The Wax and I

Perceptibility and Modality in the Second Meditation

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> *Let us consider the things which people commonly think they understand most distinctly of all; that is, the bodies which we touch and see. I do not mean bodies in general – for general perceptions are apt to be somewhat more confused – but one particular body. Let us take, for example, this piece of wax. It has just been taken from the honeycomb; it has not yet quite lost the taste of the honey; it retains some of the scent of the flowers from which it was gathered; its colour, shape and size are plain to see;* [...] *But even as I speak, I put the wax by the fire, and look: the residual taste is eliminated, the smell goes away, the colour changes, the shape is lost, the size increases, it becomes liquid and hot;* [...] *But does the same wax remain? It must be admitted that it does* [...].
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> (AT VII 30, CSM II 20)[1]

I

Philosophers are fond of wax, and none more famously so than Descartes.[2] The wax passage that appears at the end of the Second of his *Meditations on First Philosophy* has fascinated and baffled students,

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[1] All references to Descartes's works cited as AT are by volume and page numbers of Ch. Adam's and P. Tannery's *Œuvres de Descartes* (revised edition, Paris: Vrin/C. N. R. S., 1964–76), followed by references to the English translations of J. Cottingham, R. Stoothoff, and D. Murdoch, *The Philosophical Writings of Descartes* (Cambridge: Cambridge University Press, 1984), cited as CSM and given by volume and page numbers, except where I have offered alternative translations of my own.

[2] The legacy from which Descartes draws goes back at least to Aristotle's use of the impressions made by a seal on wax to explain the impact of sensible objects

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scholars and critics alike since the work's first publication. Part of the passage's fascination may lie in its seeming errant quality; here, the narrator appears willing to relax the strict discipline of meditation, to give 'free rein' to his wandering mind. Of course, the narrator ends up taking this 'slip' to support points made in the first part of the Meditation, and in general, we have little reason to consider the narrator's characterizations to be a very reliable guide to the structure of the Meditation. What often escapes the narrator – but ought not escape us – is the 'order of reasons'[3] that structures both individual Meditations and the *Meditations* as a whole. But there's the rub: it is extremely difficult to explain the place of the wax passage in any such order, both because it treats an extended body well before the nature of material things is made a topic in the *Meditations*, and because it is not clear how it genuinely contributes to the business of the Second Meditation. Yet an understanding of the position of the wax passage within the order of reasons may be necessary for appreciating the details internal to the discussion; we may well fail to see the trees for lack of insight into the forest.

So let us look at the lay-out of this particular forest. The Second Meditation is devoted to examining the nature of the mind and how it is better known than body. As the synopsis of the *Meditations* puts it, here "the mind uses its own freedom", gaining knowledge of its own existence, as well as the ability "to distinguish without difficulty what belongs to itself, i.e., to an intellectual nature, from what belongs to the body" (AT VII 12, CSM II 9). In the first place, then, the wax passage must be accounted part of the project of demonstrating the priority of the mind in the order of reasons – a point acknowledged by many contemporary commentators.[4] But it ought also to advance

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on our sense organs in Book II of *De Anima.* In the *Rules for the Direction of the Mind,* Descartes helps himself to exactly this analogy (see, e.g., AT X 412, CSM I 40). But the wax passage in the *Meditations* refuses to pair the piece of wax with a seal – a refusal that surely indicates Descartes's changed relation to the Aristotelean account, as does his preference for very different kinds of models to explain the causal chain in sensation in his later physiological works.

[3] The phrase "order of reasons" gained currency with Martial Gueroult's work *Descartes' Philosophy Interpreted According to the Order of Reasons*, tr. R. Ariew (Minneapolis: University of Minnesota Press, 1984).

[4] This is the view of, to list just a few examples, Gueroult; Edwin Curley, *Descartes Against the Skeptics* (Cambridge, MA: Harvard University Press, 1978); Margaret Wilson, *Descartes* (London: Routledge & Kegan Paul, 1978); Steven Wagner, "Descartes' Wax: Discovering the Nature of the Mind", *History of Philosophy Quarterly* 12 (1995); and John Carriero, *Descartes and the Autonomy of the Human Understanding* (New York: Garland Publishing, 1990).

this project past the description of the mind as a thinking thing, a thing that engages in a wide variety of thinking activities even as it remains the same I [*idem ego*] (AT VII 29, CSM II 19). Yet few commentators have explained in any detail what the passage genuinely adds to what has already been achieved in this respect by the Meditation.[5] To be sure, a number have emphasized the function of the passage in preparing the way for subsequent moves, e. g., in linking the cogito arguments with the notion of a clear and distinct idea developed in the Third Meditation.[6] But not only can this make the wax passage seem simply a sly way of introducing terminology without explanation, it fails to explain why the passage appears specifically in the *Second* Meditation.

On the other hand, the content of the wax passage suggests that it serves another end: changing the meditator's notion of body. In this case, the position it occupies in the text presents an obvious problem, for the metaphysics of extension is a subject treated only late in the order of meditative reasons, after the limited conceptual resources available to the narrator[7] in the Second Meditation are supplemented by the gains of the Third and Fourth Meditations. Interpretation faces something of a bind here: it seems as if recognizing the role of the passage *in situ* requires discounting the importance of what is actually said about the wax, whereas attending to the discussion of what is perceived "in the wax" may make it difficult to place the passage within the order of reasons. The challenge, then, is to reconcile attention to the entire content of the discussion with respect for its exact location within the *Meditations*.

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[5] Gueroult and Carriero are exceptions; I shall discuss their accounts below, although my interpretation will differ on some points.

[6] Stephen Wagner has remarked that it may provide grounds for the confident claims made in the Third Meditation about the causal powers of the mind, p. 167. Ed Curley has suggested that the main business of the passage is to introduce the notion of a clear and distinct idea, 1978, p. 212; in a later work, he suggests that the wax passage also paves the way for a notion of substance brought in in the Third Meditation, "Analysis in the *Meditations*: the Quest for Clear and Distinct Ideas", in *Essays on Descartes' Meditations*, ed. A. Rorty (Berkeley and Los Angeles: University of California Press, 1986), pp. 163 f.

[7] I use the term 'narrator' above, because I think it is important to distinguish, first, between Descartes as author of the work and the narrator as a character in the work. We should also distinguish between the meditator and the narrator, in the sense that the meditator is a function described by the text for "those who are able and willing to meditate seriously" – a position made available to the reader. Of course, the narrator meditates too, but the claims and character of the narrator do not always match what is expected of the reader. For a discussion of the unreliability of the narrator, see Aryeh Kosman, "The Naive Narrator" in Rorty.

