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## Bayle's Dog and the Dynamics of the Soul

by

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Leibniz's engagement with Pierre Bayle, through their published writings and correspondence, is a significant episode in the development of his philosophy. As in his exchanges with Arnauld, De Volder, Des Bosses and others, Leibniz found in Bayle a critic who compelled him to clarify and elaborate key doctrines of his system—and in the course of doing so, perhaps, to refine those doctrines in ways he had not anticipated prior to the exchange. The image Leibniz projects throughout his career is of a philosopher whose work does not take the form of executing a grand plan, the culmination of which would be one or more major treatises. Though he was guided by the idea of a philosophical system, it was given to him largely as a series of sketches rather than a finished picture. For whatever reasons—competing interests, impatience, an overabundance of ideas—his labors were largely confined to tentative probings, outlines and summaries in which he attempted to encompass in a few pages everything that could be said about a topic.

When Leibniz undertook to work out the details of his views, it was almost always in the company of an interlocutor. Lacking a group of disciples who might develop his system for him, he relied on a network of correspondents who offered commentary on his published essays and a sounding board for his speculations. Working in this way, Leibniz adopted an experimental and dialectical style of philosophizing. Positions did not emerge as definitive statements, but as *essais*: attempts to articulate a thought and its consequences—attempts that might be furthered through exchanges with others who aided in the effort to identify what progress had been made and where more was needed.<sup>1</sup>

Leibniz's engagement with Bayle exemplifies this pattern. Beginning with their first contact in 1687 and extending until Bayle's death in 1706 and beyond (the most substantial document, the *Essais de Théodicée*, was not published until 1710), Leibniz consistently acknowledged the value he placed on Bayle's judgment.<sup>2</sup> The focus of this essay is limited to

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<sup>1</sup> A growing body of literature bears this out in the case of particular correspondents. See R.C. Sleigh, Jr., *Leibniz & Arnauld: A Commentary on their Correspondence*, New Haven 1990; *The Leibniz-Des Bosses Correspondence*, Brandon C. Look and Donald Rutherford (eds. and trans.), New Haven 2007; *The Leibniz-De Volder Correspondence*, Paul Lodge (ed. and trans.), New Haven 2013; and the essays collected in: *Leibniz and His Correspondents*, Paul Lodge (ed.), Cambridge 2004.

<sup>2</sup> See, e.g., GP IV, 517, 565-6.

one part of their exchange: Bayle's comments in the first and second editions of the *Dictionnaire* on Leibniz's signature doctrine of spontaneity and Leibniz's responses to those comments. Bayle was one of the most insightful critics of Leibniz's theory of spontaneity and the concerns he raised forced Leibniz to expand on the details of the theory. Leibniz had always thought of the soul as a spontaneous source of action, with the power to bring about changes in itself. Bayle's perceptive counterexample of the dog whose soul undergoes changes that appear to defy this account forced Leibniz to attempt to explain how the soul of an embodied creature can be understood as the source of *all* the changes in its states, including those that reflect the influence of external things on it. Central to the answer Leibniz gives is that the explanation of the operation of the soul's internal forces proceeds via the content of its perceptual states: the soul's natural representation of its body and through it of all other bodies. Consequently, Leibniz's theory of spontaneity appears to remain dependent on the idea of a temporally evolving physical universe.

I begin my discussion with Leibniz's 1695 "Système nouveau", the document that spurs Bayle's initial comments. As presented in this text, Leibniz's metaphysics unites several distinct theses—the spontaneity of substance, the harmony of perceiving substances, the harmony of soul and body—whose relation to each other remains ill-defined. Bayle's pointed questions about the doctrine of spontaneity, and Leibniz's answers to them, allow us to trace one of the paths Leibniz takes in reconciling these theses. This path is anything but clearcut. At every step, we face considerable difficulties in understanding the relation Leibniz posits between the spontaneous activity of souls and the world of bodies that is assumed to operate in harmony with them. By the end of his engagement with Bayle, Leibniz reaches a position that incorporates one of the central planks of his final philosophy: all activity in nature consists of spontaneous changes in the perceptual states of soul-like substances. Bayle remains unconvinced that Leibniz has shown *how* such spontaneity is possible. Although Leibniz has an answer to this question, it is one that raises problems of its own and that points toward the further development of his theory of spontaneity in later writings.

### I. Spontaneity and the Preestablished Harmony of Soul and Body

The doctrine of the spontaneity of substance is the cornerstone of Leibniz's "Système nouveau", presented publicly for the first time in the June and July 1695 numbers of the *Journal des savants*.<sup>3</sup> The "Système nouveau" is explicitly framed as a contribution to on-going debates about the relation of soul and body. Taking the soul and body as distinct substances with essentially different natures, how can they be understood to communicate with one another and to form together a single unity, a human being, consisting of a soul and a body? Leibniz claims to provide answers to both of these questions through what he calls his "Hypothèse des accords" (GP IV, 485), and later the "Hypothèse de l'Harmonie ou de la concomitance" (GP IV, 494). In essence, he argues, without any real interaction occurring between the soul and the body, each is responsible for bringing about all the changes in its own states, in accordance with laws proper to it, with the agreement and apparent communication between the two guaranteed by God.

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<sup>3</sup> "Système nouveau de la nature et de la communication des substances, aussi bien que de l'union qu'il y a entre l'âme et le corps. Par M. D. L.", *Journal des savants*, no. 23 (27 June 1695), pp. 294-300; no. 24 (4 July 1695), pp. 301-6.

Whether the principles of Leibniz's metaphysics allow the doctrine of preestablished harmony to be defended as a third "way" in the debate between the scholastic "way of influence" and the Cartesian "way of assistance" (i.e., Malebranche's occasionalism) is questionable. Leibniz firmly rejects the Cartesian account of body and, more generally, the idea that the body by itself qualifies as a substance, whose independent actions occur in parallel with those of the soul. A deeper analysis shows the actions of body to be derivative from those of soul, either because the body and its material parts are only given activity and unity through souls, or because bodies are nothing more than phenomena—the contents of the perceptual states of souls. For this reason, the doctrine of preestablished harmony makes most sense, as Leibniz himself presents it, as a theory of the harmony of two domain-specific sets of *laws*: laws that pertain to changes in souls and laws that pertain to changes in bodies. On this construal, the doctrine of preestablished harmony rests on the idea that any change that occurs in the state of the soul can be explained by appeal to the soul's laws alone, and any change that occurs in the body can be explained by appeal to physical laws alone. The crux of the theory is that any change in the soul can be explained without appeal to its causal interaction with the body, and vice versa, because of the wisdom God has exercised in devising laws proper to each domain.

