

## *Descartes's Ontology of Sensation*

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If we were to look carefully at recent commentary on Descartes's theories of ideas and sensation, we would find that a large number of commentators hold that he believes the following:

- (1) Ideas are representational,
- (2) Sensations are ideas,
- (3) Sensations are not representational.

This is an inconsistent triad: any two of the above claims can be true together, but they cannot *all* be true together. The inconsistent triad can be avoided if we reject one of the claims. Some have argued that Descartes did not hold (1).<sup>1</sup> Some have argued that he did not hold (3).<sup>2</sup> I

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1 See, for example, John Yolton, *Perceptual Acquaintance from Descartes to Reid* (Minneapolis: University of Minnesota Press 1984); and Steven Nadler, *Arnauld and the Cartesian Philosophy of Ideas* (Princeton: Princeton University Press 1989).

2 See, for example, Richard Aquila, 'The Content of Cartesian Sensation and the Intermingling of Mind and Body,' *History of Philosophy Quarterly* **12.2** (1995) 209-26; Margaret Wilson, 'Descartes on the Representationality of Sensation,' *Central Themes in Early Modern Philosophy*, J.A. Cover and Mark Kulstad, eds. (Indianapolis: Hackett 1990); Ann Wilbur MacKenzie, 'Descartes on Sensory Representation: A Study of the Dioptrics,' *Canadian Journal of Philosophy*, Supplementary Volume **16** 109-47; Alison Simmons, 'Are Cartesian Sensations Representational?' *Nous* **33.3** (1999) 347-69.

believe that Descartes held (1) and (3), and will argue that he did not hold (2).

Generally, any account of Cartesian sensation at the very least must account for sensations in terms of the ontology. The account must say whether they are modes or not, and if modes, modes of *what* — mind, body, both, the union, and so on. Moreover, how sensations are cast in terms of the ontology must agree with how they are cast in terms of the epistemology.<sup>3</sup> The specific challenge to my denying (2), of course, is overcoming what has become the traditional reading of Cartesian sensation, which takes sensations to be ideas. I argue that a sensation in what Descartes calls the ‘strict sense’ is a complex corporeal-mental mode, or ‘modal complex’ as I shall call it, whose ideational component presents a sensible quality. Although this modal complex includes an idea as one of its components, the complex itself is not an idea. Moreover, although one of its components (the idea) is representational, the complex itself is not. And so, in denying (2), I can nevertheless maintain (1) and (3).

Working up the strict sense of the term ‘sensation’ will require us to look carefully at a number of texts. For, Descartes employs what I think are at least six senses of the term. Each, as it turns out, denotes something importantly distinct in the ontology. Getting the terminology straight, then, can assist us in getting the ontology straight. With this in mind, what I will do first is draw the relevant textual distinctions and work up what I would like to think is a standardization of the terminology. I do this in Section I. In Section II, for each sense of the term I locate the place of its referent in Descartes’s ontology. What we discover is that there are important ontological differences between ideas, sensations, sensible qualities, and sensory perceptions.

## I ‘Sensation’ in the Strict Sense

It is widely held that Descartes employs the terms ‘sensation,’ ‘sensory idea,’ and ‘sensory perception’ synonymously, from which it is concluded that he saw no significant difference in reference between the terms.<sup>4</sup> To be sure, Descartes is notorious for using terms without much concern for their traditional import, and he does use words interchange-

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3 I consider the epistemological angle in ‘Rationalism and Representation’ in *A Companion To Rationalism*, Alan Nelson, ed. (Oxford: Blackwell 2005).

4 See, for example, Alison Simmons, ‘Descartes on the Cognitive Structure of Sensory Experience,’ *Philosophy and Phenomenological Research* 67.3 (2003), 552.

ably. Even so, there are places where he will bring to the reader's attention a special or technical sense of a term, flagging the reader by his use of such labels as *strict sense*, *limited sense*, *restricted sense*, and so on. And, although there are places where Descartes admittedly will use 'sensation,' 'sensory idea,' and 'sensory perception' synonymously, there are nevertheless places where he gives them technical (and distinct) senses. Here, we find that the technical senses of these terms have ontological import. The terms pick out significantly different items in the ontology.

In the Sixth Replies Descartes introduces a distinction of what he calls 'grades of sensory response.'<sup>5</sup> First, the term 'sensation' refers to certain motions in the brain, in which case beasts as well as humans can be said to have them (AT VII 436-7; CSM II 294-5). This is the 'first grade' sense of the term. Second, the term refers to the effects of the motions in the brain, which are ideas in the mind. In the 'second grade sense,' beasts cannot be said to have sensations (AT VII 437; CSM II 294-5). Descartes recognizes this second sense of 'sensation' as that used in ordinary speech (AT VIIIa 316; CSM I 280). This sense of the term, as will become clear in what follows, is coextensive with 'sensory idea.' And, lastly, the term refers to judgments that are 'occasioned by the movements of the bodily organs' (AT VII 437; CSM II 295).<sup>6</sup> There are at least three senses of 'sensation':

- S1. 'Sensation' denotes a *motion* in the brain.
- S2. 'Sensation' denotes an *idea* in the mind.
- S3. 'Sensation' denotes a *judgment* in the mind.

There are a few more that I would like to point out.

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5 References to Descartes's work will henceforth be provided in the body of the article, and will cite *Oeuvres De Descartes*, 11 vols. C. Adam and P. Tannery, eds. (AT), and the English translation, *The Philosophical Writings of Descartes*, 3 vols., trans. John Cottingham, Robert Stoothoff, Dugald Murdoch, and (for volume 3), Anthony Kenny (CSM or CSMK). AT and CSM are followed by the appropriate volume and page numbers, and will be cited, side by side, separated by a semicolon. Thus the passage referred to here is: AT VII 436-9; CSM II 1294-5.

6 Contrast my analysis here to the sort found in Gary Hatfield's 'The Senses and the Fleshless Eye: The *Meditations* as Cognitive Exercises,' in *Essays on Descartes' Meditations*, Amélie Oksenberg Rorty, ed. (Los Angeles: University of California Press 1986) 45-79, and in his 'Descartes' Physiology and its Relation to his Psychology,' in *The Cambridge Companion to Descartes*, John Cottingham, ed. (Cambridge: Cambridge University Press 1993) 335-70.