The first step in meeting this challenge is to notice how weak the claims of what is perceived in the wax truly are. For even if the passage does introduce a changed idea of body, preparing the meditating mind for a reformed conception of extension, it does no more than introduce this notion. The wax passage makes no claim to genuine knowledge of the nature of body. The examination of the piece of wax does not entitle the meditator to claim that it or any other body exists – or even that the idea of the wax constitutes a reliable idea of the nature of body. In order to be in any sort of position to advance claims about corporeal substance, the meditator will need to develop the notion of clear and distinct ideas and a defense of the trustworthiness of certain mental faculties and of the corrigibility of error. Only then, in the Fifth Meditation, will the meditator be able confidently to assert views about the essence of bodies that meet these requirements.[8] To be sure, the description of the wax's 'nature' achieved at the end of the Second Meditation may pave the way for the claim of the Fifth Meditation that the essences of material things are those "true and immutable natures" that are "the subject-matter of pure mathematics". But between the Second and the Fifth Meditation, Descartes must win the right to move from describing what is perceived in the wax as "merely something extended, flexible and changeable" (AT VII 31, CSM II 20) to declaring this the essential nature of body, explicable through mathematical ideas and considerations of quantity.

So even if the wax passage introduces a preliminary version of the fully 'Cartesian' conception of body, it hardly usurps the functions of the later Meditations. But the reasons for such an introduction, preliminary though it might be, still need to be explained in light of the purposes of the Second Meditation. To do this, I suggest we consider the various targets against which Descartes has aimed much of the *Meditations*, particularly the sort of high scholastic philosophy of mind[9] that would pose the obvious alternative to much of Descartes's

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[8] Margaret Wilson makes a similar point about the work reserved for the later Meditations. She suggests that the wax passage is concerned with "what belongs to the concept of a body", or more exactly, with "the essence or nature of a single body", pp. 81 f. Although she brings to light some important features of the object of the analysis, I think that to describe it as concerned with the 'concept' of body may confuse several distinct issues and jump the gun on the Fifth Meditation, as I shall describe below.

[9] For the purposes of this discussion, I will speak generally of the claims of high scholasticism, the sort of claims found in Aquinas and ultimately derived from Aristotle. This is an over-generalization that ignores both debates within scholasticism and the peculiarities of those late scholastic views with which Descartes

account. Quite generally, high scholasticism counts the human intellect a substantial form, one that requires actualization in the matter of a human body and thus requires bodily organs and faculties at least to jump-start intellectual acts. In contrast, Descartes proposes the priority, accessibility and unity of an intellectual faculty (called variously mental inspection, perception or intellection) that does not depend on anything outside of itself to actualize its powers.[10] This is a view that John Carriero has dubbed the 'autonomy' of the mind,[11] and it represents a direct challenge to scholastic accounts of the nature of the soul's faculties and the basis on which they can be known. The heart of this challenge is a conception of the conditions for the intelligibility of any object whatsoever – for Descartes thinks reflection will show that the autonomous, intellectual activity of the mind must be counted among these conditions. But making the case for the priority of such subjective conditions requires a simultaneous reformation of the concept of what is known in bodies, of how they can be intelligible.

Let us consider the general order of explanation required by such Scholastic views.[12] On this view, the soul can only know itself and its faculties through its powers, its powers through its acts, and its acts through their proper objects. But the Second Meditation claims that it is the same *mentis inspectio* that is responsible for whatever is understood in any idea, and that this intellectual act has priority within the order of explanation. Descartes must therefore dispense first of all with the entire object-centered approach to understanding the nature and existence of our intellectual faculties; differences in objects, whether mental or corporeal, individual or general, do not require different mental faculties. Moreover, to eliminate the starting points for scholastic explanation requires considering the perception of a *particular* body. The wax passage analyzes the perception of a particular body by reversing the priority of acts and objects. It shows that starting from an

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would have been most familiar. As we will see below, there are also non-scholastic accounts against which Descartes pits his views. In both cases, Descartes takes aim pretty broadly (and sometimes perhaps unfairly), so it seems sufficient to offer only broad outlines of the alternative positions. My apologies to scholars of medieval and Renaissance philosophy who will undoubtedly find my account simplistic.

10 The one exception might seem God. But my dependence on God explained in the Third Meditation does not suggest that God has to actualize my powers; rather that I have certain powers at all requires that God has placed them in me.

11 As found in the title *Descartes and the Autonomy of the Human Understanding.*

12 I borrow from Carriero's very clear account here, see p. 152 (and Part II *passim*).

account of everything this piece of wax 'has' [*omnia ... illi adsunt*], "which appears to enable a body to be known as distinctly as possible" – that is, starting from an account of those sensible forms that are supposed to allow it to have an effect on the sense organs – fails to explain the mind's ability for sense-perception (AT VII 30, CSM II 20). It thereby leaves the way open for claiming the priority of a strictly intellectual act.

So what is at issue in the wax passage is the order of explanation; that order is reformed by way of a sort of transcendental analysis that replaces the genetic, causal order of scholastic empiricism with reflection on the intellectual conditions for the possibility of perception. Descartes holds that neither the causal impact of a particular body on my sense organs, nor a particular configuration of those organs (such as might normally result from such impact) is a conceptually necessary condition for the possibility of exercising my faculty of perception; although the Sixth Meditation will suggest that such impact is a reasonable candidate condition for actual sense-perception, the wax passage shows that nothing in the particular form that impact might take – more exactly, none of those forms inhering in the thing that causes the impact, and which might be impressed on the sense organs as a properly sensible species – constitutes the distinct conceptual content even of a particular body. The case that is made in the Second Meditation for the priority of the mind, then, *ipso facto*, requires revision in the conception of what is perceived in sense-perception. The wax passage demonstrates that the conditions for the possibility of understanding what is perceived in the wax require no special faculty of sense-perception; it likewise shows what it is that can be perceived in bodies – *if* bodies are indeed perceived.

But although the wax passage shows the conditions for the possibility of perceiving an object, it does not show that those are also the conditions for the possibility of objects and things.[13] It describes an innate intellectual power that allows understanding whatever is understood in the perception of the piece of wax. But because that power is not itself explained in terms of the nature of the corporeal object, but

[13] This is a point made by Gueroult, who describes the wax passage as positing "the rational ideas of extended things as foundations of the representation of the object, but not as foundations of the objective validity of representation", vol. I, p. 84. As Gueroult goes on to explain, "insofar as these notions appear only as necessary conditions of the *content* of represented objects, and not as the formal conditions of the thought or representation of these objects, they become vulnerable to the doubt of the evil genius", vol. I, p. 85.

rather as proper to the mind alone, there is no reason in the Second Meditation to hold that it is capable of grasping a true 'nature', at least anything other than the nature of its own acts.[14] In order to claim that what comes to be known as the "innate idea" of extension gives the conditions for the possibility of bodies, Descartes will have to make an additional case in the Fifth Meditation that the mind grasps true and immutable natures. Only then will Descartes have the resources to advance claims about the metaphysics of body – claims that will be at odds with high scholastic claims about, e. g., the hylomorphic structure of material things. In contrast, we should note how agnostic the wax passage is on the sort of issues that divide Cartesian physics from its scholastic predecessors; it takes no *explicit* stand, for instance, on whether the piece of wax is a genuine individual, substantially distinct from other material things. But however carefully circumscribed the claims in the Second Meditation may be, the wax passage does prepare the ground for the metaphysics of body that will underwrite Cartesian physics. By offering the conditions for the possibility of mental perceptions in general, the Second Meditation also sketches at least some of the conditions for the possibility of whatever could count as an object of perception. For this reason, the wax passage shows the high cost that would be involved in rejecting the later account of the "true nature" of bodies.

