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Harmony as a Criterion of Contingent Truth in Leibniz

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Strong phenomenalist readings of Leibniz take him to have thought the reality of bodies consists in the mutual harmony of the monads' representations of them. I argue that Leibniz ought not to be read as a strong phenomenalist: the text does not force such a reading upon us, and there are systematic reasons to avoid such a reading. Since the systematic reasons in question are well-documented in the literature, I focus on the task of showing that textual evidence for the strong phenomenalist reading is sparse. I work toward this task in two ways. First, I argue that the Harmony Principle (the principle that there is a close relationship between the reality of bodies and the mutual harmony of the monads' perceptions of them), traditionally taken as evidence of Leibniz's commitment to strong phenomenalism, is more naturally read as an epistemic principle. Second, I argue that Leibniz's repeated identification of bodies with phenomena is equally amenable to a weaker reading of him as a moderate phenomenalist, who thought bodies owe their unity to perception. The failure to distinguish between moderate and strong phenomenalism in the literature has led proponents of the strong phenomenalist reading to take any passages where such identity claims occur as evidence for their reading. But such claims, unlike the strong phenomenalist thesis, are reconcilable with Leibniz's aggregate conception of body, which, (1) characterizes bodies as phenomena owing their unity to perception, but (2) takes the reality of bodies to be "borrowed" from their underlying monads.

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I. Background and Roadmap

Leibniz's mature metaphysics is an idealist one: the fundamental building blocks of reality are immaterial, soul-like substances.[1] These simple substances, called monads, are causally isolated, but they have perceptions and appetitions. What becomes of bodies on this picture? Surprisingly, or perhaps not, there is no clear answer. Insofar as Leibniz's mature metaphysics is idealist, bodies, understood as material things existing in space and time, cannot belong to the 'metaphysical ground-floor': they cannot be the ultimate constituents of reality. But this in itself does not tell us what bodies *are*: are they to be somehow eliminated, or merely reduced? If reduced, how so?

Among the things Leibniz says about bodies in his mature period, two claims stand out as possible answers. The first is that bodies are phenomena, and there is a close relationship between their reality and the mutual harmony of the monads' perceptions of them. The second is that bodies are aggregates of monads, and they 'borrow' their reality from the monads they are aggregates of. In the secondary literature, the first claim is often taken to mean that the reality of bodies *consists* in the mutual harmony of the monads' perceptions—I call this view the 'Strong Phenomenalist Thesis', though in the secondary literature, it is often taken to be a statement of phenomenalism *simpliciter*. The reasons for the qualification 'strong' will become clear in the course of this paper. The second claim is known as the 'Aggregate Thesis', and I will continue to refer to it in this way.

Strong Phenomenalist Thesis	Bodies are phenomena, and their reality consists in the mutual harmony of the monads' perceptions.
Aggregate Thesis	Bodies are aggregates of monads, and they borrow their reality from the monads they

1. The following abbreviations are used for the citation of Leibniz's works:

   AG 1989. *Philosophical Essays*. Edited and translated by R. Ariew & D. Garber. Indianapolis: Hackett.
   G 1875–1890. *Die philosophischen Schriften von Gottfried Wilhelm Leibniz*. Edited by C. I. Gerhardt, 7 Volumes. Berlin: Weidmannsche Buchhandlung.
   L 1969. *Philosophical Papers and Letters*. Edited and translated by L. E. Loemker. Dordrecht: Reidel.
   MP 1973. *Philosophical Writings*. Edited and translated by M. Morris & G. H. R. Parkinson. London: Dent.

   For ease of reference, quotes from Leibniz will have in-text citations.

are aggregates of.

Both the Strong Phenomenalist Thesis and the Aggregate Thesis suggest that bodies are to somehow be reduced. However, the two theses seem to put forward different models of reduction: the Strong Phenomenalist Thesis seems to suggest bodies reduce to collections of perceptions, while the Aggregate Thesis seems to suggest that bodies reduce to aggregates of monads.

The strong phenomenalist reading of Leibniz assimilates his treatment of bodies to that of Berkeley, who famously held that the essence of bodies consists in being perceived.[2] Certainly, the mature Leibniz speaks of Berkeley's *Principles* approvingly, even if he seems to think Berkeley went too far in his reduction of bodies: 'There is much here that is correct and close to my own view. But...it is not necessary to say that matter is nothing, but it is sufficient to say that it is a phenomenon, like the rainbow' (AG307). Nonetheless, following Robert Adams's (1999) influential account of Leibnizian phenomena, those deeming Leibniz a phenomenalist typically attribute to him a more nuanced model of reduction than Berkeley's. According to Adams, while Berkeley identifies bodies with perceptions or collections of them, Leibniz identifies them with the 'intentional objects' or 'representational contents' of perceptions.[3] Adams thinks that this makes Berkeley's reduction of bodies 'psychological', whereas Leibniz's reduction is, for lack of a better word, non-psychological.