In the "Système nouveau", Leibniz states that it is the nature of substance (or substantial form), the model of which is the soul, to be a principle of force: "Aristote les appelle *entelechies premieres*, je les appelle peutestre plus intelligiblement *forces primitives*, qui ne contiennent pas seulement *l'acte* ou le complement de la possibilité, mais encor une *activité originale*" (GP IV, 479). However, he also claims that it is impossible to understand how one created substance can have a real influence on another: "il n'est pas possible que l'ame ou quelque autre veritable substance puisse recevoir quelque chose par dehors, si ce n'est par la toute puissance divine" (GP IV, 484). From these two premises, he infers that each substance must be the source of all the changes that occur in it, changes that arise spontaneously from itself, in agreement with the changes that occur in other substances:

"[...] il faut donc dire que Dieu a créé d'abord l'ame, ou toute autre unité réelle de telle sorte, que tout luy doit naître de son propre fonds, par une parfaite *spontanéité* à l'égard d'elle-même, et pourtant avec une parfaite *conformité* aux choses de dehors. Et qu'ainsi nos sentiments intérieurs [...] n'estant que des phenomenes suivis sur les estres externes, ou bien des apparences véritables, et comme des songes bien réglés, il faut que ces perceptions internes dans l'ame même luy arrivent par sa propre constitution originale, c'est à dire par la nature representative (capable d'exprimer les estres hors d'elle par rapport à ses organes) qui luy a esté donnée des sa création, et qui fait son caractere individuel." (GP IV, 484)

There is reason to distinguish Leibniz's doctrine of the spontaneity of substance from his "hypothèse des accords". God creates each substance with a nature that is sufficient for the production of all its own states; it is a further assumption that this nature produces states that agree with those of every other substance. Although the two theses are presented as parts of a single theory, we can conceive of them coming apart and God creating a disharmonious world.<sup>4</sup> Thus, the hypothesis of preestablished harmony presupposes the doctrine of spontaneity, but not vice versa. Leibniz presents spontaneity as an essential property of any soul, or soul-like substance. The states that are brought about by the substance's own force are perceptual states: "phenomena" or "true appearances", which arise in it by virtue of its "representative nature", or

<sup>4</sup> Leibniz raises this possibility in his 1698 reply to Bayle (GP IV, 519).

its capacity “to express things outside of it in relation to its organs”. Leibniz says little about the status of the “external beings” that stand in relation to the soul’s organs. The organs in question must be the sensory organs of the soul’s body, which suggests a material world external to the soul. Yet the operations of the soul, whose perceptions are “like well-ordered dreams”, do not require this. As the simile implies, these perceptions will occur just as they do, whether or not there exists anything outside of the soul (and God).

Leibniz’s subsequent elaboration of the “hypothèse des accords” takes for granted the spontaneity of the soul, while also describing the kind of harmony that exists between the soul and the body:

“[...] chacune de ces substances, representant exactement tout l’univers à sa maniere et suivant un certain point de veue, et les perceptions ou expressions des choses externes arrivant à l’ame à point nommé, en vertu de ses propres loix, comme dans un monde à part, et comme s’il n’existoit rien que Dieu et elle [...], il y aura un parfait accord entre toutes ces substances [...] De plus, la masse organisée, dans laquelle est le point de veue de l’ame, estant exprimée plus prochainement par elle, et se trouvant reciproquement preste à agir d’elle-même, suivant les loix de la machine corporelle, dans le moment que l’ame le veut, sans que l’un trouble les loix de l’autre [...]” (GP IV, 484)

The “perfect agreement” that Leibniz claims to accompany the doctrine of spontaneity is in the first place an agreement among many souls (or soul-like substances), each representing the “whole universe” of external things in its own manner, by virtue of its own laws. Each substance represents the universe as it does, by virtue of laws governing the succession of perceptual states brought about through its own activity, and God ensures that these laws are coordinated with each other.

In addition to this claim about the agreement among the states of perceiving substances, Leibniz makes a second claim about the harmony between the changes brought about in a soul by virtue of its laws and changes that occur in its body, “according to the laws of the corporeal machine”. Here the claim is specifically about the coordination between changes in the state of the soul and changes in the state of its body: by virtue of its own laws, each appears to adapt itself to the other, “without either disturbing the laws of the other”. The suggestion is of two distinct spheres of activity, governed by different laws, yet coordinated in such a manner that when, e.g., a soul acts on a certain desire, its body responds in the appropriate manner. This happens not because the soul has an influence on the body (it does not), but because the physical world has been set up by God to develop, according to its own laws, in exactly the way it needs to in order that the body will seem to respond to the soul’s volition. On this, and similar instances of coordination, rests our belief in the communication and union of the soul and the body.

The “Système nouveau” contains, in a nascent form, all of the major ideas that figure in Leibniz’s exchange with Bayle. The value of the exchange is that it allows us to identify, and potentially resolve, some of the tensions implicit in Leibniz’s initial presentation of his doctrine of preestablished harmony. I have suggested that we can see the “Système nouveau” as uniting three theses about the relation of soul and body:

1. the spontaneity of all soul-like substances;
2. the harmony among the perceptions of all soul-like substances;
3. the harmony of the perceptions of any soul and the physical states of its body.

Individually and collectively these theses require further elucidation. Two questions, in particular, demand our attention. First, what are the distinctive laws that govern the soul's spontaneous activity and guarantee its coordination with the body? Second, what form of reality does Leibniz accord to the corporeal world, whose laws are assumed to operate in harmony with those of the soul? His responses to Bayle suggest answers to both of these questions, while reinforcing the incompleteness and provisional character of his position as presented in the "Système nouveau".

## II. Bayle's Objections of 1697 and Leibniz's Replies

Bayle's initial comments on the "Système nouveau" appear in note H to the article "Rorarius" in the first edition of the *Dictionnaire*. He introduces his remarks by praising Leibniz as "l'un des plus grands Esprits de l'Europe", who has provided some insights that are worth developing.<sup>5</sup> Yet there are also "certaines choses qui font de la peine".<sup>6</sup> Bayle focuses on Leibniz's doctrine of spontaneity. Some of the points he raises against the doctrine are general and reflect his belief that Leibniz has failed to show that his system is an improvement over Malebranche's occasionalism. Bayle repeats Malebranche's *nescio quod* objection, that an agent cannot do what it does not know how to do: "La vertu interne & active communiquée aux formes des corps, selon Mr. Leibniz, connoit-elle la suite d'actions qu'elle doit produire? Nullement [...]".<sup>7</sup> He further objects that Leibniz has not shown how souls, which are "simples et indivisibles", can produce in themselves a complex and ever-changing array of perceptions. If the soul is truly simple, without internal structure, what explains its ability to produce a succession of distinct states?

We will return to the last point, which is pressed more forcefully by Bayle in the second edition of the *Dictionnaire*. First, we must examine a more specific objection that Bayle raises to the doctrine of spontaneity. This is whether it is coherent to think of *all* of a soul's states—and not, for example, just its rational or voluntary acts—as occurring spontaneously. In particular, Bayle challenges whether the soul of a sentient creature can spontaneously pass from a state of pleasure to a state of pain. He frames the objection in a vivid counterexample, often referred to as "Bayle's dog". An animal is happily eating its food, when a man comes up behind it and strikes it with a stick. The dog's soul immediately passes from a state of pleasure to a state of pain. Bayle can conceive of no scenario under which this could happen through the spontaneous action of the soul: "[...] je ne saurois comprendre l'enchaînement d'actions internes & spontanées, qui feroit que l'ame d'un chien sentiroit de la douleur immédiatement après avoir senti de la joie, quand même elle seroit seule dans l'Univers".<sup>8</sup> Bayle thus raises a specific worry about how spontaneity can be true in the case of changes that take the soul from a state of pleasure to a state of pain. The ordinary way of explaining such changes is in terms of the soul's passivity in relation to the effects of external things on its body. The pain is caused by the blow

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<sup>5</sup> DHC, art. "Rorarius," p. 82. All quotations are from volume 4 of *Dictionnaire historique et critique*, par M. Pierre Bayle. Amsterdam, 1740, 5<sup>th</sup> edition, 4 volumes in-folio.

