What did Leibniz have to contribute to the philosophy of mind? To judge from textbooks in the philosophy of mind, and even Leibniz commentaries, the answer is: not much. That may be because Leibniz’s philosophy of mind looks roughly like a Cartesian philosophy of mind. Like Descartes and his followers, Leibniz claims that the mind is immaterial and immortal; that it is a thinking thing (and is never not thinking); that it is a different kind of thing from body and obeys its own laws; and that it comes stocked with innate truth-tracking intellectual ideas and an epistemically troubling habit of forming confused sensory ideas on the occasion of external corporeal events. Nothing is new. Of course, Leibniz adds unconscious perceptions to the mind in the form of his famous petites perceptions and he offers a unique solution to the problem of mind-body interaction in the form of his infamous pre-established harmony. In the overall scheme of things, however, these look like minor alterations in a philosophy of mind that the Cartesians had been advocating for some fifty years. Or so it appears.

Leibniz is not, in fact, a Cartesian philosopher of mind. In the opening of the New Essays on Human Understanding, his spokesman announces in no uncertain terms: “I should tell you the news that I am no longer a Cartesian” (NE I, A/RB 71).¹ The list of theses that he presents to illustrate his renunciation of Cartesianism is dominated by issues in the philosophy of mind. The most dramatic, but under-appreciated, disagreement concerns the very nature of mental activity, and so of the mind itself. The Cartesians take consciousness to be the distinguishing mark of thought, and so of the mind. Leibniz emphatically rejects this
view, maintaining that *representationality* of some sort is the mark of the mental. This is no minor alteration. Leibniz’s theory of mind is meant to replace, not simply amend, the Cartesian theory.

That Leibniz’s re-conceptualization of the mind is under-appreciated today is illustrated by statements like the following from a recent collection of essays on consciousness:

> Until the time of Freud, there was no proper theoretical framework in which to reject the Cartesian idea of equating mind with consciousness. In other words, consciousness was generally taken to be “the point of division between mind and not mind”—the mark of the mental.\(^2\)

To be fair, the author of this passage does mention that Leibniz is an exception who “can be said to have anticipated some very important developments to come in psychology two centuries ahead of their time,”\(^3\) but Leibniz is clearly not regarded as a pivotal figure in the history of the philosophy of mind. In fact, however, it is Leibniz, not Freud, who offered not only a comprehensive framework for rejecting the equation of mind with consciousness, but also a metaphysical ground for that framework (something the empirically minded Freud never attempted to do). His theory of mind was widely discussed in the 19th century. In 1860, Sir William Hamilton laments the fact that Leibniz’s theory of mind has not been more widely adopted and attributes the lack of success only to Leibniz’s having been “unfortunate in the terms which he employed to propound his doctrine.”\(^4\) “As to any refutation of the Leibnizian doctrine,” Hamilton continues, “I know of none.” In 1874, Franz Brentano, no sympathizer of Leibniz, still finds it necessary to attack a host of thinkers who had taken up a Leibnizian view of the mind.\(^5\) It is unfortunate that Leibniz’s efforts have been overlooked in the recent century, for Leibniz directly confronts foundational Cartesian assumptions and launches an explanatory program in the philosophy of mind and cognitive psychology that complement contemporary efforts to overthrow Cartesianism.\(^6\)
While Leibniz’s explanatory innovations impact his treatment of all mental phenomena, nowhere is the tension between the Cartesian and Leibnizian theories of mind felt more acutely than in their respective accounts of sensation, which provides the focus for this essay. After examining some of the chief differences between the Cartesian and Leibnizian conceptions of mind quite generally in Section 1, I turn to sensation in particular. Section 2 sketches a Cartesian account of sensation that serves as Leibniz’s target. Section 3 develops an interpretation of Leibniz’s account of sensation that emphasizes the way in which it differs from the Cartesian account, and the way in which it reflects his own conception of mind. The essay concludes with the suggestion that Leibniz’s attempt to change the Cartesian mind illuminates both the philosophical pressures that the historically predominant Cartesian conception of mind has put on the study of the mind and the advantages that an alternative representational conception of mind offers.

1. Early Modern Theories of Mind: The Cartesians vs. Leibniz

1.1 The Cartesian Theory of Mind

I begin with the more familiar Cartesian theory of mind. By “the Cartesian theory of mind” I do not refer simply to Descartes’ theory of mind (as best interpreted by us), but more generally to the theory of mind, inspired by Descartes’ texts, that was adopted and developed by Descartes’ followers, including Louis de la Forge, Nicolas Malebranche and Antoine Arnauld. There are two reasons for casting such a wide net. First, while Descartes clearly asserts that the mind is res cogitans, he remains unclear about what, exactly, res cogitans is supposed to be. Descartes refrains from providing a definition or analysis of it on the ground that it is one of those things that “are made more obscure by our attempts to define them” (AT X 523-524). It is instructive, then, to see how Descartes’ followers interpreted and developed his theory of mind in the early modern period. Second, it is the Cartesian
tradition broadly construed, not Descartes in particular, that historically dominated the
philosophy of mind. More to the present point, it is this Cartesian tradition that Leibniz
takes as his target when he develops his theory of mind. In order to capture the most general
features of this tradition I will have to ignore many of the details debated among its
proponents, although I will indicate where debate is considerable.

On the Cartesian theory, mind (mens, l'esprit) or soul (anima, l'âme) is a substance really
distinct from body. Its essence, or principal attribute, is *thought*, where thought includes
everything from pains and tickles to sensory perceptions to volition to the purely intellectual
understanding of mathematical truths. What ties all of these phenomena together under the
category of thought? Consciousness. Cartesian thoughts are conscious in the sense that in
having them we are inevitably conscious of them. Descartes is explicit about this: “By the
term ‘thought’ I understand all the things that we are conscious of happening in us, insofar
as we are conscious of them [*quatenus eorum in nobis consciência est*]” (AT VIII-A 7; see also AT
VII 160 and 246). La Forge similarly asserts that “a substance that thinks is nothing other
than a being that is aware of [*s'aperçoit de*] everything that happens in it” (Traité 55/57) and
that “thought consists in that consciousness [conscience], that testimony [témoignage] and that
inner sentiment [sentiment intérieur] by which the mind is directed to [*est adverty*] everything that
happens immediately in it” (Traité 55/57; see also 96/76 and 14/39). Malebranche concurs:
“…by *thought*…I generally understand all those things that cannot be in the soul without the
soul being aware of them [*les apperçoive*] through the inner sentiment [sentiment intérieur] it has
of itself” (RV’III-ii.1, 415/218). And, finally, Arnauld: “our thought or perception is
essentially reflexive [réfléchissante] on itself; or, as it is better put in Latin, is conscious of itself
[*_est sui conscio*], for I never think without knowing that I think” (VFI 46; see also 314). As
these passages illustrate, the Cartesians have not settled on a uniform language of
consciousness. They have, however, settled on the idea that what is distinctive about thought is that it makes itself known to the mind that has it.\(^\text{10}\)

There are, of course, some notable problems for the Cartesian view that all thought is conscious: long standing beliefs; innate ideas; memories; the judgments that Cartesians claim we make but do not notice when we perceive objects at a distance. All of these seem to be mental phenomena, and so thoughts, but none is conscious. The Cartesians routinely bite the bullet either by claiming that the phenomenon in question is not really a thought (for example, memories, innate ideas and, presumably, beliefs are not thoughts but dispositions to have thoughts),\(^\text{11}\) or by claiming that while the phenomenon appears to be *unconscious* it is really just *unremembered* (for example, distance judgments are conscious, but they happen so quickly that we do not subsequently remember them).\(^\text{12}\) This unrelenting Cartesian commitment to the consciousness of thought will be one of Leibniz’s chief targets.

Although the central role of consciousness in the Cartesian mind is clear, the precise nature of it is not. How exactly does a thought make itself known to the mind? Is consciousness an intrinsic property of each thought? Is it the result of some reflexive act by which a thought somehow turns back on and recognizes itself? Or is it perhaps the result of a distinct, second-order thought that takes the original thought as its object (what we would today call a higher-order thought theory of consciousness)? And are there different *kinds* of consciousness? Although these are not topics that Descartes treats explicitly, he does intimate in correspondence that the sort of consciousness that pervades the mind is *not* the result of any second-order thought; indeed the occasional second-order thought seems to produce a different kind of consciousness altogether. He writes to Arnauld that while all thoughts are conscious, only some are accompanied by reflection, that is by a second-order thought that is an act of the pure intellect directed toward its own thoughts (*AT V 220-221*).
In the *Sixth Replies*, he further writes that a certain inner cognition (*cognitione illâ internâ*) of our thoughts is always present and precedes any explicit reflection (AT VII 422). Reflective consciousness affords an introspective awareness of a thought *considered as such* (that is, considered as a mode of the thinker’s mind) or of some *feature* of a thought (such as that it is a new thought or a memory). By contrast, the consciousness that belongs to every first-order Cartesian thought simply affords an experience in which things are phenomenally present to the thinking subject; there is something it is like to think of this or that. We might therefore call this more pervasive form of consciousness “phenomenal” consciousness.¹³

This distinction between phenomenal and reflective consciousness is developed by La Forge, who, like Descartes, maintains that only the former is present in every thought. Having identified thought with the “consciousness,” “testimony” and “inner sentiment” that the mind has of all the actions and passions in it, he further explains that this consciousness is not distinct from the actions and passions themselves; rather “it is the actions and passions themselves that make the mind aware of what happens in it” (*Traité* 54/57). By contrast, reflection involves an additional act of thought: “you will not confuse this inner feeling [or consciousness] with the reflection that we sometimes make on our actions, which is not found in all thoughts, but is only one type of thought” (*Traité* 54/57). Reflection allows for such sophisticated mental activities as getting clearer on the contents of one’s thoughts, recognizing similarities and differences among thoughts, and so on. Arnauld follows suit. On his view, however, phenomenal consciousness is achieved reflexively by what he calls “virtual reflection”: “whatever I know, I know that I know it, by a certain virtual reflection [*reflexion virtuelle*] that accompanies all my thoughts” (*VFI* 11). This virtual reflection is to be distinguished from the “explicit reflection” that accompanies thoughts to which we specifically attend by introspection: “besides this reflection which can be called ‘virtual’ and
which is found in all our perceptions, there is another, more explicit, by which we examine
our perception by another perception” (*VFI* 46; see also 43 and 270). Malebranche adopts
La Forge’s description of phenomenal consciousness as a form of “inner sentiment”
suggesting that he too conceives it as a peculiarly immediate form of cognitive awareness
(*RV* III-i.1, 388-89/202, III-ii.1, 415/218 and III-ii.7, 448-55/236-38). While there may be
no single fully developed theory of consciousness among the Cartesians, there is consensus
among them that the phenomenal consciousness distinctive of thought is brute in the sense
that it belongs to the very nature of thought and requires no second-order reflective mental
act. Leibniz will tell a very different story.

Consciousness may be the mark of the Cartesian mental, but is that all there is to it?
What, for example, is the relation between thought and representation on the Cartesian
theory of mind? Descartes’ texts are indecisive. He writes in the *Second Replies* that ideas give
‘form’ to thought. Since he elsewhere describes ideas as “as it were images of things
*[tanquam rerum imagines]*” (*AT VII* 37; see also 44), it is tempting to say that ideas give form to
thought by providing them with representational content; it is through ideas that we think of
something. Descartes’ distinction between the formal and objective reality of ideas
complicates his notion of ideas a bit but does not undermine the point: ideas insofar as they
have *formal* reality are simply episodes or modes of conscious thought and not
representations of things; ideas insofar as they have *objective* reality, however, represent things
(*AT VII* 40-42; VIII-A 11).14 It would seem, then, that Cartesian thoughts/ideas are both
conscious and representational. On the other hand, it is not clear that all Cartesian thoughts
actually have objective reality or, relatedly, represent anything. Descartes writes of
sensations of tastes, odors, sounds, colors and the like that they “represent nothing located
outside thought” (*Principles* I.71, AT VIII-A 35; see also AT VII 440). His discussion of
emotions, volition and judgments in Meditation III suggests that these thoughts have both representational and non-representational components: in them “I always apprehend a particular thing as the subject of my thought, but there is also something more than this likeness of the thing in my thought” (AT VII 37; italics mine). My fear that there is a mouse in my kitchen, for example, represents to my mind a mouse in my kitchen, but adds to that representation an “additional form” (AT VII 37), namely, the feeling of fear, which seems not to represent anything. Finally, Descartes allows for feelings that have nothing in particular serving as their represented object (AT IV 603). At best, Descartes is unclear about the relation between thought and representation.