In the *Principles*, Descartes discusses the lack of resemblance between what would later be called the ‘sensible qualities,’ which are presented to us in our sensory ideas, and the motions of bodies responsible for producing them in the mind (AT VIII A 34-5; CSM I 218-9).<sup>7</sup> Here, he refers to the sensible qualities of taste, smell, sound, heat, cold, color, and so on, as sensations. Later, he again discusses the sensible qualities presented in sensory experience and the motions in our nerves that produce them, and as before, refers to the sensible qualities as sensations (AT VIII A 322-3; CSM I 284-5). And so, he seems to hold:

S4. ‘Sensation’ denotes a sensible quality.

Drawing the distinction that we have thus far between S1-S4, we already gain some benefits, since the distinction can be used to sort out some subtle difficulties that arise in the text. For example, in one discussion of the sensory experience of color, he says that the color is something that we ‘experience *in* our sensation [*in sensu*]’ (AT VIII A 34; CSM I 218, emphasis mine).<sup>8</sup> If the sensible quality *red* is itself a sensation, what is it to say that this sensation is *in* a sensation? One way to answer this is to take ‘sensation’ in different senses — specifically, in two of the senses already introduced. For instance, we might take him to be saying: The sensible quality *red* (S4-sensation) is in an idea (S2-sensation). I will later argue that the sensible quality is *in* the idea in the sense that it is *presented by* the idea. But before doing this I want to finish what we started and work up the remaining senses of ‘sensation’.<sup>9</sup>

Another sense of ‘sensation’ can be found in the *Principles*. He says:

Perception, volition and all the modes both of perceiving and of willing are referred to thinking substance; while to extended substance belong size (that is, extension in length, breadth and depth), shape, motion, position, divisibility of component parts and the like. But we also experience within ourselves certain other things which must not be referred either to the mind alone or to the body alone. These arise, as will be made clear later on, in the appropriate place, from the close and intimate union of our mind with the body. This list includes, first, appetites like hunger and thirst; secondly, the emotions or passions of the mind which do not consist of

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7 Descartes does not actually use the term ‘sensible’ quality. Rather, he seems to prefer ‘quality.’ Even so, Arnauld in the Fourth Objections uses the term (AT VII 217; CSM II 153), and it is clear from Descartes’s reply that he understood it.

8 Descartes uses ‘in’ here (*in sensu*) as he does when saying that we think of color as being *in* an object (*in objectis*). This use, I think, expresses an ontological relationship (as opposed to a metaphorical one, for instance).

9 I am refraining from calling the relation *representation*. I will address this below.

thought alone, such as the emotions of anger, joy, sadness and love; and finally, all the sensations, such as those of pain, pleasure, light, colors, sounds, smells, tastes, heat, hardness and the other tactile qualities. (AT VIII A 23; CSM I 208-9)

Sensations, which, as we also learn in the *Passions of the Soul*, are on an ontological par with appetites and emotions, 'do not consist of thought alone' (AT XI 349; CSM I 338-9). In the *Principles* passage just cited, we are told that 'sensation' refers to something that neither belongs to the mind alone nor to the body alone. This sense of 'sensation,' as I understand it, denotes both a motion in the brain and an idea in the mind. We might say that it denotes a modal complex (a complex of modes), where the elements of the complex are, according to Descartes, related by way of Divine institution (AT VII 83; CSM II 57-8).<sup>10</sup> This is not a sensation in the S2 sense, for 'sensation' in the S2 sense denotes the *effect* of a motion in the brain — an *idea*. The term in the S2 sense does not denote the *complex* of motion and idea. If this is right, then:

S5. 'Sensation' denotes a corporeal-mental modal complex.<sup>11</sup>

On this interpretation, sticking to the sensation-terminology, S5-sensations consist of S1- and S2-sensations. That is, motions in the brain (S1-sensations) give rise to ideas in the mind (S2-sensations). This way of conceiving a sensation, as a corporeal-mental modal complex, aligns itself with the sort of thing Descartes says to More, for example, when he says that 'thought is *included in our mode of sensation [quia in nostro*

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10 The view is that our ideas are produced (*producuntur*) by motions in the brain (AT VII 79; CSM II 55). In other places, he says that our ideas are occasioned by these motions (AT VIII B 359; CSM II 304).

11 In his 'Cartesian Passion and Cartesian Dualism,' *Pacific Philosophical Quarterly* 71 (1990), Paul Hoffman argues that a Cartesian sensation is a 'straddling mode' — a mode that modifies both a mind and a body. And although I think that this is right, I want to make a further qualification, namely, that the ideational component presents a sensible quality. I will call this (below) an 'S6-sensation.' Where Hoffman and I will disagree, I think, is in respect to the substance (or substances) to which a sensation gets attributed. In an earlier paper, Hoffman argues that for Descartes a human being is an Aristotelian substance, understood in terms of Aristotle's hylomorphism, 'The Unity of Descartes's Man,' *The Philosophical Review* 95.3 (1986) 339-70. Although in his later paper Hoffman characterizes sensations as straddling modes that modify both a body and a mind, I believe that a consequence of his earlier view is that sensations are modes that are attributable to human beings — not to bodies and minds. So, either Hoffman's latest view (that sensation modifies two substances, mind and body) has changed from his earlier view (that sensation modifies one substance, the human being), or his view has not changed, in which case it seems to be internally inconsistent.

*sentiendi modo cogitatio includitur*]’ (AT V 277; CSMK III 365, emphasis mine). This appears to be connected to something he says in the Sixth Meditation, namely, that an intellectual act is *included in* the essential definition of a sensation (AT VII 78; CSM II 54). The Latin is: *intellectionem enim nonnullam in suo formali conceptu includent*. One way to read this is: ‘sensations include some intellect in their formal concept’.<sup>12</sup> In other words, what it is to *be* a sensation is to have some part or portion of the intellect in them — which I take to mean that a sensation is constituted in part by an intellectual element. On the view being worked out here, an *idea* is that part or portion of the intellect (or intellectual element) that is in a sensation. It is a constituent of a sensation (that is, an S5-sensation).