To make matters more complicated, Leibniz often characterizes aggregates of monads as phenomena whose unity comes from being perceived. Since the Aggregate Thesis identifies bodies with aggregates of monads, it follows that bodies, considered as aggregates of monads, are phenomena whose unity comes from being perceived. I will call this claim the 'Moderate Phenomenalist Thesis', and, as this naming suggests, I take it to be different from the Strong Phenomenalist Thesis.

Moderate Phenomenalist Thesis	Bodies are phenomena whose unity comes from being perceived.

The Moderate Phenomenalist Thesis is a *metaphysical consequence* of the Aggregate Thesis: in the context of Leibniz's mature metaphysics, it is a consequence of the thesis that bodies are aggregates of monads, that they are phenomena whose

2. *Principles* 90. Loeb (1981: 304) argues that Leibniz's phenomenalistic reduction of bodies was a forerunner of Berkeley's.

3. Adams (1999: 221).

unity comes from being perceived.[4] Since the Strong Phenomenalist Thesis and the Aggregate Thesis (via its metaphysical consequence) both ultimately characterize bodies as phenomena, a number of commentators, foremost among them Adams, hold that the mature Leibniz's two accounts of bodies are compatible and, in fact, equivalent.[5] Such commentators take what I am calling the *Moderate Phenomenalist Thesis* as, in effect, no different from the *Strong Phenomenalist Thesis* articulated above.[6] According to Adams, the reason the two accounts might appear to us to be in conflict is that we assume an aggregate of monads must have the same ontological status as monads—but this is an assumption that Adams thinks Leibniz would reject.[7]

Those who take the two accounts of bodies to be incompatible fall into two main camps: those who think that (i) only one of the two accounts should be taken as the mature Leibniz's final position, and those who think that (ii) Leibniz vacillated between the two accounts and never decisively came down in favour of one against the other. Position (i) can be cashed out in a number of different ways. Louis Loeb (1981), for instance, argues that the mature Leibniz settled on the Strong Phenomenalist Thesis as his final position, ultimately rejecting the view that bodies reduce to aggregates of monads.[8] Anja Jauernig (2019), who also takes the Strong Phenomenalist Thesis to be Leibniz's considered view, claims that Leibniz was simply careless in formulating the Aggregate Thesis. According to Jauernig, what Leibniz means when he says that bodies are aggregates of monads is simply that bodies *correspond* to aggregates of monads.[9] Position (ii) also comes in different flavors. Nicholas Jolley (1986) argues that Leibniz 'flirted' with phenomenalism, but his commitment to reconciling mechanistic physics with a traditional substance metaphysics prevented him from ever fully

4. The derivation of the Moderate Phenomenalist Thesis would go as follows:

P1. Bodies are aggregates of monads. (first conjunct of the Aggregate Thesis)
P2. Aggregates are phenomena whose unity comes from being perceived. (from Leibniz's mature metaphysics)
C1. So, bodies are phenomena whose unity comes from being perceived. (moderate phenomenalism)

5. Ibid., 260.

6. Accordingly, there is no talk of 'strong' and 'moderate' phenomenalism in the 'compatibilist' secondary literature on Leibniz. The incompatibilist secondary literature, while denying that the phenomenalist thesis and the Aggregate Thesis amount to the same thing, also often fails to explicitly distinguish strong and moderate phenomenalism.

7. Ibid., 245–46.

8. Loeb (1981: 306).

9. Jauernig (2019: note 29). Loeb's position is similar to Jauernig's insofar as he holds that after rejecting the Aggregate Thesis, Leibniz came to think that bodies have a 'metaphysical analogue' on the monadic level of reality (1981: 306).

adopting it. Daniel Garber (2009) claims that Leibniz struggled between the two accounts of body until the end of his life.[10]

I believe that, despite what Adams and other 'compatibilists' claim, the Strong Phenomenalist Thesis cannot be reconciled with the Aggregate Thesis. In taking this position, I am influenced by Paul Hoffman (1996), who has compellingly argued that if bodies are simply the representational contents of perceptions, they cannot have monads, whose being is entirely mind-independent, as their constituents:

> An idea [or perception] taken objectively, in anything remotely like the Cartesian sense of the term, cannot have substances, that is, beings with formal reality, as its elements....if the objective being of an idea [or perception] can be an aggregate, it can only be an aggregate of other things in terms of their objective being, that is, in terms of their being objects of thought.[11]

On the other hand, unlike Loeb, I do not think that Leibniz simply drops the aggregate conception of body at some point in his mature period. There is no textual evidence for Loeb's claim: Leibniz never explicitly disavows the Aggregate Thesis. In fact, as Jolley observes, Leibniz continues to espouse the Aggregate Thesis until the very end of his life.[12] I also find it prima facie implausible that Leibniz struggled between two drastically different conceptions of body despite having the rest of his metaphysics figured out in his mature period. Moreover, it will be agreed that insofar as interpretive charity is concerned, attributing theoretical uncertainty to Leibniz should be the last resort. What, then, is the way forward?

