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Cartesian Dualism

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In this short paper, I shall examine some key structural features of Descartes's metaphysics, as it relates to mind–body dualism. The style of presentation will partly be one of rational reconstruction, designed to present the Cartesian system in a way that will be of maximal interest to contemporary metaphysicians. Section 1 focuses on five key Cartesian theses about principal attributes. Sections 2 and 3 examine how those theses play themselves out in Descartes's discussion of mind–body dualism.

1. FIVE AXIOMS CONCERNING PRINCIPAL ATTRIBUTES

Let me begin by presenting five axioms concerning principal attributes that, as we shall see, play a key role in Descartes's thinking about the relation of mind to body.

A Cartesian principal attribute is a kind of property to which the following five distinctive principles apply:

- Axiom 1. **COMPLETENESS:** Principal attributes are complete.
- Axiom 2. **ESSENTIALITY:** If a substance has properties belonging to some principal attribute, then it is essential to that substance that it has properties belonging to that attribute.
- Axiom 3. **UNIQUENESS:** If a thing x has properties belonging to a principal attribute, then it has a part y which has that principal attribute as its only principal attribute.
- Axiom 4. **COMPREHENSIVENESS:** For each fundamental property of a thing, there is some principal attribute of the thing that it belongs to.
- Axiom 5. **EXCLUSIVITY:** No fundamental property belongs to more than one principal attribute.

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In the remainder of this section, I will say more about what these axioms amount to.

Axiom 1. COMPLETENESS

A kind of property is *complete* iff it is possible that there be a thing whose fundamental intrinsic properties all belong to that kind. We can see Completeness at work in Descartes's replies to the first set of objections to the *Meditations*, where Descartes rejects motion as a candidate principal attribute:

I can very well understand the motion apart from the shape, and vice versa . . . But I cannot have a complete understanding of the motion apart from the thing in which motion occurs . . . and I cannot imagine there to be motion in something which is incapable of possessing shape.¹

[FN:1]

The reason motion could not be a principal attribute is that it is not complete: there could not be an object whose only fundamental intrinsic properties were motion properties.

It is important to note that the completeness constraint applies only to *fundamental* intrinsic properties. Consider the kind *thinking*. It is clearly not possible that there be a being all of whose intrinsic properties belong to that kind: after all, a purely ratiocinative substance would also have the intrinsic property of not being a banana. Does that mean that thinking could not be a principal attribute, since a thinking thing would also be a non-banana thing? The natural response here is to appeal to a distinction between fundamental and derivate intrinsic properties—akin to David Lewis's distinction between perfectly natural and (more or less) gerrymandered intrinsic properties²—and to restrict completeness accordingly. This makes it possible to attach good sense to the idea that the profile of some substance might be exhausted by its mental life, so that 'whatever we find in mind is simply one of the various modes of thinking'.³

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[FN:3]

That said, it is worth remarking that in Descartes's hands the notion of a fundamental property is given a particular spin. Descartes distinguishes those properties that exist in things from those properties that exist merely as 'modes of thinking'. This means, roughly, that there are predicates which express concepts but for which there are no corresponding properties in things. For example, he treats existence and duration as properties that exist only as modes of thinking and thus does not reckon existence a challenge to the completeness of mentality,

¹ The Philosophical Writings of Descartes, vol. ii, ed. John Cottingham, Robert Stoothoff, and Dugald Murdoch (hereafter CSM) (Cambridge: Cambridge University Press, 1984), 86. (vol. i is 1985, vol. iii 1991.)

² See e.g. his 'New Work for a Theory of Universals', *Australasian Journal of Philosophy*, 61 (1983), 343–77.

³ CSM, i. 210.

FN4 even though existence and duration are not intuitively mental.⁴ For Descartes, then, the properties relevant to completeness are those that exist in the object. (Obviously, someone might accept something like the principle outlined above without endorsing the Cartesian conception of the fundamental properties of an object.)⁵

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Axioms 2 and 3. ESSENTIALITY, UNIQUENESS

Regarding 2. Principal attributes constitute the nature of a substance; they could not do this unless essentiality held.