II

What I want to do now is to examine the process whereby the meditator reaches the new and improved perception of "what the wax consists in". The hope is to give some content to the sketchy methodological comments above, showing that the reforming of the contents of the perception of the wax is no mere smokescreen, secondary to claims about "purely mental inspection", but also that it cannot be treated in isolation from the rest of the Second Meditation. Improving the perception of "what the wax consists of" is an essential aspect of the project of demonstrating the priority of the mind and the *a priori* nature of the conditions for the possibility of its operation. It is the pro-

[14] Indeed, there is room for some doubt that the understanding of the nature of the intellectual acts – the mind's powers – illustrated in the Second Meditation constitutes a complete understanding of the nature of the mind. We should notice that Descartes's claims about this subject remain carefully circumscribed until the Sixth Meditation.

cess whereby the perception of the wax becomes more distinct[15] that is important here, and it is in accounting for this process that I think commentators have stumbled most often.

In particular, many commentators have taken the process to be largely eliminative; by eliminating the seemingly perceived properties of the piece of wax in favor of other unchanging properties that truly do belong (either by reducing them to such properties or simply refusing them a place),[16] the process serves to toss out the contribution of various proposed mental acts (and faculties) and replace them with the stark *mentis inspectio.* But to hold that the process of improving the perception is a matter solely of this sort of elimination is, I think, misconceived. Descartes does not want to show that actual faculties of sensation and imagination are irrelevant to understanding sense-perception, as if it were a matter of eliminating competitors to the purely mental inspection; he wants to show that sensation and imagination are not even in the running as independent mental faculties.[17] But if we are not supposed simply to disregard what seem like the contributions of sense and imagination, neither should we suppose we perceive the piece of wax only by disregarding all of its purportedly sensible properties. Descartes's aim is not to eliminate these sorts of properties, but to show that a mere collection of sensations does not constitute the *object* in sense-perception.[18] To treat the process as solely

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[15] I am following the language of the Meditation by suggesting that improving this perception is a matter of making it more distinct. I shall have something to say later about this term of art in Descartes's works.

[16] For instance, Margaret Wilson suggests that the wax passage seeks the reduction of all properties to that of extension by "more or less setting aside the original sense perceptions as not relevant to the real perception 'of wax' ", 1978, pp. 88, 90. Alan Hart identifies the distinction between substance and its accidents with that between universals and particulars and assimilates both to the difference between an underlying body and changing sensible qualities; "Descartes on Re-identification", *Journal of the History of Philosophy* 13 (1975), pp. 18, 24. And Daniel Garber characterizes the wax passage as an example of "the argument from elimination"; see *Descartes' Metaphysical Physics* (Chicago: University of Chicago Press, 1992), pp. 77 f.

[17] That there should be confusion over this point is certainly understandable; as Carriero says, "Descartes seems to have pitted each faculty against the others in a sort of competition for the title of provider of the best conception of the piece of wax", p. 212. But the true competition must lie between the alternative theories of mental faculties: if sense-perceiving and imagining are conceived as mental activities, they cannot be independent of the intellect; if they are conceived as independent of the intellect, then they cannot be mental faculties.

[18] Wilson makes a similar point, p. 90, although she does characterize the process in ways I consider eliminative.

eliminative runs the risk of assuming exactly the scholastic point Descartes wants to contest: that different objects require different faculties and that to use a purely intellectual faculty is to change the object of perception from what is genuinely sense-perceived.[19]

To be sure, the text of the *Meditations* provides a great deal of fodder for interpretations that stress elimination. For one, the meditator speaks of separating what properly "belongs to" the wax from what does not so belong (AT VII 31, CSM II 20), as "when I distinguish the wax from its outward forms – take the clothes off, as it were, and consider it naked [...]" (AT VII 32, CSM II 22). Clearly the wax is not to be simply *identified* with the list of sensory qualities under which it is first described – those "arrived at by means of the senses", for they all alter even as the wax remains (AT VII 30, CSM II 20). But this does not mean that the original sensory qualities are mere straw attributes, nor that the process illustrated in the wax passage is a process of impoverishing our perception, rather than enriching it. That the process is not a matter of impoverishing perception is suggested in Descartes's reply to the Fifth Set of Objections, where Descartes gleefully heaps abuse upon the unfortunate author, Pierre Gassendi. We should look at Gassendi's account, if only to learn how to avoid his fate in glossing the wax passage.[20]

Gassendi assumes – quite casually – that the meditator clarifies and distinguishes his perception of the piece of wax *through a process of abstraction*, a process that leaves the perception of naught but a naked substance shorn of its accidents. On this view, the passage serves both an epistemic purpose in explaining the faculty used in perception and a metaphysical one in illustrating the distinction between the accidents and the substance of the wax, i.e., "the wax itself". Gassendi denies that the epistemic task is accomplished, while claiming that the distinction between the *concepts* of substance and its attributes is simply old hat (AT VII 271, CSM II 189). Now, curiously enough, one thing Descartes does not take issue with is Gassendi's description of the goal of

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[19] See the comment at AT VII 31, CSM II 21: "But what is this wax [*haec cera*] which is perceived by the mind alone? It is of course the same wax [*eadem*] which I see, which I touch, which I picture in my imagination, in short the same wax [*eadem*] which I thought it to be from the start".

[20] The objection and Descartes's reply is also discussed by Wilson, pp. 92–99. Wilson holds that Descartes is not entitled to the claims I will describe below. She is surely right that Descartes could not truly subscribe to a "quantitative 'list' view of superior knowledge" for bodies. I hope to show that that is not what Descartes is suggesting in his reply to Gassendi.

the wax passage as an understanding of the *substance* of the piece of wax. Yet this is only a superficial agreement. Gassendi takes 'substance' to mean an unchanging substratum of which accidental forms are predicated as distinct and external, so that it "must be something over and above such forms [*praeter eiusmodi formas*]" (AT VII 272, CSM II 190).[21] Since the substance only appears determinately by taking on such forms, yet remains distinct from them, it can only be indicated negatively – as an 'I know not what' which we conjecture to lie underneath the accidents.[22] But Gassendi tells us that since the separate nature of substance is imperceptible, we must conceive of it in some guise, "some sort of shape" and "some sort of color" that would make it determinate. Hence any positive understanding of the substance of wax can only be formed in the determining – and distorting – modes proper to the imagination, and Gassendi claims that Descartes has done nothing to characterize a mental faculty, the nature of which is distinct from imagination.

