Sensory Perception of Bodies: Meditation 6.5

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To judge from the first five and a half of Descartes’ six meditations, the senses have very little to recommend themselves. At the beginning of the Meditations, our sense perceptual experience of the world is charged with being susceptible to illusions, indistinguishable from dreams, and of uncertain origins. The senses are later judged to systematically mislead us about the nature of bodies, providing only “obscure” and “confused” perceptions of them through what may be “materially false” ideas. The senses, it seems, can’t even acquaint us properly with a little piece of wax! The intellect, rather than the senses, is the epistemic hero of the Meditations, guiding us to such important metaphysical truths as the existence of God, the real distinction between mind and body, and even the true nature of body.¹ It is no wonder, then, that much of the secondary literature on Descartes’ treatment of the senses is devoted to understanding their epistemic shortcomings.²

The second half of the sixth meditation, however, shines a fresh light on the senses. Here Descartes argues that sensory perception is a form of thinking unique to embodied minds: it arises from the union or “intermingling” of mind and body (AT VII 81). While the result may be problematic for the purpose of doing metaphysics, he insists it is critical to our survival as embodied minds. There is, it seems, a division of cognitive labor in the embodied human mind: the intellect is our best guide to metaphysics; the senses are our best guides to action. While French commentators have long attended to Descartes’ re-purposing of the

¹ For discussion see Hatfield 1986.
senses as guides to survival, \(^3\) Anglo-American commentators have only more recently attended to this part of the story, \(^4\) which is the focus of this chapter.

The chapter begins in Section 1 with a brief guided tour of the *Meditations* that highlights the treatment of the senses and explores their epistemic unraveling in Meditations 1 through 6.5. Along the way I distinguish Descartes, the author of the *Meditations*, from his fictional first-person meditator, and to avoid ambiguity I refer to the meditator with feminine pronouns (she, her). Descartes’ aims in writing the *Meditations*, and in employing the arguments he does, are not always the same as those explicitly advanced by the meditator, and it so will be important to keep both in mind as we read the text. Section 2 turns to the repurposing of the senses as guides to survival in Meditation 6.5. Finally, Sections 3-5 explore the details of Descartes’ suggestion that the senses are guides to survival in three different aspects of sense perceptual experience: bodily awareness, so-called secondary quality perception, and spatial perception.

**1. The Senses in Meditations 1 to 6.5**

The senses come under attack almost immediately in the *Meditations*. Why? The meditator tells us she wants to rid herself of false beliefs and establish a firm and lasting foundation for knowledge, and that the senses aren’t up to the task. But why does *Descartes* choose to open the text with an attack on the senses? His stated goal is to provide the best possible argument for the existence of God and an argument for the real distinction between mind (or soul) and body that might underwrite a further argument for the immortality of soul. That, at any rate, is the goal he presents to the dean and doctors of the theology faculty

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\(^3\) See, for example, Gueroult 1953.
at the Sorbonne when he seeks their endorsement for the Meditations (AT VII 1). It is also the goal he presents in his Preface to the Reader (AT VII 9). (He confesses a rather different goal to his friend, Marin Mersenne, but we’ll come to that later.) Now Descartes’ considered view is that God and the soul are proper objects of the intellect alone; unlike bodies, they are not sensible or even imaginable, but only intelligible. He therefore insists it was necessary to help his readers “withdraw from the senses” and to prepare them for the study of purely intellectual things (AT VII 4, 9, 52 and 172). It is to that end that he opens the Meditations with his familiar battery of skeptical arguments: sense perceptual experiences are susceptible to illusion (square towers look round from a distance and amputees feel pains in non-existent limbs); they are phenomenologically indistinguishable from dreams (so I can never know for sure whether what I’m sensing is veridical); and their origin is uncertain (so they might systematically misrepresent things). But withdrawal is never easy. The senses have a persistent and compelling grip, and so by the end of Meditation 1, the meditator resorts to a bit of self-deception in an effort to make the doubts stick: she resolves to “deceive myself, by pretending that these former [sense-based] opinions are utterly false and imaginary” (AT VII 22).  