Regarding 3. Descartes distinguishes simple from composite substances. A composite substance may have more than one principal attribute, but a simple substance exemplifies only one principal attribute. And wherever there is a composite substance with some principal attribute, it has as a component some non-composite substance with that principal attribute. (Note that our concern here is with ‘parts’ not ‘proper parts’: if y is non-composite, then the part of y relevant to the principle may be y itself.)

Axioms 4 and 5. COMPREHENSIVENESS and EXCLUSIVITY

Regarding 4. All the fundamental properties of a substance are modes of a principal attribute: if a substance s exemplifies a fundamental property p , then p exemplifies a principal attribute associated with s .

Regarding 4 and 5. Related challenges to Comprehensiveness and/or Exclusivity can be handled with the strategies introduced in the discussion of Completeness. So, for example, existence can’t be treated as fundamental, since either one will have to deny that it belongs to the principal attributes—violating Comprehensiveness—or else treat it as belonging to all of them—violating Exclusivity.

General Remarks

Quite obviously, the axioms are interconnected. For example, and notably, the thesis that it is possible that something have some principal attribute A , together with Uniqueness and Comprehensiveness, entail that A is Complete.

⁴ See Principle LVII of *Principles of Philosophy*, CSM, i. p. 212.

⁵ Philosophers fond of the Cartesian system who are unhappy with Descartes’s conceptualist/anti-realist treatment of a large class of properties will have to look for a different fix for the case of existence and persistence: either claim that existing and persisting are not fundamental in the relevant sense, or else formulate these axioms in a way that sets to one side certain very general properties.

I have spoken of principal attributes as kinds of properties and particular fundamental properties as belonging to kinds. It would hardly be true to the Cartesian vision to think of principal attributes as properties of properties and construe ‘belonging to’ as ‘instantiation’. Far better to think of principal attributes and their modes on the familiar model of determinables and determinates. Principal attributes are determinables for which the above five axioms hold. Modes are determinates of those determinables.⁶ Predicates which express neither those determinables nor their modes do not express any fundamental property at all—which, on a Cartesian spin, means that these predicates express modes of thinking about a thing that can be true of the thing despite the fact that they do not correspond to any real property in the thing.

2. THE FIVE AXIOMS AND MIND–BODY DUALISM

According to Descartes, thinking and extension are the only two principal attributes exemplified by God’s creatures. If we assume that this is true and that the above five axioms govern principal attributes, many of the familiar features of Cartesian dualism follow as a result. Given Completeness, and the fact that thinking and extension are principal attributes, it follows both that it is possible that there be things that are purely thinking (i.e. whose fundamental intrinsic profile is entirely mental) and there be things that are purely geometrical (i.e. whose fundamental intrinsic profile is entirely geometrical). Given Uniqueness, it follows, moreover, that any possible thinking thing has a part that has thinking as its only principal attribute and that any possible extended thing has a part that has extension as its only principal attribute. Given Comprehensiveness, it follows moreover that any possible thinking thing has a part that is purely thinking (i.e. whose fundamental properties all belong to the attribute thinking) and any possible extended being has a part that is purely geometrical (i.e. whose fundamental properties all belong to the attribute extension). Given Exclusivity, it follows that any possible thinking thing has a part that is thinking and not extended and any possible extended thing has a part that is extended and does not think.

Let us see some of these themes at work in the Cartesian texts. I shall begin with Completeness, which Descartes famously deploys in his replies to the fourth set of objections of the *Meditations* (by Antoine Arnauld). Arnauld complains that nothing interesting follows from the fact that we can be certain of our thinking even while imagining that there are no bodies, urging that this is perfectly consistent with the hypothesis that being embodied is essential to us. He points out that our facility with the relevant imaginative exercise may simply

⁶ Or, on some of Descartes’s uses, trope-like instances of determinates.

be due to the fact that we fail to notice that embodiment is essential to us. He draws an analogy, suggesting that someone might know

for certain that the angle in a semi-circle is a right angle . . . In spite of this, he may doubt, or not yet have grasped for certain, that the square on the hypotenuse is equal to the squares on the other two sides; indeed he may even deny this if he is misled by some fallacy.⁷