Descartes’ followers are more decisive, but they are divided. La Forge and Arnauld argue that thought is not only conscious but also representational. La Forge writes: “there is no thought that does not represent something to us or make us perceive [appercevoir] something” (Traité 140/95). Arnauld similarly argues: “since it is clear that I think, it is also clear that I think of something, that is to say that I know [connois] and perceive [apperçois] something, because thought is essentially like that…it is impossible to think without thinking of something” (VFI 9-10; see also 37 and 47). Arnauld further argues that in thought consciousness and representation are co-dependent: to be conscious we have to be conscious of something, but, on the other hand, for something to be represented to the mind we must be conscious of it (VFI 36-37). Clarifying Descartes’ ambiguous use of the terms ‘thought’ and ‘idea’, La Forge and Arnauld both maintain that the terms refer to two aspects of the same thing: a mental state is called a ‘thought’ when emphasizing that it is a (conscious) operation of the mind and an ‘idea’ when emphasizing that it represents something to the mind (see Traité 140/95 and VFI 35-38). Malebranche, by contrast, draws a sharp line between representational and non-representational thoughts. This is in large
part because he locates ideas, the representational components of thought, in the mind of God rather than in the mind of the thinker; ideas are not simply *aspects* of thought but *distinct ontological items* to which only some thoughts are directed. Representational thoughts are therefore directed to ideas in the mind of God while non-representational thoughts are not. The latter, including sensations, feelings and passions, are mere modifications of the thinker’s own mind (*RV* I.1, 42/2). There is, then, no consensus among the Cartesians on the role that representation plays in the life of the mind. Leibniz, by contrast, will leave no question about its role.

Even among the Cartesians who maintain that thought is always representational, however, this is not what is distinctive of it. Pictures, words and even images on the retina are representations. Thoughts are different insofar as they are *conscious* representations; in having them thinkers are *conscious of what is represented*. La Forge thus cautions: “cognition is not the production of an idea which represents nor its reception in the interior of the soul, but the consciousness or perception that one has of this idea” (*Traité* 97/76). Arnauld goes so far as to argue that mental representation is an entirely different sort of thing from corporeal representation. Corporeal representation, he suggests, is a matter of *re-presentation*, of one thing’s standing for another either in virtue of resembling it (paintings) or in virtue of conventional fiat (words). Mental representation, by contrast, is a matter of mere *presentation*, of the ‘objective presence’ of the thing before the mind; there is no representative item standing in for the thing represented.16 Mental representation consists in nothing more than something’s being *consciously present to the mind*. Arnauld therefore insists that “nothing seems more essential to the soul than to have consciousness and inner sentiment of itself” (*VFI* 314; see also 11). Representation, then, consistently takes a back seat to consciousness in the Cartesian theory of mind. Leibniz will invert this relation.
1.2. Leibniz’s Theory of Mind

Leibniz introduces several substantive changes to the Cartesian theory of mind. Perhaps the most obvious is that while in the Cartesian world there is only one sort of created mental substance, namely, mind or soul, in the Leibnizian world there are three: bare monads (or entelechies), souls and minds. The three sorts of mental substance, or monad, differ in degree of cognitive ability: bare monads are capable of only simple (unconscious) perception; souls of (conscious) sensation; minds of reason and reflection. Leibniz is explicit that he sees the distinction between soul and mind as a departure from Cartesian theory: “It is hardly necessary for all souls and entelechies to be rational; those Cartesians who draw this conclusion seem to me to be very much overhasty” (letter to John Bernoulli, GM III 560-1/AG 170). Bare monads mark even more dramatic departure since they introduce a form of mental life anathema to the Cartesian, and Leibniz clearly prides himself on this fact: “It is for want of this distinction that the Cartesians have failed, taking for nothing the perceptions of which we are not conscious” (PNG §4; see also M §14 and NE II.xix.4, A/RB 162). Where distinctions among the sorts of monads matter I will observe Leibniz’s taxonomy, but for convenience I will use the expressions ‘mind’ and ‘Leibniz’s theory of mind’ generically to cover all the monads.

A second innovation is terminological: Leibniz’s generic term for mental activity is not ‘thought’ (pensée, cogitatio), as it is for the Cartesians, but ‘perception’ (perception, perceptio). As thought constitutes the essence of mental substance for Descartes, so perception constitutes the essence of mental substance for Leibniz (see PNG §2). This innovation is not merely terminological, however, for the terms are not co-extensive. As we have seen, Leibnizian perception includes something that Cartesian thought does not, namely, unconscious perception:
There are hundreds of marks that force us to judge that there is at every moment an infinity of perceptions in us, unaccompanied by awareness and unaccompanied by reflection; that is, an infinity of changes in the soul itself of which we are not aware. (NE Preface, A/RB 53)

As for the more familiar Cartesian term ‘thought’, Leibniz is interested in changing the meaning of the term:

One might, I believe, replace ‘thought’ by a more general term ‘perception’, attributing thought only to minds, whereas perception belongs to all [mental substances]. But still I would not challenge anyone’s right to use ‘thought’ with that same generality, and I may sometimes have carelessly done so myself. (NE II.xxi.72, A/RB 210; see also II.xxi.4, A/RB 171)

In its new and technical sense, ‘thought’ refers exclusively to the rational forms of perception possessed by minds alone—understanding, reflection and reasoning (see also NE II.ix.1, A/RB 134 and II.xxi.5, A/RB 173)—and so casts a narrower net than Cartesian thought. As Leibniz indicates, however, he frequently uses the term ‘thought’ in a more liberal sense, in a way that is interchangeable with ‘perception’, and so used it casts a wider net than Cartesian thought, including unconscious perceptions. ‘Thought’, then, is a moving target in Leibniz’s work that requires some interpretive caution.

The most important innovation, however, concern Leibniz’s conception of mental life quite generally. By contrast with Cartesian thought, which is first and foremost conscious, Leibnizian perception is first and foremost representational. “The nature of a monad,” Leibniz writes, “is representative” (M §60; see also “A New System of Nature,” G IV 483-85/AG 143-44). Perception, then, is a special form of representation or, in Leibniz’s idiolect, ‘expression’. One thing represents or expresses another “when there is a constant and fixed relation between what can be said of one and what can be said of another” (letter to Arnauld, G II 112/L 339; see also NE II.viii.13, A/RB 131). In other words, representation involves an isomorphism between res repraesentans and res repraesentata.

Resemblance is the paradigm case, but other forms of isomorphism will do; planar projective
drawings represent solids, maps represent cities, musical notation represents a musical composition and so on. What is distinctive about perceptual or mental representation, Leibniz suggests, is that in it “many things are expressed in one”; or, as he sometimes puts it, complex things are represented in a simple thing (PNG §2 and §4; M §§13-14). Making full sense of this enigmatic claim is beyond the scope of this essay, but the crux of the matter seems to be that perceptual representation occurs in a simple substance. Corporeal representation, by contrast, occurs in composite entities: paintings, mirrors and sense organs. The important consequence of a substance’s simplicity is that it must represent complex things from a single point of view. While it is tempting to think that the single point of view is something like a center of consciousness (or Kantian unity of apperception), and while this may be how it manifests itself in higher monads, this cannot be what Leibniz fundamentally has in mind. After all, entirely unconscious lower monads have a single point of view too. I think Leibniz means the point of view talk quite literally: a simple substance represents the world as if it were positioned at a single point in it: “mathematical points are the points of view from which [simple substances] express the universe” (“A New System of Nature,” G IV 483/AG 142). In corporeal representation, by contrast, spatially distinct parts of the res repraesentans represent spatially distinct parts of the res repraesentata, so that the res repraesentans has no single point of view of represented thing. This account of mental representation surely raises as many questions as it answers. More of the details will come to life below in 3.2 and 3.3. What is important for present purposes is that Leibniz is struggling to define the mind in terms of mental representation, and mental representation in terms that do not rely on consciousness.

It is worth stressing how unCartesian Leibniz’s emphasis on representation is. While some Cartesians maintain that the mental is always representational, others do not. Among
those that do, representation is subordinated to consciousness: *mental* representation is *conscious* representation. In Leibniz the priority is reversed. Representation is the key to the mind and *mental* representation has nothing special to do with consciousness.

Consciousness, for its part, will be subordinated to representation, for Leibniz will cast it as a special form of mental representation. I shall explore Leibniz’s unCartesian analysis of consciousness below in section 3.1. Now, however, I turn to his even more startling claim that consciousness is not even essential to the life of the mind.

Given his emphasis on representation, it is easy to see how Leibniz allows for the conceptual possibility of an unconscious mental life: perception is a form of representation and there is nothing in the nature of representation itself that implies consciousness. So long as the distinctive unity of mental representation does not smuggle in an appeal to consciousness (as it seems it does not), then consciousness turns out to be inessential to mental life. Leibniz’s motivation for teasing consciousness apart from the mental is grounded in part by a combination of Cartesian and Lockean intuitions. Leibniz agrees with the Cartesians that a substance can never be without its essential activity (on pain of ceasing to be what it is); a mind can therefore never be without thought (see *NE* Preface, A/RB 53 and II.i.9-10, A/RB 111).\(^{25}\) He agrees with Locke and common sense, however, that the mind is sometimes without conscious thought, as when it is asleep or in a coma. Reconciling these two intuitions, he submits, “is undoubtedly the crux of the matter—the difficulty by which able people have been perplexed” (*NE* ii.i.11, A/RB 113). If the mind is always thinking, but not always conscious, he reasons, then consciousness cannot be essential to thought and thought must be conceived in some other terms.\(^{26}\) At the very least, the burden of proof is now on the Cartesians to maintain a conceptual connection between thought and
consciousness, and Leibniz frequently reminds them of this burden (see NE II.i.11, A/RB 113; II.i.18, A/RB 117; and II.i.19, A/RB 118).

Establishing the conceptual possibility of an unconscious mental life is one thing. Establishing its existence is another, and Leibniz applies himself to this task throughout his late career, particularly in the New Essays. He employs four kinds of argument: (a) theological arguments to the effect that we can make a better case for the immortality of the soul if we posit unconscious perceptions;\(^1\) (b) a famous reductio to the effect that if every perception were conscious, we should remain transfixed in a perpetual cycle of reflections on reflections;\(^2\) (c) \textit{a posteriori} arguments, including arguments from analogy and inference to the best explanation;\(^3\) and (d) \textit{a priori} arguments grounded in the fundamental principles of Leibnizian metaphysics. These arguments have been amply treated in the literature. Because they illustrate Leibniz’s metaphysical grounds for positing unconscious perceptions, however, it is worth briefly reviewing some of the arguments of category (d).

One of Leibniz’s most persistent metaphysical principles is the principle of continuity, according to which no change in nature occurs through a leap, and so “any change from small to large, or vice versa, passes through something that is, in respect of degrees and well as of parts, in between” (\textit{NE} Preface, A/RB 56). Conscious perception, like anything else, cannot come into existence out of nowhere but must be the result of a gradual and continuous change. But then, Leibniz argues, it must arise gradually “by degrees from [perceptions] that are too minute to be noticed” (\textit{NE} Preface, A/RB 57; see also II.i.15, A/RB 116 and II.i.18, A/RB 117). Those unnoticed perceptions are unconscious perceptions. A word of caution is in order here. Leibniz is not arguing that consciousness comes in degrees, that is, that more conscious perceptions come from less conscious ones. If that were the case, then all perceptions would turn out to be conscious to
some degree, which is precisely what Leibniz is denying. The point of the principle of 
continuity is not that all change is continuous, but that all change is *grounded in or occurs 
through* some continuous change. Thus the discontinuous change from unconscious to 
conscious perception is grounded in a continuous change in some other feature of 
perception, here described as their size. I return to the details of this proposal in 3.1.