Having momentarily freed herself of the grip of the senses, the meditator has her first purely intellectual experiences in Meditation 2: she discovers that (a) she exists (AT VII 25) and (b) she is (at least) a thinking thing or mind (AT VII 27). These beliefs resist all doubt, and they appear not to rely on the senses, but only on the intellect. What Descartes aims to establish here, as the title of the meditation indicates, is that the mind (accessed only through the intellect) is known “better” than bodies (accessed chiefly through the senses)—better in the sense that its existence and various modifications are indubitable. But the

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5 My translations follow those of CSM, with occasional modifications.
meditator’s senses rebel immediately: “But it still appears—and I cannot stop thinking this—that the corporeal things…which the senses investigate, are known with must more distinctness than this puzzling ‘I’ which cannot be pictured in the imagination” (AT VII 29). The thought experiment with the piece of wax that follows is designed to reinforce the conclusion that things accessed through the intellect are known better than things accessed through the senses by showing that (a) even bodies are known better by the intellect than by the senses, at least so far as their nature is concerned (AT VII 31-32), (b) whatever sensory knowledge of bodies we have itself always involves something above and beyond mere sensing, viz., a judgment that belongs not to the senses but to the “mind alone” (AT VII 32), and (c) whereas any purported sensory knowledge about a body is dubitable, there is always a corresponding fact about the mind that is known with certainty, namely that it thinks it knows something about the body. At last, by the end of the wax passages, the senses fall into submission. Meditation 3 opens: “I will now shut my eyes, stop my ears, and withdraw all my senses” (AT VII 34).

In the body of Meditation 3, the meditator subjects her old sense-based beliefs about bodies to scrutiny. What, if anything, in them is certain? That she has sensory ideas that represent bodies to her is something about which she is certain. (After all, this is just to know something about her mind.) But there are two beliefs that typically accompany these ideas: (a) that bodies existing outside the mind are their source and (b) that those bodies are just as they sensorily appear, i.e., that they “resemble” or “conform to” her sensory ideas of them (AT VII 35). Both beliefs fall prey to the doubt, but the meditator worries especially about the belief that bodies resemble her sensory ideas of them. A clear counter-example presents itself immediately: she has two ideas of the sun, a sensory idea that represents it as small and an astronomical idea that represents it as large; the sun can’t resemble both ideas;
the astronomical idea has more claim to accuracy than the sensory idea; so the sun must not resemble her sensory idea of it after all. The meditator goes to judge that her sensory grasp of bodies is largely “confused and obscure” (AT VII 43) and so potentially “materially false” insofar as it invites false judgments about bodies (AT VII 44).

Like Meditation 3, Meditation 4 opens by reinforcing the withdrawal from the senses and reasserting the epistemic superiority of the intellect:

During these past few days I have accustomed myself to leading my mind away from the senses; and I have taken careful note of the fact that there is very little about corporeal things that is truly perceived, whereas much more is known about the human mind, and still more about God. (AT VII 52-53)

The main order of business in this meditation is to train the will to pledge its allegiance to the pure intellect, affirming its clear and distinct perceptions (among which its perceptions of the mind and God are the shining examples), and to refrain from passing judgment on the obscure and confused sensory perceptions of body. By holding her sense-based beliefs at bay, the meditator predicts she will safely avoid falsehoods.

Meditation 5 turns to the topic of body. The meditator knows now that the senses mislead her about the nature bodies. What, then, does her intellect have to tell her about them? The answer comes from geometry: she has a clear and distinct idea of body considered as something that has “extension in length, depth and breadth” (AT VII 63). Indeed she is capable of a “full and certain knowledge of…that corporeal nature which is the subject-matter of pure mathematics” (AT VII 71). With this move, Descartes ushers in the secret agenda of his Meditations: to introduce the geometrical conception of body that grounds his physics. He notoriously confesses this agenda in a letter to Marin Mersenne as the Meditations is being readied for publication:
I may tell you, between ourselves, that these six Meditations contain all the foundations of my physics. But please do not tell people, for that might make it harder for supporters of Aristotle to approve them. I hope that readers will gradually get used to my principles, and recognize their truth, before they notice that they destroy the principles of Aristotle. (AT III 298)

Descartes’ bare geometrical conception of body is, of course, at odds with a sensory conception of body, which includes color, sound, flavor, odor, warmth, cold, and the like. We thus have a further reason for Descartes to insist on a withdrawal from the senses in the Meditations, and on the falsity of the belief that the corporeal world is as it sensorily appears: he intends to replace the Aristotelian sense-based conception of body with his purified intellectual conception of body. Thus when bodies are ushered back into existence in Meditation 6, they are not the same bodies that were doubted out of existence in Meditation 1:

It follows that corporeal things exist. *They may not all exist in a way that exactly corresponds with my sensory grasp of them*, for in many cases the grasp of the senses is very obscure and confused. But at least they possess all the properties which I clearly and distinctly understand, that is, all those which, viewed in general terms, are comprised within the subject-mater of pure mathematics. (AT VII 80).