FN:7

Descartes replies by distinguishing between adequate and complete understanding. For understanding to be adequate, one has to appreciate all the properties of a thing. But for an understanding of a thing to be complete one has merely to understand it to be ‘a complete thing’. He goes on:

the mind can be perceived distinctly and completely (that is, sufficiently for it to be considered as a complete thing) without any of the forms or attributes by which we recognize that body is a substance, as I think I showed quite adequately in the Second Meditation. And similarly a body can be understood distinctly and as a complete thing, without any of the attributes which belong to the mind.⁸

FN:8

The key thought is that while the relevant understanding is not adequate, it is complete; and this is enough to underwrite a real distinction between mind and body. He makes some similar remarks in correspondence with Gibieuf:

[T]he idea of a substance with extension and shape is a complete idea, because I can conceive it entirely on its own, and deny of it everything else of which I have an idea. Now it seems to me that the idea which I have of a thinking substance is complete in this sense.⁹

FN:9

I do not on that account deny that there can be in the soul or the body many properties of which I have no ideas; I deny only that there are any which are inconsistent with the ideas of them I do have, including the idea that I have of their distinctness.¹⁰

FN:10

It is fairly clear what is going on here. Descartes is claiming, *inter alia*, to be able to see that the kind *thinking* satisfies the criterion of completeness. He does not pretend to have an adequate conception of his own mind: there may be mental properties of his that he is unaware of (just as there are geometrical properties of a right-angled triangle that he is unaware of). But he claims to be able to see that a thing could exist ‘entirely on its own’ with nothing but mental properties in its fundamental intrinsic make-up. He presumes, moreover, that he can see that mental properties do not suffice for bodily properties—after all, it seems clear that a mentalistic groundfloor could not suffice for extension. And thus Descartes may claim to have successfully conceived of a substance that has mentality but no corporeality, even as he admits that he does not have an ‘adequate’ understanding of such a thing (similarly, *mutatis mutandis*, for corporeal substance.) The relevant exercise of thinking of a mental substance

⁷ CSM, ii. 141–2.

⁸ CSM, ii. 157.

⁹ CSM, iii. 202.

¹⁰ CSM, iii. 203.

without thinking of it as corporeal substance is not a mere abstraction: it involves a positive modal insight that there be a thing whose entire intrinsic life is mental.¹¹

[FN:11]

No wonder Descartes is unmoved by Arnauld. Given that he takes himself to have successfully conceived of a substance whose fundamental intrinsic character is mental, the only residual concern is that extension might arise as an unnoticed but inevitable epiphenomenon of certain mental properties in a way that certain geometrical properties attach unavoidably to certain types of geometrical configurations. But one can consistently and reasonably claim to know that this couldn't happen. One doesn't need to have a comprehensive understanding of an individual's profile (where a profile is the complete set of its intrinsic properties) in order to know that certain kinds of properties are not necessitated by it; knowing that all the fundamental members of the profile are of a certain type will be a sufficient basis for the relevant knowledge.

(Contemporary philosophers could certainly join Arnauld in complaining about Descartes's claim to have recognized completeness for the kind *thinking* (construed as mentality.) Such philosophers would probably concede the *prima facie* possibility of a thing whose basic intrinsic profile is entirely mental, but would question the trustworthiness of the relevant intuitions given what they take to be the best, all things considered, metaphysical perspective on the world. I do not wish to engage with those philosophers here.

Suppose that thinking is complete. That, by itself, leaves a number of issues untouched. First, it does not settle whether all, some, or no possible thinking things are *essentially* thinking things. Second, it does not settle whether *I* have as a part something that is thinking but not corporeal. Even granting the possibility of a thing whose entire fundamental profile is mental (a consequence of the completeness of mentality) and which lacks corporeality (a consequence of the fact that no mental profile is sufficient for corporeality), it hardly follows immediately that every possible thinking thing has a part that is incorporeal. Certain of Descartes's contemporaries suggested that thought and extension may be metaphysically independent, but compress in us:

since these attributes are not opposites but merely different, there is no reason why the mind should not be a sort of attribute co-existing with extension in the same subject, though the one attribute is not included in the concept of the other.¹²

[FN:12]

The axioms outlined above offer definitive answers to these further questions. Descartes articulates them most clearly in his *Principles of Philosophy*. In Principle LIII he endorses Uniqueness and Essentiality:

¹¹ To De Launay: 'When things are separated only by a mental abstraction, you cannot help noticing their conjunction and union when you consider them together. But in the case of body and soul, you cannot see any such connection. CSM, iii. 188.