The conception of the non-intelligibility of substance and the role of a fallible faculty of imagination reflects the materialistic atomism that divides Gassendi's thought from that of Aristotelian scholasticism. But it also divides his thought from Descartes's. And Descartes's reply demonstrates the novelty of his position, for it is at odds both with Gassendi's position and with the position of high scholasticism. For a scholastic author such as Aquinas, the substance of the wax would be both intelligible and known through an intellectual faculty. But that is possible only because the substantial form of the wax (what characterizes the wax as of a certain kind) is a universal, known by way of an intelligible species gained through an act of abstraction. The intelligible species is abstracted from the sensible species, which is found in the internal senses (especially in the imagination), and which in turn is the means by which the particular material object, the piece of wax, is sense-perceived.[23] But this sort of distinction between the intelligible universal and the sensi-

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21 Particularly interesting is the description of substance as a 'subject' of accidents [*aliquid, quod sit subjectum accidentium*] and as something underlying [*subesse ... aliquid*] (AT VII 271). This suggests that Gassendi is conceiving of substance as the *'hypokeimenon'*, even though the translation above mixes up the spatial metaphors.

22 Jonathan Rée sketches a conception of the relation between substance and its accidents that he calls 'Platonist'; the accidents are sensible properties like a "set of clothes" that can be changed from time to time by a substance with invariable intellectual properties. He proposes that Descartes argues against this conception, *Descartes* (New York: Pica Press, 1974), p. 79.

23 The account offered by high scholasticism has been examined early and often. Authors who have examined points relevant to this case include Étienne Gilson, *Études sur le Rôle de la Pensée Médiévale dans la Formation du Système Cartésien* (Paris: J. Vrin, 1979), and Carriero. A brief overview can also be found in section

ble particular is rejected by Descartes, who repeatedly states that his inquiry treats a particular body as such,[24] never that a distinct perception demands consideration of some waxy universal.[25] The most that Descartes will admit is the claim found in the Second Meditation that the cognitive act by which the wax is known is also revealed – indeed more clearly revealed – when we consider wax *in communi*, rather than a particular piece of wax (AT VII 31, CSM II 21). But not only is wax *in communi* not the same as wax as a universal,[26] but Descartes also claims that a particular perception, e.g., a perception of the piece of wax, can be more distinct than 'general' ones (AT VII 30, CSM II 20).[27] In Descartes's view, the particular itself is known by way of a purely intellectual act. Moreover, this particular is in no way differentiated from any material 'substratum' – a material substratum that Gassendi would identify as a substance we can infer to exist underneath, and that high scholasticism would hold to be a 'this here', unintelligible apart from its capacity to receive forms. In contrast, Descartes refuses the meditator the right to make any claim about existence, but does not claim that some purely corporeal nature escapes the intellectual grasp on the piece of wax.

The novelty of Descartes's views is demonstrated by the point he attacks most fiercely in Gassendi's gloss: the claim that his method rests upon any sort of abstraction *from* accidents. Instead, Descartes declares, "I wanted to show how the substance of the wax is revealed

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III of my "Formal Causation and the Explanation of Intentionality in Descartes", *The Monist* 79 (1996), pp. 372–376.

[24] Hart stresses this point, p. 17, as does Wilson, p. 82, and Gueroult, vol. I, p. 85. Nevertheless many scholars overlook this particularity; J. J. C. Smart even maintains that Descartes wants a definition of wax, "Descartes and the Wax", *Philosophical Quarterly* 1 (1950), p. 52, a view rightly criticized by Wilson, p. 77.

[25] The very distinction between universal and particular that shapes the scholastic account is repeatedly rejected by Descartes as a mere distinction of reason.

[26] CSM I 20 f. translates *"in communi"* as "in general". But as an anonymous referee for this journal kindly pointed out, Descartes does not use the cognate phrase "in genere", and so this translation can be misleading. (Descartes does, however, contrast general perceptions [*generales istae perceptiones*] that take bodies *in communi* as their object with [the perception of] one [body] in particular at AT VII 21). The phrase *"in communi"* may suggest something like a mass term: the community of wax, the collection of all the wax in the world, from which small portions can be individuated only by the addition of a phrase such as "piece of". At any rate, it does not indicate a universal to which particular pieces stand under the relation of instantiation.

[27] I think that for this reason Hart's interpretation runs into trouble. Although he correctly identifies the problem as involving a particular piece of wax, he describes particularity as a kind of individuation through sensible accidents and associates universality with intellectual properties. He then assigns the task of apprehending each respectively to sensation and intuition. But if perception of a particular involves an admixture of distinctively sensory information to the mental conception it is hard to see why it would be more distinct than the pure mental conception alone; see also Wilson, p. 90.

by means of its accidents" (AT VII 359, CSM II 248, my emphasis). The rejection of abstraction is a rejection of scholastic views as much as it is a rejection of Gassendian atomism, and Descartes makes the same point later in something like his preferred vocabulary: nothing more, he declares, "is required to *reveal* a substance than its various *attributes*" (AT VII 360, CSM II 249, my emphasis).[28] So there must be some sort of non-abstract, conceptual relation between at least a few of the features predicated of a particular substance and the substance itself. Indeed, for all his talk of 'stripping' and 'separating' – all processes that result in clarifying what the wax is *not* – Descartes also treats the improvement of his perception as a matter of positive identification, which includes addition to the previous confused one: "my perception of the wax seemed more distinct after it was established *not just by* sight or touch but *by many other* considerations [...]" (AT VII 33, CSM II 22, my emphasis). This is not to say that the method involves no removal of unsuitable qualities (e.g., various odiferous data). Nevertheless, the final perception of the wax comprehends many qualities and attributes, even as I shall argue, some that figured in the first unclear version of the wax perception. Again, the reply to Gassendi is quite clear on this point: "the more attributes of a given substance we know, the more perfectly we understand its nature" (AT VII 360, CSM II 249). Understanding a substance is not a matter primarily of abstracting *away* from its properties, and the method of arriving at clarity and distinctness in perception of the piece of wax cannot be accounted one of mere substraction or removal. What Descartes recommends is a reformation in the understanding of the attributes and their *relation* to the substance.