<sup>6</sup> DHC, art. "Rorarius," rem. H, p. 83.

<sup>7</sup> Ibid.

<sup>8</sup> Ibid.

delivered to the dog. On Leibniz's theory, however, the soul is not affected by anything external to it; hence *prima facie* passive states such as pain must be ascribed to the soul's spontaneous activity. And this, Bayle judges, is impossible.

Leibniz was pleased by the recognition he received from Bayle and immediately prepared a reply to his criticisms, which he published the following year in the *Histoire des ouvrages des savants*.<sup>9</sup> Clarifying his intentions, he insists that he should not be read as asserting that the dog chooses to pass from a state of pleasure to a state of pain, for there are spontaneous actions that are not volitional: "Tout volontaire est spontané; mais il y a des actions spontanées qui sont sans election, and par consequent qui ne sont point volontaires" (GP IV, 519). This, though, merely restates the view to which Bayle has objected. Leibniz's more substantive response centers on the claim that the soul's spontaneous changes are explained by the fact that the nature of any substance incorporates a certain "law of order":

"Or c'est selon moy la nature de la substance créée, de changer continuellement suivant un certain ordre, qui la conduit *spontanément* (s'il est permis de se servir de ce mot) par tous les estats qui luy arriveront, de telle sorte que celui qui voit tout, voit dans son estat present tous ses estats passés et à venir. Et cette loy de l'ordre qui fait l'individualité de chaque substance particuliere, a un rapport exact à ce qui arrive dans toute autre substance, et dans l'univers tout entier. [...] Or de cette maniere la loy du changement de la substance de l'animal le porte de la joye à la douleur, dans le moment qu'il se fait une solution de continu dans son corps, parce que la loy de la substance indivisible de cet animal est de représenter ce qui se fait dans son corps de la manière que nous l'experimentons, et même de représenter en quelque façon, et par rapport à ce corps, tout ce qui se fait dans le monde [...]". (GP IV, 518)

The first part of Leibniz's reply invokes an idea introduced in his correspondence with Arnauld: that the individual nature of any substance is expressed in a certain "law of the series" that encapsulates the complete history of its states and distinguishes it from every other substance.<sup>10</sup> While some have seen such laws as central to Leibniz's explanation of spontaneity, there is reason to doubt this conclusion. Although a substance's law of the series is said to include everything that will ever happen to it, and thus to express God's understanding of the individual nature of the substance, the law offers little insight into why a substance's states change as they do, that is, why within its history certain states are followed by certain other states.<sup>11</sup> The law of the series gives the complete succession of states that individuate a substance, but it does not offer an answer to Bayle's question of how the dog's soul spontaneously passes from a state of pleasure to a state of pain.

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<sup>9</sup> "Lettre de M. Leibniz à l'auteur, contenant un éclaircissement des difficultés que Monsieur Bayle a trouvées dans le système nouveau de l'union de l'âme et du corps", *Histoire des ouvrages des savants* (July 1698).

<sup>10</sup> "Que chacune de ces substances contient dans sa nature *legem continuationis seriei suarum operationum*, et tout ce qui luy est arrivé et arrivera" (A II, 2, 312). The idea reappears later in his reply to Bayle (GP IV, 522) and in several letters to De Volder. For further discussion and citations, see D. Rutherford, *Leibniz and the Rational Order of Nature*, Cambridge 1995, pp. 151-4.

<sup>11</sup> For a development of this point, see D. Rutherford: "Laws and Powers in Leibniz", in: E. Watkins (ed.): *God, Man, and the Order of Nature: Historical Perspectives*, Oxford 2013, pp. 149-74, at pp. 163-5.

In what Leibniz goes on to say in the quoted passage, we find the beginnings of a more informative answer. The dog's soul passes from pleasure to pain, "parce que la loy de la substance indivisible de cet animal est de représenter ce qui se fait dans son corps [...], et même de représenter en quelque façon, et par rapport à ce corps, tout ce qui se fait dans le monde". Here we encounter a different idea that does not directly point to an individual law of the series. The dog's soul changes as it does because it is the nature, or law, of any substance (of which the soul is an example) to represent what happens in its body, and in turn to represent everything that happens in the physical world via its relation to its body. On this account, the answer to the question of why the soul's state changes as it does is that its body has changed, and that it is the nature of the soul to represent whatever happens in its body. If its body is damaged, then the soul will, naturally and spontaneously, register the damage as pain, just as it had previously registered the sated hunger of the body as pleasure.<sup>12</sup>

This account, which is only sketched in Leibniz's 1698 reply, is given a fuller statement in notes he composed on "Rorarius," rem. H following the publication of the second edition of the *Dictionnaire*. Referring to the spontaneous inclination of the dog's soul toward what it finds unpleasant, he writes:

"Le principe du changement est dans le chien, la disposition de son ame va insensiblement à luy donner de la douleur: mais c'est sans qu'il le sache et sans qu'il le veuille. La représentation de l'état present de l'univers dans l'ame du chien produira en luy la représentation de l'état suivant du même univers, comme dans les objets l'estat precedent produit effectivement l'estat suivant du monde. *Dans l'ame, les représentations des causes sont les causes des représentations des effects*. Et cet estat suivant du monde enveloppant le coup sur le corps du chien, la représentation de cet estat suivant dans son ame enveloppera la douleur qui y répond à ce coup." (GP IV 532-3)

Leibniz leaves no doubt about how he means to account for the anomaly Bayle describes. The dog's soul changes as it does, passing immediately from pleasure to pain, because changes in its states are determined by its representations of the physical universe. As the state of the world changes (the man approaches and strikes the dog), so the representational state of the soul changes, even though the relevant perceptions remain ones of which the dog is unconscious.

Two points stand out in this presentation of the doctrine of preestablished harmony. First, Leibniz is clear that the states of the soul, its representations, are causally efficacious: they produce new states, including passives states like pain, in a way that supports the thesis of the spontaneity of substance. Second, the explanation of how this happens appears to rely upon a prior account of changes in the physical world. The latter changes are not implicated causally in producing changes in the soul—that would violate the thesis of spontaneity and negate the doctrine of preestablished harmony; however, what renders a perceptual state apt (as a cause) for the production of a new perceptual state (its effect) is that the former is a representation of the physical state that is sufficient for the production of the physical state represented by the latter. Since the causal properties of the soul's perceptions are in this way defined in terms of their

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<sup>12</sup> This account is consistent with Leibniz's assertion of an individual "law of order" governing the development of a soul's perceptual states; however, it provides an explanation of the content of that law in terms of a general fact about substance: it is the nature of any soul-like substance to represent whatever happens in its body. Since every such substance has a unique bodily point of view, each has a unique history of states encapsulated in its individual law.