¹² CSM, i. 294–5. The author is Regius, quoted by Descartes in *Comments on a Certain Broadsheet*.

each substance has one principal property which constitutes its nature and essence, and on which all the others are referred.¹³

He then gives voice to Comprehensiveness:

Everything else which can be attributed to body presupposes extension, and is merely a mode of an extended thing; and similarly, whatever we find in the mind is simply one of the various modes of thinking.¹⁴

A commitment to Exclusivity is then immediately apparent a few lines later in his injunction to ‘carefully separate all the attributes of thought from those of extension’.¹⁵

Given an unwavering commitment to these axioms, one would expect Descartes to have no patience whatsoever with the idea that thought and extension can combine in a substance, unless that thesis is one about composite substances.¹⁶ For given his commitments, there is no room for a simple substance that combines those attributes. And that is precisely the attitude we find. Thus in response to Regius, he says:

when the question concerns attributes which constitute the essence of some substances, there can be no greater opposition between them than the fact that they are different . . .

As for the attributes which constitute the natures of things, it cannot be said that those which are different, and such that the concept of the one is not contained in the concept of the other, are present together in one and the same subject; for that would be equivalent to saying that one and the same subject has two different natures—as a statement that implies a contradiction, at least when it is a question of a simple subject (as in the present case) rather than a composite one.¹⁷

3. THE JUSTIFICATION OF UNIQUENESS

There is nothing surprising about these remarks given Descartes’s background commitments—but they don’t take us far in understanding why those commitments are there in the first place. We have seen already that a mere commitment to Completeness will not yet support a commitment to the other theses. The

¹³ CSM, i. 210. Uniqueness follows from this in combination with the thesis that all entities are composed of substances.

¹⁴ CSM, i. 210.

¹⁵ He explains in LVI that he is using ‘mode’ as a name of attributes—the point of that use being to highlight the fact that attributes are modifications of substance.

¹⁶ Note that Descartes’s use of ‘composite’ is rather special. He tells us that ‘A composite entity is one which is found to have two or more attributes, each one of which can be distinctly understood apart from the other.’ CSM, i. 299. This means that having parts is not sufficient for being composite in Descartes’s sense: a purely extended thing has parts, but is not composite since it does not have diverse principal attributes. For Descartes, then, composite means having a composite nature/essence. Given Uniqueness, having parts is necessary but not sufficient for being composite.

¹⁷ CSM, i. 298.

status of Uniqueness is particularly pressing in this regard. Why is Descartes so convinced that things with a mixed nature are composed of things with a simple nature? It is to that question I now turn.

To begin, we should note that Uniqueness has a special appeal within a framework that reckons all the fundamental properties to be either mental or geometrical. Descartes thought the patterns of motion of extended substance provided a supervenience base for everything else in the corporeal world; the four-dimensional geometry of the spatio-temporal manifold fixes everything else. Properties such as mass, color, and so on are not fundamental: they reduce to geometrical facts about the manifold. Nor did Descartes believe in *occupants* of space: he identified matter with space itself. In essence the corporeal world is a world of moving regions of space.

Within such a framework, the hypothesis that at the most basic level there are things that are both extended and thinking is tantamount to the hypothesis that some regions of space think, are conscious, and so on. Should we be so scornful of Descartes's confidence that this was impossible? After all, most philosophers will find it obviously impossible that the number 3 thinks, or that a particular moment in time thinks. Such a commitment relies on our having some kind of modal insight as to what sorts of things can think; and there may be no better reason to think that a region of space could think than that a moment of time or a natural number could think. (Granted, Cartesian regions do not just sit there; they move like a fluid. But granting that static container space could not think, it is hard to see how the mere addition of movement will help much.) Assuming the background metaphysics of corporeal substance, the view that body and mind do not mix at the fundamental level is rather compelling.