The reformed understanding marks the difference between "a reflective and distinct perception" of the wax and an "ordinary and confused" one (AT VII 359, CSM I 248). As we have seen, this difference cannot be assimilated to any purported difference between a sense-

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[28] Some of the features Descartes picks out in the reply would not seem to quite qualify as genuine attributes in the strict sense he describes in the *Principles of Philosophy*: "that it is white", "that it is hard", "that it can be melted" are all much more specific and variable than the appropriate attribute (i.e., extension) would seem to be (AT VIIIA 360, CSM I 249). Still, this somewhat careless use of 'attribute', where 'mode' sometimes seems more appropriate shows that Descartes is not interested in driving a wedge between the modes of a substance and its attributes akin to that Gassendi assumes between accidents and the mystery substance. See *Principles* I, 56 for a discussion of the differences between modes, qualities and attributes (AT VIIIA 26, CSM I, 211).

perception and an abstract intellectual perception, much less to the difference between the sense-perception of a particular and an intellectual perception of a universal: these are not the sorts of differences that make a difference here. Indeed there is no textual evidence to support the view that Descartes is proposing that the process of clarifying and distinguishing the idea of the piece of wax is a matter of replacing one perception (determinate, particular, or sensory) with another (intellectual) one; rather, the meditator moves from an "imperfect and confused" perception of the wax to clarity and distinctness, "just as I attend more or less to that of which it consists [*prout minus vel magis ad illa ex quibus constat attendo*]" (AT VII 31, my translation). Descartes's expression here is tantalizingly ambiguous:[29] that [*illa*][30] to which the meditator attends could be either the wax or the perception. But this is a telling ambiguity. Just as the wax remains the same wax, so too does the perception remain in some sense the same, for it was never anything but mental inspection. What marks the perception as "reflective and distinct" is an understanding both that what was perceived – what was *always* perceived – is the way in which the various attributes 'reveal' the objective nature of the piece of wax, and that the intellect is at work in this revealing. In other words, the piece of the wax is perceptible because of the relation between its properties and its nature, and that is a relating achieved by the intellect, not given in sensation or by imagination. Close attention to the perception reveals what makes the piece of wax perceptible and intelligible: both what it is in the wax that makes it an intelligible object (what it consists of) and the work performed in grasping (even generating) that intelligibility, the acts and powers of which a purely intellectual nature consists. It is this close attention that marks the move from imperfect and confused to reflective and distinct perception, a close attention to the conditions for the possibility of the perception simply as the perception that it is.

By insisting that the meditator is not so much replacing one sort of perception with another as attending to what is already there, I do not mean to claim that the perception remains thoroughly intact under scrutiny, or that Descartes has clear principles for individuating perceptions (much less for perceptions of the same object). But I do want to suggest that the most important result of reflection is a revised understanding of what is already there, of the constituents of the concept and how

[29] The translation at CSM II 21 does not capture the ambiguity, offering instead "depending on how carefully I concentrate on what *the wax* consists in" (my emphasis).

[30] The pronoun could also refer to the *'inspectio'*; all are feminine nouns.

they are related. The nature of such a revised understanding has been directly addressed by Alan Gewirth in a discussion of clarity and distinctness in ideas;[31] although I shall propose an alternative to his account, his approach is instructive about the internal structure of the wax perception and how it might exemplify the qualities of clarity and distinctness. Gewirth suggests that an idea gains these qualities by achieving the proper relationship between two elements internal to the idea: its "interpretive content" and its "direct content".[32] The latter is what is directly apprehended, e. g., the sensory qualities that appear first in the wax passage, while the interpretive content consists of what the direct content is "viewed as *[spectantur ut]*", e. g., as the piece of wax. Clarity and distinctness depend upon a relationship between interpretative and direct content that shows "representative adequacy". *In*adequacy occurs when there is a kind of 'inequality' between the contents, an inequality that can at least in some cases be reduced to outright contradiction, as when the unchanging wax is identified with the transient sensory qualities.[33]

But Gewirth tells us such a "logical" conception of clarity and distinctness depends methodologically upon a broader account of clarity and distinctness at a "perceptual level". At this level, what renders an idea obscure and confused is that it contains something unknown, as is the case in the idea of cold, where we cannot decide whether it represents something positive or merely an absence.[34] Gewirth tells us that the method that clarifies and distinguishes these unknown elements reduces the composite parts of the idea to what he identifies as their simple natures, e. g., figure or extension. A simple nature[35] is something perceived clearly in such a way that it cannot be divided into distinct, component parts (AT X 418, CSM I 44). As such, its direct and interpretive contents coincide, and it can be nothing other than "present and laid bare" to the attentive mind,[36] i. e., clear and nothing but clear.

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31 "Clearness and distinctness in Descartes", *Philosophy* 18 (1943), p. 254. In particular, Gewirth draws our attention to the explanation of these twin criteria in *The Principles of Philosophy*: a perception is clear when it is present and laid bare (or open – *aperta*) to the attentive mind, and it is distinct when its content is limited to what is clear, so that it is differentiated from all other perceptions (AT VIIIA 22; CSM I, 207 f.).

32 Gewirth, p. 258.

33 Thus when I conceive of God, take God as the object of an idea, but represent it in bodily terms, there is a kind of "inequality" between the two. This inequality can generate contradiction, if, say, I were to think a simple God subject to the divisibility of extended things.

34 See Fourth Reply, AT VII 234, CSM II 164, and Gewirth, p. 262.

35 The notion of a 'simple nature' actually comes from the early *Rules for the Direction of the Mind*, which I think may spell problems for Gewirth's account. No such formulation appears explicitly in the *Meditations*, although Descartes mentions particular simple natures that are also included in the *Rules*. In general, it is not clear how much of the machinery of the earlier work can be applied to the *Meditations*.

36 AT X 418 f., CSM I, 44; cf. Rule Six for a discussion of intuition, AT X 381–387, CSM I, 21–24.

The *logical* clarity and distinctness of a composite idea will then depend upon the perception of these simple natures and "of the way in which they are combined in a necessary nexus to form the idea originally in question"[37]. And this is what is discovered in the "purely mental scrutiny" of the wax:

> A direct content which is interpreted to be representative of matter is chosen, consisting in the various sense qualities which the wax initially presented [...] Then these qualitities are put through a series of reductions to see whether they and the interpretive content "so depend upon one another, that one can in no way be changed while the other remains unchanged". [...] The process consists, then, in gradually divesting the direct content interpreted as representing a certain object of the "forms external" to that object, i.e., of those qualities with whose denial the object can still be conceived, [...]. The end of the process comes when a direct content is attained which survives every reductive device, remaining so long as the object can be conceived, and without which the object can no longer be conceived.[38]

In this manner, the confused idea of the wax is reduced by a process of elimination to the surviving direct content: something extended, flexible and changeable.

Gewirth's account has the virtue, almost unique among commentaries on the wax passage, of making sense of the role of variation in the narration of the wax passage, the subjecting of the piece of wax to varying conditions that result in changing sensory qualities. It is through an analysis of the variability of these qualities that extension, flexibility and mutability are supposed to be introduced as attributes of the wax, so that they do not simply come out of the blue.[39] Nonetheless, I think he may overemphasize the reductive function of this variation. The variation is supposed to illustrate the relations between the changing sense qualities and the proposed "interpretive content", by allowing the meditator to toss out what can be tossed out as shown through incompatible comparisons. But if that were the case, Descartes would need to compare only two (albeit carefully chosen) sets of varying features, since that would suffice to show incompatibility. Indeed the narration of the *Meditations* shows just this. The conclusion that "evidently none of the features which I arrived at by means of the senses" were known with distinctness in the wax comes immediately after the comparison of two sets of qualities. But Descartes explains the flexibility and changeability of the wax by reference to the "countless changes" it can undergo (AT VII 31, CSM II 20 f.).[40] Gewirth does not account for

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[37] Gewirth, p. 269.

