361).

The reasons why Descartes did not apply the concept of soul to vis cognoscens in Rules are related, but different, since they depend on considerations about form. Vis cognoscens is not the form of the body, at least not in any recognizably Aristotelian sense: vis cognsoscens is not responsible for any of the body's physiological functions. Descartes passingly asserts that the mind 'informs' the body in Rule 12 (AT 10:411; CSM 1:40), but he does not further determine what 'informs' means there. In his later texts, such as Principles IV. 89 (AT 8A:315; CSM 1:279), he means that the soul is not confined to one part of the body, but that, despite its seat in the pineal gland, it is located everywhere in the body via the nerves, which connect the pineal gland to the body as a whole. He certainly seems to have had a similar conception in Rule 12. If so, 'informs' in Rule 12 does not mean what it would have meant to an Aristotelian. For most Aristotelians (including Aquinas, Suárez, and the Conimbricenses), the soul and the body are 'partial' or 'incomplete substances' that need one another (as form needs matter and vice versa) in order to compose a 'complete' substance (see Aquinas 1945: I, q. 75, art. 2, 685; Suárez 1861: vol. 25, disp. 25, sec. 1.6, 499 [translated in Suárez 2000]: 20; Conimbricenses [1598] 1604 [1598]: lib. 2, cap. 1, q. 6, art. 2, 75-76). The body needs the soul for all of its vital functions, and the soul needs the body in order to exercise its own powers (including, crucially, intellection, since intellection requires a phantasm in the imagination, and phantasms are material) (see Aquinas 1945: I, q. 84, art. 7., 808-10; Conimbricenses [1598] 1604: lib. 3, cap. 5, q. 2, art. 1, 423-24. Even in the case of Suárez, for whom phantasms do not causally interact with the intellect, the soul still requires phantasms to serve as a 'model' or 'exemplar' by which to produce, via its own spiritual power, intelligible species in the passive intellect. See South 2012: 133). The soul is not a complete substance, but rather a part of a substance, namely, the form of a substance whose matter is the body (see, e.g., Aquinas 1945: I, q. 75-76, 682-719; Suárez 1856: vol. 3, lib. 1.1, 467-71; Suárez 1861: vol. 25, disp. 25, sec. 1.6, 499 [translated in Suárez 2000: 20]; Conimbricenses [1598] 1604: lib. 2, cap. 1, q. 6, art. 2, 100-3. All of these texts draw on Aristotle's De Anima II.1 412a20 in Aristotle 1984: 656. See also Des Chene 2000). The soul and the body together compose one substance, not two. The substance they compose is the 'human being' (see Aquinas 1945: I, q. 75, art. 4, 687-89; Suárez 1861: vol. 25, disp. 25, sec. 1.6, 499 [translated in Suárez 2000: 20]; Conimbricenses [1598] 1604: lib. 2, cap. 1, q. 6, art. 2, 76). Vis cognoscens does not fit snugly into either slot of the form/matter distinction.

Thus, it does not seem to me that Descartes was an Aristotelian about the mind's informing the body in Rule 12 (pace Hoffman 1986: 351; a similar criticism of Hoffman can be found in Rozemond 1998: 139-72, esp. 152).

Descartes's vis cognoscens satisfies no definition of the 'soul' Descartes would have been familiar with at the time. Indeed, even had Descartes decided to describe vis cognoscens as a substance in Rules, he would have had some difficulty describing it as a soul, since, as we have seen, on scholastic conceptions of the soul, souls are not substances, but partial or incomplete substances (the form of the form-matter composite substance). Conversely, even had Descartes decided to describe vis cognoscens as a soul, he would have had some difficulty describing it as a substance, for the same reasons. To link vis cognoscens, the concept of soul, and the category of substance to one another, Descartes would need to reconstruct metaphysics from the ground up, and he had not yet done so in Rules. His project in Rules was principally methodological, not metaphysical. In Rules, the soul is replaced by a vis whose properties Descartes happily, if somewhat briefly, enumerates, but whose ontological sense he does not fully clarify. Thus, if we adhere to the letter of Rules and do not read it in light of Descartes's later texts, we see that Descartes had definitively broken with Aristotelian theories of soul and body on a number of fundamental points, but that he had not yet found a way to express clearly his own position conceptually.