The pure intellect proves itself to be the superior source not only of our knowledge of insensible things like God and the soul, but also of our knowledge of the nature of body. To be sure, the senses are useful in establishing the existence of bodies (we’ll look at the argument shortly), but the assumption that we can read the corporeal world’s true nature off our sensory experience is now not just dubitable, but firmly rejected as false.
If we stop here, we are left with the impression that the senses are little more than epistemic troublemakers from Descartes’ point of view. They interfere with our attempt to attain purely intellectual knowledge of God and the soul (which are not sensible but only intelligible) and they offer up obscure and confused perceptions that hamper the progress of science by misrepresenting the nature of bodies. But the Meditations do not stop here. The remainder of Meditation 6 is devoted almost exclusively to the senses, and in particular to what Gary Hatfield has aptly called their “rehabilitation.” It is to their rehabilitation that we now turn.

2. Meditation 6.5: Repurposing the Senses

Let’s back up to the start of Meditation 6, which opens with the express purpose of determining whether bodies exist. After an aborted attempt to demonstrate that they exist based on the imagination, the meditator turns to the senses with the following plan:

To begin with, I will go back over all those things I previously took to be perceived by the senses and to be true, and my reasons for thinking this. Then I will set out my reasons for subsequently calling them into doubt. And finally I will consider what I should now believe about them. (AT VII 74, italics added)

The meditator signals that the epistemic credentials of the senses need to be re-evaluated in the light of recent meditational developments. She produces a list of her previous sense-based beliefs—a list that is a good deal longer, and the reasons for believing them a good deal richer in detail, than in earlier versions. She then recalls her reasons for calling these beliefs into doubt: the senses are subject to illusions; their experience is indistinguishable from dreaming; and their origin is uncertain. This last reason now gives the meditator pause, for she now knows that the origin of her cognitive faculties is a non-deceiving God. And

Hatfield 2009.
this begins to cast doubt on the doubts: how could a non-deceiving God fit her with faculties that positively tend to falsehood? What follows is a short but pivotal paragraph:

But now that I have begun to better understand both myself and the author of my origin, although I do not think I should heedlessly accept everything I seem to have acquired from the senses, neither do I think that everything got from them should be called into doubt. (AT VII 77-78; italics added)

It is time to rehabilitate the senses.

The first step is to restore the sense-based belief that bodies exist. As it happens, the argument provides only a very small boost to the senses, for their role in the argument is surprisingly indirect. In its barest bones, the argument runs as follows (see AT VII 79-80).

My senses are passive faculties for receiving sensory ideas. Those ideas require an active cause. There are three clear causal options: myself, God, and actually existing bodies. I can rule out myself as their cause, since sensory ideas are involuntary—they cannot be conjured up, changed, or prevented at will. The cause must therefore be God or bodies. I have a “great propensity” to believe they are caused by bodies. Of course, I have a great propensity to believe bodies have colors and sounds, and that propensity turned out to be wrong. In this latter case, however, I have a faculty that shows me the error in the propensity: the intellect shows me that bodies are all and only extended. By contrast, I find no faculty that shows me that God, rather than bodies, is causing my sensory ideas. God would be a deceiver if he produced them in me without giving me a way to figure that out. But God is no deceiver. My sensory ideas must therefore be caused by actually existing bodies.