[38] Gewirth, p. 271. Gewirth also tells us that such necessary connections of simple natures give a "true and immutable" nature, p. 270. For the reasons I have given above, I do not think that the meditator is in any position to make so robust a claim at this point.

[39] This is Margaret Wilson's phrase, p. 80. Her sentiment seems widely shared.

[40] This move also eliminates the imagination as a candidate for the faculty of perception. But it is not clear what is to be gained by doing so, if the simple non-identity of direct and interpretive contents were all that is at issue.

the importance of the countless changes, nor does he sufficiently account for the relations between some of the examined sense qualities and the irreducible direct content of extension – ties which we should expect if "the substance of the wax is revealed by its accidents".

Still, it is the nature of the proposed relations between 'direct' and 'interpretive' contents in the perception that can provide the key to what makes the perception of the wax intelligible. To explain these relations, I will borrow a somewhat simplified version of Edmund Husserl's description of intentional analysis within the field of phenomenological reduction.[41] Descartes is not Husserl, but he did at least inspire some features of Husserl's method; in particular, the analysis of eidetic variation offered in the second of Husserl's *Cartesian Meditations* is supposed to capture the "manners of appearing" through which an intentional object is determined under constraints very much like those given in the Second Meditation. Husserl analyzes both the 'noematic' aspects[42] of the determination, the conditions applying to an intentional object, and its 'noetic' aspects, the modifications of consciousness that correspond to the manners of the object's appearing. He thereby shows the relation between the intellectual work that must be performed to attribute those manners of appearing *to an object* and the nature of any object thus intended. In these respects, his analysis is comparable to the Second Meditation's reflection on what it is in the wax perception that makes it perceptible in the first place.[43] And a comparison between the two may show us how to understand the role of variation in manners of appearing without retreating to an eliminative interpretation.

To be sure, Husserl has no interest in wax, instead offering an example of intentional analysis in the perception of a die. We begin with a straightforward perception that gives "one unchanging shape or color". But of course, the die cannot be identified with that shape or color. Rather, the die, which is taken "as 'the same', appears now from this

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41 I refer specifically to the Second of Husserl's *Cartesian Meditations*, tr. D. Cairns (The Hague: Martinus Nijhoff, 1977), see especially § 15, 17, 19 and 20.

42 Husserl, § 20, p. 46.

43 I do not intend to suggest that the similarities between Husserl and Descartes go much beyond this point. For one, Descartes does not share the sort of idealism that Husserl proposes, with the result that he will have a lot more work to do to show that the conditions for the possibility of this perception are also the conditions for the possibility of objects, as well as to show that bodies exist. Other dissimilarities discussed below make for Descartes's emphasis on the act's 'noetic' aspects in the Second Meditation, whereas Husserl stresses the interdependence of noetic and noematic aspects.

'side', now from that; and the 'visual perspectives' change – also, however, the other manners of appearance (tactile, arcoustic, and so forth), as we can observe by turning our attention in the right direction".[44] In the reflective attitude, this sort of variation shows that the die "is given continuously as an objective unity in a multiform and changeable multiplicity of manners of appearing, which belong determinately to it".[45] Reflection upon the perception reveals the die to be intended, or thought of, as a unity determined *through a continuous sequence of manners of appearing.* Analysis of this reflection shows that the object is intended against a 'horizon' of possible particular determinations, possible appearances of the object through which it can be intended as one and the same.

Despite some important differences, Husserl's account of the multiplicity and variability of possible determinations of the object corresponds neatly to what the wax passage says about how the piece of wax remains the "same wax which I thought it to be from the start" (AT VII 31, CSM II 21), even as it takes on changing 'forms'. Let us consider how the meditator's description of the wax proceeds. It begins with a straightforward description of the particular sense qualities actually present in a perception at one time: taste, scent, color, shape, size and so forth. The meditator then observes a sequence of changes in the apparent sense qualities; yet they are still taken as determinations of the same wax. Further reflection reveals "that the wax is capable of countless changes of this kind". Now the variation in the manners by which the object appears is illustrated in the wax passage by changes that we would unreflectively count as alterations *in* the wax, rather than changes in our perspective. But Descartes's analysis cannot rest on the claim that the wax has actually changed, for the very existence of the wax is up for grabs. And there is no reason to think that Descartes would hold that a more solid body would not be subject to countless changes in its manners of appearance. Whether such changes would ordinarily be attributed to changes in our position, perspective or attention, or to changes in the body itself, the point remains that the object can be taken as the same through a sequence of changes in its apparent sense qualities. The importance of Husserl's analysis is that it allows us to see that those qualities need not be accounted mere changelings to be thrown out with the bathwater. Rather, the particular sense qualities should be understood as *possible* determinations in-

[44] Husserl, p. 40.
[45] Husserl, pp. 39 f.

tended against a background horizon of a multiplicity of determinations. It is this horizon that is indicated – not the unchanging *properties* of the wax *simpliciter* – when Descartes describes the wax as "merely something extended, flexible and changeable" (AT VII 31, CSM II 20).

Extension, flexibility and mutability indicate the structure of the intended wax as a horizon of possibilities, and the appropriate particular features (those that are determinations of extension, such as specific shapes, sizes, etc.) *necessarily* belong to the horizon as *possible* modes in which the wax can be determined. The process by which the substance of the wax is made clear and distinct does not consist only, or primarily, in throwing out unnecessary features, but *in correcting the understanding of the modality of the modes and attributes through which the wax is intended.* This is accomplished by varying the modes in such a way that they remain attributable to one and the same wax.[46] Once we realize that any particular determination is a possible but not necessary attribute (i. e., a mode) of the wax, we are in a position to understand that the wax can take on an uncountable number of different determinations, that it has a horizon to which particular modes necessarily belong as possible determinations. Those sensory qualities that *are* eliminated are those that do not fit in the continuous sequence of manners of appearing; qualities that change in ways that are 'discontinuous' have no intelligible relation to the horizon. Here, it may be important that Descartes's example of "eidetic variation" makes use of the sort of apparent changes that come from melting a piece of wax. Not only does the example prepare the meditator for later claims about the nature of extension as such, but the changes in the wax make qualities such as smell, taste or color appear radically discontinuous; they appear, disappear or change their nature willy-nilly. On the other hand, they might become intelligible if they could be reduced to something else that can be a modal determination of an object, if that is, they could be reduced to what Descartes identifies in the *Principles* as "shapes, the positions of parts and the motions of the parts" (AT VIIIA 32, CSM I 216).

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46 See Descartes's full reply to Gassendi: "I have never thought that anything more is required to reveal a substance than its various attributes; thus the more attributes of a given substance we can know, the more perfectly we understand its nature. Now we can distinguish many different attributes in the wax: one, that it is white; two, that is is hard; three, that it can be melted; and so on. And there are correspondingly many attributes in the mind [...]. (AT VII 360, CSM II 249) Notice that this list of 'attributes' includes some of the sensible qualities noted in the initial perception.