Now, it would seem that this is a sense of ‘sensation’ that is unique to humans. But, there is a very peculiar remark that Descartes makes in a letter to Regius that would suggest otherwise. He says that ‘If an angel were in a human body, he would not have sensations as we do, but would simply perceive the motions which are caused by external objects, and in this way would differ from a real man’ (AT III 493; CSM III 206). Here, it appears that the angel could have certain ideas (of motion) occasioned upon there being present certain motions in the human body. This sounds remarkably like an S5-sensation. However, Descartes says that the angel will ‘not have sensations as we (humans) do.’ Of course, it is not clear at all how this is supposed to happen, given that angels are typically taken to be disembodied minds, but the point of this story seems to be that angels *can* have sensations in the S5 sense. Of course, this seems possible only if embodied. Thus, if (embodied) angels can have sensations in the S5 sense, and yet angels even in these special cases do not have sensations as we humans do, then the S5 sense does not capture the unique sense in which *humans* have sensations.

In a letter to More, where Descartes offers a quick response to the question of whether angels can have sensory perception, he says that ‘the human mind separated from the body does not have sense-perception strictly so called; but it is not clear by natural reason alone whether angels are created like minds distinct from bodies, or like minds united to bodies’ (AT V 402; CSM III 380). It would seem that in order to maintain a coherent view about sensation, what he needs to be saying here is that disembodied minds will not have sensations in *any* sense. Even so, he says that they will not have them in what I will call the ‘strict sense.’ Assuming that in respect to its being disembodied, a disembodied human mind is no different from that of an angel’s mind, it would follow

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12 Note that Descartes does not actually say ‘intellectual *act*.’

that neither would have sensations in the strict sense. So far, so good. But, what if both are embodied? Will they both have sensations in the strict sense? Given what was said above, the answer to this must be, no. I take it that the difference is in the fact that, as in the story to Regius, (embodied) angels will have occasioned the ideas of motions (of the particles that constitute the external object), but (embodied) human minds will not. Instead, (embodied) human minds will have occasioned the ideas that present sensible qualities. This difference, I think, is what the remark to Regius is getting at. It is further supported by Descartes's now famous remark in the Sixth Meditation about a sailor in his ship:

Nature also teaches me, by these sensations of pain, hunger, thirst and so on, that I am not merely present in my body as a sailor is present in a ship, but that I am very closely joined and, as it were, intermingled with it, so that I and the body form a unit. If this were not so, I, who am nothing but a thinking thing, would not feel pain when the body was hurt, but would perceive the damage purely by the intellect, just as a sailor perceives by sight if anything in his ship is broken. Similarly, when the body needed food or drink, I should have an explicit understanding of the fact, instead of having confused sensations of hunger and thirst. For these sensations of hunger, thirst, pain and so on are nothing but confused modes of thinking which arise from the union and, as it were, intermingling of the mind with the body. (AT VII 81; CSM II 56)

The case of the sailor here, it seems to me, looks more like the case of the angel who occupies a human body than the case of a disembodied mind. Even so, the point that Descartes seems to be making is that the specific kind of sensory experience that arises from his being a union of mind and body is qualitatively different from the kind of experience he would have were he not a union but simply a mind. The angel case, I think, complicates the issue here, for Descartes does consider the possibility of an embodied angel, and yet seems ready to say that the angel's sensory experience, if we can call it that, will be qualitatively different from that of an embodied human mind — the angel's experience seems to be akin to that of the sailor's experience of his ship, *despite* the fact that it is now embodied. With the differences of (embodied) angel and human minds on the table, I want to suggest a sense of 'sensation' that is unique to human beings:

S6. 'Sensation' denotes a corporeal-mental modal complex, the ideational component of which presents a sensible quality.

S6-sensations consist of S1-, S2-, and S4-sensations. A motion in the brain (S1-sensation) produces an idea in the mind (S2-sensation), which presents a sensible quality (S4-sensation). The S6 sense, I will suggest, is the *strict sense* of the term 'sensation' and is unique to human beings. This is different from the S2 sense, which, recall, Descartes says is the sense of

the term in ordinary speech. By contrast, the strict sense is the *philosophical* sense of the term. This, I believe, aligns itself with Descartes's saying that when considering his nature in 'the limited sense,' he is taking himself to be a union of mind and body, and not simply a mind (AT VII 82; CSM II 57). For, he understands there to be an ontological difference between the nature of the human being proper (an embodied mind) and the nature of the mind that can exist independently of body. The discussion in the Sixth Meditation is about the former sort of being. Likewise, he seems to understand there to be an ontological difference between sensation proper (S6-Sensation) and a sensory idea (S2-Sensation).

If this is right, then a sensation, at least in the strict sense of the term, is not an idea. For, although the sensation has an idea (which presents a sensible quality) as one of its constituents, ontologically speaking it is not itself an idea. Rather, it is a special corporeal-mental modal complex. Moreover, the S6-sensation is not representational. For, even though it has as one of its constituents an idea, which *is* representational by nature, the sensation *qua* modal complex is not representational. This is not difficult to understand. If Jones, for instance, were to give to Smith a photograph of The Empire State Building, even though this act (of giving) includes in its description something that is representational (the photograph), the fact that the photograph is representational does not *transfer* representationality to the act of giving. To be sure, Jones's act *could* be taken to represent something (an act of friendship, for instance), but its doing so does not automatically follow from the fact that one of the constituents of the act is itself a representation of something. Likewise, the *complex* of the motion in the brain and idea in the mind is not representational simply because one of its constituents, the idea, is representational.

Thus, in line with the three claims with which we began, Descartes rejects (2). That is, he rejects that sensations (in the strict sense of the term) are ideas. And yet, according to the account given here, he still holds (1) and (3). That is, he holds that ideas are representational and that sensations (in the strict sense) are not.