So far so good. The meditator turns to examine more carefully her sensory perception of those existing bodies: “What of the other aspects of corporeal things, which are either particular (for example that the sun is of such and such a size or shape), or less
clearly understood, such as light or sound or pain, and so on?” (AT VII 80). What, in other words, about the things that the senses purport to teach us about bodies that have since been shown to be at best dubitable, at worst decidedly false: we know, for example, that the sun is bigger than it looks, that bodies do not have the sorts of lights and sounds and pains they sensorily seem to, and that there are bodies even where we sense no bodies. Knowing that God is the origin of her senses, the meditator reasons:

the fact that God is not a deceiver, and that therefore there could not be any falsity in my opinions unless there were also some God-given faculty to correct them, offers me certain hope that I can attain the truth even in these matters. (AT VII 80)

Strictly speaking, God could be acquitted of the charge of deception just in virtue of the fact that we can, with effort, withhold every sense-based judgment that we are inclined to make about bodies and judge simply that we are having sensory experiences. We would certainly avoid error that way. But there is something strange about a God who would give us sensory ideas and an inclination to believe that they are teaching us something about bodies only to require us to check them all. It is more plausible (and a more effective acquittal) to suppose that our sensory ideas are in fact teaching us something about those bodies after all.

The meditator opts for this latter line of argument: “surely there is no doubt that everything I am taught by nature contains some truth” (AT VII 80; italics added). Since by her “nature” she means “the totality of things bestowed on [her] by God” (AT VII 80), and since her senses are bestowed on her by God, what she is naturally taught by the senses must therefore have some truth in it. Of course, the meditator has to sort out what things about body she is naturally taught by her senses and what things are the result of her own faulty (but correctable) reasoning. God is only responsible for the former, so only they need to be true.
Descartes’ key move in rehabilitating the senses is to repurpose them: he recasts the function of the senses, and thereby directs us to a set of true beliefs to which they naturally guide us. The meditator knows by now that the function of the senses is not, as she previously thought, to reveal the corporeal world’s true nature to us: I “pervert the order of nature” by using the senses “as certain guides to immediately discerning the essence of bodies located outside me” (AT VI 83). Instead the senses “are given to me by nature in order to indicate to the mind what things would be beneficial or harmful to the composite of which it is a part” (AT VII 83). The function of the senses, in other words, is to facilitate self-preservation. They are not cognitive tools for doing metaphysics, but cognitive tools for survival. The truths to which the senses must lead us, then, must concern our self-preservation.

It is important to note that it is not the preservation of myself as a mind that the senses govern, but the preservation of myself as a mind-body union or human being: “sensory perceptions…are given to me by nature in order to indicate to the mind what things would be beneficial or harmful to the composite of which it is a part” (AT VII 83, italics added). The qualification is important. Disembodied Cartesian minds have no need of the senses, and Descartes is not shy about saying they have none (see AT V 402). They engage only in pure intellection, and for that they need only innate intellectual ideas. The embodied human mind has an extra job to do: it must keep its own body alive (at least, if it wants to remain embodied). Since the human body is constantly impacted for better or worse by other bodies in the environment, the embodied human mind must dedicate a good deal of its cognitive labor to monitoring and protecting its body. It is fitted with senses to take on precisely this extra cognitive work.
That the senses are designed for bodily self-preservation is underscored in the meditator’s discussion of the “institution of nature” by which God fits the types of motions in the human brain (more specifically, the motions of tiny “animal spirits” coursing through the pineal gland) to types of sensation in the human mind (AT VI 87-88). God’s choice of pairings is not arbitrary: he has paired each type of motion with that type of sensation which “is as maximally and most frequently conducive as possible to the preservation of the healthy human being” (AT VII 87). Motions in the brain that originate in a foot injury, for example, give rise to sensations of pain occurring in the foot. “Nothing else would have been so conducive to the conservation of the body,” for “this stimulates the mind to do its best to get rid of the cause of the pain, which it takes to be harmful to the foot” (AT VII 88).

With the proper function of the senses in view, the epistemic credentials of the senses need to be re-evaluated, and the meditator is clear in her assessment: “in matters concerning the well-being of the body, all my senses report the truth much more frequently than not” (AT VII 89; italics mine). The truths we taught by our sensory nature, then, are truths concerning our bodily well-being.

