

# **Pierre Bayle's Cartesian Metaphysics**

Rediscovering Early Modern Philosophy

**Todd Ryan**

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## 2 Mind-Body Dualism

Among the Cartesian doctrines to which Bayle was sympathetic, perhaps none figures more prominently in his works than the strict distinction of mind and body. As we saw in the previous chapter, Bayle repeatedly affirms that only an immaterial substance is capable of thought. Indeed, Elizabeth Labrousse has argued that “the distinction between thought and extension is for [Bayle] an indubitable and luminous truth that compels our recognition as soon as we have learned from Descartes to use only the understanding, without allowing the imagination and the senses to obscure its luminous self-evidence.”<sup>1</sup> In addition to its excellent epistemic credentials, the doctrine of substance dualism holds out the sole possibility of establishing a secure metaphysical foundation for a number of dogmas of orthodox Christianity, notably the immortality of the soul and the tenability—indeed, conceivability—of a transcendent creator of the universe. Recently, however, this reading of Bayle as an unqualified adherent of Cartesian mind-body dualism has been called into question.<sup>2</sup> Drawing on crucial passages from the *Objections to Poiret* and other texts, Gianluca Mori argues that Bayle discretely articulates a materialist ontology, rendering suspect his frequent appeals to standard Cartesian arguments for the distinctness of mind and body. On Mori’s reading Bayle refuses to rule out the possibility that matter might be endowed with the faculty of thought, while at the same time emphasizing the conceptual difficulties that attend the Cartesian account of mind as *res cogitans*. As a result the possibility of a rational proof of both the immateriality and immortality of the soul is undermined.

In this chapter I will pursue two separate though related goals. First, I will explore what I take to be two of Bayle’s most original contributions to the debate over the nature of thinking substance. I will argue, *pace* Mori, that Bayle is committed to a form of mind-body dualism. Second, I will examine in greater detail the implications Bayle’s criticisms of the *res cogitans* account of mind hold for the possibility of rational knowledge of the immortality of the soul.

It will be helpful to begin by distinguishing two ways one might reject mind-body dualism. Proponents of the first view, which I shall call Strong Materialism, maintain that despite the ostensible or *prima facie* distinction

between mental and physical properties, at the deepest level of philosophical analysis there is only one kind of thing, namely, the physical. To employ a modern idiom, the Strong Materialist holds that mental properties are ontologically reducible to physical properties. Because in the seventeenth century all parties to the debate embraced some form of substance ontology, Strong Materialism amounts to the claim that there are only material substances and material properties. The Weak Materialist, on the other hand, maintains that although there are, in fact, two irreducibly different kinds of properties, the mental and the physical, this essential difference does not preclude properties of both types from existing in the numerically same (material) substance. Thus, the Weak Materialist combines property dualism with a rejection of immaterial substance. Among the early moderns, Hobbes's reduction of thought to matter in motion qualifies him as a Strong Materialist, whereas Locke's contention that so far as we know God might have superadded thought to matter, amounts to a refusal to rule out the possibility of Weak Materialism.<sup>3</sup>

#### EARLY WRITINGS: BAYLE'S ANTI-EMERGENCE ARGUMENT

In his lectures on metaphysics Bayle develops an anti-emergence argument purporting to demonstrate the impossibility of converting insentient matter into a thinking being by mere alteration of the configuration of its physical parts. Although Bayle's formulation makes no essential innovations on canonical versions to be found in a number of Cartesian texts, it will be helpful to examine the argument in some detail in order to better appreciate his mature position.<sup>4</sup> Bayle begins with the premise that in any material system, every effect that is specifically attributable to its physical configuration is ultimately reducible to changes of shape and motion among its component parts, since "we cannot conceive that matter can undergo any changes other than being divided into smaller particles, being more agitated, and the like."<sup>5</sup> But, he continues, the modes of thought are not reducible to shape and motion, since "we deny with as much certainty that love is a shape, a motion, etc. as we deny that it is the number three."<sup>6</sup> Again, the ontological independence of the mental from the physical is demonstrated by the fact that:

we can deny that [thought] occupies a location or is extended, and nevertheless we will clearly comprehend it as thought. For, having excluded all of these [qualities], we will have perfect knowledge of what it is to be joyous, and how joy differs from suffering. (*OD IV*, 456)<sup>7</sup>

The upshot is that no mechanical alteration of its parts can produce thought in a previously insentient material substance. As Bayle develops it here,

the argument rests on two major premises. First, he rejects the type-identity theory, according to which mental properties or acts just are physical properties or events. The claim that no mode of thought is conceptually reducible to a mode of extension turns on an argument from conceivability borrowed directly from Descartes. Bayle claims that our concepts of mental acts “neither contain nor presuppose” the concept of extension and so these mental acts are of a fundamentally different kind than the modes of matter (*ibid.*). Let us call this first premise the Irreducibility Principle.<sup>8</sup> By itself the principle constitutes a rejection of Strong Materialism, since it ensures the truth of some form of property dualism. The second premise, which we might call the Non-emergence Principle, is that within a complex material system the only conceivable effects specifically attributable to different organizations of its parts are changes in shape and motion. Taken together these two principles rule out the possibility that thought might be an emergent property of matter. For by the second principle, one who wishes to claim that the physical organization of a complex material substance might be causally responsible for the emergence of thought must identify these mental acts with certain motions and shapes, a possibility that the first principle precludes. From these premises Bayle concludes that no material substance is capable of thought, and that therefore the mind must be a distinct, immaterial substance.