It should also be made clear that neither S2- nor S6-sensations are what Descartes is referring to by the 'restricted sense' of the phrase 'having a sensory perception,' employed in the Second Meditation (AT VII 29; CSM II 19). This phrase, I think, is better understood as referring to an *idea* of an S6-sensation. Although Descartes makes no argument for this claim, it can be gleaned from what he says in his phenomenological descriptions of sensory perception. According to Descartes, among their various features, a salient feature of our sensations is their seeming to break into consciousness against the will. 'Frequently I notice them even when I do not want to: now, for example, I feel the heat whether I want to or not' (AT VII 38; CSM II 26). This feature, he says, is what leads him

to think that their origin is other than his mind. Another salient feature seems to be connected to their informing 'the mind of what is beneficial or harmful for the composite of which the mind is a part' (AT VII 83; CSM II 57). This, he says, is best understood in terms of God's designing the union of mind and body so that the mind will act so as to preserve the union.

Some commentators have argued in light of such claims that sensations are for Descartes representational.<sup>13</sup> Now, what sense of 'sensation' is being used here? One possibility is this: it is an S2-sensation that represents the — *idea* that is occasioned on there being present certain motions in the brain. But though this idea represents, say, the motions in a body (the motions of the particles that constitute an ice cube, for instance) that interact with my body, I want to resist holding that this very same idea also represents the fact that it is being brought before the mind at a particular time (at *this* moment) and independent of the will. As other commentators have suggested, these latter elements are best accounted for by taking a *sensory perception* to be an idea of the sensory event itself.<sup>14</sup> In other words, it is an idea of a sensation in the strict sense — an idea of an S6-sensation. We are not aware of the motions that constitute the body that interacts with our own, the motions in the brain, or the relation that holds between them and the occasioned idea.<sup>15</sup> Such things, according to the phenomenological description, are given as the *against my will* element. I would like to consider this a bit further.

Recall the case of Jones and the photograph. As before, suppose that Jones gives to Smith a photograph of The Empire State Building. The photograph represents — it represents The Empire State Building, of course. It does not, however, represent the fact that the photograph was given by Jones. This sort of thing is not internal to the photograph's representational content, but is external to (or independent of) it. This information, if we want to call it that, is provided in our looking at the event (of giving) as a whole, for Jones's giving is internal to the event (it

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13 For instance, see Simmons (1999).

14 See, for example, Norman Wells, 'Material Falsity in Descartes, Arnauld, and Suarez,' *Journal of the History of Philosophy* 22.1 (1984) 25-50.

15 In *Principles*, Part 1, Article 68, Descartes says: 'If someone says he sees colour in a body or feels pain in a limb, this amounts to saying that he sees or feels something there of which he is wholly ignorant' (AT VIII A 33; CSM I 217). I take this to mean that my sensory idea of the ice cube, for example, which presents cold, nevertheless does not make clear that the motions of the particles constituting the ice cube are what the idea is representing. To understand that they are what the idea represents, we must engage in a philosophical investigation.

is in part what makes up the event). Likewise, the S2-sensation represents what it does — motions of the body that interact with my body. Even so, it does not represent the fact that it was occasioned at this or that time, or that it was brought before me independent of my willing it. These are things that are external to the idea's (that is, the occurring S2-sensation's) representational content. This information is provided in my being aware of the sensory event as a whole. In contrast to ordinary speech, which, recall, takes a sensory perception to be coextensive with an S2-sensation or a sensory idea, the *philosophical* concept, at least on Descartes's view, takes a sensory perception to be an idea of an S6-sensation: it is an idea of the sensory event as a whole. Thus, if I am right, there is a difference between a *sensation* (*sensory idea*, and *sensory perception*) in ordinary speech, a *sensation* in the strict or philosophical sense, and a *sensory perception* in the restricted or philosophical sense:

- (i) *Sensation*, *sensory idea*, or *sensory perception* in ordinary speech: S2-sensation,
- (ii) *Sensation* in the strict or philosophical sense: S6-sensation,
- (iii) *Sensory perception* in the restricted or philosophical sense: idea of an S6-sensation.

(i) and (iii) are ideas and are representational; (ii) is neither an idea nor representational.

The story, as it has been told thus far, has Descartes drawing first a distinction between animals and humans: both animals and humans have the corporeal element of sensation (a motion in the brain), but humans, Descartes emphasizes, have an additional intellectual element (an idea in the mind). Here, to draw the distinction he emphasizes the S2 sense. He then draws a second distinction between humans and disembodied minds: the latter will not have sensations, for although they seem to possess the requisite intellectual element, they lack the corporeal element. The story to Regius about the angel is interesting because it suggests that even *if* an angel, which otherwise is a disembodied mind, were to occupy the body of a man, and thus could be said to now have the corporeal element, the angel's *sensory* experience, if we can call it that, would be importantly different from that of the man. The man's sensory experience presents to him a sensible quality, whereas the angel's experience does not. Here, to draw the distinction Descartes includes S4-sensations and as a result emphasizes the S6 sense.

Now, *why* the experience of the man is so different from that of the angels is not perfectly clear. But, as was mentioned earlier, commentators have argued that for Descartes the presentation of sensible qualities

is importantly connected to the preservation of the union of mind and body.<sup>16</sup> Aside from this sort of teleological account, though, Descartes seems to suggest that the *presence* of the sensible qualities in our sensory experiences is in part connected to the fact that our minds are essentially united to our bodies. He says to Gassendi, for example, in the Fifth Replies that 'The senses often impede the mind in many of its operations...' (AT VII 355; CSM II 258). Three years earlier to Reneri he writes, 'the soul can think without the body, even though, when it is joined to it, it can have its operation disturbed by the bad disposition of the bodily organs' (AT II 38; CSMK III 99). As I shall argue below, the *operation* here is the intellectual operation of representation (see, e.g., AT VIII A 17; CSM I 204). The story, I think, is that in being essentially united to a body, the body disturbs the operation of representation. What results, I will argue, is one's perceiving bluely or coldly, and so on. The sensible qualities *are* the disturbed operations of representation. This, as many will recognize, is an adverbial analysis of sensory ideas (S2-sensations).