A second important *a priori* defense of unconscious perception rests on Leibniz’s 
principle of pre-established harmony. Although mind and body are causally insulated from 
each other and are governed by different laws, there is, Leibniz submits, a perfect 
correspondence between them. The correspondence takes the form of the mind’s 
representing corporeal reality, and in particular its own body:

> [Every mental substance] is created in such a way that by virtue of the 
laws of its nature it must come to agree with whatever happens in bodies, 
and in particular its own body…As the state of the body at moment B 
follows the state of the body at moment A, so the state of the soul at B 
follows from the preceding state of the soul at A…But the states of the 
soul are naturally and essentially expressions of the corresponding states 
of the world, and particularly of the bodies which then belong to them. 
(G II 114/L 340)

There are, of course, things going on in the body that we are not conscious of: circulation of 
the blood, regeneration of skin cells, and so on. According to the principle of pre-
established harmony, however, even these things must be represented by the mind. These 
representations must therefore take the form of unconscious perceptions:

> I even maintain that something happens in the soul corresponding to the 
circulation of the blood and to every internal movement of the viscera, 
although one is unaware of these things…The fact is that if there were impressions in the body during sleep or during wakefulness by which the 
soul were not touched or affected at all, there would have to be limits to 
the union of body and soul, as though bodily impressions needed a 
certain shape or size for soul to be able to register them. And that is 
indefensible if the soul is incorporeal, for there is no relation of 
proportion between an incorporeal substance and this or that 
modification of matter. (*NE* II.i.15, A/RB 116; see also his letter to 
Arnauld, G II 90/AG 81)
In other words, either everything bodily is represented by the soul or nothing is, for there is no principled way of dividing the body into “representable” and “non-representable” parts. Shape and size may affect one body’s ability to have a physical impact on another; but they can have no bearing on its ability to have a representational effect on an incorporeal soul.\textsuperscript{30}

Leibniz is explicit that the introduction of unconscious perceptions into the soul is a crucial change from the received Cartesian theory of mind: in missing unconscious perceptions, he charges, the Cartesians have “failed badly” (\textit{M} §14 and \textit{PNG} §4) and “have been conquered by a loose philosophy—one as ignoble as it is flimsy” (\textit{NE} II.xix.4, A/RB 162). By re-conceiving the priority between consciousness and representation in his philosophy of mind, Leibniz opens the door to a whole new realm of unconscious mental phenomena unimaginable on the Cartesian model. At the same time, he closes the door firmly on non-representational states of consciousness. In so doing, Leibniz effectively turns the Cartesian mind inside out. The consequences of this theoretical inversion are considerable, and they are particularly brought to light in the two accounts of sensation to which I now turn.

\textbf{2. A Cartesian Account of Sensation}

Sensations, taken quite generally in the early modern period, are mental states that the mind receives through the senses; they are thus contrasted with mental states that the mind receives through the intellect. A more subtle distinction is sometimes made between sensations proper, which are attributable to the senses alone, and full blown sensory perception that includes, besides sensations, a variety of habitual judgments attributable to the intellect and will.\textsuperscript{31} We might further restrict sensations to the so-called bodily sensations (tickles, pain, hunger) and secondary quality sensations (sensations of color, sounds, flavor, and so on), leaving out our immediate sensory apprehension of primary qualities like size,
shape and position.\textsuperscript{32} For present purposes, ‘sensation’ should be understood in this restrictive sense. A typical Cartesian line on sensations runs as follows: sensations are (1) simple (2) conscious states that are (3) ineffable or inexplicable; they are (4) stirred up by motions in the body but (5) do not resemble any bodily motions and (6) do not represent anything bodily.

The first five features are relatively straightforward. First, sensations are simple in the sense that they are the fundamental mental building blocks of sensory experience. The Cartesians do not advance this claim explicitly, as Locke and Hume later do, but it is suggested by their unanimous opinion that sensations are the first phenomena to enter the mind as a result of bodily stimulation. Sensations may be rearranged, combined and embellished by judgments in our full blown sense perceptual experience, but there is nothing more primitive out of which they are composed. Second, precisely because they are effects in the Cartesian mind, sensations must be essentially conscious states. Third, sensations are ineffable or inexplicable in the sense that there is nothing more primitive available in terms of which to analyze or explain them. Malebranche writes: “if a man wants me to represent to him heat or color, I cannot use words for that, but must impress on his sense organs the motions to which nature has attached these sensations; I must bring him to a fire and make him see some pictures.”\textsuperscript{33} Fourth, although it is a matter of dispute whether sensations are genuinely caused or simply occasioned by bodily motions, all are agreed that sensations are type-type correlated with bodily motions, and in particular with motions in the perceiver’s brain.\textsuperscript{34} Fifth, sensations do not resemble anything bodily in the sense that they do not present to the mind anything that could really exist, as presented, in bodies: color, sounds, pains as phenomenally presented to the mind are not possible modifications of 	extit{res extensa}.\textsuperscript{35} This much is relatively uncontroversial.
The final claim, that sensations do not represent anything bodily to the mind, is not so straightforward. As I mentioned above, Descartes sometimes baldly states that sensations do not represent anything bodily: “the mind [has] diverse sensations, which we call sensations of flavor, odor, sound, heat, cold, light, color and the like, which represent nothing residing outside thought” (AT VIII-A 35). On the other hand, his persistent claim that sensations are confused modes of thinking (AT VII 81) and, similarly, that our sensory grasp of bodies is obscure and confused (AT VII 80), suggests that sensations represent bodily phenomena after all, but do so badly, so that we cannot tell what exactly is being represented to us (see also AT VII 234). A slightly different position is suggested by Descartes’ claim that the senses “do not always show us external bodies as they are in themselves, but only as they are related to us and can benefit or harm us” (AT V 271; see also AT VII 83 and AT VIII-A 41-42). This suggests that sensations represent bodies to us, but only in a perspectival and self-interested way. Descartes maintains further that, so considered, sensations are “sufficiently clear and distinct” (AT VII 83) and “report the truth” (AT VII 89), claims that suggest representationality. At best, then, Descartes is ambiguous about the representational status of sensations.

La Forge is similarly ambiguous. He first maintains that sensations represent to us only qualities that exist in the mind (colors, sounds, etc.), and that they are confused insofar as they falsely represent those mental qualities as though they exist in bodies (Traité 175-76/155). He later maintains, however, that sensations are confused insofar as “no one can say what is in the object which each of them represents individually or in what one differs from another” (Traité 177/156); sensations thus seem to represent bodies, but not well enough that we can discern their true natures. Finally, like Descartes, he maintains that sensory cognition is “altogether very clear” insofar as it shows us that something is acting on
our bodies and doing so to the benefit or detriment of our bodily well being; it therefore seems to represent to us something about extramental reality (*Traité* 275/155).

Arnauld is somewhat more resolved that sensations simply do not represent bodily phenomena. He approvingly reports Malebranche’s view that sensations of color, light, sounds and the like “represent to us only what happens in ourselves” (*VFI* 162). We then falsely project those sensations onto bodies, effectively confusing our apprehension both of bodies and of the sensations themselves (*VFI* 257-58). But he is also at pains to stress that sensations, while they don’t represent anything bodily, are so correlated with bodily phenomena that they facilitate our interactions with them: “God does not cause them in our soul for no reason” (*VFI* 162) but in order to “make us know the bodies that surround us more distinctly in relation to the conservation of our own body” (*VFI* 163).

Malebranche has perhaps the most decisive and also the most extreme position. It is a mistake, he maintains, to suppose that sensations are like ideas that represent extramental phenomena to the mind (*RV* III-i.1, 388/201). Sensations are, as he repeatedly puts it, nothing but “modifications of the mind”: “their being contains no necessary relation to the bodies that seem to cause them…and they are nothing but the soul modified in this or that fashion, so that they are properly modifications of the soul” (*RV* I.i, 42-43/3). More than the others, he stresses the arbitrariness of their relation to bodies: “it would do just as well to see the grass as red or green” (*RV* I.13, 154/66). Malebranchean sensations thus bear a very loose connection with their bodily correlates. Even so, there is some reason to think this isn’t Malebranche’s final word on the matter, for he too insists that sensations have the function of helping us get around safely and easily in our corporeal environment: he writes that color sensations are for quickly and easily distinguishing bodies (*RV* I.11, 133-34/55 and I.13, 154/66) and that pain sensations provide evidence that all is not well with the body
(RV I.10, 127/51; see I.5,72/21); presumably, then, it would not do just as well for grass to
correspond to pain sensations and bodily damage to green sensations. Sensations seem to
tell us something about extramental reality.38

Part of the difficulty here, I think, is that the Cartesians are struggling with two
different ways in which sensations might be said to represent something. Borrowing a
distinction that Margaret Wilson has employed, we might say that a thought or idea (a)
‘presentationally represents’ something insofar as it phenomenally presents that thing to the
mind and (b) ‘referentially represents’ something insofar as it, like a mental sign, stands for
or refers to something outside the mind that may not exist exactly as it is phenomenally
presented to the mind.39 Presentational representation requires resemblance between res
repraesentans and res repraesentata in the sense that the res repraesentans cannot represent its res
repraesentata as other than it actually is (what it presents is transparent). Referential
representation, by contrast, does not require this form of resemblance. There is complete
agreement that sensations do not presentationally represent anything bodily, for sensations
phenomenally present to the mind colors, sounds, and the like that cannot exist, as presented
in sensation, in bodies. If sensations presentationally represent anything, they represent
mental qualities. The disagreement concerns whether sensations might also referentially
represent bodily phenomena. Descartes and La Forge seem tempted: sensations may be
said to represent bodily phenomena, even though we cannot tell on the basis of having the
sensation what those phenomena are like in themselves. Sensations may even represent
bodily phenomena in a behaviorally salient, and so perceiver relative, way that masks their
intrinsic nature but still tells us something important about extramental reality. Arnauld and
Malebranche are less tempted by this line, restricting mental representation to presentational
representation and so to a form of simple presentation or resemblance; even if sensations
serve as reliable signs for bodily phenomena, they cannot be said to represent them. The representational status of Cartesian sensations is thus a bit up in the air, but they certainly do not represent bodily phenomena by way of any resemblance.

Leibniz’s interpretation of Cartesian sensations most closely resembles Malebranche’s line:

...[the Cartesians] believe that our ideas of sensible qualities [that is, sensations] differ entirely from motions and from what happens in objects, and are something primitive and inexplicable, and even arbitrary, as if God made the soul sense whatever he had a whim it should sense instead of what happens in the body. (NE II.xx.6, A/RB 165-66)

On his view, “this is nowhere near the right analysis of our sensory ideas” (NE II.xx.6, A/RB 166). He challenges almost every component of the Cartesian account. On his view, sensations are (1’) complex (6’) representations of bodily motions that are (4’) stirred up by the bodily motions they represent; in some respect they even represent those bodily motions by (5’) resembling them; they are (3’) explicable in term of their components and, if conditions are right, they (2’) stand out to consciousness without themselves being intrinsically or essentially conscious states. The only point on which Leibniz agrees with the Cartesians is (4): sensations are type-type correlated with bodily motions. Even here there is little genuine agreement, for Leibniz recasts the metaphysics underlying the correlation in terms of pre-established harmony rather than causation or occasionalism.