3. Dualism in Rules_{CM}

As mentioned above in section 1, in Rule 12_{CM} Descartes does not describe viscognoscens as a 'purely spiritual' force 'distinct from the whole body'. Rather, he writes: 'The force by which we know things should be conceived as something in us no less distinct from the phantasy than is the eye, or the hand' ('Concipiendum est vim illam, per quam res nos cognoscimus esse aliquid in nobis a phantasia non minus distinctam quam sit oculus, vel manus') (CM fol. 16v). Here, Descartes describes vis cognoscens as distinct from the phantasy, but not from the body as a whole. This leaves open the possibility that vis cognoscens could be a part of the body; the phrase 'no less distinct from the phantasy than is the eye, or the hand' leaves open the possibility that vis cognoscens is distinct from the phantasy as one body part is distinct from another. Without the expressions 'purely spiritual' and 'distinct from the whole body', there is no obvious reason to read the distinction between vis cognoscens and the phantasy in a dualist sense in this passage. Nor, however, is there is there any special reason to read the distinction between vis cognoscens and the phantasy in a materialist sense. Vis cognoscens can be distinct from the phantasy in one of two ways: either because it is part of the body, or because it is not. To be sure, Descartes does not endorse the latter possibility. But he does leave it open. He also does not endorse the former possibility.

We must therefore look elsewhere in order to determine which of these two possibilities is the most plausible. In the same paragraph in Rule 12_{CM} , Descartes writes (as he does in Rule 12AT), 'the cognitive force is sometimes active, sometimes passive; sometimes resembling the seal, sometimes the wax. But this should be understood merely as an analogy, for nothing quite like this force is to

be found in corporeal things' (CM fol. 16v; see AT 10:415–16; CSM 1:42). Descartes does not explicitly affirm the 'pure spirituality' of *vis cognoscens* here, but it seems clear that a force that cannot be found in corporeal things, and whose mode of action and passion cannot be literally analogized to any corporeal process, is incorporeal. Indeed, as I argue above (section 2), in this passage Descartes is effectively claiming that *vis cognoscens* is neither caused by nor inheres in any corporeal entity. In other words, *vis cognoscens* enjoys per se existence. In fact, every other relevant feature of the passage in Rule 12_{AT} can also be found in Rule 12_{CM}:

It is one single force [unicamque esse], whether it receives figures from the common sense at the same time as does the phantasy, or applies itself to those which are preserved in the memory, or forms new ones which so preoccupy it that it is often in no position to receive ideas from the common sense at the same time, or to transmit them to the power responsible for motion in accordance with a purely corporeal mode of operation. In all these functions the cognitive force [vis cognoscens] is sometimes passive, sometimes active [interdum patitur, interdum agit]; sometimes resembling the seal, sometimes the wax. But this should be understood merely as an analogy, for nothing quite like this force is to be found in corporeal things [neque enim corporeis aliquid omnino huic simile invenitur]. It is one and the same force [una et eadem est vis], when applying itself along with imagination to the common sense, it is said to see, touch, etc.; when applying itself to the imagination alone, insofar as the latter is invested with various figures, it is said to remember; when applying itself to the imagination in order to form new figures, it is said to imagine or conceive; and lastly, when it acts on its own, it is said to understand [intelligere]. How understanding comes about I shall explain at greater length in another place. According to its different functions [functiones], then, the same force is called either pure intellect, or imagination, or memory, or sense-perception. (CM fol. 16v; see AT 10:415-16; CSM 1:42-43)