Let me now elaborate on the justification Descartes actually gives for Uniqueness, articulated in the following famous passage from Meditation Six:

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, since they are capable of being separated, at least by God.¹⁸

FN:18

The same theme is frequently reiterated. For example:

the only criterion that we have enabling us to know that one substance differs from another is that we understand one apart from the other.¹⁹

FN:19

It is not immediately clear how these passages are supposed to engage an opponent who holds that he is a substance which both thinks and is extended and who denies that he has a merely thinking part. Talk of 'one thing' and 'another' seems already to presuppose there are two substances in view. If there is only one thing to begin with, then there is no *other* thing to be understood apart from it. Meanwhile, if Descartes means to apply the thesis not to things but to

¹⁸ CSM, ii. 54.

¹⁹ CSM, iii. 214. To Regius.

conceptions of things, the idea is altogether hopeless: for it ought to have been obvious to him that there can be two concepts ('modes of presentation') of the same thing that can with perfect coherence be thought of as applying to different things.

I think it is illuminating to set these passages alongside Descartes's attack on the coherence of extended atoms. Here are some representative passages:

[A]n indivisible thing cannot have any length or breadth or depth. If it had, we could divide it at least in our imagination, which would suffice to guarantee that it was not indivisible: for if we could divide it in imagination, an angel could divide it in reality.²⁰

I say that it involves a contradiction that there should be any atoms which are conceived as extended and at the same time indivisible. Though God might make them such that they could not be divided by any creature, we certainly cannot understand that he might deprive himself of the power of dividing them.²¹

Both cases (minds and atoms) rely on dividing things in imagination. In each case, a real distinction is then inferred. Excessive preoccupation with the status of that inference obscures a more basic question. What does it mean to 'divide something in imagination'? Certainly there are situations of ignorance where, in some sense, we divide things in our imagination. Suppose one thought (falsely) that an angel, say the angel Gabriel, is some complex union of body and soul. One might 'divide Gabriel in imagination', but that would show nothing—one's imaginative exercise is grounded on a false conception of the angel. On the other hand, one cannot insist that imaginative exercises 'count' only if they are based on complete knowledge about a thing. For complete knowledge about a thing would carry the information whether or not it was complex: in that case, one wouldn't need to use one's imagination to test for mereological complexity.

Let me suggest one helpful reconstruction of the Cartesian perspective. I shall begin by focusing on the *simple monadic profile* of things. The simple monadic profile of *s* consists of the set of *s*'s simple fundamental monadic properties. Monadic properties built out of relations—like being 5 feet from the Eiffel Tower, or having multiple parts, do not count as simple; but being extended, thinking, being rectangular, being in pain do count. One further stipulation: we shall say that a simple monadic profile *x* is possibly divided into subsets *y* and *z* iff it is possible that there exists a being whose simple monadic profile is *x* and which has parts that compose it whose simple monadic profiles are *y* and *z* respectively.

Certain paradigmatic Cartesian exercises in modal imagination involve coming to know that some simple monadic profile *x* possibly divides into subsets *y* and *z*. But such exercises will not by themselves permit one to deduce that a thing with *x* actually has parts that have *y* and *z* respectively. That some possible thing with *x* subdivides in that way does not show that everything with *x* does.

²⁰ CSM, iii. 155. To Mersenne.

²¹ CSM, iii. 363. To More.

Descartes seems to have endorsed a certain picture concerning how our understanding is configured, namely:

Understanding. If some simple monadic profile x is possibly divided into y and z , then we are disposed to clearly and distinctly think of anything with x as being composed of something with y and something with z .

He combines this with a basic trust in the calibration of understanding to reality:

Calibration. If our understanding clearly and distinctly divides something in imagination, then that thing is divided in reality.

For this package to run smoothly, one of two scenarios must obtain. Either (i) God was kind enough not to actualize any being whose monadic profile is possibly divided in a certain way but which is itself not actually divided in that way, or else (ii) the following thesis holds:

Necessitation. If simple monadic profile x is possibly divided into subsets y and z then x is necessarily divided into subsets y and z .