Although versions of this argument can be found throughout his early works, there is at least one place in which Bayle seems to call the cogency of the reasoning into doubt. The passage occurs in the *Objections to Poiret*, a text whose authenticity Mori has persuasively argued.<sup>9</sup> Anticipating Locke’s better known discussion in the *Essay*, Bayle questions whether we can have any rational assurance that God cannot conjoin thought to extended substance as one of its accidental properties. He writes:

I ask whether God by his infinite and omnipotent power can bring it about that a body might become conscious of its own existence or the existence of any object whatsoever. If you deny this, you diminish the sovereignty and omnipotence of God. . . . I admit that I cannot conceive how an unthinking body might become thinking as a result of a change in the shape or position of its parts, or in the determination of its motion. But how do we know that it cannot receive other modifications than those, if God wished to bring to bear his power for that purpose? (*OD IV*, 150b)<sup>10</sup>

Bayle goes on to suggest that a similar worry can be raised within an occasionalist framework. For on that theory God is the sole efficient cause of the mental acts of finite minds. Thus, for example, when the body is stuck with a pin, it is God who subsequently modifies the mind with a sensation of pain. Now according to Bayle, because we are entirely ignorant of the means by which God might causally affect an immaterial mind so as to

produce a sensation of pain, it is open to the materialist to maintain that God might affect matter itself with the same mode of thought as a lawful consequence of certain corporeal motions. Bayle writes:

Similarly, I might say that on the occasion of certain motions, matter could be so modified by God that it experiences pleasure or pain. And in this way, the principle objection of the Cartesians, based on the fact that motion, shape and the other modifications of bodies differ *toto coelo* from the idea of thought, is destroyed. Thus, indeed, I do not say that motion and shape formally constitute the act of thought, but only that they are the occasion of thinking. (*OD IV*, 151a)<sup>11</sup>

If we recognize Bayle's authorship of the *Objections to Poiret*, as I think we must, how are we to reconcile these objections with his frequent declarations that matter is incapable of thought? Elizabeth Labrousse has argued that in light of Bayle's subsequent rejection of Locke's position on thinking matter, the objection to Poiret must be viewed as no more than a "passing fancy (*boutade passagère*)."<sup>12</sup> By contrast, Mori maintains that Bayle's anticipation of Locke's own position shows how "exaggerated (and suspect)" is Bayle's later critique of the English philosopher in the *Dictionnaire*.<sup>13</sup> Mori is surely right to insist upon the importance of the doubts that Bayle raises in the *Objections*. For even if Labrousse is ultimately correct in seeing Bayle's argument as inconsistent with his mature views, it is surely not enough to dismiss the objection as nothing more than a transient and superficial worry. What is needed if the dualist reading is to be sustained is to find in Bayle a compelling *philosophical* reason that explains his abandonment of the worry he expresses to Poiret. For reasons I shall make clear, I believe that by the time he composed the *Dictionnaire* Bayle had indeed come to a reasoned rejection of the materialist hypothesis entertained in the *Objections to Poiret*.

To understand the ultimate basis of this rejection, it is important to notice precisely what is being argued in the objection to Poiret. Bayle begins by conceding the inconceivability of identifying modes of thought with modes of matter. Thus, the argument does not call into question the Irreducibility Principle. Rather in calling upon Poiret to defend the claim that various kinds of shape and motion are the only modes of which material substances are capable, Bayle poses a direct challenge to the Anti-emergence Principle. More specifically, Bayle insists on the need for a further argument to show that individual thoughts cannot be modifications of material substance. Now, as we shall see, Bayle develops two novel arguments against the materialist hypothesis, neither of which relies upon the premise that the only modes of which extended material substance is capable are various shapes and degrees of local motion. The first of these occurs in a critical discussion of the Aristotelian Dicaearchus, while the second is developed at length in an article devoted to the Greek atomist, Leucippus.

## MATERIALISM AND PANPSYCHISM

The ostensible starting point of Bayle's discussion of Dicaearchus is the latter's rejection of the immortality of the soul on the grounds that the power of thinking does not belong to a substance distinct from the living body, but is rather a capacity of the body itself. Being inseparable from the particular organic body to which it belongs, the soul cannot survive the destruction of the body. In Book I of the *Tusculan Disputations* Cicero portrays Dicaearchus as holding that:

the soul is absolutely nothing, and this term is utterly meaningless . . . nor is there soul or spirit [*animus vel animam*] in either man or beast. The whole power whereby we either do or feel anything is equally diffused throughout all living bodies and is not separable from the body, since it is nothing, nor anything else than simple body so configured that it lives and feels by the disposition of nature. (Quoted in *DHC* "Dicéarque" rem. C, 285; P 64)<sup>14</sup>

Although his assertion that the power of thinking is "nothing, nor anything else than simple body" suggests that Dicaearchus is advocating some form of materialism, the brevity of Cicero's account precludes a definitive characterization of the position.<sup>15</sup> Yet despite the paucity of detail (or, one might say, because of it), Bayle's reconstruction and subsequent criticism of Dicaearchus's position constitute one of his most distinctive contributions to the mind-body debate.