Husserl's noematic analysis of the die as an object intended through a horizon of possible determinations is supposed to reveal a correlative noetic horizon: the horizon of the possible modifications of consciousness belonging to the particular intentional act, 'the *potentialities' implicit* "in actualities of consciousness"[47], e. g., in actual sense-perceivings. Descartes likewise insists on such a correlation, for "every consideration whatsoever which contributes to my perception of the wax, or of any other body, cannot but establish even more effectively the nature of my own mind" (AT VII 33; CSM II 22). But Descartes stresses the priority and unity of a purely mental act, holding that it is a pure *mentis inspectio*, rather than sensation or imagination, that is responsible for the grasp on the wax, even though he has already classified sensing and imagining as modes of thought (AT VII 28, CSM II 19). The wax passage seems to analyze what is implicit in acts of consciousness only to find that they are acts of a single, purely intellectual kind.

But this does not mean that Descartes does not recognize something like a genuine noetic *horizon*; indeed earlier parts of the Second Meditation explore just how my thinking encompasses variations in modifications of consciousness. After the meditator has established the certainty of my own existence by testing it against the background of various skeptical hypotheses, and reduced the confused idea of "what belongs to me" to thinking alone, he turns in the eighth and ninth paragraphs to improving that understanding. It is improved by enumerating the variety of modes that must belong to my thinking: doubting, understanding, affirming, denying, willing, imagining and sensing. Indeed, a clear understanding of any one of those modes necessarily involves the others as possible variations of my thinking, necessarily inseparable from myself and only modally distinguishable from my thinking. It is one and the same I that is modified by such activities; they are all possible determinations of my nature as thinking. In Gewirth's terms, this stage of understanding my nature clarifies the idea by *enriching* its content with additional predicates necessarily belonging to the already grasped direct content: doubting, understanding, affirming, and so on. The additive feature of this stage of understanding what belongs to me resembles the analysis of the wax, an analysis which takes account of successive and multiple variations in the perceived attributes.[48] Perhaps then the analysis of the

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[47] Husserl, § 20, p. 46.

[48] Margaret Wilson claims that the wax perception is assymetrical with the reflection on my own nature, just because the latter does not seem to require grasping "unchanging or permanent properties", but proceeds through "changing modes", pp. 79, 82. But my gloss on the wax passage suggests that this is also true of what is perceived in the wax. To be sure, there are a number of assymetries between the two treatments. Most importantly, Descartes's first intuition of the self is as the "I" that *exists* – and necessarily so as long as I think it. Like

wax offers valuable data particularly for this stage of the process of clarifying and distinguishing my knowledge of my thinking nature; it enriches the content of my idea by making explicit the multiplicity of modes in which an intentional object can be grasped and the modifications of consciousness that can do the grasping.

Still, it is no accident that the wax passage insists on the sameness and purely intellectual character of the acts of consciousness by which the wax is perceived: that is just the point Descartes needs to belabor here. Although the Sixth Meditation does discuss the peculiar modalities of sense-perception and imagination, the wax passage is devoted to showing that there are no distinct *faculties* of sensation and imagination. Any purported distinct faculty of sensation or imagination would be restricted to grasping particular, determinate qualities, and only a finite, countable number at that.[49] A faculty that could receive only discrete qualities in isolation from their relation to a horizon of possible determinations, could not grasp them as determinations of an object, even though we *understand* those qualities as determinations of extension. Thus, to speak as the scholastics or Gassendi do, of a faculty restricted to particularizing 'accidents' or to sensible determinations,

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dissimilarities can be found in the next stage of the analysis, where the meditator decides the nature of the existing self to be a thinking thing (from the fourth paragraph through the sixth). Curiously enough, the method used here seems to me to match up pretty well with the process Gewirth described for the wax passage, for the moves made in this section are largely eliminative, as the meditator reduces the content of the idea of myself by throwing out what is epistemically unwarranted for knowledge of my nature. Of course, the narrator starts with a confused idea already taken as an idea of the I, and the point is to see what survives in this idea after the process of reduction. It is denial of my own thinking that destroys the grasp of myself. Only this surviving content is necessarily connected with the self and can constitute its true and essential nature. Finally, even the "enriched" understandings of each object gained through its modal determinations show telling dissimilarities. The modal determinations by which the wax is perceived are revealed in temporal succession, and as I shall suggest below, might be understood in terms of spatio-temporal continuity. But grasping the modal determinations of my thinking does not seem to require variation over time: they seem comprehensible in a single perception. Moreover, the synchronic structure of these modes shows some mutual dependence because of relationships among their contents; my judgements constrain my will, and I *ought* to make my certainties constrain my doubts, and my affirmations constrain my denials. The analysis of the modes of the wax does not seem to reveal the same sort of synchronic interrelationships and mutual contraints. But these sorts of dissimilarities are just what we should expect: the idea of myself and the idea of extension may both be innate, but they are not identical, and the former has methodological and epistemic priority over the latter.

49 Wilson makes a similar point, albeit in rather different language, p. 78.

but incapable by itself of grasping the substantiality of their object, is nonsense. A modal determination is only perceptible insofar as it is attributable to an object as a determination of that object. In order to perceive this modal relation at all, whatever is presented *through* sensation needs to be mediated by the intellect's idea of extension. No collection of raw, unmediated sense data will ever count as a perception of an object, even a thoroughly fictitious object. Whatever power may lie in bodily organs of sensation or imagination may give us something like raw data, but that data could not be perceived, even confusedly, without the informative and mediating power of an intellectual act. What is crucial to perception is that the modality of the connection between sensed qualities and the object to which they are attributed be properly understood; any particular shape we might apprehend, for instance, must be perceived as a possibility against a background horizon of other possible determinations – and this can only be the work of the intellect.

III

Throughout this discussion, I have insisted that the wax passage illustrates the conditions for the possibility of perception in the most crucial case for Descartes's challenge: the perception of a particular body. It demonstrates that those conditions lie in an innate idea of extension, innate because any such idea is properly intellectual, and about extension, because it offers the conditions under which a material thing could be an object of perception. But these are limited claims that do not yet provide a metaphysics of body; they neither establish that these conditions are the conditions for the possibility of material things, nor do they offer any account of the conditions for the individuation and differentiation of extension. On the other hand, the Synopsis to the *Meditations* tells us that "a distinct concept of corporeal nature [...] is developed partly in the Second Meditation itself and partly in the Fifth and Sixth Meditations" (AT VII 13, CSM II 9). So, we should at least expect that claims made about the wax will be in conformity with a fully developed concept of extension. In particular, we should expect that what the Second Meditation offers as the subjective conditions for perceptibility will be in conformity with genuinely objective conditions for the possibility of extended things, so that the later understanding of extension can be applied retrospectively to the wax passage. Yet Descartes's physics will refuse to countenance any real distinctions in extension that would allow differentiation into individual substances. That no mere chunk of extension can count as a distinct substance need not mean that the perception of the particular piece of wax is doomed to obscurity.[50] But it does mean that the particular piece of wax can have only a

[50] I think that Descartes does insist that the shape of ideas follow, so to speak, the natural cleavages in the universe, so that they take as their objects only that which is to some degree already differentiated. But each of the various items in

modal distinctiveness, and that the perception achieved in the Second Meditation requires further analysis to make its object truly distinct. A bit of hindsight might show us how such an analysis could be performed – and it might also show us some of the limits of the innate idea of extension.