This is the only passage in $Rules_{\rm CM}$ that is relevant to Descartes's dualism. In both $Rules_{\rm AT}$ and $Rules_{\rm CM}$, Descartes enumerates four properties of vis cognoscens, each of which distinguishes it from body: (1) its simplicity or indivisibility; (2) its ability to be both active and passive; (3) its per se existence; and (4) its independence, qua 'pure intellect', from all other cognitive (corporeal) functions. Thus, it seems that Descartes did indeed embrace mind-body dualism in $Rules_{\rm CM}$. Nevertheless, a major difference remains: Rule 12 $_{\rm CM}$ contains no theory of simple natures, and so no theory of conjunction. Indeed, Descartes's solution to the problem of the limits of knowledge, while clearly stated in Rules $8_{\rm CM}$ and $12_{\rm CM}$, comes to an abrupt halt immediately after he defines ingenium in Rule $12_{\rm CM}$. The distinction between the intellectual and material simple natures is the foundation of Descartes's dualism in $Rules_{\rm AT}$. Descartes's dualism in Rule $12_{\rm CM}$ rests on no such foundation. Without

the theory of simple natures and the theory of conjunction, many of the parallels between Rules and Descartes's dualism in Meditations VI and Principles I. 60 are lost. The absence of the theory of simple natures and the theory of conjunction in $Rules_{\rm CM}$ makes it much more difficult to see what kind of distinction between mind and body Descartes had in mind there. Since the theory of simple natures and the theory of conjunction are absent in $Rules_{\rm CM}$, these theories cannot play a role in accounts of Descartes's dualism in $Rules_{\rm CM}$.

Is it, then, appropriate to claim that Descartes's description of vis cognoscens in Rule 12_{CM} constitutes an endorsement of mind-body dualism? Yes. Despite the fact that Descartes does not describe vis cognoscens as a 'purely spiritual' force 'distinct from the whole body' in Rule12_{CM}, the remainder of his description of vis cognoscens in Rule 12_{CM} is identical with the parallel description of vis cognoscens in Rule 12AT (analyzed above in section 2). Descartes's description of vis cognoscens in Rule 12_{CM} suffices to demonstrate that Descartes embraced mind-body dualism in Rules_{CM} but had not yet found a way to articulate it more clearly via the theory of simple natures and the theory of conjunction. Thus, Descartes's dualism, while certainly less developed in Rules_{CM}, is nevertheless asserted. The discovery of Rules_{CM} does not testify to the existence of a Descartes before dualism, but rather to Descartes's earliest known dualism, before even the theory of simple natures, let alone Descartes's metaphysics of substance, attribute, and mode. When Descartes writes in Rule 12_{CM}, 'the force by which we know things should be conceived as something in us no less distinct from the phantasy than is the eye, or the hand', he means to assert that the intellect is distinct from the only corporeal faculty with which it would have been reasonable to associate the operations of the intellect in early seventeenth-century Aristotelianism: the phantasy or imagination.