The remainder of the essay examines in some detail three of the anti-Cartesian components of Leibniz’s account of sensation: the unusual relation that sensations bear to consciousness; the claim that sensations are complex mental phenomena; and the claim that sensations represent bodily motions. On analysis, Leibniz’s disagreements with the Cartesians on the nature of sensation reflects his more general disagreement with them over
the fundamental nature of the mind itself and illustrates the different explanatory strategies to which the two theories give rise.

3. Leibniz’s Account of Sensation

3.1 Sensations and Consciousness

Sensation, Leibniz tells us, is a special kind of perception the possession of which distinguishes animal souls from bare monads lower down on the chain of created mental substances. What makes sensation special? One might expect Leibniz to say that sensation is conscious perception: animal souls enjoy conscious perception while vegetable and mineral monads have only unconscious perception. Instead Leibniz says that sensation is an especially ‘distinct’ (distinguée, distincé) or ‘heightened’ (relevée) form of perception: “[i]f a perception is more distinct it makes a sensation” (“Specimen of Discoveries About Marvellous Secrets,” G VII 317; see also M §19 and “[On the Souls of Animals],” G VII 330).40 What is this distinctness that, if sufficiently great, raises perception to the level of sensation? Perhaps here is where consciousness comes in: perhaps ‘distinctness’ is just another word for ‘consciousness’, so that sensation is just conscious perception after all.41

There certainly is a connection between distinctness and consciousness. In the New Essays, Leibniz’s spokesman, Theophilus, says:

We are never without perceptions, but, necessarily, we are often without conscious perceptions [apperceptions], namely when there are no distinct perceptions. (NE II.xix.4, A/RB 162; see also NE II.i.1, A/RB 113 and PNG §13, G VI 604/AG 211)

This passage leaves unclear, however, just what that connection is, and in particular whether distinctness and consciousness amount to the same thing.42 Before pursuing this question we should consider briefly what Leibniz has to say about consciousness itself.

Consciousness, on Leibniz’s view, requires two perceptual acts: a first-order perception of x and a second-order reflective perception of the original perception of x.
Consciousness, in other words, amounts to some sort of perception of perceptions. In an oft-quoted passage from the *Principles of Nature and Grace* Leibniz writes:

...it is good to make a distinction between ‘perception’, which is the internal state of the monad representing external things, and ‘apperception’, which is ‘consciousness’ [conscience], or the reflective cognition of this internal state, which is not given to all souls, or at all times to the same soul. (PNG §4)

Thus in order to be conscious of the tree outside my window, on Leibniz’s view, I have to have not only a perception of the tree, but also a reflective second-order perception of that perception.\(^44\),\(^45\) This view of consciousness flies in the face of the Cartesian intuition that consciousness is built into the very notion of perception or thought, and built in at the ground level. It would sound to the Cartesian as if Leibniz is saying that in order to be conscious of the tree outside my window, I have to be conscious of being conscious of the tree outside my window. And that sounds like an excessive amount of consciousness (not to mention an epistemological disaster). Leibniz’s substantive point, however, is that consciousness is *not* built into the very notion of perception. In perceiving x, a soul simply represents x; so far there is no consciousness involved. Thus my perceiving the tree outside my window, in Leibnizian language, in no way suggests that I am conscious of the tree.\(^46\)

Consciousness enters the mind with a second-order perception of my perception of the tree. An anticipatory word of clarification. In talking about conscious perception, Leibniz awkwardly but persistently speaks of ‘noticing’ (first-order) perceptions. Noticing a perception of x is not a matter of introspection whereby I turn my attention inward and become aware of my own mental states as such; it is rather, as Leibniz employs the expression, what constitutes my having a conscious perception of x in the first place.

Returning to the issue at hand, the simplest interpretation of the connection between distinctness and consciousness is that they amount to the same thing, so that sensation, *qua*
distinct perception, is just conscious perception.\textsuperscript{47} We are now in a position to see that even if this interpretation were true, Leibniz’s account of consciousness would preclude sensations from being conscious in just the way they are for the Cartesian. For to say that sensation is conscious perception could mean either of two things in a Leibnizian context. First, it could mean that a sensation is a \textit{noticed perception}, that is, a first-order perception that has the special feature of being the object of some second-order perception; in that case, consciousness is not an intrinsic, but a relational property of sensation. Second, it could mean that a sensation is a \textit{noticing} of a perception, that is, a complex of first- and second-order perceptions that, together, make for conscious perception; in that case, consciousness would be intrinsic to sensation, but sensation itself would have to be understood as a complex of two perceptions.\textsuperscript{48} On either interpretation, the relation that sensations bear to consciousness would be quite different from the relation suggested by the Cartesian account, according to which sensations are first-order intrinsically-conscious thoughts.

In fact, however, it is implausible to think that, according Leibniz, a sensation’s distinctness simply consists in its being conscious, and this for three reasons. First, Leibniz occasionally suggests that distinctness and consciousness can come apart. He speaks of an uneasiness that we “sense” but “are not cognizant of” \textit{(NE II.xxi.36, A/RB 188)}. Even in a dreamless sleep, he further notes, there is some “faint sensing” going on \textit{(NE Preface, A/RB 55; I.i.11, A/RB 113; and II.i.13, A/RB 115)};\textsuperscript{49} insofar as there is sensing going on, there is distinct perception going on, and yet there seems to be no consciousness. Consider also:

\textit{[W]hen we are not alerted, so to speak, to take heed of some of our own present perceptions, we let them pass without reflection and even without noticing them. But if someone alerts us to them straight away, and makes us notice, for example, some noise that we just heard, we remember it and are aware of having had some sensation of it. Thus these were perceptions of which we were not immediately aware. Awareness, in this case, came only when we were alerted to them after some interval, however brief. \textit{(NE Preface, A/RB 54; italics mine)}}
We were not aware of the noise when it happened, and yet we had a sensation, and so a distinct perception, of it. Admittedly, these passages are puzzling. It is tempting to write them off on the ground that they appear in the *New Essays*, where Leibniz’s language is often muddled by his attempts to accommodate his Lockean interlocutor. There are, however, two other reasons to think there is a conceptual space between distinctness and consciousness.

Leibniz strongly suggests that consciousness is a *consequence* of perceptual distinctness: the fact that a perception is distinct explains why it is noticed when it is. He says, for example, that we “notice only thoughts [that is, perceptions] that stand out most distinctly” (*NE* II.i.11, A/RB 113) and that, conversely, the indistinctness or confusion of a perception “puts awareness in suspense” (*NE* Preface, A/RB 55). In other words, we notice the ones that are, antecedently, distinct and fail to notice ones that are, antecedently, indistinct. But if distinctness explains why a perception is conscious, then it cannot simply be the same thing as consciousness.

Finally, there is a crucial difference between distinctness and consciousness: the former comes in degrees while the latter does not. A perception may be more or less distinct, but, given Leibniz’s analysis of consciousness, a perception cannot be more or less conscious: it is either attended by a second-order perception or it is not. I said above that Leibniz’s commitment to the principle of continuity requires that any discontinuous change be grounded in a continuous change. I now want to suggest that the discontinuous change from unconscious to conscious perception is grounded in a continuous change in perceptual distinctness. This point dovetails with the suggestion that perceptual distinctness explains the presence of consciousness: at a certain point perceptions are distinct enough that they attract a second-order perception and thereby become conscious perceptions.
If distinctness is not the same thing as consciousness, then what is it? My suggestion is a simple one: to say that a perception is distinct is to say that it is distinctive; that it stands out against the sea of perceptions co-present with it in the soul. That’s why it gets noticed or captures a second-order perception. This is precisely the way Leibniz talks about them: distinct perceptions, he writes, are “so to speak in relief and stronger in flavor” than other perceptions (M §24); indistinct or confused perceptions, by contrast, “do not distinguish themselves enough for one to be conscious of them” (NE II.i.9, A/RB 112). He also writes of many sensations that they are “notable” perceptions (perceptions notables) (NE II.i.11, A/RB 113; II.xx.1, A/RB 162; II.xx.6, A/RB 164; and II.xxi.41, A/RB 194). To say that sensations are distinct perceptions is therefore to say not that they are noticed, nor that they are noticings, but that they are noticeable or apt to be noticed. Of course, dispositions are not always actualized: one can have a sensation, a noticeable perception, without, for all that, actually noticing it. That gives Leibniz the room to say that there may be some faint sensing going even when we are in a deep and dreamless sleep; there may be some perceptions in the sleeping soul that are distinctive or noticeable, but that nonetheless fail to be noticed under the circumstances because the soul is asleep.

One might object that to say that a perception is noticed because it is noticeable has the ring of dormitive virtue to it. The objection has force if nothing further is said about what grounds the noticeability of the perception. Leibniz, however, has a great deal to say about what grounds a perception’s noticeability (or lack thereof)—about what features of a perception make it noticeable (or not). In the following passage, he identifies size, number and variability as among the relevant factors:

[There] is at every moment…an infinity of changes in the soul itself of which we are not aware because these impressions are too small and numerous or too unvarying, so that they are not sufficiently distinct on their own. (NE Preface, A/RB 53; italics mine)
Leibniz illustrates the way in which he thinks lack of variation can adversely affect a perception's distinctness in the following familiar passage:

This is how we become so accustomed to the motion of a mill or waterfall, having lived by it for some time, that we do not notice it. It is not that this motion ceases to strike our sense organs, or that something corresponding to it no longer occurs in the soul because of the harmony between soul and body, but the impressions that are in the soul and in the body, lacking the appeal of novelty, are not strong enough to attract our attention and our memory, which are applied to more compelling objects. (NE Preface, A/RB 53-54)

Leibniz is talking about the phenomenon we now call perceptual habituation: the monotony of the mill-perceptions eventually renders them indistinct or unnoticeable, and so they cease to attract second-order perceptions and fade from consciousness. (For an out-of-town visitor, on the other hand, the novelty of the mill-perceptions might prove so noticeable that she cannot get to sleep for all the racket.) In just the same way, he surmises, we fail to notice most of what is going on in our own bodies, like digestion and blood circulation, because we have become habituated to it all; as a result, we only take notice when something new and unusual happens in the body, as when something is going wrong with digestion and we develop a stomach ache (see NE II.i.15, A/RB 116; and his letters to Arnauld, G II 90/AG 81 and G II 114/L 340-41). This discussion of habituation is only one of many attempts on Leibniz’s part to provide an account (however primitive) for why some perceptions make it into consciousness, why some fade out of consciousness and why some never surface to consciousness at all (for other examples, see NE II.ix.1, A/RB 134 and II.xx.6, A/RB 164-65). Besides perceptual size, number and variation, Leibniz considers the effects of perceptual context and perceiver motivation and training on a perception’s distinctness: what is noticeable in one context may not be noticeable in another; and what is noticeable to one person may not be noticeable to another (or even to the same person at different times, say before and after that first cup of coffee in the morning).
Leibnizian sensations, then, are typically conscious perceptions. Leibniz does not challenge this commonplace. At the same time, consciousness is neither essential nor intrinsic to sensation. It is not essential since unconscious sensations are in principle possible; these are distinct perceptions that are not in fact noticed. Even when it is present, consciousness is not intrinsic to sensation since it is the result of the sensation’s being the object of some second-order perception (where size, number, variability and the like help to explain why sensations, but not other perceptions, attract such second-order perceptions). On the Cartesian account, by contrast, consciousness is both essential and intrinsic to sensations as modes of mind; sensations just are modes of conscious thought.

Leibniz’s position on the relation of sensation to consciousness reflects the fact that consciousness is not a brute feature of the Leibnizian mind. But more than that, it illustrates the way in which his representational conception of mind changes the explanatory demands on the scientist of the mind. The fact that our sensory life is conscious, in the Leibnizian framework, is a fact to be explained. The demand for explanation is twofold: (a) we need an explanation, in representational terms, for what consciousness is and (b) we need an explanation for why it turns up where it does—what is it about sensations that brings consciousness into the picture? Leibniz’s hypotheses about the effects of perceptual size, number and variability on consciousness are admittedly crude, but through them he initiates a search into the factors that explain perception’s rise to consciousness, a search that would have been unthinkable in the context of a Cartesian theory of mind.