Bayle argues that to assert that the soul is not distinct from a particular material substance commits one on pain of contradiction to the view that that substance will always possess the power of thinking, and that therefore the inference to the mortality of the soul is unwarranted. He writes:

if you once suppose, with this author, that the soul is not distinct from the body, that it is only a power equally distributed through all living things, and that it makes but one simple being with the bodies that are called living, then either you do not know what you are saying, or you have to maintain that this power always accompanies the body. For what is not distinct from the body is essentially the body; and according to the first principles of reason, it is a contradiction to say that a being ever exists without its essence. (*DHC* "Dicéarque" rem. C, 285; P 65)

Bayle's initial argument is that since nothing can exist without its essence, if the power of thinking is not distinct from body, then a material object that is once possessed of that power can never lose it.<sup>16</sup> But, this is a little too crude, since the key claim that if  $x$  is not distinct from  $y$ , then  $x$  is essential to  $y$  ignores the three grades of distinction (real, modal, and nominal) articulated by Descartes. On this account modes are mere 'ways of

being' that are not really distinct from the substance to which they belong. Moreover, a substance can survive the loss of any of its accidental modes, as when a round ball of wax is molded into a cube. Thus, modes such as shape are precisely the sort of entities that are both not really distinct from substances, but are nonetheless inessential to them. The distinction is important, since as Cicero portrays him, Dicaearchus holds not that the power of thinking belongs to *every* material substance, but only to those complex material objects so configured or "modified" that they constitute a living, sentient being. On this view thought occurs in a material object only when its parts, which are themselves essentially inanimate, are arranged according to a certain precise physical configuration. At the time of death this arrangement comes undone, and the power of thinking is destroyed. In sum, Bayle's refutation appears to miss its target in that it illicitly attributes to Dicaearchus the claim that the power of thinking is essential to material bodies *simpliciter*.

As we might expect, Bayle is not unaware of this objection. The burden of the remainder of the remark is to rule out the possibility that mental acts such as sensations could be accidental modes of body, from which it would follow that "matter, without losing anything essential to it, could cease to feel as soon as it was no longer enclosed in the organs of a living machine" (DHC "Dicéarque" rem. C, 286; P 66). Thus, Bayle's discussion amounts to a reconsideration of the possibility he had earlier left open in the *Objections to Poiret*. Bayle goes on to argue that the view that modal kinds are accidental to material substance is impossible, because every mode of which we have any knowledge can be lost by a substance only by simultaneously acquiring another of the same kind. Thus, a spherical piece of wax can lose its shape on the sole condition that it be immediately replaced by another. Similarly, a color is lost only to be replaced by another color, a degree of heat or cold by another degree of temperature. Let us call the principle that no mode can be lost by a substance without being replaced by another of the same type the *Principle of Modal Continuity* (PMC).

Of course, even if modes of shape obviously conform to this general principle, there might still be other modalities that can be lost "without being succeeded by another positive one." For Bayle, the most plausible counterexample is the transition from motion to rest. Motion seems to present a clear case of a quality that is indistinct from the substance to which it belongs, but which can cease to exist without being replaced by another of the same kind. However, Bayle rejects the example, arguing that:

motion and rest are not different, as one supposes, in the same way as positive modalities and privations are. Rest and motion are both very real and positive local presences. They differ only in external and entirely accidental relations. Rest is the duration of the same local presence. Movement is the acquisition of a new local presence. And consequently, what ceases to move does not lose its modality without



acquiring another of the same nature. It always has a position equal to its extension among the other parts of the universe. (*DHC* “Dicéarque” rem. C, 286; P 66–67)

For Bayle, rest is not a mere privation of motion, since everything that is “real and positive” in a mode of motion is equally present in a mode of rest. To the extent that motion can be considered a positive mode of a material substance, it is because at each moment the substance occupies a certain place, or has a real local presence, which is equally true of a body at rest. Thus, motion fails as a counterexample to PMC, since in passing from motion to rest, a body loses one positive mode (a certain local presence) only to be replaced by another of the same kind. What would be needed for motion to count as a genuine counterexample to PMC would be a case in which a body occupies a place and at a subsequent moment occupies no place at all.