The senses are reliable in this matter, but they are not infallible. (Note the caution: “all my senses report the truth much more frequently than not” (AT VII 89; italics mine).) They remain subject, now and then, to what the meditator describes as “true error[s] of nature” (AT VII 85). This occurs when the senses lead to an action that is not, in fact, conducive to one’s bodily well-being, as when a jaundice patient sees both ripe and unripe bananas as yellow and thus fails to distinguish them. There is no deception, on Descartes’ view, in the healthy person’s visual system representing ripe bananas as yellow and unripe ones as green since (a) it facilitates our distinguishing the bananas (AT VII 75 and 81; see also AT VI 133)
and (b) we can check our temptation to judge falsely that the bananas are really yellow or green (in the way they appear) by using our intellect to conceive their true bodily nature. But there is deception in the jaundice patient who sees unripe bananas as yellow, for her visual system fails to facilitate self-preserving behavior: she’ll reach for the ripe and unripe bananas indiscriminately, inviting digestive problems. (Happily her gustatory system will likely prevent the error once the unripe banana is in her mouth!) The meditator tries her best to offer God a defense of these true errors of nature: they are, she suggests, the inevitable result of fitting an indivisible mind with divisible body in such a way that it is immediately affected by only one part of the body (the pineal gland). Motions in the pineal gland give rise to those sensations that are most conducive to self-preservation given their usual distal bodily cause. Thus pineal motions typically caused by an injured foot will always give rise to a pain-in-the-foot sensation. But since those motions can have aberrant causes (e.g., an amputee’s stump may trigger the pineal motion that his foot used to trigger), the resulting sensation will occasionally be an inappropriate guide to action. God made the best possible system given the materials he was working with. And so: “notwithstanding the immense goodness of God, the nature of man as a combination of mind and body is such that it is bound to mislead him from time to time” (AT VII 88). The rehabilitation of the senses, then, is not 100%, but by recasting the cognitive role that the senses are playing in our lives Descartes restores them enough to remove the doubts of Meditation 1. The meditator concludes: “I should not have any further fears about the falsity of what my senses tell me every day; on the contrary, the exaggerated doubts of the last few days should be dismissed as laughable.” (AT VII 89).

7 It’s not a convincing argument. Just why does the mind have to be acted on by just one part of the body? And why couldn’t God have created better materials?
By the end of the *Meditations*, Descartes clearly envisions a division of cognitive labor in the embodied human mind. The intellect serves as guide to metaphysics, revealing to us the essential natures of things. The senses serve as guides to embodied self-preservation, revealing to the corporeal world to us insofar as it is related to and can benefit or harm us. Each faculty is suited especially to its own task. Just as the senses are ill-equipped to do metaphysics, so, Descartes tells Princess Elizabeth, the intellect is ill-equipped to keep us alive: “those things pertaining to the union of soul and body are known only obscurely by the intellect alone… but they are known very clearly by the senses (AT III 691-692). The *Meditations* focuses on the intellect because it is a work of metaphysics, but it is important to put the *Meditations* itself in context. Metaphysics is something Descartes recommends we engage in “once in a lifetime” (AT VII 17 and AT III 695). More than that is downright dangerous:

I believe that it is necessary to have properly understood, once in a lifetime, the principles of metaphysics, since they give us the knowledge of God and of our soul. But I think also that it would be very harmful to occupy one’s intellect frequently in meditating upon them, since this would impede it from devoting itself to the functions of the imagination and the senses. (AT III 695)

The senses (and imagination) are our guides to action and we must use them every day. Thus Descartes tells us in the opening line of his *Optics*, “the conduct of our life depends entirely on the senses” (AT VI 81). The intellect may be the hero of Cartesian metaphysics, but senses are the heroes of Cartesian human life.⁸

There remain important questions, however: just how do the senses facilitate self-preservation? Precisely what truths about self-preservation do they teach us? And in virtue of

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⁸ Indeed metaphysics itself is ultimately subordinated by Descartes to a practical concern with the conduct of life (see Shapiro 2008).
what do they point us to these truths? Although Descartes offers some answers to these questions in the *Meditations*, we learn more by turning his extensive writings on sensory perception in the *Optics, Treatise on Man, Principles*, and *Passions of the Soul*. The remainder of this chapter explores these questions in three broad categories of sensory perception: bodily awareness; so-called “secondary quality” perception; and spatial perception. In all three domains, we find Descartes developing a conception of sensory representation that we might call *narcissistic* representation; that is, representation of the world as *mattering to me*.9 It is this narcissistic representation that makes them a suitable to guide to action.