Meanwhile, Leibniz’s appeal to unconscious perceptions in these hypotheses introduces a form of cognitive psychological explanation anathema to the Cartesians. Unconscious perceptions help him to explain a variety of psychological and behavioral phenomena that seem to demand representation of the environment without consciousness.
of it: perceptual habituation (*NE* Preface, A/RB 53-4), the intentional noticing of a past stimulus (*NE* Preface, A/RB 54), the unintentional change of attention from one object to another (*NE* II.i.14, A/RB 115), waking up (*NE* II.i.13, A/RB 115) and motivated but undeliberated action (see *NE* II.i.15, A/RB 115-16 and II.xxi.36 ff., A/RB 188 ff.).

Although he does not discuss them, one could easily formulate Leibnizian explanations, employing unconscious perceptions, for such currently discussed phenomena as blindsight (that is, being able to respond appropriately to stimuli in the environment that one is not consciously aware of), priming (for example, interpreting the word ‘bank’ as a financial institution, rather than as the side of a river, when the word has been preceded by a subliminal picture of a dollar sign), automated behavior (for instance, playing the harpsichord without attending to the motion of each finger), the cocktail effect (for example, noticing your name, but nothing else, when it is uttered across a crowded and noisy room) and the sudden noticing of the cessation of a stimulus (for example, hearing the refrigerator go off when you never noticed it was on in the first place). The appeal to unconscious representations enables Leibniz to integrate these phenomena into the life of the mind. Such a subtle cognitive psychology is not conceptually possible in the context of a Cartesian philosophy mind, where consciousness is omnipresent.

### 3.2 Sensations and Complexity

Leibnizian sensations are complex; that is, they are composed of parts. The parts of which sensations are composed are, of course, *petites perceptions*—sub-sensory individually unnoticeable perceptions, or “the insensible parts of our sensible perceptions” (*NE* Preface, A/RB 56). Leibniz’s favorite illustration of the complexity of sensations is familiar:

> To hear the [roar of the sea] as one does, one must hear the parts that compose this whole, that is the noise of each wave, although each of these little noises makes itself known only in the confused collection of
all of them together, and would not be noticed if the wave that made it were by itself. (NE Preface, A/RB 54)

The same is true, Leibniz claims, of our sensations of light, color, flavors, and all the other secondary qualities:

A perception of light or color of which we are aware is made up of many petites perceptions of which we are unaware. (NE II.i.x.4, A/RB 134)

And:

...[petites perceptions] constitute that je ne sais quoi, those flavors, those images of sensible qualities, vivid in the aggregate but confused as to the parts. (NE Preface, A/RB 54-55)

All sensations, then, are themselves complex collections of petites perceptions.

Why does Leibniz claim that sensations are complex in this way? The arguments are similar to those for unconscious petites perceptions generally. First, by the law of continuity, “anything that is noticeable must come from parts that are not: nothing, whether thought or motion, can come into existence suddenly” (NE II.i.18, A/RB 117). Sensations are noticeable perceptions, and so they must come from smaller unnoticeable perceptions, just as the noticeable growth of a child must come gradually from unnoticeable growth and just as noticeable bodies are composed of individually unnoticeable ones (see also NE Preface, A/RB 54, 56, 57 and 58). Second, according to the principle of the harmony between soul and body the soul represents the body; but body is divisible, and so the perceptions that represent them must also be divisible in some sense. Thus, for example, if the impression that the roar of the ocean makes on my inner ear is divisible into smaller impressions made by individual waves, then the sensation that I have of the roar of the ocean must itself be divisible into smaller perceptions of individual waves.

Just how seriously are we to take the complexity (and divisibility) of sensations?

There is some suggestion that Leibniz intends the complexity of sensations to be merely a representational complexity, so that a sensation (or any perception) is complex only in the
sense that it represents something complex or has a complex content. In a letter to Samuel Masson he writes: “since thoughts, which are in a soul not composed of parts, represent things composed of parts, it is only in this sense that these perceptions are called composite…” (G VI 627/AG 228). The advantage of this position is that it is clearly consistent with Leibniz’s definition of perception as the representation of many things in one, that is, in something simple and indivisible. If a sensation were literally a collection of smaller perceptions, then in what sense could it be one, simple and indivisible? The letter continues, however, in a way that makes it clear that Leibniz is really trying to argue that perceptions are literally complex, or made up of parts that are themselves individual perceivings:

There are successive perceptions, but there are also simultaneous ones, for when there is a perception of the whole, there is at the same time perceptions of its actual parts. It is even the case that each of those parts has more than one modification. There is perception all at once not only of each modification but also of each part. These perceptions, however much they are multiplied, are different from one other, even though our attention cannot always distinguish them. (letter to Masson, G VI 628/AG 229)

And again:

…each distinct perception of the soul includes an infinity of confused perceptions which embrace the whole universe. (PNG §13)

What of Leibniz’s claim that perception is the representation of many things in one?

Leibniz’s position is not so much that perceptions must be simple states that represent complex things, but rather that the perceiving substance must be simple. He maintains that substantial simplicity is compatible with perceptual complexity by arguing that perceptions (and their parts) are not parts of perceiving substances but modifications of them: “…the simplicity of a substance does not prevent it in any way from having many modes in it all at once” (letter to Masson, G VI 628/AG 229; see also M §13). A sensation, then, is a complex perception comprised of many modifications of the simple sentient substance.
When discussing the complexity of sensations, Leibniz frequently describes them as ‘confused,’ a fact that is curious given that he defines sensation as distinct perception. Our sensation of the roar of the sea, he says, is a “confused collection” (NE Preface, A/RB 54). Leibniz cannot mean that sensations are confused in the sense discussed above of being unnoticeable. To the contrary, sensations are, in that sense, distinct by definition. What Leibniz has in mind here is that sensations are literally a con-fusion, a running together of many perceptions into one. (And this provides further evidence that he means the complexity of sensation quite literally.) Sensations are, one might say, constitutively confused. The following passage about the sensation of light helps to clear this up:

...there are motions in the fire that are not distinctly sensible individually [that is, they are not individually noticeable], but whose confusion [confusion] or conjunction [conjonction] becomes sensible [that is, distinct or noticeable] and is represented to us by the idea [sensation] of light. (NE II.viii.15, A/RB 132)

In other words, the sensation of light is distinct in the sense that it is noticeable; it is confused in the sense that it is constituted by a con-fusion, a running together, of a number of smaller, individually unnoticeable petites perceptions.

Leibniz’s claim that sensations are confused collections of smaller perceptions raises a puzzle: sensations do not seem to be confused collections of other perceptions. The dull ache in my temples seems quite simple and unanalysable, as the Cartesians maintained. Leibniz is in no position to deny this. Something funny, then, must happen to petites perceptions on their collective way to consciousness: as they are run together a transformation of sorts must occur. Just what sort of transformation occurs is not clear. Leibniz could say either of two things here. First, he could say that a genuine metaphysical transformation occurs: something emerges from the mixture of petites perceptions, something that is itself simple and unanalysable. On this view, sensations are the emergent results of confused
collections of *petites perceptions*. If Leibniz were to opt for this position, however, then it would be misleading at best to say that *petites perceptions constitute* sensations, or that sensations are *con-fusions of petites perceptions*. It would also undermine his arguments for the complexity of sensations. More troubling still, as we will see, this claim would jeopardize Leibniz’s account of the representationality of sensations—something that his theory of mind demands, for if sensations emerge from collections of fully representational *petites perceptions*, it looks as though what is emerging are empty sensations, and there is simply no room for such phenomena in the Leibnizian mind.

The better way for Leibniz to go is to say that the appearance of simplicity is just that: an appearance. The transformation is not a metaphysical one but only an epistemic one. What is really just a mixed up collection of *petites perceptions* appears simple. This is clearly what Leibniz has in mind in the following passage:

> I believe one could say that sensible ideas [=sensations] are simple in appearance because, being confused, they do not provide the mind with any way to distinguish what they contain. It is like distant things that appear rounded because one cannot discern their angles, even though one is receiving some confused impression from them. (*NE* II.ii.1, A/RB 120; see also *NE* II.xx.6, A/RB 165 and III.iv.16, A/RB 299)

Leibniz illustrates the point with an example:

> [When a cog-wheel is rotated quickly], this makes the teeth [of the wheel] disappear and an imaginary transparent and continuous ring appears in their place. The ring is made up of successive appearances of the teeth and of the gaps between them, but the succession of them is so rapid that our imagination cannot distinguish them. (*NE* IV.vi.7, A/RB 403)

What is convenient about Leibniz’s choice of example is that, because the apparent ring is temporally induced, we actually can gain conscious access to the tooth-and-gap perceptions that constitute it: all we have to do is stop the wheel or blink quickly. The very same sort of thing happens, Leibniz proposes, every time we have a sensation, although unlike the tooth-
and-gap perceptions the *petites perceptions* that constitute most sensations are not recoverable to consciousness by any simple tricks.

Of course, when we recover the tooth-and-space perceptions, the appearance of the transparent ring disappears. It ceases to exist. In its place appear a myriad of tooth and space sensations and the complexity of the apparently simple ring is revealed. I think this helps us to understand what Leibniz means when he says of the transparent ring that “it is in its nature to be confused” (*NE* IV.vi.7, A/RB 403). If the perceptions that constitute it were unraveled, so to speak, the ring would cease to be. So too, it is in the nature of a yellow sensation, or a pain, or any other sensation to be constitutively confused. If it were untangled, it would not *be* qua sensation (see *NE* II.xxiii.11-12, A/RB 219). These sensations too are phantoms, though phantoms of a more durable sort than the ring.

Leibniz is, of course, cautiously optimistic that we will eventually reach a proper analysis of sensations:

> [Sensations] are only simple in appearance. They are accompanied by circumstances that bear a connection with them…These accompanying circumstances provide something explicable and analyzable, which gives some hope that one day we shall be able to find the reasons for these phenomena. (*NE* III.iv.16, A/RB 299)

Leibniz is quite clear, however, that the analysis cannot be performed phenomenologically, by introspection. Concerning secondary qualities, he writes:

> …it would never be in our power to recognize their causes sensorily in our sensory ideas [=sensations], which are the confused effects of bodies acting on us. For instance, we now have a complete analysis of green into blue and yellow, and have almost nothing else to ask about it except concerning these ingredients; yet we are quite unable to discern the ideas [=perceptions] of blue and yellow within our sensory idea [=sensation] of green, simply because it is a confused idea [=perception]. (*NE* IV.vi.7, A/RB 403)

Instead the analysis will have to be done indirectly by consulting the physicist who studies the micro-motions of the bodies that cause our sensations. By the harmony of body and
soul, we can infer that there are petites perceptions corresponding to the micro-motions, and that these petites perceptions collectively and con-fusedly constitute our sensations (NE II.ii.1, A/RB 120 and II.xxi.41, A/RB 195).

How does Leibniz’s claim that sensations are complex and confused collections of petites perceptions that appear simple reflect his theory of mind more generally? We saw in the last section that within the confines of the Leibnizian mind appearances can mislead, for the light of the mind does not shine everywhere, and does not shine strong enough. We now find that not only does the Leibnizian mind perceive things without noticing it, but sometimes things that are noticed are other than they appear: sensations appear simple although they are really complex. As Leibniz puts it, petites perceptions are “concealed” or “hidden” (cachées) within sensations (NE IV.xvii.9, A/RB 487). While it would be misleading to say that Leibniz denies that the mind has privileged access to its own mental states, privileged access is clearly not perfect access. To plumb the depth and complexity of the mind, a genuinely Leibnizian science of mind would have to be conducted not by introspection, but indirectly by way of the science of the mind’s associated body. Such an explanatory strategy would, of course, be inconceivable within the transparent quarters of the Cartesian mind. Why would such a strategy be desirable? Quite apart from the obvious methodological advantages of studying the mind via the body, the theoretical availability of unconscious and inaccurately perceived (but fully representational) mental states has explanatory advantages that will we see Leibniz exploit in the next section.