Bayle’s argument here is complicated by a number of factors, the most important of which is the standard Cartesian account of local motion as a purely relational property of body.<sup>17</sup> This suggests that what it is for a body to occupy a specific place is reducible to its standing in a certain set of spatial relations to surrounding bodies. Thus, it is not immediately obvious how Bayle can maintain a meaningful distinction between the “external and merely accidental” relations that constitute a mode of motion and a mode of rest, and the set of spatial relations that constitute occupying a certain place among other physical bodies, which Bayle claims is the “real and positive” component of a mode of motion or rest.<sup>18</sup> What Bayle seems to have in mind is the following. The property of occupying a place follows necessarily from the Cartesian account of body as *res extensa*. As Bayle puts the point, a body always has “a position equal to its extension among the other parts of the universe” (*DHC* “Dicéarque” rem. C, 286a; P 67). In this sense, occupation of a place is an essential feature of body *qua* body, and so a “real and positive” mode of every body. Now consider some body *b*, which at time  $t_1$  is surrounded by neighboring bodies  $n_1$  and  $n_2$ . Suppose that at times  $t_2$ ,  $t_3$ , and  $t_4$  *b* continues to be surrounded by  $n_1$  and  $n_2$ . In this case *b* is said to be at rest. Now suppose that at  $t_5$  *b* is surrounded by  $n_1$  and  $n_3$  and at  $t_6$  it is surrounded by  $n_1$  and  $n_4$ . In this case *b* is said to be in motion. Yet the only difference between motion and rest is an entirely accidental relation between *b* and its surrounding bodies. When there are different bodies surrounding *b* from one moment to the next, *b* is in motion. When these bodies remain constant, *b* is at rest. But being surrounded by particular bodies from one moment to the next cannot be a mode of *b* in the way that, for example, shape is a mode of *b*. Of course, given the nature of extension, *b* must be surrounded by *some* bodies. But that at any given moment it should be surrounded by some particular bodies is a purely accidental and extrinsic fact, which contributes nothing to motion and rest insofar as they are “real and positive” modes of the finite body *b*.

However, at this point Bayle has shown only that certain specific kinds of physical properties conform to PMC. But, it might be objected, this sort of enumerative induction is inconclusive. What is needed if the argument is to succeed, is a general metaphysical foundation for PMC that will decisively rule out the possibility of any such counterexamples. In his final argument in favor of the principle, Bayle attempts to provide such a foundation by appeal to the Cartesian analysis of matter. He writes:

all the modes of bodies are based on the essential attributes of bodies, which are the three dimensions. This is why the loss of a figure or a definite location is always accompanied by the acquisition of another figure or another definite location. Extension never ceases. It never loses anything. That is why the decay of one of its modes is necessarily the generation of another. (*DHC* “Dicéarque” rem. C, 286; P 67)

Because the nature of body *qua* body is to be extended in the three dimensions, and modes such as shape or occupation of place are nothing more than mere ways of being that are not really distinct from the extended substance, loss without replacement of such modes could occur only by annihilation of the material substance itself.<sup>19</sup> To violate PMC with respect to, say, motion would be to go from having a spatial location to having none at all. But this could happen only if the body were driven completely out of existence. Therefore, if thought were a mode of extension, it could similarly be lost only by the annihilation of the material substance. Although he invokes the *res extensa* account of matter, it is important to notice that Bayle is not simply rehearsing the standard Cartesian claim that the only possible modes of matter are relations of distance.<sup>20</sup> At the deepest level, Bayle’s argument turns not on the equation of material substance with extension, but more generally on the Cartesian ontology of substance—that is, on the conception of finite substance as comprised of a principal attribute and a collection of modes that are, ontologically speaking, nothing over and above the substance itself. That it is this principle of Cartesian metaphysics rather than simply the analysis of matter as *res extensa* that lies at the heart of Bayle’s argument is made clear by his willingness to extend his reasoning to principal attributes other than extension:

But if you wish to base sensation on some attribute of matter other than the three dimensions, and unknown to our minds, I would answer you that the changes of this attribute ought to resemble the changes of extension. These latter can never make all figure and motion cease; and so the changes of this unknown attribute would not cause all sensation to cease. They would only bring about the passage from one sensation to another. (*DHC* “Dicéarque” rem. C, 286; P 67)

If this line of argument is successful, Bayle will have blocked any attempt to attribute the power of thinking to a difference in configuration or “disposition”

between the parts of animate and inanimate material substances. However, as an argument for mind-body dualism Bayle's first effort suffers from an important limitation. Rather than prove the impossibility of thinking matter, what the argument does is to present the defender of materialism with a dilemma: either the soul, or that which has the power of thinking, is really distinct from the body, or all material substances think. Given that the first horn constitutes an explicit admission of mind-body dualism, the materialist position threatens to degenerate into a form of panpsychism. Still, however contrary to common sense Bayle may take such a view to be, the fact remains that a materialist could avoid inconsistency by embracing the view that matter *qua* matter is endowed with the power of thought. It is perhaps for this reason that in later discussions Bayle makes little of this first consideration, preferring instead an argument that shows "the impossibility of joining together the three dimensions and thought in the same subject" (*DHC* "Dicéarque" rem. M, 288b; P 73). It is to that argument that I now turn.