The only remaining question, then, is what factors in Rules_{CM} led Descartes to endorse mind-body dualism there. Prior to Rules_{CM}, Descartes was firmly committed to the thesis that the imagination must aid the intellect even when the latter understands non-corporeal or spiritual things. Indeed, Descartes did not clearly distinguish between the imagination and the intellect prior to $Rules_{CM}$. As Baillet notes in his description of the contents of Studium bonae mentis (c. 1619-1623), 'He [Descartes] seemed to doubt that memory was distinguished from understanding and imagination' (Descartes 2013: 134; my translation). If memory cannot be distinguished from the intellect or the imagination, then it is not clear that the imagination and the intellect can be distinguished from one another. Vincent Carraud and Gilles Olivio rightly note that in Studium bonae mentis 'Descartes was not...able to distinguish the understanding from the imagination (Descartes 2013: 150n45; my translation). Similarly, Descartes anchors the intellect in the imagination in Olympian Matters (c. 1619–1620), where he writes, 'Just as the imagination employs figures in order to conceive of bodies, so, in order to frame ideas of spiritual things, the intellect makes use of certain bodies which are perceived through the senses, such as wind and light' (AT 10:217; CSM 1:4.) Elsewhere in the same notebook, he writes, 'Man has knowledge of natural things only through their resemblance to the things which come under the senses' (AT 10:218-19; CSM 1:5). Thus, the broadly Aristotelian thesis that the intellect cannot understand anything without a phantasm in the imagination is a thesis Descartes remained committed to in the early 1620s (see Sepper 1996; 2016). The very idea that the intellect can act (that is, understand) on its own, without a phantasm in the imagination, was deemed impossible in early seventeenth-century Aristotelianism, and was ruled out by Aristotle in De Anima III, 429a1. 'It is impossible', Aquinas would later argue, 'for our intellect to understand anything actually, except by turning to the phantasms' located in the imagination (Aquinas 1945: I, q. 84, art. 7., 808). For Aquinas (and many other scholastics), the intellect is an incorporeal part of the soul, but it cannot understand incorporeal objects on its own without a phantasm because 'the proper object of the human intellect, which is united to a body, is the quiddity or nature existing in corporeal matter' (Aquinas 1945: I, q. 84, art. 7., 808). A quiddity or nature exists only in matter and 'cannot be apart from corporeal matter'. This is why the proper act of the intellect—understanding—requires a phantasm: 'For the intellect to understand actually its proper object, it must of necessity turn to the phantasms in order to perceive the universal nature existing in the individual' (Aquinas 1945: I, q. 84, art. 7., 808). The intellect cannot understand any substance—material or immaterial without turning to phantasms. Regarding knowledge of immaterial things, Aquinas writes, 'in Aristotle's opinion, which experience corroborates, our intellect in its present state of life has a natural relation to the natures of material things; and therefore it can understand only by turning to the phantasms, as we have said above. Thus it clearly appears that immaterial substances, which do not fall under sense and imagination, cannot be known by us first and essentially, according to the mode of knowledge of which we have experience' (Aquinas 1945: I, q. 88, art. 1, 844). These are clearly not the conditions in which the intellect operates in Rules. In both Rules_{AT} and Rules_{CM}, cognition is not a process whereby intelligible species are abstracted from material things via the intermediary of phantasms in the imagination, but rather a process that consists in the transmission of figure from one part of the body to another. Understanding has no need for phantasms; the elimination of intelligible species means that phantasms have no function to perform as material carriers of such species. Instead, motions in the brain cause ideas in vis cognoscens. Descartes's elimination of Aristotelian species in Rules explains why he was no longer beholden to the thesis that the intellect understands nothing without a phantasm or, equivalently, without the imagination.

The autonomy of the intellect, explicitly asserted for the first time in Descartes's career in Rule 12_{CM}, therefore constituted a radical discovery: the intellect did not need to be separated from the body in order to act wholly on its own; it could and, indeed, *should* understand incorporeal things without the help of the imagination even in this life. The prospect of understanding incorporeal objects incorporeally, without phantasms in the imagination, was universally recognized by seventeenth-century Aristotelians as an incomparably superior but terrestrially impossible mode of cognizing incorporeal things, available to human beings only after the separation of the soul and the body by God after death. Descartes discovered that there is no need to wait for the afterlife or to reserve such acts for God and the angels. Suitably trained by the method, human intellects can understand incorporeal things without the imagination *binc et nunc*.

This is precisely what Descartes would later assert far more forcefully in *Rules*_{AT}, when he finally returned to complete his solution to the problem of the limits of knowledge. As shown above, Descartes left this problem unsolved in Rule 12_{CM}, which ends with his definition of ingenium, and moves immediately into the mathematical illustration of the method in Rules 13-16_{CM}, where the manuscript ends. After *Rules*_{CM}, Descartes describes the problem of the limits of knowledge as the 'first problem of all that should be examined by means of the Rules described above' (AT 10:398; CSM 1:31) in RulesAT. He could no longer avoid offering a fully general theory of 'the actual things it is possible to know'—that is, a theory of simple natures. The only simple natures Descartes actually discusses in Rules_{CM}—the material simple natures, discussed in Rule 14_{CM}—must be intuited with the help of the imagination, and they are used only in mathematics and natural philosophy. The problem of the limits of knowledge, however, is the most general problem Descartes addresses in Rules, and its generality is such that it requires an enumeration of all possible objects of intuition. Reflection on the operations of the intellect yielded the intellectual simple natures, each of which denominates an act of the pure intellect and the will. Consequently, the distinction between the intellectual and material simple natures was officially baptized in Rule 12AT. The faculty configurations required for intuiting each class (intellect; intellect aided by the imagination) also became clear. Finally, now that the theory of simple natures was on the table as an explicit area of investigation, Descartes explored the connections between the simple natures and articulated the connections they can have via a theory of conjunction. This enabled him to introduce the proposition 'I understand, therefore I have a mind distinct from body' as an example of a necessary conjunction. All of these developments show up in Rules_{AT}. Descartes considered his task complete: he had enumerated all of the objects of knowledge (as he had not in Rules_{CM}) and the problem of the limits of knowledge was solved in a way that was consistent with the rest of the treatise. He modified his comparatively weaker assertion of dualism in Rule 12_{CM} by including the expressions 'purely spiritual' and 'distinct from the whole body' in his description of Rule 12AT, for in the interim he had enumerated the intellectual simple natures and laid out a theory of conjunction in which the mutual exclusion of the intellectual and material simple natures could be fully expressed.