*content*, that is, their representation of the physical world, the explanation of the soul's spontaneity remains dependent upon a prior account of change in the physical world.

Leibniz's analysis of the case of Bayle's dog connects closely with his response to Bayle's objection concerning the simplicity of substance: namely, how can *any* spontaneous changes occur in a substance that is by nature "simple et indivisible"?<sup>13</sup> In framing his answer, Leibniz makes two main points. First, the simplicity of substance does not preclude it having a multiplicity of modifications: "Il faut considerer aussi que l'ame, toute simple qu'elle est, a toujours un sentiment composé de plusieurs perceptions à la fois" (GP IV, 522). Second, each of these perceptions contributes causally to the production of new perceptual states: "Car chaque perception precedente a de l'influence sur les suivantes, conformément à une loy d'ordre qui est dans les perceptions comme dans les mouvemens" (ibid.).

Because of the way in which perceptual states spontaneously give rise to new perceptual states, Leibniz accepts the description of the soul as "un Automate immateriel". In explicating this expression, he affirms that it means the soul acts uniformly, "*si agir uniformement est suivre perpetuellement une même loy d'ordre ou de continuation, comme dans un certain rang ou suite de nombres*" (GP IV, 522). Again, then, there is the implication that the spontaneity of a substance is linked to its instantiating a unique "law of order" that includes the complete history of the substance's states. Yet this is not the crux of Leibniz's explanation. The spontaneity of substance, rather, is ascribed to the fact that at any moment the soul includes "une multitude veritablement infinie de petits sentimens indistinguables", from which follows "la varieté infinie" of its future perceptions (GP IV, 523). And this variety, in turn, is attributed to the soul's representative nature:

"Tout cela n'est qu'une consequence de la nature representative de l'ame, qui doit exprimer ce qui se passe, et même ce qui se passera dans son corps, et en quelque façon dans tous les autres, par la connexion ou correspondance de toutes les parties du monde. Il auroit peutestre suffi de dire, que Dieu ayant fait des Automates corporels, en pourroit bien avoir fait aussi d'immateriels qui representent les premiers [...]". (GP IV, 523)

In Leibniz's description of the soul as naturally representative of its body, and through its body of the physical world as a whole, there is an echo of Spinoza's doctrine of the human mind as "the idea of the actually existing body".<sup>14</sup> As with Spinoza, Leibniz appears to give explanatory priority to the physical over the mental: the physical world develops according to laws proper to it, and the soul develops as a faithful representation of the physical universe, according to its bodily point of view. In the same reply to Bayle, however, Leibniz makes it clear that there is more to his account than this. While changes in the soul's perceptual states are explained in terms of their representation of the changing state of the physical universe, Leibniz raises significant doubts about the reality of that physical universe:

"[...] ce qu'il y a de reel dans l'etendue et dans le mouvement, ne consiste que dans le fondement de l'ordre et de la suite reglée des phenomenes et perceptions. Aussi tant les Academiciens et Sceptiques, que ceux qui leur ont voulu repondre, ne semblent s'estre embarrassés principalement, que parce qu'ils cherchoient une plus grande realité dans les choses sensibles hors de nous, que celle de phenomenes reglés." (GP IV, 523)

<sup>13</sup> Leibniz commends Bayle for raising this point: "Je trouve que cette objection est digne de Monsieur Bayle, et qu'elle est de celles qui meritent le plus d'estre éclaircies" (GP IV, 522).

<sup>14</sup> *Ethics*, part II, prop. 13.



As he does in the “Système nouveau”, Leibniz comes close to asserting that the physical world has no reality over and above that of “phénomènes réglés”. If this is so, then it would be misleading to claim that the spontaneous actions of the soul are dependent upon its representation of an independently existing physical universe, for there is no such universe. His 1698 reply to Bayle makes one final point that bears on this conclusion. Although Leibniz relegates extended things to phenomena, he makes this concession with respect to their motion: “Et quant au *mouvement*, ce qu’il y a de reel, est *la force* ou la puissance, c’est à dire, ce qu’il y a dans l’état present, qui porte avec soy un changement pour l’avenir. Le reste n’est que phenomenes et rapports” (GP IV, 523).

Apparently, then, there is *something* real about the physical world: force, or power, identified with a state that possesses an intrinsic tendency to change. But such force, or power, is the essential property of substance, by virtue of which it acts spontaneously. Leibniz intimates in his 1698 response that such force is a property of the perceptual states of souls, accounting for their spontaneous changes, but he does not highlight its connection to his analysis of the properties of matter. When he does, it will become clear that the force that constitutes the reality of the physical world is nothing other than the force of an infinity of perceiving substances.

### III. Bayle’s Objections of 1702 and Leibniz’s Replies

Bayle renewed his criticisms of Leibniz’s system in the second edition of the *Dictionnaire*, adding a second remark on it (L) to the article “Rorarius”. This remark elicited an immediate response from Leibniz, who thereafter continued to reflect on Bayle’s objections.<sup>15</sup> The material added in rem. L allows us to hone in on the deepest grounds of Bayle’s dissatisfaction: that while Leibniz has described a system that is worthy of “the power and intelligence of the author of all things”, he has failed to establish that the hypothesis of preestablished harmony is, in fact, possible.<sup>16</sup> In places, Bayle suggests that the problem is linked to Leibniz’s supposition that the operations of the soul and the body are coordinated in a way that does not require their interaction: “On peut donc rejeter comme impossible l’Hypothese de Monsr. Leibniz, puisque [...] elle met une harmonie continuelle entre deux substances qui

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<sup>15</sup> Leibniz’s initial response was communicated to Bayle in a letter of 19 August 1702 (GP III, 63-4), to which Bayle responded in October (GP III, 64-5). Leibniz prepared several drafts of a final letter to Bayle, which he never sent. Two drafts of the letter are published by Gerhardt (GP III, 65-9, 69-72). For a full analysis of the documents, see the contribution by Arnaud Pelletier in this volume. An amended version of Leibniz’s 1702 response was ultimately published as “Réponse de M. Leibniz aux reflexions contenues dans la seconde édition du Dictionnaire Critique de M. Bayle, article Rorarius, sur le système de l’harmonie préétablie”, *Histoire critique de la République des lettres*, art. 4, tom. 11 (1716). I quote from the text published by Gerhardt, which differs in places from the published version.