## II The Ontological Status of Sensations

There are two kinds of reality or being in Cartesian ontology: formal and objective reality or being.<sup>17</sup> The formal reality of a thing is the kind of reality it possesses in virtue of its being an existent thing. Such a thing is an *actual* being, and can exist independent of (or outside) a finite mind (AT VII 103; CSM II 75). There are three levels or degrees of formal reality: infinite substance, finite substance, and mode. That of an infinite substance is greater than that of a finite substance, and that of a finite substance is greater than that of a mode. The sense of 'greater' here is understood in terms of ontological dependence. A mode depends for its being on the being of a finite substance, and a finite substance depends for its being on the being of an infinite substance.<sup>18</sup> There are two kinds of finite substance: mind and body. The nature of the first is expressed by its principal attribute, which is thought; the nature of the second is expressed by its principal attribute, which is extension. Descartes under-

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16 See Simmons (1999).

17 I will use 'reality' and 'being' in this context interchangeably.

18 Descartes holds that all things depend ultimately on the infinite substance. But, for my discussion here, I want to focus on Descartes's saying that the modes are modes of finite substances. 'Strictly speaking ... there are [no] modes or qualities in God' (AT VIII A 26; CSM I 211).

stands modes as manners or ways of being attributed. Thus, a shape, which is a mode, is a way of being extended; an idea, which is a mode, is a way of thinking. Insofar as an idea, say, is an existent mode of a mind, it possesses formal reality — the level of which is that of a mode. Descartes says, ‘The nature of an idea is such that of itself it requires no formal reality except what it derives from my thought, of which it is a mode’ (AT VII 41; CSM II 28). To think of an idea in terms of its formal reality or being is to take it in what we might call the *formal* sense.

The objective reality of a thing, by contrast, is the kind of reality it possesses in virtue of its being a representation of something. For Descartes, the only sorts of things that have this kind of reality are ideas. Thus, insofar as an idea represents something, it possesses objective reality. The objective reality or being of an idea, then, is importantly connected to the idea’s representational content. To think of an idea in terms of its objective reality or being is to take it in the *objective* sense. Descartes says:

And although the reality which I am considering in my ideas is merely objective reality, I must not on that account suppose that the same reality need not exist formally in the causes of my ideas, but that it is enough for it to be present in them objectively. For just as the objective mode of being belongs to ideas by their very nature, so the formal mode of being belongs to the causes of ideas — or at least the first and most important ones — by *their* very nature. And although one idea may perhaps originate from another, there cannot be an infinite regress here; eventually one must reach a primary idea, the cause of which will be like an archetype which contains formally [and in fact] all the reality [or perfection] which is present only objectively [or representatively] in the idea. (AT VII 41-2; CSM II 29)

The objective reality or being of an idea can have its origin in that of another idea. Even so, this, Descartes says, cannot go on to infinity. The ‘first and most important’ ideas — the primary ideas — will have causes (and, as we later learn, by this he seems to have in mind *occasional* causes AT VIII B 359; CSM II 304) that possess by their very nature formal reality or being. More specifically, the objective reality of these ideas will be caused by the formal reality of things. Which ideas are these? As he tells us in what follows, one of them is the innate idea of God (AT VII 51; CSM II 35). Descartes had asserted earlier in the Third Meditation that ‘in order for a given idea to contain such and such objective reality, it must surely derive it from some cause which contains at least as much formal reality as there is objective reality in the idea’ (AT VII 41; CSM II 28-9). As is well known, Descartes will argue that the objective reality contained in the idea of God, which we know is connected to the idea’s representational content, has its causal origin in the formal reality or being of God. What is easy to miss, I think, is that the idea’s representing God, and not some other thing, is importantly connected to the fact that

the idea's objective reality or being has its causal origin in the formal reality or being of God. In other words, a primary idea is of some object *A* only if the formal reality of *A* is the causal origin of the idea's objective reality. The same sort of analysis holds for another important primary idea: the innate idea of body. Descartes argues that if it turns out that the formal reality of body is not the origin of his idea's objective reality, then God is a deceiver. God is not a deceiver. And so, it follows that the objective reality of his innate idea of body has its origin in the formal reality of body (AT VII 79-80; CSM II 55). And, since this is the sort of reality one has if, and only if, one exists, it follows that body exists.

Taken formally, the idea of the sun, for example, is taken simply as a mode or modification of a mind. Taken objectively, the idea is taken in light of its representational content — in this case, the sun *as represented*. Taken formally there are no significant differences between our ideas. 'There is no recognizable inequality among them: they all appear to come from within me in the same fashion' (AT VII 40; CSM II 27-8). Taken objectively, however, insofar as their objects and levels of objective reality vary, 'it is clear that they differ widely' (AT VII 40; CSM II 28).

The ontological status of S1, S2, S3, S5 and S6-sensations is clear. In terms of formal reality, S1-sensations are modes of body, S2 and S3-sensations are modes of mind, and S5 and S6-sensations are modal complexes the constituents of which are modes of body and mind. Their ontological status is simply determined by the ontological status of the modes that constitute them, and, perhaps, the laws God institutes that guarantee the correlation between motions and ideas. Given that such laws hold *between* these specific modes of bodies and minds, I see no reason to think that they *add* to the ontological status of the modes. That is, in so holding they do not turn modes into substances, for instance. And so, I believe that it is safe to say that S5- and S6-sensations have the ontological status of modes. By contrast, the ontological status of S4-sensations, the sensible qualities, is unclear. They are not modes of body, for bodies are not colored or cold. But, it is not exactly clear whether Descartes took them to be modes or modifications of mind in the sense that the mind, when perceiving blue, say, is blue. For although he says that they are *in* the soul (*en l'ame*),<sup>19</sup> it is not clear how to take 'in' here. Are they modes of the mind in the sense that minds are blue, cold, and so on? Or, are they perhaps the *contents* of ideas, in which case, as we shall see below, it is not necessary for the mind to be blue when perceiving blue?

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19 This is from an October 1645 letter (AT IV 326; CSMK III 274).