When it comes to Descartes's mind-body dualism, the Cambridge manuscript reveals not a Descartes before dualism, but rather the origins of Cartesian dualism in its barest form, before even the theory of simple natures, let alone Descartes's metaphysics of substance, attribute, and mode. The development of *Rules* between *Rules*_{CM} and *Rules*_{AT} also reveals that the conquest of the theory of simple natures (and the theory of conjunction) in Rule 12 constituted an essential step toward a more robust, but still very early, conceptual expression of Cartesian dualism. For Descartes's dualism to achieve its canonical form, Descartes would still have to (1) redefine the category of substance, not as a form/matter composite, but rather as the subject of a rationally distinct, clearly and distinctly perceivable principal attribute; and (2) define the mind or soul as such a substance. This may have occurred as early as late 1629, in the 'little treatise of Metaphysics', which Descartes began while in Friesland, and in which he 'set out principally to prove

the existence of God and of our souls when they are separate from the body, from which their immortality follows' (letter to Mersenne, November 25, 1630 [AT 1:182; CSMK 3:29]; see also letter to Gibieuf, July 18, 1629 [AT 1:17; CSMK 3:5]). The first public exposure of Descartes's mind-body dualism would have to wait until Discourse on the Method (1637)—and even then, Descartes's mind-body dualism would still require a more detailed exposition in Meditations on First Philosophy (1641) and Principles of Philosophy (1644). While the term vis does not completely disappear from Descartes's metaphysical lexicon after Rules, it is largely replaced by the term substantia, which more clearly expresses its per se existence (and, therefore, its immortality). Descartes's decision to include the intellectual simple natures in Rules AT indicates that he had begun crossing over into metaphysics for the first time in his career in Rules. But it was only a beginning. Even after they make their appearance in Rules_{AT}, the intellectual simple natures remain a domain of objects that, while enumerated, are not systematically explored—not in Rules, at any rate. Where they would fit into Descartes's system remained an open question.

TAREK R. DIKA
UNIVERSITY OF NOTRE DAME

tdika@nd.edu

References

Alquié, Ferdinand. (1950) La découverte métaphysique de l'homme chez Descartes. Paris: Presses Universitaires de France.

Aquinas, Thomas. (1945) Basic Writings of Saint Thomas Aquinas, vol. 1. Translated and edited by Anton C. Pegis. Indianapolis: Hackett.

Aquinas, Thomas. (2002) *The Treatise on Human Nature: Summa Theologiae 1a 75–89*. Translated and edited by Robert Pasnau. Indianapolis: Hackett.

Aristotle. (1984) The Complete Works of Aristotle. Edited by Jonathan Barnes, vol. 1. Princeton, NJ: Princeton University Press.

Baker, Gordon, and Morris, Katherine J. (1996). Descartes' Dualism. London: Routledge.

Beck, L. J. (1952) The Method of Descartes. Oxford: Clarendon Press.

Clarke, Desmond M. (2003) Descartes's Theory of Mind. Oxford: Clarendon Press.

Conimbricenses. [1598] (1604) Commentarii Collegii Conimbricensis Societatis Iesu in tres libros de anima Aristotelis Stagiritae. Coimbra: Collegii Conimbricensis Societatis Jesu.