In the first place, we should notice that although the wax passage illustrates that the conditions for the possibility of the perception lie in relating particular determinations to a horizon of possible determinations, it remains agnostic about how exactly that is to be achieved. The horizon according to which a *distinct* object is perceived cannot include any and every possible determination in any sequence whatsoever; its range must be restricted to what can count as a possible determination of the *same* object, excluding what cannot be so attributed. As we saw above, the distinctness of an idea is guaranteed when nothing other than what clearly belongs to the intended object is included in the idea, for instance, when the contents of my idea of wax are nothing other than modal variations to the intended piece of wax. If the perception of a particular body, i. e., an isolated chunk of extension, is to be made distinct, then the range of possible attributes it can take on must be limited to a much greater extent and in more specific ways than is extension in general: it must be related to the object as possible variations of *this* distinct chunk of extension.[51] But how is it possible to specify a chunk of extension as a distinct 'this'?

A promising start would be to individuate the chunk through some set of characteristics perceptible at some particular time (e. g., spatial location and some combination of size and density) that allow a specification of quantity. Now, the actual sequence of changes in such characteristics that a particular extended thing had undergone would track its particular history, just as the history of the piece of wax can be tracked from before it is placed in front of the fire to after. But it is the particular horizon, or the range of changes it can undergo in a continuous sequence, that provides the conditions for perceiving it as the same object; this range provides constraints on the sequential changes attributable to an object identified through its initial individuating properties, so that (to anticipate some of Descartes's concluding remarks in the *Meditations*) there will be a certain sort of connection among perceptions over time. Continuity, especially in the spatio-temporal positions of parts, is the basic conceptual constraint on how the sequence is thought.[52] But what sort

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Descartes's metaphysical repertoire – substances, attributes, modes – is differentiated *enough* to become the object of a distinct, well-formed idea. When the objects of our ideas are not differentiated accordingly, we fall into one of two kinds of error: the most common sort is the confusion of running too much together in an idea, e. g., confusing mind and body in the idea of the self. Another, much rarer, sort of mistake is to discriminate too finely, to hack with the sharp edge of the intellect where there is no natural articulation, as when we make an idea inadequate through abstraction; see, e. g., AT VII 221, CSM II 156.

51 It is the limitations on the horizon constituting the object of a perception that may explain Descartes's remarks that a particular perception can be more distinct than the general perception; these sorts of limitations should at least make the contents of the idea more easily comprehended by a finite mind.

52 This is suggested by Carriero, p. 204 (see also p. 215). And this may help to explain the importance of certain kinds of sense qualities that Descartes suggests

of continuity allows for individuated distinctness is another matter, requiring some additional constraints on the possible range of continuous determinations that this distinct body could undergo and remain the same body, e. g., a specific quantity of waxy matter that holds together and moves together. A plausible way in which the range of possible variations might be rigorously represented is through mathematical expressions, which would take the initial individuating specifications as values identifying the particular, distinct body.

But whatever its form, any such representation will probably need to take into account not only specifications of how much body there is, but also what sort of body, what 'stuff', is in question (e. g., wax). True, Descartes allows no deep metaphysical basis for differentiating between kinds of matter, and talk of differences in material stuffs may be simply a kind of shorthand for the micro-structure of matter, for quantitative differences in chunks of extension.[53] But even if they are merely phenomenal, such differences can be well-founded – and distinguishing among kinds of stuff may be indispensable in practice. It is important, after all, that the wax passage narrates changes observed in a piece of *wax*: were the meditator to have supposed that he had put a diamond in front of the fire, he would have been very surprised indeed had it exhibited the changes described in the passage – and he would have had to revise more than his beliefs about the faculties responsible for the perception. What we normally consider to be the specific sort of material body in question (be it diamonds, wax or quicksilver) sets limits to the sorts of changes it can undergo and be perceived to remain the same. Considerations of the range of determinations that a particular body can undergo and still be accounted the same might be exactly what is needed to give both warrant and rigour to distinctions among stuffs. Were we able to start with a full description of the micro-structure of matter, we might be able to dispense with such distinctions. But Descartes cannot believe that our finite minds are capable of such a full description. And although the general notion of spatio-temporal continuity belongs to the very idea of extension and its modes, determining the limits on the range of continuous determinations that might specify different sorts of matter requires more than conceptual analysis. These specific limits may be susceptible to mathematical expression, but they require

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in his clear and distinct idea of the wax, especially the distinction between so-called primary and secondary qualities. Perhaps the possible varieties of extension and shape are subject to limits of continuous sequential succession, while such qualities as color and taste are not. Between one shape and size and another the piece of wax must pass through an infinite but ordered sequence of determinate shapes. The same may not hold true of color (to change from red to blue, a fire need not pass through orange, yellow, green and infrared). Most likely, any explanation of the changes color can undergo requires reduction to the ordered sequence of changes in the spatial position of parts. For various accounts of the applicability of this primary-secondary distinction to the wax passage, see Wilson, p. 77 ff. and Curley, 1978, p. 215, and especially Carriero, p. 204, n. 15.

[53] An excellent account of Descartes's "micro-corpuscularianism" can be found in Stephen Gaukroker, *Descartes: an Intellectual Biography* (Oxford: Oxford University Press, 1995), especially chapters 3 and 7.

empirical investigation on our part.[54] This does not mean that we have to be Cartesian physicists in order to have relatively distinct conceptions of the conditions for the distinctiveness of bodies. But it does suggest that the role innate ideas play even in sense-perception does not preclude that experience – either rigorously undertaken or *ad hoc* – can give us some of the constraints on the distinctiveness attributable to bodies. Indeed, since there is no deep metaphysical distinction between particular bodies, the choice to individuate them or not, indeed to perceive them as distinct particulars or not, may be a matter largely of empirical convenience and practice.[55]

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[54] See Gewirth, p. 275, and Gueroult, vol. I, pp. 85 f.

[55] The original version of this discussion benefitted enormously from the thoughtful comments of Annette Baier, Joseph Camp Jr., Peter King (who, perhaps unwittingly, first suggested the applicability of Husserl's intentional analysis to the wax passage), and especially the late Douglas Butler, whose generosity in offering his help was matched only by the charm with which he delivered it. Thanks for patient and thoughtful comments are also due to the members of the Philosophy Department at the University of Texas at Austin, at whose departmental colloquium I presented a particularly inept version of this paper. I am also grateful to two anonymous referees for this journal, whose insightful comments greatly improved the final version of this paper.