Historically, the question of the ontological status of the sensible qualities, at least as it stood in light of Cartesian philosophy, was raised by philosophers of the generation following Descartes. Malebranche, for example, notes:

There are people who think that pain and heat, or at least color, do not belong to the soul. You even make a fool of yourself before certain Cartesians if you say that the soul actually becomes blue, red, or yellow, and that the soul is painted with the colors of the rainbow when looking at it. ... Where, then, is the clear idea of the soul so that the Cartesians might consult it, and so that they might all agree on the question as to where colors, tastes, and odors are to be found?<sup>20</sup>

Here, certain Cartesians are said to have held that colors were not genuine modifications of the soul, at least not in the sense that the mind is blue when perceiving blue. Even so, they appear to have held that colors, and the other sensible qualities, *belong* to the soul. This view, according to Malebranche, was established by their 'consulting' the idea of extension. The line of reason, he says, goes something like this:

Heat, pain, and color cannot be modifications of extension, for extension can have only various figures and motion. Now there are only two kinds of beings, minds and bodies. Therefore, pain, heat, color, and all the other sensible qualities belong to the mind.<sup>21</sup>

Instead of this argument, which concludes by default that colors belong to the soul, Malebranche, as we see in the passage cited earlier, would like to see the Cartesians produce a proof for thinking that colors belong to the soul based upon a clear idea of the soul. For, in addition to better establishing the claim that colors belong to the soul, the suggestion is that it would also tell us the sense in which they belong. The trouble, as Malebranche sees it, is that no such idea of the soul is available to us.<sup>22</sup>

Nicholas Jolley has argued that Malebranche held an adverbial theory of sensation.<sup>23</sup> And so, even though we do not have a clear and distinct idea of the soul, this theory nevertheless will allow Malebranche to

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20 Nicolas Malebranche, *The Search After Truth*, Thomas M. Lennon and Paul J. Olscamp, trans. & eds. (hereafter 'LO'), with *Elucidation of The Search after Truth*, Thomas M. Lennon, trans. & ed. (Cambridge: Cambridge University Press 1997), *Elucidation* 11, 634-5.

21 *Search After Truth*, LO, *Elucidation* 11, 634

22 *Search After Truth*, LO, Bk 3, P 2, Ch 7, 237-8

23 Nicholas Jolley, 'Sensation, Intentionality and Animal Consciousness,' *Ratio (New Series)*, 8.2 (1995) 128-42

ontologically locate the sensible qualities. For, he can hold that when perceiving blue, the mind *is* blue. Color is a genuine modification of the soul. Thus, one doesn't perceive blue as the *object* of perception. Rather, one perceives blue. <sup>24</sup> The objects of perception are ideas. Sensations, then, are modifications of the soul that arise when perceiving ideas. Jolley notes that the orthodox Cartesians, to which Malebranche refers in the passage cited earlier, thought that they had avoided the trouble of rainbow-colored souls by holding that the sensible qualities were not ideas taken in the *formal* sense, but rather were ideas taken in the *objective* sense. In other words, blue or red make up part of the *content* of an idea, but they are not attributed to minds in the sense that the mind itself is colored. This move, as I understand it, is connected to the sort of thing Descartes says to Gassendi, for example, in the Fifth Replies:

How do you arrive at the conclusion that everything the mind understands must be in the mind? If this were so, then, since the mind has an understanding of the magnitude of the terrestrial globe, it would surely have to possess this magnitude within itself, and hence not just be extended but have a greater extension than the earth. (AT VII 390; CSM II 266-7)

The question he raises is better put as follows: How do you arrive at the conclusion that in our having an idea *of* extension that the mind in turn *is* extended? To make this sort of mistake is to confuse taking the idea of extension formally and taking it objectively. Taken formally, the idea is a mode or modification of the mind. But, taken objectively, it is not — we are simply focusing on the idea's representational content. The distinction here is not that difficult to understand. Jones's photograph of The Empire State Building is, say, only seven inches tall. Even so, the photograph is of (or it represents) an object that is hundreds of feet tall. The photograph can represent something that is hundreds of feet tall without itself being hundreds of feet tall. Likewise, on Descartes's view, his idea can represent extension without the idea (or the mind) itself being extended. Applying this sort of analysis to ideas of colors, then, by their locating red, blue, and so on, in the content of ideas, the orthodox Cartesians seem to have thought that they were not committed to holding that when perceiving blue, the mind is blue. <sup>25</sup>

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24 Jolley, 135

25 We find a similar argument in George Berkeley's *Treatise Concerning the Principles of Human Knowledge*, Part I, Sec. 49 (La Salle: Open Court Publishing 1969). About colors he says, 'those qualities are *in* the mind,' but they are so 'only as they are perceived by it — that is, not by way of *mode* or *attribute*, but only by way of *idea*' (57). He goes on to argue, 'it no more follows the soul or mind is extended, because

Sensations, says Malebranche, 'are but the soul itself existing in this or that way.'<sup>26</sup> In a footnote he makes what I think is an important connection between operations of the understanding and modes of the soul (mind):

It will be seen at the appropriate time that these operations of the understanding are nothing but modifications produced in the soul through the efficacy of the divine ideas as a result of the laws concerning the union of the soul with Sovereign Reason and with its own body.<sup>27</sup>

A mode, and in this case a sensation, is a *way* of being the soul — it is a way of perceiving ideas. This is the sort of passage that supports Jolley's reading, a reading that I will adopt here. What I want to show is how a similar view can be found in Descartes. As I noted earlier, what I will argue is that for Descartes the sensible qualities are modifications of the mind, where the sense in which they are is best understood by thinking of them as the disturbed operations of representing.