Cottingham, John. (2017) 'Context, History, and Interpretation: The Religious Dimension in Descartes' Metaphysics'. In Stephen Gaukroger and Catherine Wilson (eds.), *Descartes and Cartesianism: Essays in Honour of Desmond Clarke* (Oxford: Oxford University Press), 42–56.

Descartes, René. (c. 1626/27?) MS Dd. 14.26.6. Cambridge University Library.

Descartes, René. (1985–1991) *The Philosophical Writings of Descartes*. Translated and edited by John Cottingham, Robert Stoothoff, Dugald Murdoch, and Anthony Kenny. 3 vols. Cambridge: Cambridge University Press.

Descartes, René. (1996) Oeuvres de Descartes. Edited by Charles Adam and Paul Tannery. 11 vols. Paris: Vrin.

Descartes, René. (2013) Étude du bons sens, La recherché de la vérité, et autres écrits de jeunesse (1616-1631). Translated and edited by Vincent Carraud and Gilles Olivio. Paris: Presses Universitaires de France.

Des Chene, Dennis. (2000) Life's Form: Late Aristotelian Conceptions of the Soul. Ithaca, NY: Cornell University Press.

Des Chene, Dennis. (2006) 'Review Essay: Descartes's Theory of Mind, by Desmond M. Clarke'. In Daniel Garber and Steven Nadler (eds.), Oxford Studies in Early Modern Philosophy, vol. 3 (Oxford: Clarendon Press), 315-41.

Eustachius of St. Paul. (1609) Summa philosophica quadripartite [...]. Paris: Carolus Chastellain. Garber, Daniel. (2015) Discussion paper on the work of Frédéric De Buzon and John Schuster presented at the sixth annual Séminaire Descartes, Paris, May 23, 2015. https://mathesis. hypotheses.org/files/2015/08/SDGarber_DebuzonSchuster-.pdf.

Gilson, Étienne. (1979) Index scolastico-cartésien. Paris: Vrin.

Hamelin, Octavio. (1921) Le Système de Descartes. Paris: Félix Alcan.

Hoffman, Paul. (1986) 'The Unity of Descartes's Man'. Philosophical Review, 95, 339-70.

Marion, Jean-Luc. (1975) L'ontologie grise de Descartes: Science carte sienne et savoir aristotélicien dans la Regulae. Paris: Vrin.

Marion, Jean-Luc. (1996) Questions cartésiennes, vol. 2. Sur l'ego et sur Dieu. Paris: Presses Universitaires de France.

Pasnau, Robert. (2011) Metaphysical Themes: 1274-1671. Oxford: Oxford University Press.

Rozemond, Marleen. (1998) Descartes's Dualism. Cambridge, MA: Harvard University Press.

Rozemond, Marleen. (2014) 'The Faces of Simplicity in Descartes's Soul'. In Klaus Corcilius and Dominik Perler (eds.), Partitioning the Soul: Debates from Plato to Leibniz (Berlin: De Gruyter), 219-43.

Schuster, John. (2013) *Descartes-Agonistes: Physico-mathematics*, and Corpuscular-Mechanism, 1618–1633. Dordrecht: Springer.

Sepper, Dennis L. (1996) Descartes's Imagination: Proportion, Images, and the Activity of Thinking. Berkeley: University of California Press.

Sepper, Dennis L. (2016) 'Descartes'. In Amy Kind (ed.), The Routledge Handbook of Philosophy of Imagination (New York: Routledge), 27-40.

Serjeanston, Richard. (2013) 'Descartes before Dualism: New Evidence'. Paper presented at the Centre for Research in the Arts, Social Sciences, and Humanities, Cambridge University, January 21, 2013.

Suárez, Francisco. (1856–1878) Opera omnia. Edited by M. André and C. Berton. 28 vols. Paris: Ludovicus Vivés.

Suárez, Francisco. (2000) On the Formal Cause of Substance: Metaphysical Disputation XV. Translated by John Kronen and Jeremiah Reedy. Milwaukee: Marquette University Press.

South, James B. (2012) 'Suárez, Immortality, and the Soul's Dependence on the Body'. In Benjamin Hill and Henrik Lagerlund (eds.), The Philosophy of Francisco Suárez (Oxford: Oxford University Press), 121–37.