## THE ACHILLES OF RATIONALIST ARGUMENTS

In an extended discussion of the atomistic system of Leucippus, Bayle again takes up the question of the nature of the soul and the tenability of reductive materialism, arguing for the untenability of even Weak Materialism. For the ancient atomists the fundamental elements or principles out of which all bodies are ultimately composed are extended, solid physical atoms of various shapes and sizes. As the ultimate principles of all physical objects, these atoms were held to be indivisible, given that division requires physical separation and no smaller bodies exist that might act so as to separate them. Further it was claimed that each atom is endowed with a natural inclination to motion by virtue of its innate heaviness. All of the properties of composite physical objects were explained in terms of the various sizes and motions of their component parts. Thus, the sensible qualities of complex physical objects were explained in terms of the differing configurations and motions of the atoms out of which they are composed. Similarly, although individual atoms are insentient, human beings were held to be wholly composed of these insentient principles, which when arranged in a certain configuration, give rise to conscious thought. Thus, like Dicaearchus, the ancient atomists espoused a version of what I have called Strong Materialism.

In the article "Leucippe" Bayle somewhat cryptically observes that he is continually surprised that the ancient atomists never posited the existence of atoms that are essentially animate, as this would have afforded "some reply" to two otherwise devastating objections that can be brought to bear against their system. The first of these is the anti-emergence argument that we examined earlier. The second is an argument that Kant, in his discussion of the paralogisms of pure reason, called "the Achilles of all dialectical inferences." The Achilles, whose origin can be traced back at least as

far as Plotinus, is in fact not a single argument but a genus or collection of closely related arguments, all of which seek to establish the incompatibility of thought with complex, extended matter.<sup>21</sup> Perhaps the most important species, and at any rate, the one that Bayle employs against the materialists, might be called the argument from the Unity of Consciousness (UC). The crucial premise of all of the various formulations of UC is that the subject of thought must be a single unified entity, since if it were not, perception and thought would be impossible, or at least radically incoherent. It is then claimed that material substances, being composites of further material substances, lack this unity that is a necessary precondition of thought. As Bayle puts the point, “if a thinking substance was unified only in the way a sphere is, it would never see a whole tree at once; it would never feel the pain produced by a stick” (*DHC* “Leucippe” rem. E, 101; P 130). The Achilles, then, attempts to show that there is an essential incompatibility between coherent thought and extension—an incompatibility that precludes their coexistence in a single object.

Bayle himself gives two versions of the argument. In the first, we are asked to consider a physical globe whose surface is painted with all of the various geographical features of the earth. Let us now assume that this globe “is capable of knowing the shapes with which it has been decorated.” It would follow from this that just as no geographical feature is represented by a single, indivisible part of the globe, so too the globe:

would contain nothing that could say, “I know all Europe, all France, the whole city of Amsterdam, the whole Vistula”; each part of the globe could only know the portion of the shape that fell to it; and since that part would be so small as not to represent any place entirely . . . no act of knowledge would result from this capacity; and at least it would be the case that these acts of knowing would be very different from those that we experience; for they make us know an entire object, an entire tree, an entire horse and so on, which is complete proof that the subject that is affected by the entire image of these objects is not at all divisible into several parts. (*DHC* “Leucippe” rem. E, 101; P 130)

According to Bayle, were a material substance to be endowed with thought, it could never form a coherent thought or a complete perception, because each “part” of the perception would belong to a distinct part of the material substance. But in order for there to be a coherent perception of, say, a tree, the entire perceptual image must exist in a single individual center of consciousness. Just as three people, each of whom heard a different note, would never succeed in hearing a complete chord, so too a material substance whose component parts each perceive only a portion of a sense perception would never perceive an entire image. In the second version of the argument, Bayle maintains that a thinking material substance would be incapable of feeling the pain that results from being struck with a stick,

“since the pain would divide itself into as many particles as there are in the organs that are struck” (*DHC* “Leucippe” rem. E, 101; P 130). However, because matter is infinitely divisible, each organ is composed of an infinite number of particles. As a result, “the portion of pain that would belong to each one would be so small that it would not be felt” (*ibid.*).

Now, regardless of its philosophical pedigree, this argument is apt to strike the modern reader as dubious at best. The crucial premise in both versions is that if a complex material object could think, then for any given thought or perception, every physical part of the object would constitute a distinct center of consciousness that would perceive some limited portion of the entire perception. As Bayle puts the point with respect to the perceiving globe, “each part of the globe could only know the portion of the shape that fell to it.” Once this premise is granted, it is relatively easy to show that a unified center of consciousness such as we experience in ourselves is incompatible with material substance. But this is precisely where the argument appears to falter, since it fails to rule out the possibility that a complex material object might perceive an entire tree even though its individual parts perceive nothing. In this case the entire perception would belong to the material substance taken as a whole. In short, the argument appears to commit the fallacy of division by illicitly attributing a property (being an individual center of perceptual awareness) to each of the component parts of an object simply because that same property belongs to the object considered as a whole. Unfortunately, in neither of his two formulations does Bayle defend this crucial premise. How then are we to reconstruct his argument?