Even though Descartes's view on the ontological status of the sensible qualities is unclear, that they are to be understood as belonging to the mind and not to the body is, I think, crystal clear, and is widely accepted by scholars. Although I will not go into it in any detail, it is at least worth noting that Descartes will sometimes talk of color as though it were a mode of body. But in these cases, he is clear to say that color is understood to be a disposition of bodies to produce in human minds the sensible qualities. In the *Principles*, for instance, he says:

In view of all this we have every reason to conclude that the properties in external objects to which we apply the terms light, colour, smell, taste, sound, heat and cold ... are, so far as we can see, simply various dispositions in those objects (in the shapes, sizes, positions and movements of their parts — French version) which make them able to set up various kinds of motions in our nerves [which are required to produce all the various sensations in our soul]. (AT VIII A 322-23; CSM I 285)

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extension exists in it alone, than it does that it is red or blue, because those colors are on all hands acknowledged to exist in it, and nowhere else' (ibid.). For discussions of an adverbial theory of perception, see George Pitcher, 'Minds and Ideas in Berkeley,' *American Philosophical Quarterly* 6 (1969) 198-207, and Thomas M. Lennon, 'Berkeley on the Act-Object Distinction,' *Dialogue* 40.4 (2001) 651-67. My take on Descartes strongly benefited from a study of these articles.

26 *Search After Truth*, LO, Bk 3, P 2, Ch. 1, 218

27 *Search After Truth*, LO, Bk 1, Ch 2, n. on 7

In other places, in *Comments on a Certain Broadsheet*, for instance, he talks of sensible qualities as being rooted in the innate capacity of an embodied human mind to produce them upon the presence of appropriate bodily stimuli (AT VIII B 359; CSM I 304). I believe that the above ways of thinking of color are compatible and offer no resistance to the view that I am working out here. Be that as it may, that the sensible qualities are taken to belong to the mind, and even supposing that they are modes of the mind, it is not obvious by any stretch of the scholarly imagination that an adverbial take on the sensible qualities is plausible here, let alone the best one. I want to turn to showing that it is at the very least plausible.

In the Preface To The Reader of the *Meditations*, Descartes makes an important distinction:

There is an ambiguity here in the word 'idea.' 'Idea' can be taken materially, as an operation of the intellect, in which case it cannot be said to be more perfect than me. Alternatively, it can be taken objectively, as the thing represented by that operation; and this thing, even if it is not regarded as existing outside the intellect, can still, in virtue of its essence, be more perfect than myself. (AT VII 8; CSM II 7)

*Prima facie*, this looks like an alternate formulation of the Formal-Objective distinction that we have been entertaining thus far. Marjorie Grene, for instance, has argued that this is in fact the same distinction, 'materially' and 'formally' being synonymous.<sup>28</sup> But a careful look shows that the Material-Objective distinction is importantly *different* from the Formal-Objective distinction.

Consider an 8 X 10 inch, black and white photograph of a red apple.<sup>29</sup> The photograph has two very different sorts of properties. Its being 8 X 10 inches, for example, is causally related to the manufacturer of this particular piece of film, but has absolutely no causal connection to the apple. By contrast, the photograph's having specific shades of white, gray, and black on its surface (which represent certain properties of the apple) is not only causally related to the manufacturer, but also to the apple. Had the skin of the apple, for instance, been different in color than it was at the time the photograph was taken, and yet all else remained the same, the specific shades of white, gray, and black that now occupy that region of the photograph's surface (that represent the color of the apple) would be different. The photograph's properties seem to fall into two categories:

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28 Marjorie Grene, *Descartes* (Minneapolis: University of Minnesota Press 1983), 177

29 I consider this sort of case in more detail in my 'Rationalism and Representation' in *A Companion To Rationalism* (Oxford: Blackwell 2005).

(1) Properties whose causal origin is (solely) the manufacturer,

and

(2) Properties whose causal origin is the manufacturer and the apple.

Being 8 X 10 inches falls into category (1); being this or that shade of gray (on the photograph's surface) falls into category (2). Whereas being 8 X 10 inches does not have a representational relation to the apple, being gray (on the photograph's surface) does. I will call (1)-type properties 'non-representational properties,' and (2)-type properties 'representational properties.'

Descartes's Formal-Objective distinction is similar to the one we just drew between the properties of the photograph. Consider the sensory idea of an apple. The idea, insofar as it is an existent mode of my mind has formal reality. As we know, Descartes holds that this is derived solely from the mind, of which it is a mode. I want to read this as being analogous to being 8 X 10 inches. The formal reality has its causal origin solely in the mind. Not only does the formal reality of the idea not have any causal connection to the apple, it has no representational relation to it. By contrast, insofar as the idea represents something, it has objective reality. This sort of reality, recall, not only has its origin in the mind, but insofar as it represents the apple, it has its causal origin in the formal reality of the apple. Earlier, a principle of representation (for primary ideas) was emphasized: An idea is of (or represents) object *A* only if the formal reality of *A* is the cause of the idea's objective reality. To be sure, other things may have a hand in causing an idea's objective reality, but the principle commits us to the view that *if* an idea represents *A*, *A*'s formal reality is playing some causal role in bringing about the idea's objective reality. Thus, if the idea represents the apple (or some mode of the apple), it follows that the apple's formal reality (or the formal reality of one of its modes) plays some causal role in bringing about the idea's objective reality.

There are, then, two sorts of features of a primary idea:

(1') Features whose causal origin is (solely) the mind,

and

(2') Features whose causal origin is the mind and the apple.

Along the lines of the photograph analogy, (1')-type features will be called 'non-representational features,' and (2')-type features will be called 'representational features.' The idea's having a certain level of

formal reality falls into category (1'); having a certain level of objective reality falls into category (2'). This sort of thing, I think, is what Descartes is after when making the Formal-Objective distinction. A formal feature of an idea is a (1')-type feature; an objective feature of an idea is a (2')-type feature. In other words, thinking of an idea in terms of (1')-type features is to take the idea in the formal sense, and thinking of an idea in terms of (2')-type features is to take the idea in the objective sense.

The Material-Objective distinction is different. This distinction is best understood in light of an analysis of (2')-type features. Consider, again, the photograph of the apple. The representational properties of the photograph, recall, have their causal origin in both the manufacturer and in the apple. Consider the particular region of the photograph's surface that represents the color of the apple (which is red). Although the photograph 'represents' the red color of the apple's skin, it 'presents' shades of gray. That it presents these particular shades of gray, as we already know, is in part causally connected to the color of the apple. For, had it been a different shade or color, and yet everything else remained the same (the lighting, the camera, and so on) the resulting shades of gray would have been different from those that now occupy that region of the photograph's surface. However, the gray is also causally connected to the manufacturer, for had the film been designed and made differently, the resulting shades of gray would have been different from those that now occupy that region of the photograph's surface.