3.3 Sensations and Representationality

Leibniz and the Cartesians are agreed that sensations are type-type correlated with bodily motions of some sort. They part company over the cognitive relation between the two. The Cartesians, recall, maintain that there is no resemblance between sensations and bodily
motions and that therefore sensations either do not represent bodily motions or, if they do, it is by a more or less arbitrary connection established between them (as that established between signs and the things they signify). Leibniz objects to this loose relation:

…the Cartesians (like our author [Locke], discerning as he is), regard it as arbitrary what perceptions we have of these [sensory] qualities, as if God had given them to the soul according to his good pleasure, without concern for any essential relation between perceptions and their objects. This is a view that surprises me and appears unworthy of the wisdom of the author of things, who does nothing without harmony and reason. (NE Preface, A/RB 56; see also II.viii.13, A/RB 131)

Leibniz will maintain instead that not only do sensations represent bodily motions, but they do so by way of resemblance.

That sensations are representational has to be Leibniz’s position: if the mind is essentially representational, then insofar as sensations are mental phenomena they had better represent something. Sensations, as we have seen, represent bodily motions: “[sensations] are expressions of the details of what happens in bodies” (NE IV.iii.6, A/RB 381). Once again, the argument is grounded in the principle of the harmony of soul and body. But Leibniz goes further than that: sensations, he claims, represent bodily motions by way of resembling them (that is, by presenting them just exactly as they actually are):

[W]hen the organ and the intervening medium are properly constituted, the internal bodily motions and the ideas [=perceptions] which represent them to the soul resemble the motions of the object which cause the color, the warmth, the pain, etc. (NE II.viii.21, A/RB 132-3)

This claim of Leibniz’s has, understandably, puzzled commentators. In what sense does a sensation of light resemble motions in the fire that cause it? The problem here is not simply how something mental can resemble something corporeal, but how a sensation of light can be understood to present to the mind motions as they actually are out in the world.
At times, Leibniz appears to recognize the absurdity of this claim and back off by saying instead that sensations bear a “resemblance of a sort” to the bodily motions that are correlated with them:

It must not be thought that ideas [=sensations] such as those of color and pain are arbitrary and without relation or natural connection with their causes; it is not God’s way to act with so little order and reason. I would say, rather, that there is a resemblance of a sort—not a perfect one which holds all the way through, but a resemblance in which one thing expresses another through some orderly relationship... (NE II.viii.15, A/RB 131)

Leibniz seems to be softening the resemblance requirement on representation in this passage. But this apparent concession does not help. The “resemblance of a sort” relation he has in mind is an intelligible isomorphism, as his illustration makes clear:

An ellipse, and even a parabola or hyperbola, resemble in some fashion the circle of which they are the projection on a plane, since there is a certain precise and natural relation between what is projected and that projection which is made from it, with each point of one corresponding to each point on the other according to a certain relation. (NE II.8.13, A/RB 131)

The apparent concession does not help because there does not seem to be any more of an intelligible isomorphism between a sensation of light and motions in the fire than there does an exact resemblance.

No amount of fiddling with the notion of resemblance is going to help here. Leibniz, I think, means the resemblance talk as literally as possible. The key to understanding the resemblance between sensations and bodily motions lies in the petites perceptions that constitute Leibnizian sensations. Leibniz somewhat cryptically remarks in the Preface of the New Essays that petites perceptions “bring it about that those perceptions of colors, warmth and other sensible qualities are related to the motions in bodies which correspond to them” (A/RB 56). What could underwrite this strange claim? Leibniz’s argument must run as follows. petites perceptions are, by metaphysical hypothesis, the mental
counterparts (and so representations) of the minute motions that the physicists tell us are going on in the body: every bodily event has a corresponding perception in the soul. As such, again by metaphysical hypothesis, petites perceptions bear a straightforward resemblance to those motions; that is, they represent those motions to the mind just exactly as they actually are. What can that possibly mean? If only we had a mental microscope to apply to our sensation of light, we would discover within it perceptions presenting all the motions that the 17th century physicists tell us are really in the fire. Restated from a first-person point of view, if only we had more penetrating second-order perceptions, we would have sensations of all the motions that the physicists tell us are really in the fire instead of having a sensation of light. The resemblance between sensation and bodily motion is thus located in the sub-sensory level of the Leibnizian mind, in the petites perceptions: the sensation of light resembles its bodily correlate because the petites perceptions of which it is constituted do. It is here that one finds the real payoff, from Leibniz’s point of view, for the claim that sensations are constituted by petites perceptions: it forges the necessary representational link between sensations and the bodily motions with which they are correlated.

Now it is important for Leibniz that the fact that the petites perceptions are run together (literally con-fused) in the mind not change their representational content; that content must be preserved in the resulting confused sensation. This provides another reason why it is important that the con-fusion of petites perceptions actually constitute, and not give emergent rise to, sensations. Because the con-fusion of petites perceptions takes on a new appearance as it rises to consciousness, however, we are unable consciously to recognize, from inside our experience, what is being represented to us by the sensation: the petites perceptions that do the representational-cum-resemblance work are cloaked by the appearance that they collectively and confusedly present to consciousness of a simple light (or color or sound or flavor, etc.).
I said above that by describing sensations as confused Descartes too might mean to suggest that they are confused representations of bodily phenomena. Even if that is what he means, however, he does not have the apparatus Leibniz has in petites perceptions to underwrite that claim. To determine just what bodily motions our sensations are inchoately representing, Leibniz will maintain, we must “undertake the analysis of them by means of further experiments and by means of reason” (NE II.i.1, A/RB 120). The experiments and reasoning, of course, will be conducted by the pneumatologist who investigates the petites perceptions of the mind; and the pneumatologist will have to turn to the physicist, as we saw in the previous section, to determine what bodily events serve as the occasion for our sensations, and so as the res repraesentata of the petites perceptions of which they are constituted.

Notice how the Cartesians and Leibniz are pushed in opposite directions with respect to the representationality of sensations. They are agreed that sensations do not represent what they seem to represent, for they seem to represent something that, on metaphysical reflection, could not possibly exist as such in corporeal reality as a modification of res extensa. In response, Leibniz, committed to the view that everything in the mind, qua mental, represents, must find a way to say that sensations represent something other than what they appear to represent; he is pushed to find a way to connect sensations to bodily events, and he does so via unconscious but fully representational petites perceptions. He also does so without giving up the connection between representation and resemblance. The Cartesian are inclined to say instead that sensations do not represent anything bodily at all (they just seem to), for there is no room in the transparent Cartesian mind for hidden perceptions lurking within the sensations, providing them with a representational link to corporeal reality. The only alternative for the Cartesian is to rework the notion of
representation in such a way that it does not depend on resemblance, an approach with which we saw Descartes and La Forge flirt.

I do not want to suggest that Leibniz has successfully explained away all the mystery about sensations. The question remains why the confused collections of petites perceptions that constitute our sensations appear as they do and whether it would be in principle possible for a collection of petites perceptions to constitute a sensation with a different qualitative appearance from the one the sensation in fact has. This mystery is one that Leibniz does not even try to explain away:

It would be enough for our purposes to understand [sensations] as well as we do that artificial transparency [namely, the transparent ring of the cog-wheel]; it would be neither reasonable nor possible to pretend to know more. (NE IV.vi.7, A/RB 404; see also his letter to Queen Sophie Charlotte, G VI 500/AG 187)\textsuperscript{54}

It may look as though Leibniz has simply pushed the same old problem back from the mind-body gap into the mind itself. This relocation of the mystery, however, is significant, for it changes the nature of the problem. By tying sensations representationally to their bodily causes, Leibniz at least takes a step toward restoring the cognitive link between mind and world weakened by the Cartesians, and does so in a way that remains faithful to the prevailing mechanistic conception of the corporeal world; that is, he does so without retreating to the scholastic Aristotelian position that the corporeal world is colored and sounding and smelly in just the way that it phenomenally appears to be through the senses. The catch is that because the explanatory representational vehicles are the petites perceptions confusedly constituting sensations, it turns out that the mind does not have immediate and infallible access to what is being represented to it by its sensations. But this is a step toward a more modern conception of mind.

4. Leibniz’s Challenge
I have argued that there is a striking tension between the Cartesians and Leibniz over the nature of mentality and the structure of the mind, and the differences are reflected in their accounts of sensation. But how significant is Leibniz’s challenge? Certainly by Leibniz’s lights it is significant. He takes himself to be doing for the science of the mind nothing short of what Descartes had done the science of body. Descartes challenged the Aristotelian assumption that bodies are, by their nature, sensible: “there is no compelling reason to believe that all the bodies that exist must affect our senses” (AT VIII-A 44). Leibniz, in turn, challenges the Cartesian assumption that minds are, by their nature, sensible and transparent to themselves:

…insensible perceptions have as great a role to play in pneumatology as corpuscles do in physics, and it is just as unreasonable to reject the one as the other under the pretext that they are beyond the reach of our senses. (NE Preface, A/RB 56; see also II.i.15, A/RB 116)

In other words, why suppose that all the perceptions that exist in the mind are present to consciousness, or that the ones that are present to consciousness are just as they appear to be? A proper science of the mind, he argues, demands more.

The details of Leibniz’s program in the philosophy of mind expose important weaknesses in its Cartesian counterpart. First, because the Cartesian mind is transparent, there is, implausibly, no room for error about the contents of our own mind except through lapses of memory. Second, for the same reason, there are few resources available to develop cognitive psychological explanations for mental and behavioral phenomena. To explain a phenomenon like habituation (to, say, the motions of a mill), Descartes would have to claim that the sense organ itself becomes so habituated to the stimulus that it is no longer sufficiently affected by it to produce an effect on the mind. That in itself is not implausible. The difficulty comes in trying to explain why one subsequently notices the cessation of the stimulus: if the mills stops, there is no effect on the brain and so still no effect on the
Cartesian mind, which is contrary to experience. Sophisticated automated behavior poses a similar difficulty for the Cartesian. The Cartesian might successfully explain some responses to the environment by automated physical feedback systems that bypass the mind altogether; consider Descartes’ famous explanation for how and why an automaton with no mind can rapidly withdraw its foot from fire (AT XI 141-42). It is less likely, however, that our more sophisticated interactions with the environment can be explained without appeal to mental representations, for example, our ability successfully to navigate turns in the road and traffic despite the fact that we are not conscious of doing so (because we are giving our full attention to a news story on the radio) or the ability of some sleepwalkers not only to navigate their way around the house but even to manipulate objects that get in their way (such as opening closed doors and avoiding toys scattered on the floor). Leibniz, with his petites perceptions, clearly has the explanatory advantage here. Finally, because consciousness is built brutely into the Cartesian mind, it remains an irreducible and inexplicable feature of it (and the bane of philosophers of mind).