<sup>16</sup> “Nous en sommes redevables à Mr. Leibniz, & il ne se peut rien imaginer qui donne une si haute idée de l’intelligence & de la puissance de l’auteur de toutes choses. Cela [...] m’engageroit à préférer ce nouveau Système à celui des Cartésiens, si je pouvois concevoir quelque possibilité dans la voie *d’harmonie préétablie*” (DHC, art. “Rorarius,” rem. L, p. 85).

n'agissent point l'une sur l'autre [...]".<sup>17</sup> More basically, however, Bayle objects that Leibniz still has provided no explanation of how a simple, immaterial substance can produce the succession of diverse states by which it is affected. Bayle is prepared to accept that there is an individual law proper to each substance, but he questions whether the soul has "les instrumens nécessaires" to implement such a law without God's assistance. Assuming that the soul does not have an explicit knowledge of all the changes to which its body is subjected, there must be "une suite d'instrumens particuliers" in the soul, precisely arranged so as to produce the preestablished harmony between it and the body. Yet this, Bayle argues, is precisely what cannot be claimed: "Or il est bien certain qu'une substance immatérielle, simple, & indivisible, ne peut point être composée de cette multitude innombrable d'instrumens particuliers placez l'un devant l'autre [...]. Il n'est donc pas possible que l'ame humaine exécute cette loi".<sup>18</sup>

Bayle's objection directly challenges Leibniz's assertion in the "Système nouveau" that the hypothesis of preestablished harmony is, at least, "very possible" (GP IV, 485). At the root of their dispute are different construals of the notion of possibility. For Leibniz, a state of affairs is possible if it can be conceived without contradiction; and he takes it to be obvious that the doctrines of preestablished harmony and spontaneity are possible in this sense (GP IV, 564-5). Bayle demands more than this. To be convinced of the possibility of Leibniz's doctrine of spontaneity, he must be shown how a simple, immaterial substance could be the source of every change in its own states.

Although Leibniz disputes this understanding of possibility, the requirement Bayle imposes is similar to one Leibniz sees as following from the principle of sufficient reason. In his view, any credible explanation of change must meet a higher bar than mere consistency; it must explain the change in a way that shows it to be a consequence of the nature of its subject. Any account that fails to do this lays itself open to the charge of being "miraculous" or "occult".<sup>19</sup> Consequently, Bayle's demand that Leibniz explain how a simple substance can be responsible for producing all the changes in its own states is a reasonable one by Leibniz's own lights.

In responding to Bayle's demand, I have argued, Leibniz does not rest his case on the idea of a substance's individual "law of the series". An appeal to such a device would merely repeat his claim for the spontaneity of substance without explaining *how* a simple substance can be, by nature, the source of all the changes in its states. Leibniz instead advances a different explanation, which he sketches already in the "Système nouveau". There, continuing his defense of the possibility of his hypothesis, he writes:

"D'autant plus que la nature de la substance demande necessairement et enveloppe essentiellement un progrès ou un changement, sans lequel elle n'auroit point de force d'agir. Et cette nature de l'ame estant representative de l'univers d'une maniere tres exacte [...], la suite des representations que l'ame se produit, répondra naturellement à la suite des changemens de l'univers même [...]" (GP IV, 485)

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<sup>17</sup> Ibid., p. 86.

<sup>18</sup> Ibid., p. 87.

<sup>19</sup> "Il ne suffit pas de dire que Dieu a fait une Loy generale, car outre le decret, il faut encor un moyen naturel de l'executer, c'est à dire, il faut que ce qui se fait, se puisse expliquer par la nature que Dieu donne aux choses" (GP IV, 520). Cf. GP III, 353-4, 519-20. For further discussion and citations, see D. Rutherford, "Laws and Powers in Leibniz," op. cit.

Leibniz's explanation makes two assumptions about the nature of a substance: first, its state is always a dynamic state, endowed with a force, or tendency, that *will* lead to its changing regardless of what happens elsewhere in the universe; second, the action of this force occurs in conformity with the representative nature of the soul: from moment to moment the substance's state changes in a way that harmonizes with the changes occurring in the rest of the universe.

In his reply to Bayle's comments in rem. L, Leibniz stresses the complexity of a soul's states: they consist of an infinite variety of perceptions, each with its own tendency to give way to new perceptions. In this, the state of the soul is analogous to the state of an atom in which there is an inherent tendency to move along a certain path:

“L'estat de l'ame, comme de l'atome, est un estat de changement, une tendance: l'atome tend à changer de lieu, l'ame à changer de pensée; l'un et l'autre de soy change de la maniere la plus simple et la plus uniforme, que son estat permet. [...] l'ame, tout indivisible qu'elle est, renferme une tendance composée, c'est à dire une multitude de pensées presentes, dont chacune tend à un changement particulier, suivant ce qu'elle renferme, et qui se trouvent en elle tout à la fois, en vertu de son rapport essentiel à toutes les autres choses du monde. (GP IV, 562)

As with the atom, the state of the soul is a state of change: a state that will give way to a new state by virtue of its inherent tendency to change. At the same time, the soul's state is marked by a complexity missing in the atom. While the motion of the atom is a consequence of a unified composite tendency (each part has the same tendency to move), change in the soul is infinitely complex, for each of the minute perceptions that comprise the soul's state has its own tendency to change, reflecting the fact that the soul represents the universe from its point of view. Thus, the soul's perceptions change in a way that is correlated with change *everywhere*.

If the nature of a simple substance is understood in this way—as modified by an infinite variety of perceptions, each with an inherent tendency to change—then Bayle's demand for a demonstration of the possibility of Leibniz's doctrine of spontaneity has been met. We can understand how the soul *could* be the spontaneous source of all the changes in its states; in Bayle's terminology, it has “les instrumens nécessaires” to implement the law God has chosen for it. As it stands, however, Leibniz's explanation remains incomplete. Although we may be able to understand how the soul could produce changes in its perceptual states by virtue of the forces associated with them, we have been given no explanation of why its perceptions change as they do. By virtue of what do the forces produce just the changes they do—ones that track the evolving history of the universe?

Throughout his discussions with Bayle, Leibniz delivers a consistent answer to this question. The soul's perceptions change as they do because it is the nature of the soul to represent the development of the universe. In his unpublished notes on rem. L, Leibniz emphasizes that the soul's spontaneity cannot be explained simply by referring to its creation as a principle of force. There must be some further account of the determination of that force, which he attributes to the representational power of the soul:

“De dire, que la force que l'ame a receue de Dieu est l'unique principe de ses actions particulieres, n'est pas assés à exprimer la raison de ses actions. Il vaut mieux de dire, que Dieu a mis dans chaque Ame une *Concentration du Monde*, ou la force de représenter l'univers suivant un point de veue propre à cette Ame, et c'est ce qui est le principe de ses actions, qui les distingue entre elles et des Actions d'une autre Ame. Car il s'ensuit qu'elles auront

continuellement des changemens qui représenteront les changemens de l'univers, et que les autres Ames en auront d'autres, mais avec correspondance". (GP IV, 542)

The "principle" or "reason" of a soul's actions, by which they are distinguished from the actions of other souls, is its force of representing the universe from a unique point of view. Implicit in this statement is a claim both about the individual nature of the soul—how it is distinguished from every other soul—and the generic power of souls to bring about changes in their perceptual states. While the former is ascribed to the soul's bodily point of view, the latter is explained by the force by which all souls "auront continuellement des changemens qui représenteront les changemens de l'univers". Thus, the generic content of every soul's perceptions, according to which they all "correspond", develops in accordance with the order of the physical world, which each represents. Expressing this point in his final reply, Leibniz writes: "Et la raison du changement des pensées dans l'ame est la même que celle du changement des choses dans l'univers qu'elle représente. Car les raisons de mecanique, qui sont développées dans les corps, sont reunies, et pour ainsi dire, concentrées dans les ames ou Entelechies, et y trouvent même leur source" (GP IV, 562).