3. Bodily Awareness

Let’s start with the internal senses. These include bodily sensations (like pains and tickles), appetites (like hunger, and thirst), and passions (like fear and love), which collectively constitute our bodily awareness. The internal senses are on the front lines of embodied self-preservation, for it is through them, Descartes suggests, that we come to believe (truly) that we have a body, that its condition is well or unwell, and that we should take certain actions in order to maintain its well-being.

The first sense-based belief that the meditator reports having had prior to engaging in meditation is “that I had a head, hands, feet, and other limbs making up the body that I regarded as part of myself, or perhaps even as my whole self” (AT VII 74). This is also the first belief to be restored in Meditation 6, almost intact. The meditator is no longer tempted to identify her *whole* self with her body (she is first and foremost a mind), but she re-instates her belief that she *has* a body:

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9 I borrow the term from Aikins 1996.
10 My treatment of bodily awareness here is deeply indebted to discussions with Colin Chamberlain, and to the work he has done on this topic in his dissertation.
There is nothing my nature teaches me more vividly than that I have a body… My 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 to and as it were intermixed with it, so much so that I compose a single thing with it. (AT VII 80-81; italics mine).

Bodily sensations and appetites direct us to this truth by the peculiar way in which they are represented. Like all sensations, they are represented as existing on or in a body. But they are different from external sensations such as color, flavor and odor in a number of important ways. First, they are represented as existing on or in one body to the exclusion of others: I feel hunger, thirst, pain and titillation in one particular assemblage of bodily limbs and organs, but not in bagels, flowers, dogs or even other assemblages of bodily limbs and organs (see AT VII 76). Second, they are a constant presence. I can close my eyes to cut off color sensations; I can cover my ears to block out sound sensations; I can hold my nose to omit odor sensations. But I cannot escape bodily sensations (without anesthesia or very powerful drugs). The body they representationally inhabit is thus phenomenologically inescapable from me (AT VII 76). Third, these sensations are “internal” (AT VII 77). Descartes never explains what this means, but as a first pass I suggest that it means that bodily sensations represent the body interoceptively; that is, they represent the body “from the inside” in such a way that it’s difficult to distinguish the perceiver from the thing perceived. We use the language of “feeling” to describe this experience. When one feels a pain, the subject doing the feeling and the thing felt blur into one. The “external” senses, by contrast, are exteroceptive: through sight and touch I observe bodies, including my own, and in this experience there is a phenomenological differentiation between the perceiver and the body perceived. When I step on a nail, I may visually observe a nail entering a foot, but I do
not observe pain in a foot; I feel pain in my foot or pain in a part of me.\footnote{This, I take it, is what distinguishes the experience of a mind-body union from that of a pilot in his ship: I feel what’s going on in my body, whereas the pilot can only observe what’s going on in his ship.} All of these features of the internal senses help to confer a phenomenological sense of ownership on the body perceived through them. And this is obviously important for self-preservation. I can take an interest or not in seeing a foot destroyed; but I cannot help but take an interest when I feel my foot, or indeed myself, destroyed. Bodily sensations, then, facilitate self-preservation by identifying one body in particular as my body or a part of me.

Descartes may think this representational state of affairs is an epistemic disaster insofar as it gets in the way of my appreciating the metaphysical fact that my mind can exist (as a pure intellect) without my body, but he nevertheless thinks it is representing something true: in this life I do not exist apart from all bodies, but rather am united to one of them so as to form a unit (AT VII 15 and AT VII 81).\footnote{The precise nature of this mind-body unit is a vexed interpretive matter. For diverse readings, see Chappell 1994, Cottingham 1985, Curley and Koivuniemi forthcoming, Hoffman 1986, Rozemond 1998, and Schmaltz 1992.} What is more, this is a truth that the intellect is not in a position to reveal to us, since it will always represents all bodies as really distinct from mind. It takes the senses to put us in the position to appreciate our embodied human existence.