Bayle does, I think, provide a number of interpretive clues, none of which are to be found in the *Dictionnaire* itself. The first occurs in a discussion of Locke in the *Réponse aux questions d'un provincial*. There Bayle argues in effect that the Achilles is sound only if one maintains that extension is the *essence* of material substance. If, on the contrary, extension is held to be a mere accidental quality inhering in an unextended substratum, then the Achilles loses its force. He writes:

if extension is only an accident of matter, it follows that matter considered according to its essence and substance is not extended, and that therefore it could indeed exist without any extension. . . . Now [in this case], I do not see how it can be said that matter has some attribute that is incompatible with thought. (*OD* III, 941b–42a)<sup>22</sup>

For Bayle, then, it is not the mere fact that matter is extended and thought is not that renders them incapable of coexisting in the same substance. Rather, it is only if extension is the *essence* of material substance that thought is precluded. This suggests that the argument turns on an account of the relation of substance and accident. Now, as we have seen, Bayle maintains that a substance is identical with its essence—that is, its

principal attribute. Furthermore, extension is composed of actual parts. It follows from this that in a material substance whose essence is extension, the subject of inherence is essentially composite. Moreover, because the essence of extension consists in having *partes extra partes*, and these component parts do not inhere in one another, nor in any further substance, it follows that every extended object is essentially composed of a multiplicity of parts, each of which is itself a substance.<sup>23</sup> Thus, for Bayle the incompatibility between coherent thought and matter stems from the fact that the latter is essentially extended, and therefore a composite of distinct, extended substances.<sup>24</sup>

The second clue can be found in a version of the argument offered in the *Theses Philosophiae*. There Bayle begins with the familiar claim that if a substance is extended, then it is incapable of thinking because “a thinking thing is necessarily a unity, but no extended thing is a unity.”<sup>25</sup> However, he defends the claim that the perceptions of a thinking material substance would necessarily be divided among its physical parts by an appeal to motion:

it is evident that if the thing that wills is extended, then the act of willing is coextensive with it, or is found in each of its parts, as motion is coextensive with the moving thing, or is found in each part of the movable object. Therefore, just as there is nothing in the thrown rock (were it endowed with the power of speech) that could truly say, “I have all the motion that has been imparted to the rock,” similarly were an extended soul to will something, there would be nothing in it that could truly say, “I have the entire act of willing.” (*OD IV*, 142)<sup>26</sup>

If this is merely to be taken as an analogy between that which is active in the mind and that which is active in matter, then I do not find it very helpful. However, I suggest that if we combine what Bayle says here with his earlier observation that extension must be the essence of matter for the Achilles to be sound, the following argument emerges. Matter or extended substance is by nature a composite of further material substances. Now, because it is this complex that must serve as the subject of inherence for all of the substance’s qualities, it follows that if a quality is to inhere in such a subject, it must inhere in each of its parts. To put the point another way, in any material substance, the subject of inherence is by its very nature a plurality or complex of subjects. Therefore to say that a given property inheres in an extended, physical thing entails that the property inheres in each of its component parts.<sup>27</sup> It is this claim that Bayle is illustrating with the appeal to motion. To say that motion inheres in some complex material substance like a stone is to say that motion inheres in each of its constituent parts. This principle, which we might call the *Principle of Essential Inherence* (PEI), can be formulated more precisely as follows:

*PEI*: For any real property  $p$  that is a determinate of some determinable  $G$ , if  $p$  inheres in an essentially complex subject  $S$ , then there must inhere in every part of  $S$  some real property  $q$  that is a determinate of the determinable  $G$ .

Given this premise it follows that if thought were to inhere in an extended, material subject, it would inhere in each part of that substance. At this point it might be objected that although motion conforms to this principle, the argument still commits the fallacy of division, since the same does not hold true of other properties such as shape. For one can easily imagine assembling a physical cube out of a number of parts, none of which are themselves cubic. However, such an objection would miss the point. Bayle's claim is not that if a certain velocity  $v$  inheres in a stone then all of its parts must likewise have velocity  $v$ , but that they must have *some* motion. Similarly, the component parts of a cube need not themselves be cubic, but they must have *some* shape. And therefore, if some particular thought is to inhere in a complex material substance, then every substantial part of that subject must itself have some property of thought.<sup>28</sup>

It remains to be shown (a) that every physical part in which a thought inheres would be a separate center of consciousness and (b) that each of these parts perceives only some portion of the entire thought. The first of these two claims follows immediately from Bayle's view that the only objects of which the mind can be aware are its own modifications. This claim is clearly expressed in the unpublished letter in which Bayle asserts that "Father Malebranche could never explain how a separate idea could be the object of a soul of which it cannot be a modification."<sup>29</sup> Now since no act of awareness can inhere at once in two numerically distinct substances, it follows that were thought to inhere in a complex material object, every part of the material substance would be a distinct center of consciousness capable of perceiving only its own modes of thought.<sup>30</sup>