Unfortunately for Leibniz, his re-conceptualization of mind did not catch on; or rather, it remained eclipsed by the Cartesian conception. This fact is unfortunate for us too. As philosophers, we routinely define our projects against the background of our ghostly ancestors. In the philosophy of mind, Descartes has single handedly set the terms of the debate: almost nobody is a Cartesian anymore, but almost everyone feels the need to respond to him. Interestingly, some of the platforms of contemporary philosophers of mind are reminiscent of Leibniz—many argue, for example, that the mind is exhausted by representational states and that consciousness must itself be understood as a form of representation; cognitive psychologists too echo Leibniz when they posit the processing of unconscious mental representations to explain perception, thought and action.
I am not suggesting that we have or should become Leibnizian philosophers of mind. I am, however, suggesting that there is a lot we can still learn from carefully investigating his work. Leibniz’s challenge illustrates (from a healthy historical distance) the ways in which these two fundamentally different conceptions of mind naturally give rise not only to alternative explanations of particular psychological phenomena, but also to very different general programs for the study of the mind. We have seen in some detail how Leibniz’s representational conception of mind shapes his account of sensation in a way that is different from the Cartesian account. It also profoundly changes the problem space of the science of the mind. In addition to introducing a form of cognitive psychological explanation that Descartes could not have imagined, it raises a set of foundational philosophical questions about the mind that could not be asked from within the Cartesian framework: *What is consciousness? Why are sensations conscious? What is the structure of a sensation? Where do we find an appearance-reality distinction within the mind? How do sensations represent bodies?* In short, Leibniz proposes not only a change in the explanation of mental phenomena; he proposes a change in our conception of what needs explaining. We don’t have to agree with the details of Leibniz’s theory of mind or with his underlying metaphysical commitments for him to be useful; we only have to think he is on the track in re-framing the debate. And this makes Leibniz’s challenge to the Cartesian conception of mind significant not only by his own lights, but also by our own.56

Appendix: Abbreviations and Short Titles

**Descartes and the Cartesians**

AT  *Œuvres de Descartes*, 12 volumes, edited by Charles Adam and Paul Tannéry (Paris: Vrin, 1964-1976). Cited by volume and page number. The standard translation of Descartes’ works that I have consulted is *The Philosophical Writings of Descartes*, 3
volumes, edited and translated by J. Cottingham, R. Stoothoff, D. Murdoch and A.

LO Nicolas Malebranche, *The Search After Truth and Elucidations* translated by Thomas
Lennon and Paul Olscamp (Columbus: Ohio State University Press, 1980).

English translation is available as *Logic or the Art of Thinking*, translated and edited by
Jill Vance Buroker (Cambridge: Cambridge University Press, 1996). Cited by part,
chapter and page number in the French/English editions.

RV Nicolas Malebranche, *Recherche de la Vérité* in volumes I-II of *Oeuvres de Malebranche*,
edited by A. Robinet (Paris: Vrin, 1958-78). An English translation is available as
*The Search After Truth and Elucidations*, translated by Thomas Lennon and Paul
Olscamp (Columbus: Ohio State University Press, 1980). Cited by Book or Book-
part, chapter and page number in the French/English editions.

*Traité* Louis de la Forge, *Traité de l'Esprit de l'Homme* (Amsterdam, 1666; facsimile
edition (Paris, 1666) is available as *Treatise on the Human Mind*, translated by Desmond

**Leibniz**

A _Gottfried Wilhelm Leibniz: Sämtliche Schriften und Briefe_, edited by the German Academy of Science (Darmstadt, Leipzig, and Berlin, 1923-). Citations are all to series VI, volume vi, which contains the _Nouveaux essais_.

AG _Leibniz: Philosophical Essays_, translated and edited by Roger Ariew and Daniel Garber (Indianapolis, IN: Hackett, 1989).


DM G. W. Leibniz, _Discourse on Metaphysics_. Cited by section number as in G IV.


45
References to Leibniz’s major works and letters are given in the text and notes according to the abbreviations and short titles listed in the Appendix. Translations are my own, but I have benefited from those listed in the Appendix.


5 These included not only Hamilton, but also Eduard Beneke, Gustav Fechner, Johann Herbart, George Lewes, Henry Maudsley and Hermann Ulrici. See Franz Brentano, Psychology from an Empirical Standpoint, ed. Oskar Kraus, trans. Antos Rancurello, D.B. Terrell and Linda McAlister (New York: Routledge, 1995; originally published Leipzig, 1874), I.iii.6 and II.ii.

6 French commentators have been more attentive to the innovations of Leibniz’s philosophy of mind, and in particular to Leibniz’s representationalism, than their Anglo-American

7 References to the works of Descartes, La Forge, Malebranche and Arnauld are given in the text and notes according to the abbreviations and short titles listed in the Appendix. Translations are my own, but I have benefited from those listed in the Appendix.

8 See Descartes, AT VIII-A 25; La Forge, *Traité* 6/35-36, 54/57, 57/58 and 96/76; Malebranche, RIV III-i.1, 380-83/198-99; Arnauld, VFI 35.

9 See Descartes, AT VII 28 and 176, AT VIII-A 17, AT XI 224 and 342-43; La Forge, *Traité* 14/39, 56-57/58, 74-90/67-73; Malebranche, RIV III-i.1, 415/218; Arnauld, VFI 8.


11 On memory, see Descartes, AT III 425 and AT IV 114; La Forge, *Traité* 85/7; Malebranche, RIV II-i.5, 224-29/106-109. On innate ideas, see Descartes, AT VII 189 and AT VIII-B 166-67; La Forge, *Traité* 143-144/96. Malebranche rejects the doctrine of innate ideas altogether (see RIV III-i.4, 429-32/226-27); Arnauld has little to say about it.

12 See Descartes see AT III 423, AT V 222 and AT VII 246 and La Forge *Traité* 62/60, 271-72/154 and 351-54/186-87. Arnauld and Malebranche have less to say about these phenomena.

13 My distinction between phenomenal and reflective consciousness is similar to a distinction Tad Schmaltz draws between ‘direct consciousness’ and ‘reflective consciousness’ on behalf of La Forge, Arnauld and Malebranche in his *Malebranche’s Theory of the Soul: A Cartesian Interpretation* (New York: Oxford University Press, 1996), 21. Schmaltz argues that this distinction is not to be found in Descartes, and that, according to Descartes, consciousness comes in only at the reflective level by a second-order act of the intellect. This seems to me a misreading, for the thoughts of which Descartes suggests we are reflectively conscious (pains) are described as being pre-reflectively felt, and so are surely conscious. Reflection adds something: the recognition that this pain is one that I have not felt before. Rodis-Lewis similarly argues for a distinction between consciousness and reflective consciousness in Descartes in *Le problème de l’inconscient et le cartésianisme*, 41-42.

14 Descartes makes the same distinction with slightly different terminology at AT VII 8 and 232. The term ‘idea’ is further complicated by the fact that Descartes sometimes uses it to refer to corporeal images traced in the brain (AT X 416-17 and XI 176-77).

15 Paul Hoffman has recently argued that feelings like fear are themselves representational in “Three Dualist Theories of the Passions” *Philosophical Topics* 19 (1991): 153-200. Fear, he argues, represents the badness of its intentional object. Margaret Wilson defends a similar position in “Descartes on the Representationality of Sensation,” in *Central Themes in Early Modern Philosophy*, ed. J. A. Cover and M. Kulstad (Indianapolis: Hackett, 1990), 1-22. I think this reading is unlikely, for (a) Descartes sometimes attributes the representation of
something as good or bad to internal sensations (in particular, pleasure and pain) rather than to emotions (AT XI 400) and (b) it fails to provide an account of the difference among the emotions, all of which concern the goodness and badness of their intentional objects.

16 Arnauld’s distinction in keeping with a long-standing ambiguity in the Latin verb *repraesentare*, which is sometimes used to suggest something’s standing in the place of something else by imitation or resemblance, but is more often used to suggest something’s being presented or exhibited or shown.

17 See Leibniz’s letter to Queen Sophie Charlotte, G VI 506/L 551; PNG §4; M §19 and §§29-30; and his letter to R.C. Wagner, G VII 529.

18 Strictly speaking, it is not simply perception that constitutes the monadic essence, but perception and appetition—the active principle of change that propels a monad from one perceptual state to another. Although a thorough account of Leibniz’s philosophy of mind would have to include a discussion of appetition, it is beyond the scope of this paper. See, however, fn. 19 for a bit more on this topic.

19 What of appetition? The monadic essence, recall (fn. 18), includes both perception and appetition. Appetition, he tells us, is the “action of the internal principle that brings about the change or passage from one perception to another” (M §15) so that all one can find in a monad are “perceptions and their changes” (M §17). Leibniz might have in mind that there are no non-representational states in the monad, appetition being just the change from one representational state and another. Alternatively, Leibniz might argue that appetitions ultimately derive from the representational content of the monad’s first perception, for, as Leibniz frequently suggests, all the subsequent perceptions of a monad are in some way contained in and determined by its original perception (see DM §14 and §29 and M §22). If that’s true, then one could in principle derive each appetition, each change of perception, from a monad’s original perception. And if that’s the case, then it seems reasonable to say that the monad is essentially and fundamentally representational. I am indebted to Michael Della Rocca (personal communication) for a helpful discussion of this matter.

20 Leibniz discusses the notion of expression further in his essays “What is an Idea,” G VII 263-64, which is translated in Philip Wiener’s *Leibniz Selections* (New York: Scribners, 1979), 281-83, and “Metaphysical Consequences of the Principle of Reason,” C 15, which is translated in G.H.R. Parkinson’s *Leibniz: Philosophical Writings* (London: Everyman, 1973), 176-77.

21 See also “A Specimen of Discoveries About Marvellous Secrets,” G VII 317; letter to Des Bosses, G II 311; letter to Arnauld, G II 114/L 340.


23 Although we sometimes speak of linear perspective drawings and paintings as having a single point of view, I think this has to be understood as elliptical for the painting’s representing something *as seen from a single point of view*.

24 In claiming that the mind is first and foremost a representing thing, Leibniz is clearly indebted to Spinoza. Leibniz’s suggestion that what is distinctive about mental representation is the simplicity of its subject, however, directly contradicts Spinoza’s claim that the mind is a composite collection of ideas (*Ethics* IIp15). Because Leibniz’s account is more explicit and more fully developed than Spinoza’s, and because Leibniz is more insistent on the anti-Cartesian thrust of this conception of the mind, his theory of mind lends itself particularly well to studying the attempt to *change* the Cartesian conception of mind. For an extensive investigation into the representational conception of mind in Spinoza, see Michael Della Rocca, *Representation and the Mind-Body Problem in Spinoza* (New York: Oxford University Press, 1996).

25 For convenience, I employ the Cartesian terms ‘mind’ and ‘thought’ rather than the Leibnizian terms ‘monad’ or ‘mental substance’ and ‘perception’ as Leibniz himself does confronting the Cartesians and Lockeans in the passages cited.

26 There are, of course, two other possible responses. The Cartesians respond that, despite appearances, the mind *is* always consciously thinking; we simply do not always remember our thoughts after the fact. Locke responds by denying that thought constitutes the essence, or essential *activity*, of the mind: conscious thought is a distinctive *ability* or *operation* of the mind; but an ability need not be exercised at all times (*An Essay concerning Human Understanding*, II.i.10).

27 Leibniz thinks it untenable that consciousness survive the death of the body, as it must if the Cartesian mind is to be immortal. He argues that it is more likely that representation survive the death of the body. If the mind is essentially a representing thing, rather than an essentially conscious thing, the argument goes, there is no reason to suppose that the mind cannot survive the death of the body (*PNG* §4, *M* §14 and *NE* II.xix.4, A/RB 162). Although this argument is not likely to be philosophically compelling today, it does reveal an important theological motivation behind Leibniz’s re-conceptualization of the mind.

28 See *NE* ii.i.19, A/RB 118. This argument depends on conceiving consciousness as a form of second-order reflection on the mental state that is said to be conscious. Thus in order for mental state A to be a conscious mental state, I must have a reflective thought B of mental state A; but then if mental state B is to be conscious too, I must have a further reflective thought C of it; and so on *ad infinitum*. While Leibniz takes this as decisive against the Cartesians, it misses its target, for the Cartesians do not, by and large, adopt a second-order theory of consciousness. For an interesting discussion of this argument, see Mark Kulstad, “Two Arguments on *Petites Perceptions*” in *Rice University Studies* 63 (1974): 57-68.
30 Leibniz's pre-established harmony is surely indebted to Spinoza's representational parallelism (*Ethics* IIp7 and IIp12). The metaphysical details and arguments, however, are quite different. Moreover, while his exhaustive parallelism, according to which everything that happens in the body has a corresponding idea, suggests a commitment to unconscious perceptions, Spinoza is not explicit about this and provides no argument for it. Nor does he advance any particular account of what consciousness is. Leibniz, by contrast, is not only explicit about the existence of unconscious perceptions; he also relentlessly argues for their introduction into the mind and provides explicit account of what consciousness is and why it turns up where it does.