The internal senses tell us more than that we have bodies. They also inform us of the wellness (or illness) of our bodies. How? Most of our internal sensations are pleasant or unpleasant: light strokes of the skin and a gentle squeeze of the hand are titillating and pleasant; pain, hunger, and thirst are unpleasant. The body parts that these sensations are felt to inhabit are thereby represented as doing well or badly. Feeling a titillating stroke on my skin is “naturally agreeable to the mind because it is a sign of robust health in the body with which it is closely conjoined” (AT VIII-A 318) and “represents this to the soul as a good
which belongs to it insofar as it is united with the body” (AT XI 399-400; see also AT XI 143-144). Feeling a pain in my foot, by contrast, tells me something is wrong (AT VII 80) and incites me to “to remove, as much as [I am] able, the cause of the pain as harmful to the foot” (AT VII 88). What is more, I judge other bodies to be beneficial or harmful to me based in part on whether they produce pleasant or unpleasant bodily sensations in me (AT VII 74). Thus although they may mislead us into thinking that titillation and pain and the like are intrinsic properties of our bodies, when in fact they are sensations produced in our mind by mechanical motions in the brain, the internal senses more often than not lead us straight to the truth concerning to the condition of our body.

Passions like joy, sadness, fear and love add another layer to the story. Descartes counts them among the internal senses (AT VII 74 and 76; see also AT VIII-A 316-317, and AT XI 349), and they are caused by the same animal spirits coursing through the pineal gland that cause the rest of our sensations and that also ready our bodies for action.13 The passions add an extra affective and motivational layer to the experience we have both of our own bodies and external bodies. Their function, on Descartes’ view, is to “dispose our soul to want the things that nature deems useful for us, and to persist in this volition” (AT XI 372). Thus when the body is in good health we feel not only titillation but also joy, and when the body is in bad health we feel not only pain but also sadness (AT XI 399). Through the passions we are attracted and repulsed by other bodies. When we see a bear charging toward us, the same pineal motions that represent the bear sensorily to us as large and stinky also induce a passion of fear so that we are motivated to flee. The passionate character of

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13 For a helpful discussion of the process see Hatfield 2007.
sensory experience of the world thus facilitates our self-preservation by urging us to act appropriately in the face of bodies that are poised to benefit or harm us.\textsuperscript{14}

4. Secondary Quality Perception

The external senses (sight, audition, olfaction, gustation and touch) represent bodies as having both spatial properties (size, shape, position and motion) and qualitative properties (color, sound, odor, flavor, hot/cold). These qualities are typically dubbed “primary qualities” and “secondary qualities” in the literature respectively. Let’s start with secondary quality perception. Insofar as the external senses represent bodies as having colors, odors, and the like, they, like the internal senses, lead us to misjudge the fundamental nature of body. But, Descartes suggests, the sensory representation of bodies as colored, smelly, tasty, and is conducive to self-preservation in a number of ways. First, it enables us to discriminate the macroscopic bodies we encounter every day: “I also sensed in bodies colors, smells, tastes, and sounds, the variety of which enabled me to distinguish the sky, the earth, the seas, and all other bodies, one from another” (AT VI 75; see also AT VI 133). So long as we restrict ourselves to making discriminations among bodies, which is obviously necessary for interacting with them, our sense-based judgments are true: “from the fact that I sense a great variety of colors, sounds, smell, and tastes, as well as differences in heat, hardness, and the like, I am\textit{correct} in concluding that there are variations in the bodies from which these sense perceptions come, variations corresponding to them though perhaps not resembling them” (AT VII 81; italics mine). So far our nature does not lead us astray. It is only when we further judge that the colors, sounds, etc., are intrinsic properties of the bodies they help us discriminate that we go wrong.

Second, through secondary quality sensations, bodies are represented “as things I should seek out or avoid” (AT VII 81 and 83). How? Like bodily sensations and appetites, secondary quality sensations tend to be pleasant or unpleasant, so that the objects they representationally inhabit are represented as pleasant or unpleasant. Secondary quality sensations thereby serve as harbingers of the benefit or harm that external bodies can bring our way: “from the fact that some of these perceptions are agreeable to me and others disagreeable, it is completely certain that my body, or rather my whole self, insofar as I am a composite of body and mind, can be affected by various beneficial or harmful things from the bodies that surround it” (AT VII 81). Consider an example: unpleasantly sharp and bland flavor sensations arise from bodies that are physically too sharp or too soft to be digested into the blood stream while pleasant flavors that “mildly tickle the tongue” arise from bodies that are suitable for digestion (AT XI 146-147). The details are fanciful, to be sure, but they illustrate Descartes’ view that secondary quality perception is a way of representing the world as mattering to us.\(^\text{15}\) Now add passions to the mix: I find myself attracted to things that are sensorily represented as pleasant and repulsed by things that are sensorily represented as unpleasant. Together, the senses and passions represent external bodies as beneficial and harmful to me and motivate me to engage with them accordingly.