Taking this as the heart of Leibniz's argument in his second reply to Bayle, where have we arrived in the debate between the two? Bayle confronts Leibniz with the demand that he demonstrate the possibility of spontaneity in a simple, immaterial substance. Leibniz responds by describing how it is the nature of a soul to represent whatever happens in the universe, and how its perceptions change under the influence of tendencies proper to its states. Those tendencies being directed at the representation of the universe, Leibniz sees himself as having satisfied Bayle's demand. The reason for the spontaneous changes that occur in the soul's states is the same as the reasons for change in the physical world: they occur by virtue of the "raisons de mecanique", which are "concentrated" in souls.

What kind of explanation has Leibniz offered here? On the one hand, he has identified real causal tendencies, forces, as properties of a soul's states, by which they are effective in producing new states. At the same time, he has explained the effects of those forces in terms of the content of the states with which they are associated and the content of the states they produce. As he writes in a passage already quoted, "Dans l'ame, les representations des causes sont les causes des representations des effects" (GP IV, 533). Given this, Leibniz appears to believe that whatever principles govern change in the objects of a soul's perceptions (i.e. "les raisons de mecanique") equally govern the spontaneous changes that occur in the soul itself.

This conclusion faces two major objections. First, an appeal to mechanical laws seems to identify the *wrong kind* of laws to account for change in a soul-like substance. In his "Système nouveau", Leibniz distinguishes the laws of the soul and the laws of the body, treating them as holding of mutually exclusive domains. So how could laws that apply to the world of bodies be the laws that explain spontaneous changes in soul-like substances? Second, such an explanation seems to fail because it is *circular*. In his work on dynamics, Leibniz argues that the laws of mechanics themselves require a ground in substantial principles of force, or entelechies. To the extent that entelechies are invoked to explain the existence of change in the physical world and the form of the laws of mechanics, it is hard to see how those same laws could be involved in an explanation of spontaneity in entelechies, or soul-like substances.

Such are the issues that arise in the course of Leibniz's replies to Bayle. In saying the things he does to Bayle, it is evident that there is much that Leibniz is leaving unsaid, parts of his system that he does not feel it necessary, or helpful, to introduce. To reach an adequate understanding of his position, we must expose some of these unspoken thoughts from sources outside of his exchange with Bayle, drawing in particular on his work in dynamics. By expanding our sights in this way, we can construct a tentative picture of Leibniz's account of spontaneity in the period.

#### IV. A Dynamics of the Soul?

From the late 1670s onward, Leibniz maintains that mechanical laws—laws of motion and collision—cannot be derived from geometry alone. The true laws that hold of bodies (e.g., the law of the conservation of  $mv^2$ ) require that bodies involve more than extension; in addition, they must be ascribed inherent properties of active and passive force.<sup>20</sup> Based on a variety of arguments, Leibniz concludes that force—especially active force—is what is genuinely real about bodies, while properties defined in terms of space and time alone are merely ideal.<sup>21</sup>

The attribution of distinct properties of force to matter is the foundation of Leibniz's science of dynamics. At the same time, he stresses the necessity of grounding these dynamical properties in the natures of *per se* real beings, or substances. For the “derivative forces” studied by physics to qualify as real, they must be explained as modifications of “primitive force”, the active component of which he identifies with *entelechy*.<sup>22</sup> Since entelechies are the only sources of spontaneous activity in nature, any force attributed to things must ultimately be construed in terms of their activity.<sup>23</sup>

In addition to their role as the substantial ground of force, entelechies are invoked a second time by Leibniz in accounting for the form of the laws of nature. He understands such laws as contingent principles that evidence “fitness”, or marks of the wisdom God has exercised

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<sup>20</sup> See “Specimen dynamicum, pro admirandis naturae legibus circa corporum vires et mutuas actiones detegendis et ad suas causas revocandis”, *Acta Eruditorum*, April 1695: “In rebus corporeis esse aliquid praeter extensionem, imo extensione prius [...], nempe ipsam vim naturae ubique ab Autore inditam [...].” (GM VI, 235).

<sup>21</sup> “Nam motus (perinde ac tempus) nunquam existit [...]. Nihilque adeo in ipso reale est, quam momentaneum illud quod in vi ad mutationem nitente constitui debet” (GM VI, 235).

<sup>22</sup> From a study dated May 1702: “Considerandum praeterea est vim derivativam atque actionem quiddam esse modale, cum mutationem recipiat. Omnis autem modum constituitur per quandam modificationem alicujus persistentis sive magis absoluti. Et quemadmodum figura est quaedam limitatio seu modificatio vis passivae seu masse extensae, ita vis derivativa actioque motrix quaedam modificatio est non utique rei mere passivae (alioqui modificatio seu limes plus realitatis involveret, quam ipsum illud quod limitatur), seu activi cujusdam, id est, entelechiaie primitivae” (GP IV, 397). See also “Specimen dynamicum” (GM VI, 236).

<sup>23</sup> As he writes in his 1702 reply to Bayle: “Ainsi j’avoue que la spontanéité n’est pas proprement dans la masse [...]. C’est donc proprement dans l’Entelechie [...] que la spontanéité se trouve” (GP IV, 558).

in choosing them for the actual world.<sup>24</sup> However, he rejects the occasionalist doctrine that God has imposed these laws on otherwise indifferent matter. Instead, Leibniz holds that mechanical laws must be grounded in the same substantial principles of force that are constitutive of matter. In an unpublished essay, dated May 1702, the same year as his second reply to Bayle, he writes:

“[...] although we say that everything in nature is to be explained mechanically, we must exempt the explanation of the laws of motion themselves, or the principles of mechanism, which should not be derived from things merely mathematical and subject to the imagination, but from a metaphysical source, namely, from the equality of cause and effect and from other laws of this kind, which are essential to entelechies”.<sup>25</sup>

Leibniz’s effort to ground the reality of physical forces and the laws they observe in entelechies, substantial principles of force, is one of the most obscure parts of his philosophy. The basis of this relation is never satisfactorily explained by him. On one point, however, his intentions are clear: the grounding relation between physical forces and laws, on the one hand, and entelechies, on the other, holds at the level of general principles and does not extend to the explanation of particular physical phenomena. Entelechies are, in effect, conditions for the possibility of physical forces and laws; they are not involved in the explanation of phenomena. The latter are explained in terms of mechanical laws alone:

“[...] we acknowledge that all corporeal phenomena can be derived from efficient and mechanical causes, but we understand that these very mechanical laws as a whole are derived from higher reasons. And so we use this higher efficient cause only in establishing general and distant principles. But once these principles have been established, then afterwards, whenever we deal with the immediate and specific efficient causes of natural things, we should take no account of souls or entelechies, no more than we should drag in useless faculties or inexplicable sympathies.”<sup>26</sup>

With this picture in view, it would obviously be a mistake to think of mechanical laws as explaining the spontaneous changes that occur in a soul. Taken in their own right, mechanical laws apply only to corporeal things, whose phenomena they explain. As far as the grounding

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<sup>24</sup> “[...] et constitutas Motuum Naturaeque Leges non absoluta quidem necessitate, sed voluntate causae sapientis, non ex mero arbitrio, sed ex convenientia rerum [...]” (GP VII, 344).