Given this, we can interpret Bayle's discussion of the perception of a tree as an attempt to conceive what it would mean for a thought to inhere in every distinct component of a composite substance. As Bayle sees it, either the entire thought inheres in every substantial part or some portion of the complete thought inheres in each part. But the former is absurd, since given the infinite divisibility of matter, it would imply that in every human being perceiving a tree, there would be not one, but an infinite number of perceivers. Thus, by accepting the first alternative:

you introduce an infinite number of superfluous things into the world. You can maintain your view only by making an inconceivable assumption, namely, that the image of a horse and the idea of a square, being received into a soul composed of an infinity of parts, are preserved in their entirety in each part. . . . [In reply] I will rest content with asking you if your supposition does not manifestly include this monstrous

consequence, namely, that . . . in a man who reads there are an infinite number of things that read and each one knows that it reads? However, each one of us knows by experience that there is only one thing in himself that knows that it reads. (*DHC* “Leucippe” rem. E, 101; P 132)<sup>31</sup>

Of course, Bayle is not entitled to the claim that we “know by experience” that in every sentient human being there is only one center of consciousness. For how could we know such a thing? Indeed, the Achilles turns on the claim that each distinct center of consciousness can be aware only of its own modes of thought. Still, his point is telling, for surely it would be absurd to claim that every conscious organism contains an infinite number of perceivers each of which perceives the same thing.

If the complete thought cannot inhere in each part of the material substance, it must be the case that some “part” of the complete thought inheres in each part of the material substance. Now, given that for Bayle thoughts are mereological simples, this can only be conceived in terms of, as it were, dividing up the content of the thought.<sup>32</sup> Consider the case of a visual perception. The only way we can conceive this perception being divided is in terms of its complex representational content. Each part of the material substance would perceive a different portion of the visual image, with the result that no single perceiver would perceive the entire image, contrary to what we experience in ourselves. But what of nonrepresentational thoughts, such as sensations of pain?<sup>33</sup> In this case division is conceivable only in terms of degrees of intensity. To put the point somewhat artificially, if we have a sensation of pain of one hundred degrees of intensity, we could conceive its being divided into one hundred distinct sensations each having an intensity of one degree. Now, since matter is infinitely divisible, the intensity of each individual sensation of pain would approach zero; hence Bayle’s conclusion that “the pain would be so small that it would not be felt.” So what initially appeared to be two equivalent formulations of UC turn out to be complimentary components of Bayle’s refutation.<sup>34</sup>

The conclusion Bayle draws from the Achilles is that the subject of coherent thought or felt sensations cannot be an essentially extended thing. The argument amounts to a rejection of both Strong and Weak Materialism. However, unlike the anti-emergence argument that we analyzed earlier, the Achilles does not rely on the claim that the only modes of which matter is capable are those that admit of quantification.<sup>35</sup> Indeed, strictly speaking, Bayle’s version of the Achilles does not seek to establish an essential incompatibility between matter and every mental mode, but the more limited claim that if thought were a modification of matter, it would be radically incoherent. Or to put the point another way, the Achilles attempts to establish an incompatibility between mental acts such as we experience in ourselves and inherence in an essentially extended substance. Thus the Achilles constitutes Bayle’s considered reply to the rhetorical question that



he himself had put to Poiret some fifteen years earlier: “how do we know that [shape and motion] are the only modes of which matter is capable?”

## IMMORTALITY AND THE NATURE OF THE HUMAN MIND

The Achilles, then, attempts to establish mind-body dualism on the grounds that the essence of material substance consists in actual extension and is therefore a composite of further substances. Because any mode of thought inhering in an essentially complex subject would be radically incoherent, Bayle concludes that the subject of mental acts must be a simple, unextended immaterial substance. Of course, one of the principal motivations for mounting a defense of mind-body dualism was the hope of securing a rational demonstration of the immortality of the soul. In the seventeenth century such arguments typically proceeded from the premise that the soul is a simple, immaterial substance to the conclusion that it cannot be driven out of existence by any natural cause, since natural destruction consists in the dissolution of a composite into its component parts. Lacking such parts, the soul is immune to destruction by natural forces and so—barring a supernatural act of annihilation—immortal.<sup>36</sup>

Yet despite his rejection of even Weak Materialism, Bayle raises serious doubts concerning the capacity of unaided reason to arrive at knowledge of the soul’s immortality. According to Bayle, it could be argued that in order to demonstrate the immortality of the soul:

it is not enough to know that the soul *can be destroyed only by annihilation*. That is true of extension, and nevertheless trees and animals are mortal. Therefore, it would be necessary to say, *I know that the soul cannot subsist without thought; the distinct idea that I have of spiritual and indivisible substance informs me that if it were shorn of thought, it would no longer exist.* (DHC “Pomponace” rem. F, 781; Bayle’s emphasis)<sup>37</sup>

To secure rational knowledge of personal immortality, it does not suffice to demonstrate that the soul, or that which thinks, is a simple, immaterial substance. For although this would preclude its natural destruction, it might still be the case that the faculty of thought is merely an accident of immaterial substance. In this case the soul could lose the power of thought without ceasing to exist, just as a living organism can perish despite the natural indestructibility of the matter of which it is composed. Thus, according to Bayle, one who wishes to deny the immortality of the soul could hold that:

substances distinct from the body are . . . of such a nature as to be able to retain their existence without having any thought, and that therefore spirituality is not a necessary proof of immortality. For if the life of

the soul consists in thought, it is certain that the complete cessation of thought would truly be the death of the soul. That is why the soul could die without ceasing to be a spiritual substance. (*DHC* "Pomponace" rem. F, 781)<sup>38</sup>