FN:22 The latter thesis is the alternative that best captures Descartes's perspective.²²

Rather than dwell on predictable worries about Calibration, let us focus on Necessitation itself. That thesis delivers a prohibition on extended atoms. Given that we can see that a region of a certain extension and shape could be composed of smaller subregions, it follows from Necessitation that extended atoms are impossible. And it delivers a route to Uniqueness: given that any simple monadic profile of a being that thinks and is extended could attach to a composite of a being that is merely mental and a being that is merely geometrical, it follows from Necessitation that any profile of that kind necessarily attaches to a being composed of a merely mental and a merely geometrical being.

Now some of us will be quite ready to relinquish the Necessitation thesis. But it is at least worth pausing to acknowledge one potential cost of eschewing it. Just as one might ask after principles concerning the conditions under which a plurality compose a thing, one might also think that there are perfectly general and informative principles concerning the conditions under which a thing *decomposes* into a plurality. Now, obviously, a thing's total intrinsic makeup determines whether it decomposes into a plurality, since whether it has proper parts is

²² My discussion has oversimplified matters somewhat. Given that our knowledge is not adequate—in the Cartesian sense—our minds never engage with complete descriptive information about the monadic profile of a thing. What we in fact do, according to Descartes, is to know enough about the simple monadic profile of a thing to know that its profile is possibly divided into profiles of certain types. That said, the basic mechanism is as above: we are so constituted that insofar as we know that a thing's simple monadic profile is possibly divided into certain kinds of profiles, we are disposed to think (with an internal fanfare suitable to clearness and distinctness) that the thing to which the profile belongs is divided in a corresponding way. And given that our minds are calibrated to reality, such thoughts are unerring.

intrinsic to it. But are there any general and informative principles concerning decomposition?

What bears emphasis is that if Necessitation is wrong, then that makes real trouble for the view that there are such principles.²³ After all, a denial of Necessitation means that there are pairs of possible objects that are duplicates with respect to their simple monadic profile but which differ with respect to mereological complexity. Suppose, for example, that we were to allow for the possibility of a 5 inch diametrical spherical object that was red all over that decomposed into a plurality of smaller parts, and also the possibility of a 5 inch diametrical spherical object that was red all over that had no proper parts. Once counterexamples to Necessitation like this are admitted, it seems hardly likely that any informative sufficiency condition for simplicity or complexity can hold of either member of the pair. Now some of us have learnt to live with this and have learnt to recognize that there is no deep incoherence in the putative possibility of extended simples (and thus that the kind of rationalist dream behind Necessitation is chimerical). But we are, I think, in the minority. Those who agree with Descartes that extended atoms are impossible may very well find Necessitation appealing. Where else might they complain?

4. CONCLUDING REMARKS

Our rational reconstruction of Descartes has taken something like the following shape

- (1) *Necessitation*. If a simple monadic profile x is possibly divided into subsets y and z , then x is necessarily divided into subsets y and z .
- (2) *Possible Division*. The simple monadic profile of any human being x is possibly divided into a subset of fundamental properties pertaining to (conscious) mentality and a subset of fundamental properties pertaining to corporeality.
Therefore
- (3) Every human being is composed of a part that is purely mental and a part that is purely corporeal

The argument is clearly valid. So if we assume Necessitation, the only line of resistance will be a denial of (2). One challenge to (2) relates to the issue of Completeness above. Can there be a thing whose entire intrinsic life is mental and which has no corporeal properties? Can there be a thing whose entire intrinsic life is corporeal and which has no mental properties? But that is not the only possible reason for complaining about premise (2). Even if we grant that there

²³ At least insofar as they take the form of sufficiency conditions.

could be a zombie that corporeally duplicates me but which has no consciousness that coexists with a non-corporeal being whose entire intrinsic life duplicates mine, and even if we grant that such things could interact, is it clear that the union of those beings would be a simple monadic duplicate of me? For example, it might be argued that while I instantiate consciousness, consciousness would not be instantiated by that union (only by its incorporeal part). In this way, there may be a disanalogy between the application of Necessitation to prohibit extended atoms and its use in securing Uniqueness.

I don't suppose that the above discussion will persuade fence-sitters to endorse a Cartesian metaphysics. Nor do I pretend to have made significant advances in Cartesian scholarship. But I hope to have done something to show that serious intellectual engagement with the Cartesian system—as opposed to frivolous dismissal of its pale caricature—may be metaphysically fruitful