Suppose that we ask a child or someone not greatly familiar with photographs for their take on the color of the apple. One answer, I think, can be, and perhaps will be, 'It is gray.' What has happened here is the child has mistaken the color of the photographic surface for the color of the apple. By contrast, someone familiar with photographs, and who perhaps was familiar with this kind of apple, could point at the photograph and say that it is a beautifully red apple. That she could point at the gray on the surface of the photograph and say this is important. She is not color blind. Rather, she understands that the color *presented* on the photograph's surface, which is gray, *represents* some other color, which in this case is red. If we confine ourselves to the presented color, we are right in calling it gray. What I want to suggest is that we are entitled to look at the *photograph* and say that the color of the apple, there in the photograph, is red. But, in this case, we are taking the color on the photograph's surface as a represented color. We are considering the photograph's *content*.

There is, then, an inherent ambiguity in representational properties. In the case of the photograph, taken one way, as the medium or operation of representation, the color is taken to be gray. Taken another way, as the thing represented, which in this case is the color of the apple, the color is taken to be red. And, a failure to disambiguate this sort of

property can lead a child, for example, to mistakenly judge that the apple is gray. And so, the representational property that represents the color of the apple should either be,

(2a) A property regarded in terms of the representational operation,

or

(2b) A property regarded in terms of the apple.

Something similar is found in Descartes's Material-Objective distinction. Returning to the example of the idea of the apple, Descartes holds that redness is not a mode of the apple (AT VII 75-6, 81; CSM II 52-3, 56, AT VIIIA 318; CSM I 281-2). The red that is presented by the idea is itself a quality found only in the mind. As is well known, it is Descartes's view that the motions of the particles constituting the apple are affecting my sensory organs, which in turn are affecting my brain, which in turn is occasioning the idea that represents to me the apple (AT VII 86-9; CSM II 59-61, AT VIIIA 318-23; CSM I 281-5). A constituent idea of the more complex sensory idea of the apple, which in ordinary speech is called 'the idea of red,' represents the motions of the apple's particles, and is doing so by way of the presentation of the quality red. In *Description of the Human Body*, Descartes says:

We have sensory awareness of two kinds of motion which these balls have. One is the motion by which they approach our eyes in a straight line, which gives us the sensation of light; and the other is the motion whereby they turn about their own centers as they approach us. If the speed at which they turn is much smaller than that of their rectilinear motion, the body from which they come appears *blue* to us; while if the turning speed is much greater than that of their rectilinear motion, the body appears *red* to us. (AT XI 255-6; CSM I 323)

As the particles (minute balls) are moved in the plenum, they affect our eyes. As a result, we are made *aware of* two kinds of motion. Our awareness is *not* of a color. Strictly speaking, the idea *presents* red. It does not *represent* red. Instead the idea represents the motions of the particles constituting the apple. This same analysis holds, say, for the idea of sweet, which is also a constituent of the sensory idea of the apple. If occasioned, the idea *presents* sweet, the quality, but *represents* certain motions of the particles constituting the apple. The red and sweet here are analogous to the gray of the photograph. As the presented gray (of the photograph) represents the color of the apple, the presented red or sweet (of the idea) represents the motions of the particles constituting the apple. Here, I want to emphasize the *operational* aspect of the gray of the photograph. The gray is that property of the photograph *by way of*

*which* the color of the apple is being represented. It is the vehicle of representation. It is taken to be *gray* only in light of our regarding this property of the photograph in terms of its being the representational medium or operation. Likewise, I want to suggest, the red and sweet are those features of an idea *by way of which* the motions are being represented. They are the vehicles of representation. They are taken to be *red* or *sweet* (qualities) only in light of our regarding the ideas in terms of their being representational operations.

As in the photograph case, ideational representational features are ambiguous. For, it seems to be Descartes's view that someone who has not undertaken a rigorous philosophical examination, like that worked out in the *Meditations*, can be led to wrongly judge that the red is a property of the apple. To keep from making this mistake, one needs to disambiguate representational features. This can be done by understanding that the representational feature of the idea that represents the motions of the particles constituting the apple should either be,

(2'a) A feature regarded in terms of the representational operation,

or

(2'b) A feature regarded in terms of the apple.

These are two ways of regarding (2')-type, or representational, features. Considering the idea in terms of that *by way of which* the particles are represented is to take it in terms of its being a representational operation, which takes the feature as a (2'a) feature. This is to take the idea materially. Considering the idea in terms of the apple is to take the idea in terms of what it represents, that is, in terms of its content, which takes the feature as a (2'b) feature. This, as we already know, is to take the idea objectively.

Whereas the idea taken formally relates the idea *as an existent mode* to the mind, the idea taken materially relates the idea *as an operation of representation* to the idea's content. Therefore, 'formally' and 'materially' are not synonymous, but are importantly different. Even so, following Malebranche here, given that the red or blue is the (disturbed) mental operation, Descartes would seem to be committed to holding that the mind is red or blue (when perceiving redly or bluey). What is important to see here is that Descartes takes there to be a distinction between the operations of his intellect and the representational content that arises by way of them. This implies that red or blue (S4-sensations) are not constituents of the *contents* of ideas (that is, they are not contents of S2-sensations). If what has been argued is right, the sensible qualities emerge as a disturbance of the representational operation (they are the

S2-sensation taken materially), a disturbance that has its origin in the mind's being essentially united to the body. Here, the sensible qualities *are* the disturbed operations of representation.

We have now accounted for the referents of the term 'sensation' as used by Descartes. In terms of the ontology, S1-sensations are modes of body, S2- and S3-sensations are modes of mind, S5- and S6-sensations are modal complexes, the constituents of which are modes of body and mind, and S4-sensations, the sensible qualities, are disturbed operations of the intellect (ideas taken materially).<sup>30</sup>

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