Thus, an indispensable condition of immortality is that the soul be an *essentially* thinking thing. Why then does Bayle not maintain with Descartes and Malebranche that the principal attribute of the mind is actual thought? One reason is that, as we saw in Chapter 1, Bayle finds the concept of *res cogitans* deeply problematic.<sup>39</sup> However, equally important for our purposes is the manner by which the immateriality of the soul must be established. The Achilles tells us nothing about the nature of thinking substance other than that it must possess true unity. Although we can infer that the primary attribute of mind must be other than extension, there is nothing in the argument itself that entails that that attribute is thought.<sup>40</sup> Nor, Bayle maintains, have we reason to assert the incompatibility of modes of thought with some third kind of attribute, for "if God can join thought to one unextended being, he could also join it with another unextended being, there being nothing but extension that seems to us to make matter incapable of thought" (*DHC* "Rorarius" rem. G, 82; P 233). Thus, although the Achilles provides us with secure knowledge of the immateriality of the soul, it affords no rational assurance of our immortality.<sup>41</sup>

In the *Recherche de la vérité* Malebranche famously took issue with Descartes's contention that "the nature of the human mind is better known than body" (AT VII, 23; CSM II, 16).<sup>42</sup> Malebranche insisted on what he took to be a deep asymmetry in the manner in which we know the mind and that in which we know matter. By virtue of our clear and distinct idea of extension, we can know a priori and with complete certainty the properties of matter as well as the full range of modes of which it is capable. However, in the case of mind we lack a clear idea of the soul; what immediate knowledge we have of the mental is wholly owing to inner sentiment (*senti-ment intérieur*). But while we can have by this means certain knowledge of the soul's existence, the same is not true of its nature or essence (OCM I, 451ff.). Nevertheless, Malebranche insists that we are in a position to demonstrate the spirituality of the soul. In *Éclaircissement XI* Malebranche clarifies that such knowledge can be achieved only indirectly, by establishing that thought cannot be a mode of matter, understood as *res extensa*.

Although he does not explicitly mention Malebranche, Bayle's worry concerning the alleged proof of the immortality of the soul is not unrelated to Malebranche's position. In denying that we have demonstrative knowledge of the mind, Malebranche sometimes puts his point by claiming that we have no clear idea of *thought*.<sup>43</sup> More often, however, Malebranche insists that we do not have an idea of the essence or nature of the soul.<sup>44</sup> By putting the point in terms of the essence of the soul, Malebranche leaves himself open to the rejoinder that this view undermines his own official

position that the essence of the soul is actual or “substantial” thought. Indeed, this is precisely how Bayle understands Malebranche’s position. In the article “Simonide” Bayle observes that:

the most subtle Cartesians maintain that we have no idea at all of a spiritual substance. We know only by experience that it thinks, but we do not know what the nature of the being is whose modifications are thoughts. We do not know what is their subject, nor what is the substratum [*fond*] in which thoughts inhere. (*DHC* “Simonide” rem. F, 211; P 282)

On this reading of Malebranche’s claim, such awareness as we have of our modes of thought proves only that the soul is a thing that is capable of thought. As Malebranche himself emphasizes:

if one doubts, if one wills, if one reasons, one must only believe that the soul is a thing that doubts, wills and reasons, and nothing more . . . for one knows the soul only by the inner sensation one has of it. (*OCM II*, 369–70; LO 480)

It is for this reason that Malebranche maintains that our knowledge of the spirituality of the soul rests on an argument for the impossibility of thinking matter. But such arguments fail to prove that the soul is an essentially thinking thing, still less that its essence is “substantial thought.” Hence, Bayle’s point is that for all we know, thought could be to the soul as life is to a material substance—a remark that is in keeping with his observation that the essence of the soul might best be located in the power of thinking.<sup>45</sup>

## CONCLUSION

Mori has argued that Bayle’s concession that we do not know the essence of the mind “quite obviously implies the possibility of materialism.”<sup>46</sup> But as we can now see, Bayle would reject this implication. By means of the Achilles, we are indeed in a position to demonstrate the immateriality of the human mind despite our lack of a clear idea of its essence. In fact, the Achilles employs the same indirect argumentative strategy that Malebranche contends all Cartesians must adopt, that is, to appeal to our clear idea of matter to prove that thought cannot be one of its modifications.<sup>47</sup> Where Bayle does part company with Malebranche is over the claim that our idea of extension suffices to prove the immortality of the soul. For Bayle sees what Malebranche arguably did not, namely that it is not enough for demonstrating the immortality of the mind that thought cannot be a mode of extension and that therefore the mind is simple. To have perfect assurance on this score we must know that the soul is an essentially thinking thing.