<sup>25</sup> “[...] cum omnia in natura explicari dicimus Mechanice, excipiendas esse ipsas Legum Motus rationes seu principia Mechanismi, quae non ex solis mathematicis atque imaginationi subjectis, sed ex fonte metaphysico, scilicet ab aequalitate causae et effectus, deduci debent aliisque hujusmodi Legibus quae sunt Entelechiis essentiales” (GP IV, 398); trans. by R. Ariew and D. Garber, in: G. W. Leibniz, *Philosophical Essays*, Indianapolis 1989, p. 255.

<sup>26</sup> “[...] omnia quidem phaenomena corporea a causis efficientibus mechanicis peti posse agnoscamus, sed ipsas leges mechanicas in universum a superioribus rationibus derivari intelligamus, atque ita causa efficiente altiore tantum in generalibus et remotis constituendis utamur. His vero semel stabilitis, quoties postea de rerum naturalium causis efficientibus propinquis et specialibus tractatur, animabus aut Entelecheiis locum non demus, non magis quam otiosis facultatibus aut inexplicabilibus sympathiis [...]” (GM VI, 242-3); trans. by R. Ariew and D. Garber, in G. W. Leibniz, *Philosophical Essays*, Indianapolis 1989, p. 126. Cf. GM VI 236; GP VII, 343; and his 1702 reply to Bayle: “Outre que j’ay monstré souvent, que dans les corps mêmes, quoyque le détail des phenomenes ait des raisons mecaniques, la derniere analyse des loix de mecanique et la nature des substances nous oblige enfin de recourir aux principes actifs indivisibles [...]” (GP IV, 560).

relation is concerned, the direction of dependence is of mechanical laws *on entelechies*, and not vice versa.

I shall return shortly to the relation Leibniz posits between mechanical laws and entelechies. First, though, it is necessary to clarify his understanding of the latter. In the “Specimen dynamicum,” he writes that entelechies “correspond” to souls or substantial forms (GM VI, 236), leaving open the possibility that entelechies may exist as the active principles, or forms, of corporeal substances, or that there may be entelechies that are substantial forms but not souls endowed with perceptual powers. By the time of his second reply to Bayle, Leibniz appears to have accepted that every entelechy is identical with an immaterial, soul-like substance, and that, consequently, any spontaneous change in an entelechy is a change in the perceptual states of a soul. If this is correct, then Leibniz comes to ascribe two distinct but complementary identities to entelechies. Every entelechy is both: (1) a substantial principle of force or power (primitive active force) that grounds mechanical laws and the physical forces of matter; (2) a spontaneous source of new perceptual states in a soul, or soul-like substance. The unification of these two roles brings considerable economy to Leibniz’s system, setting him on the road to the final position of the “Monadologie”. It is now established that any individual soul, or soul-like substance—what he comes to call during this period a “monad”—is a dynamical principle in two senses: inwardly, it is the spontaneous source of the changes in its own perceptual states; outwardly, it is the ground of the forces attributed to matter and of the mechanical laws observed by material things.<sup>27</sup>

Leibniz frequently states that the true laws of motion and collision presuppose “metaphysical” principles, such as the equality of cause and effect, which he says are “essential to entelechies” (GP IV, 398). This suggests that any entelechy observes such principles in its own actions (e.g., no effect it produces is greater than its cause), a claim that is plausible but unremarkable. A more striking conclusion is reached if we focus on the dual identity of the entelechy as a principle of force and a principle of perceptual change. Considered from the latter point of view, the effects of the entelechy are its production of changes in the perceptual states of a substance, states that represent a changing world of phenomena that evolve in accordance with the laws of mechanics. From this perspective, entelechies can be considered the *source* of mechanical laws, because phenomena obeying those laws originate in the spontaneous activity of the soul. It is also possible to say, as Leibniz does in his 1702 reply, that “la raison du changement des pensées dans l’ame est la même que celle du changement des choses dans l’univers qu’elle represente” (GP IV, 562). This does not mean that mechanical laws ground, or explain, the spontaneous changes in the perceptions of the soul, but that the order manifested in those perceptions is just that of the phenomenal universe, which is to say, that determined by the laws of mechanics.

Mechanical laws have no direct role to play in explaining the changes that occur in the soul’s perceptual states. They are not laws that apply to the exercise of entelechy, or primitive active force. Still, mechanical laws are expressions of the activity of entelechy, and to that extent

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<sup>27</sup> For a development of this point, see D. Rutherford: “Idealism Declined: Leibniz and Christian Wolff”, in: Paul Lodge (ed.): *Leibniz and His Correspondents*, Cambridge 2004, pp. 214-37.

they tell us *something* about the mode of that activity. Drawing the distinction Leibniz does elsewhere between mechanical laws as “laws of efficient causes” and the soul’s laws as “laws of final causes”, we may speculate that the spontaneous activity of entelechies is best understood teleologically, as being *directed toward* the production of successive perceptions of a universe ordered by “les raisons de mecanique”. To this extent, “la raison du changement” of perceptions in the soul is the same as that for the things in the universe it represents, but this reason is instantiated in different ways by each: on the one hand, as an end that the soul’s activity is directed toward, on the other, as the law according to which phenomena determine successive phenomena.

We may take this hypothesis one step further. Taking seriously Leibniz’s statement that the causal relations among successive states of the soul are to be understood in terms of the content of those states (“les representations des causes sont les causes des representations des effects”), we may see those successive states as directed toward the execution of a plan for the universe. This plan is given to each created substance by God, who places in it “une concentration de l’univers” (GP IV, 553) and the means sufficient to unfold the history of that universe through its perceptual states. On this reading of Leibniz’s position, for which there is ample evidence in his replies to Bayle, the activity of entelechy is most clearly explained teleologically, in terms of relations of final causation.

What remains of the doctrine of the preestablished harmony of soul and body on this account? Leibniz states on several occasions in his exchange with Bayle that the physical world conceived independently of entelechies is only a system of phenomena: the contents of the perceptions of soul-like substances. Consequently, the world of bodies, which he opposes to the soul as an explanatorily closed system—“tout se fait dans le corps, comme s’il n’y avoit point d’ame” (GP IV, 560)—cannot be an ontologically independent domain. When conceived in abstraction from souls or entelechies, and as conforming to mechanical laws, the physical universe consists solely of well-ordered phenomena. The contrast Leibniz draws between the soul and the body thus comes down to a distinction between different levels of reality (substantial versus phenomenal) and different modes of explanation (final causes versus efficient causes). The place where the two domains intersect is that the end-directed activity of entelechies is explained in terms of their representing a phenomenal universe ordered by mechanical laws.