While Descartes seems to think that all secondary quality sensations are naturally pleasant or unpleasant and so natural harbingers of benefit and harm that attract and repel us—and that includes even color sensations (AT XI 158), he does not seem to think they are intrinsically so. The valence of sensation depends a bit on the context in which it occurs: musical dissonance can be a pleasant relief from a monotonously consonant tune; salt and vinegar can be a pleasant relief in a dull meal; and “fashionable colors” like fuscia and

\(^{15}\) For further discussion see Simmons 2008.
chartreuse can liven up a drab outfit (AT I 223, AT X 91-92, AT XI 150-151 and 158). It also depends on the condition of the perceiver’s body: things that taste good when we are healthy often taste bad when we are ill (AT XI 147\textsuperscript{16}). The pleasantness/unpleasantness of a secondary quality sensation, then, is both contextual and relational.\textsuperscript{17} And this is appropriate, for the benefit and harm that bodies may cause us are themselves contextual and relational. This is a further way in which the senses represent bodies not simply as they are in their own nature, but as they are related to us.

5. Spatial Perception

The external senses also represent the spatial properties of bodies to us. Here, you might think, is the one place where the senses straightforwardly tell us the truth about bodies in a way suitable for metaphysics, for Descartes thinks that bodies \textit{do} have spatial properties by their own nature. Vision represents the top of my coffee mug as circular and so it is even in a Cartesian world. It’s not that simple, however. The senses represent even the spatial properties of bodies narcissistically insofar as they represent them not “as they are in themselves” but rather as they are related to one’s own body. For spatial perception is egocentric and perspectival. We do not see (or feel) bodies to occupy some absolute position on a cosmic Cartesian co-ordinate system, but to be located in a direction and at a distance relative to us. Our bodies are always situated as \textit{here}, as it were at the origin of the co-ordinate system: my mug is off to the right at an arm’s length away from here. Nor do I see (or feel) the shapes of things \textit{simpliciter}, but how those shapes are oriented with respect to me: I see the top of my mug not simply as circular, but as oriented in such a way that I would have to tip it forward to see if there is any coffee left in it. It is only if I happen to

\textsuperscript{16} In this latter case, however, it is unclear whether the object is producing a new sensation that is naturally unpleasant or the same sensation which now tastes unpleasant.

\textsuperscript{17} For further discussion see Jorgensen 2012.
view my mug from directly above that its top would look simply circular, and it is just this sort of rare occurrence that Descartes may have in mind when he says in the Principles that the senses “only occasionally and accidentally teach us what external bodies are like in themselves” (AT VIII-A 41-42). My senses show me objects as they are spatially related to me; yours show you objects as they are spatially related to you. Of course, they also show us the spatial relations objects have to each other, but even that information is often relative to the perceiver: from my point of view the blackboard is to the right of the coffee table, but from your point of view, sitting across from me, it is to the left of the coffee table. Having this egocentric and perspectival information is important to survival. If I’m scrambling up some rocks on a hike, I need to know not simply what where the boulders are, and what size and shape they are, but where they are relative to me (at location here), whether they are big enough for me to step on and how they are oriented with respect to where I am now.18

6. Conclusion

Descartes’ considered view of sensory perception is that while it gets in the way of our doing proper metaphysics, it is essential to the conduct of our human lives. Through what I’ve called its narcissistic representation of the corporeal world, it shows us things the intellect alone does not. It shows us that we are embodied minds, and that our bodies can suffer harm or enjoy robust health. It shows us the spatial relations that other bodies have to ours and the impact they may have on its well-being. And through its passionate nature, sensory perception also motivates us to engage in the actions necessary to insure our safety. It may behoove us to meditate our way into the posture of a disembodied angel once in a lifetime to discover important truths about God, the soul, and the fundamental nature of

18 For further discussion see Simmons 2003.
body. The Meditations is written to be our guide in that quest. But when our meditating is done, we must return to our embodied lives and trust the senses to be our guide.