31 These judgements include both judgements about the actual size, shape and distance of objects and also projective judgements to the effect that there actually are objects out in the world that resemble what is sensorily presented (for example, that there is an apple that is red in just the way it appears to be). For Descartes' fullest discussion of the distinction between sensation and sensory perception see his *Sixth Replies*, AT VII 436-69. For parallel discussions, see Malebranche, RV I.10, 130/52 and I.14, 155-61/67-70; La Forge, *Traité* 273-74/154-55; Arnauld, VFI 253-54 and *Logique* I.11, 83-85/58-60.

32 There is interpretive dispute whether there are sensations proper of primary qualities. While I believe the Cartesians, with the exception of Malebranche, clearly commit themselves to primary quality sensations, this is not the place to provide a defense of this claim, and the points I want to make are clearest for the other sensations.

33 RV I.13, 145/62; see also III-ii.7, 452/238. La Forge writes: “we can very well say what the idea of round or square represents to us, but we cannot likewise explain what the idea of heat or any other sensible quality makes us perceive” (*Traité* 278-79/156-57).

34 See Descartes, AT VII 87 and AT XI 176; La Forge, *Traité* 226/134 and 280/157; Malebranche, RV I.5, 70-71/20 and I.13, 145/62; and Arnauld, TF1 163 and 258, *Logique* ch. 11, 84/59.

35 Descartes, AT XI 5-6, AT VI 85 and 112-13, AT VIII-A 320-21; La Forge, *Traité* 276-77/155-56; Malebranche, RV I.12, 141-42/59-60; Arnauld, VFI 244-45, 248.

36 Alternatively, sensations might be obscure and confused in the sense that they are mistaken by us to represent something bodily when in fact they do not. On this line of interpretation, it is not that sensations are obscure and confused representations, but rather that we obscurely and confusedly treat them as representations of bodily phenomena.

37 There has been considerable scholarly debate in recent Anglo-American literature whether Cartesian sensations are representational (and if so, how). For a defense of the view that they are non-representational, see Ann Wilbur MacKenzie, “Descartes on Sensory Representation: A Study of the *Dioptrics,*” *Canadian Journal of the History of Philosophy*, supp. vol. 19 (1990): 109-47. For an argument that they represent only mental phenomena, see Alan Nelson, “The Falsity in Sensory Ideas: Descartes and Arnauld” in *Interpreting Arnauld*,

38 Thanks to Sean Greenberg for persistently pressing me on this point.


40 Leibniz also claims that sensation involves attention and memory (“[On the Souls of Animals],” G VII 330; NE Preface, A/RB 54; PNG §4, G VI 600/AG 208). I will focus, however, on distinctness.

41 It should be said that Leibniz does offer a straightforward definition of the term ‘distinct’ in his writings. A distinct concept or idea, he claims, is one that (a) enables its possessor to recognize instances of it and (b) enables its possessor to explain why something counts as an instance of it by offering an analysis of the concept’s distinguishing marks (see, for example, Meditations on Knowledge, Truth, and Ideas, G IV 423/AG 24). The cognitive activities in terms of which distinctness is defined here, however, only make sense within the life of a mind or substance that is able to reflect, form concepts and reason. Indeed, the definition is given for concepts or ideas, not for perceptions generally. Sensations, however, are had by creatures who have no concepts or ideas. The notion of distinctness that is used to distinguish sensation from other lower forms of perception therefore cannot be the one that Leibniz explicitly defines in these passages. Unfortunately, he never properly defines the term ‘distinct’ as it is used in these contexts, so interpretive work is needed to determine its meaning.

42 There is a parallel connection between perceptual indistinctness or confusion and unconsciousness (see NE Preface, A/RB 53 and 55).

43 Or perception that p. As with most of the early moderns, Leibniz does not make a careful distinction between object perception (perception of a tree) and perception of states of affairs (perception that there is a tree outside).

44 It is a matter of considerable interpretive controversy just what this second-order perception (and so apperception) is supposed to be. One problem is that this and other passages make it sound as if second-order perception is performed by the faculty of reflection. Only rational mind, however, have reflection. If consciousness requires it, then only rational are capable of consciousness. Robert McRae defends this interpretive conclusion in Leibniz: Perception, Apperception, and Thought, ch. 3. In his late works, however, Leibniz clearly commits himself to animal consciousness (see NE II.xxi.5, A/RB 173).
Indeed, in this very passage Leibniz is trying to distinguish the normal (presumably conscious) mental states of animals from those they have when they are occasionally reduced to the state of lower monads (as when in a deep sleep or stupor), that is, unconscious perceptions. Animals, then, are attributed apperception or consciousness. Does this mean that we have to attribute some sort of proto-faculty of reflection to animals, contrary to Leibniz’s explicit claim that reflection belongs to rational minds alone? Mark Kulstad defends this interpretive conclusion in *Leibniz on Apperception, Consciousness, and Reflection* (Munich: Philosophia Verlag, 1991). I am inclined to agree with Kulstad on this issue and claim that animals must have some capacity for reflection, although certainly not of the sort that rational human minds have, for Leibniz’s commitment to animal consciousness seems to me difficult to dismiss in the late works. Rocco Gennaro defends a related conclusion, that a special kind of non-reflective apperception is attributed to animals in “Leibniz on Consciousness and Self-Consciousness,” in *New Essays on the Rationalists*, ed. Rocco Gennaro and Charles Huenemann (New York: Oxford University Press, 1999), 353-71.

45 One might object to my reading of this passage as follows: what Leibniz is distinguishing in PNG §4 is not unconscious perception from conscious perception, but rather conscious perception from self-conscious perception (see, for example, Nicholas Rescher, *The Philosophy of Leibniz* (Englewood Cliffs: Prentice-Hall, 1967), ch. 10). The proper way to read PNG §4, on this view, is not as identifying apperception with consciousness full stop, but rather with consciousness of my internal states. In other words, “consciousness” is grammatically tied in this passage to the direct object “this internal state.” This in an untenable suggestion. First, PNG §4 is concerned with distinguishing the mental states of lower monads from the more typical mental states of animals; the distinction he is after is surely between unconscious and conscious perception, not conscious and self-conscious perception. Second, although the French verb *s’appercevoir de* indeed takes a direct object, so that it is true that it would be impossible simply to say that I am aware without being aware of something, Leibniz rarely follows his innovative nominalization of that French verb, *l’apparition*, with a direct object, and so it is perfectly plausible that apperception is not grammatically joined to “this internal state” in the passage. Furthermore, in the Monadology passage that parallels PNG §4, Leibniz distinguishes perception from apperception “or consciousness [full stop]” (M §14).

46 It is not clear just how reflective second-order perception is supposed to introduce consciousness into one’s perceptual life: if perceptions are not intrinsically conscious, then why think that adding more of them will produce consciousness? Second-order representations do not normally produce consciousness (for example, a photograph of a painting), so why should they in this case? One might argue on Leibniz’s behalf that what is distinctive about second-order perception is that it is reflective and so represents not any old representation but a representational state of itself. That argument only goes so far: a painting like the *Arnolfini Wedding* that represents a room with a mirror reflecting some part of the room arguably includes a (literally) reflective second-order representation of a representational state of itself, but all without consciousness. At this point, I think Leibniz’s only resource is to appeal to the difference between mental representation and corporeal representation generally: the simplicity of the representing subject that affords a single point of view. In the reflective second-order perception constitutive of consciousness, unlike
other second-order representations, the perceiving subject must represent a representational state of herself as hers or as a state of the self-same subject. This need not require full blown concept of the self, something had only by rational minds. If it did, then animal consciousness would be jeopardized. Leibniz maintains that memory serves this psychological unifying function among perceptions (see M §26) and that consciousness involves an ‘immediate memory’ of a perception (see NE II.xxvii.13, A/RB 238). Consciousness, then, is not just the representation of a representation, but a memory of a representation had by this subject. For more on the connection between memory and consciousness, see Kulstad, Leibniz on Apperception, Consciousness, and Reflection, ch. 1. Whether successful or not, we have in Leibniz one of the first attempts to offer a reductive analysis of consciousness within the confines of a representationalist conception of mind.


49 Cf., however, NE II.xix.1, A/RB 161, where Leibniz writes that sensation is “awareness of an external body” and that sleep is the “cessation of sensation.”

50 See, for example, NE II.ix.1, A/RB 134 and Preface, A/RB 54. To the extent that perceptual distinctness is sensitive to context and perceiver motivation, we should say that it is context and perceiver relative. This fact makes it clear that it would be a mistake simply to identify perceptual distinctness with any single feature of a perception, such as its size, number or variation. Size, number and variation all conspire to ground perceptual distinctness. In the end, however, what it is for a perception to be distinct is not simply for it to have such and such a size, number or variation, but for those things to render the perception capable of being noticed—that is, capable of attracting a second-order perception—under the perceptual circumstances.

51 It is tempting to argue that surely some sensations, like pleasure and pain, are essentially conscious even by Leibniz’s lights. Leibniz sometimes suggests such a view. He writes, for instance, that an unconscious monad “would be without pleasure and without pain” (NE II.i.11, A/RB 113) and that the notion of pain includes consciousness (NE II.xxi.36, A/RB 162). On the other hand, he explains why an unconscious monad would be without pleasure and pain by claiming not that these are essentially conscious or noticed perceptions, but that they are essentially notable or noticeable perceptions (perception notables) (II.xx.1, A/RB 162). What is more, he defines pleasure and pain as follows: “pleasure is a sensation of perfection, and pain a sensation of imperfection, each being notable enough that one can be conscious of them” (NE II.xxi.36, A/RB 194). Furthermore, although he grants that hunger is a particularly notable or noticeable perception, “even when one is hungry, one does not think about the hunger all the time, but when one things about it, one is aware of it, for it is a very
noticeable disposition" (NE II.i.19, A/RB 118). It is not clear then that there are any sensations that are essentially conscious for Leibniz.

52 It is not crystal clear just how this is possible, but the burden of proof was not on Leibniz here. Most of his opponents, and especially the Cartesians, would have accepted the claim that the soul is simple despite its having a multitude of perceptual modifications.

53 Robert McRae attributes such a position to Leibniz: “As qualitatively simple these sensible perceptions are not aggregates of insensible perceptions. Rather, they are novel emergents from a mass of insensible perceptions” (Leibniz: Perception, Apperception and Thought, 38).

54 Although Leibniz does not have an efficient causal explanation for why sensations appear as they do, he does have a teleological story to tell about the reason for our having sensations that appear as they do. For an illuminating discussion of this story, see Martha Bolton, “The Explanation of Consciousness in Leibniz’s Nouveauz Essais,” manuscript.

55 William Lycan, for example, writes: “the mind has no special properties that are not exhausted by its representational properties, along with or in combination with the functional organization of its components. It would follow that once representation itself is (eventually) understood, then not only consciousness in our present sense but subjectivity, qualia, ‘what it’s like,’ and every other aspect of the mental will be explicable in terms of representation together with the underlying functionally organized neurophysiology” (Consciousness (Cambridge: MIT Press, 1996), 11). See also David Armstrong, The Nature of Mind and Other Essays (Ithaca, NY: Cornell University Press, 1980); Fred Dretske Naturalizing the Mind (Cambridge: MIT Press, 1996); David Rosenthal, “Two Concepts of Consciousness,” Philosophical Studies 49 (1986): 329-59; and Michael Tye, Ten Problems of Consciousness (Cambridge: MIT Press, 1996). As the Lycan passage makes clear, however, many contemporary defenders of a representational theory of mind simultaneously defend some form of naturalism about the mind, which is, of course, quite contrary to Leibnizian metaphysics. The form of naturalism that is most often defended among these philosophers is functionalism, according to which mental states are type-individuated not by their intrinsic features but by their causal relations to other states. Nothing could be more contrary to Leibnizianism, for on Leibniz’s view the apparent causal relations of a mental state are specified by the internal features of the mental state itself.

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