Leibniz’s final attempt to justify his position to Bayle, in the last draft of his unsent letter of late 1702, bears out this reading. Responding again to Bayle’s objection that he has not explained the possibility of spontaneous change in the soul, Leibniz writes:

“[...] vous remarqués, Monsieur, qu’on ne sauroit bien examiner la possibilité de mon hypothese, sans connoistre assez distinctement le fonds substantiel de l’ame et la maniere dont elle se peut transformer. Je ne say s’il est possible d’expliquer mieux la constitution de l’ame qu’en disant 1) que c’est une substance simple, ou bien ce que j’appelle une vraye unité; 2) que cette unité pourtant est expressive de la multitude, c’est à dire des corps, et qu’elle l’est le mieux qu’il est possible selon son point de veue ou rapport. 3) Et qu’ainsi elle est expressive des phenomenes selon les loix metaphysico-mathematiques de la nature, c’est à dire selon l’ordre le plus conforme à l’intelligence et raison.” (GP III, 71-2)

As Leibniz presents his position here, there is no deeper explanation for why the soul’s perceptions change as they do, save that they are directed toward reproducing, “le mieux qu’il est possible selon son point de veue”, a universe of phenomena whose order is “le plus conforme à



l'intelligence et raison". In imitation of God, the actions of each soul are directed toward bringing about a world, in fact, two worlds: that which it represents and that which it realizes, in harmony with other souls, through its spontaneous perceptual activity.

## V. Conclusion

In the opening of his "Système nouveau", Leibniz writes that he decided to publish his views "principalement pour profiter des jugemens de ceux qui sont éclairés en ces matieres". From such enlightened individuals he hopes to receive "instructions", which he will be happy to receive, "pourveu que l'amour de la verité y paroisse plustost que la passion pour les opinions dont on est prevenu" (GP IV, 477-8).

Leibniz makes it clear that he sees Bayle as an interlocutor whose objections have originated in a "love of the truth", and he gives every indication of regarding their exchange as having been a profitable one. Yet by what standard does Leibniz judge this to be so? Does he believe he has learned something from Bayle's questions that he did not know before: that their exchange has allowed him to develop his system in unanticipated ways? The idea that Leibniz's philosophical method is, indeed, experimental and dialectical would support such a conclusion. The core of this idea is that many of his central philosophical views are projected as hypotheses, which stand in need of criticism and refinement, and which could only be accepted as justified once they have received the scrutiny of exacting critics like Bayle.

To such a view of Leibniz as a philosopher eager to work with others to come closer to the truth, we can oppose a picture of him as a thinker who was, from an early age, secure in his opinions and who saw his principal task as convincing others of their truth. From this perspective, it is less a matter of Leibniz receiving "instructions" from his interlocutors as his eliciting concessions from them. A revealing passage from Leibniz's final reply to Bayle supports this reading of him:

"Et ce qui me fait parler avec un peu de confiance, c'est que ne m'estant fixé qu'après avoir regardé de tous costés et bien balancé, je puis peutestre dire sans vanité: *Omnia praecepi atque animo mecum peregi*.<sup>28</sup> Mais les objections me remettent dans les voyes, et m'épargnent bien de la peine: car il n'y en a pas peu de vouloir repasser par tous les écarts, pour deviner et prevenir ce que d'autres peuvent trouver à redire, puisque les preventions et les inclinations sont si differentes [...]. (GP IV, 567)

The implication of Leibniz's remark is that the value of objections such as Bayle's is not that they provide constructive ideas for the development of his system, but merely that they help to anticipate objections that others might raise against it.

Although there is considerable evidence of Leibniz's confidence in the truth of his core principles, as well as of his efforts to solicit expressions of agreement from correspondents like Bayle, Arnauld, De Volder and Wolff, it would be going too far to suggest that the views he advances are fully formed and without need of refinement. The doctrine of the spontaneity of substance was singled out by Bayle as requiring further defense. As Leibniz rose to the

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<sup>28</sup> Virgil, *Aeneid*, 6.105.

challenge, he opened a new door on his system. When Bayle asked how it was possible for the soul to be the spontaneous source of all its own perceptions, including passive states such as pain, Leibniz replied that this was a consequence of the representative nature of the soul: every soul is naturally representative of its body and, through it, of the universe, whose state it tracks in an evolving series of perceptions. Contained in this statement are a cluster of theoretical commitments—concerning the reality of physical phenomena, the relation of physical forces and entelechies, and the mode of causation by which souls and bodies act—that Leibniz does not make explicit to Bayle and on which his views are far from being fully worked out. If Bayle does not press him on these issues, it is nonetheless apparent how they arise through Bayle’s question about the soul’s spontaneity.

That Leibniz’s account of spontaneity remains a work in progress is evident from our examination of it. Although he does not develop the point in his exchange with Bayle, there is reason to see his account as incorporating the idea that the spontaneity of the soul is expressed teleologically: it acts to bring out a representation of the next state of the universe, “selon l’ordre le plus conforme à l’intelligence et raison” (GP III, 72). This is consistent with Leibniz’s later statements that the preestablished harmony of soul and body is to be construed as a harmony between two sets of laws: “laws of efficient causes”, identified with the laws of motion, and “laws of final causes”, which govern the operation of souls acting “through appetitions, ends, and means”.<sup>29</sup> The latter species of law reflects Leibniz’s construal, in works from his final decade, of the monad’s internal forces as “appetitions”: directed tendencies toward the good. The governing idea is that just as the state of any monad is conceived on analogy with a psychological state of *perception*, the force that brings about changes in that state is to be conceived on analogy with the psychological state of *appetite*: a directed tendency toward an object represented as good.

In Leibniz’s exchange with Bayle there is little sign of this psychological construal of the soul’s internal forces.<sup>30</sup> The basic capacity of a soul to bring about changes in its perceptual states is identified with its power to produce an evolving representation of the physical world. Conative states (appetites, desires, volitions) are restricted to sensitive souls, whose states tend toward the apparent good, rather than being extended to all monads, as in his later writings.<sup>31</sup>

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<sup>29</sup> “Monadologie”, art. 79 (GP VI, 620). Cf. “Principes de la Nature et de la Grâce”, art. 3 (GP VI, 599).

<sup>30</sup> I have found one brief allusion in his unpublished notes on rem. L: “Ce sont les perceptions precedentes mêmes dont naissent les suivantes par les loix des appetits” (GP IV, 551).

<sup>31</sup> In unpublished remarks on Lamy’s *Connaissance de soi-même*, written between the drafts of his final, unsent letter to Bayle, Leibniz restricts final causes to souls capable of volitions: “[...] il suffit de dire que les perceptions qui expriment les loix de mouvement sont aussi liées que ces loix, qu’elles expriment selon l’ordre des causes efficientes. Mais l’ordre des perceptions volontaires qui est celui des causes finales, est conforme à la nature de la volonté” (GP IV, 580). By contrast, he writes to Lady Masham in May 1704: “En quoy je ne fais encor qu’attribuer aux Ames et aux corps pour tousjours et par tout ce qu’on y experimente toutes les fois que l’experience est distincte, c’est à dire les loix mecaniques dans les corps, et les Actions internes dans l’Ame: le tout ne consistant que dans l’estat present joint à la tendence aux

Whether this is accurately described as a development in his thought that occurs after 1702, or merely an artifact of his treatment of the topic in his replies to Bayle, awaits further research. At the very least, it suggests another approach to the topic of spontaneity that remains unexplored in Leibniz's discussions with Bayle.

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changemens, qui se font dans le corps suivant les forces mouvantes, et dans l'ame suivant les perceptions du bien et du mal" (GP III, 341).