I think it is a mistake to attribute the Strong Phenomenalist Thesis to Leibniz, despite the fact that some of his claims about bodies lend themselves to being (mis)read as statements of this thesis. I aim to make my case through a close examination of such claims and suggesting an alternative reading of them.

As I have stated it, the Strong Phenomenalist Thesis has two components: (1) bodies are phenomena, and (2) the reality of bodies consists in the mutual harmony of our perceptions of them. The first component is not unique to the Strong Phenomenalist Thesis: as we have seen, the Moderate Phenomenalist Thesis characterizes bodies as phenomena as well. Moreover, the second component of the Strong Phenomenalist Thesis arguably presupposes the first component (but not vice-versa): if the reality of bodies consists in the mutual harmony of

10. Jolley (1986: 46–50), Garber (2009). Hartz (2007) also thinks that Leibniz was aware of the tension between his two conceptions of body, but never resolved this conflict.

11. Hoffman (1996: 113–17).

12. Jolley (1986: 38).

our perceptions of them, then bodies must in some sense be phenomena. For this reason, in my examination of passages that lend themselves to being (mis)read as statements of the Strong Phenomenalist Thesis, I will primarily focus on those passages that lend themselves to being (mis)read as statements of the *second* component of the Strong Phenomenalist Thesis. The central feature of these passages is that they posit a close relationship between the reality of bodies and the mutual harmony of our perceptions of them. I call this claim the Harmony Principle (not to be mistaken with the better-known doctrine of pre-established harmony):[13]

Harmony Principle There is a close relationship between the reality of bodies and the mutual harmony of our perceptions of them.

Getting clear on the content of the Harmony Principle (in particular, on what the placeholder expression 'close relationship' stands for) will allow us to determine, among other things, whether Leibniz was committed to the Strong Phenomenalist Thesis. Accordingly, a large part of this paper will be devoted to figuring out just what the Harmony Principle amounts to. As a point of comparison, consider debates about the meaning and scope of other principles in Leibniz's thought—most famously, the principles of the identity of indiscernibles ('PII') and sufficient reason ('PSR'). All parties to such debates typically agree that Leibniz was committed to these principles, but, for textual or systematic reasons, disagree about the meaning and scope of these principles in Leibniz's thought.[14] Similarly, I think while there is no doubt that Leibniz was committed to something like the Harmony Principle as articulated above, there is room for textual and systematic disagreement about just what the Harmony Principle amounts to. It is a mistake to think that a commitment to the Harmony Principle can only amount to strong phenomenalism, as seems to have long been thought in the secondary literature on Leibniz.

In what follows, I will be arguing that the Harmony Principle should be read as an epistemic principle regarding how to form judgments about the reality of the bodies we perceive, *not* a metaphysical principle regarding what the reality of bodies consists in.[15] This reading gives us a straightforward way of reconciling the Harmony Principle with the Aggregate Thesis: the Aggregate Thesis is a metaphysical principle that states what the reality of bodies consists in, while

13. The doctrine of pre-established harmony is Leibniz's solution to the problem of mind-body interaction. The first systematic articulation of this doctrine, which Leibniz often characterizes as a 'hypothesis', appears in *A New System of Nature* (1695). In the final part of this paper, I will consider an objection to my view based on the doctrine of pre-established harmony.

14. See, for example, Jauernig (2008) and Cover and Hawthorne (1999: chapter 5).

15. A judgment about the reality of some perceived body x is a judgment affirming or denying that x is real. To affirm that x is real amounts to denying that x is imaginary.

the Harmony Principle is an epistemic principle that states the main criterion of contingent truths. This criterion, though reliable, is not infallible: harmony is a good indication that our perceptions are veridical, but it is not a guarantee that they are—as we will see, Leibniz thinks we can never definitively rule out that our whole life is just a harmonious dream.

My methodology will involve looking at texts from all three of Leibniz's philosophical periods. While the Strong Phenomenalist Thesis is often attributed to the mature Leibniz, statements of the Harmony Principle appear in writings from the early and middle periods as well as the mature period. Though Leibniz's philosophy underwent major changes throughout his life, there is a striking consistency to the content of these statements and the contexts in which they appear. As such, understanding Leibniz's original motivations for putting forward the Harmony Principle could provide greater insight into the place of this principle in his mature philosophy.

I begin with some preliminary remarks about the Harmony Principle as I have formulated it above (section 2). I then go on to examine statements of the Harmony Principle in writings from Leibniz's early and middle periods (sections 3 and 4, respectively), showing that it is often in the context of engaging with skeptical concerns that the principle appears in Leibniz's writings. In the process, I discuss Leibniz's predicate-in-subject conception of truth and argue that it does not preclude an epistemic reading of the Harmony Principle according to which harmony is a fallible criterion of contingent truths. I then take a brief pause to discuss the import of the Aggregate Thesis in the mature period, arguing that a moderate phenomenalist reading is able to reconcile this thesis with the mature Leibniz's characterization of bodies as phenomena: we can think of the formal reality of bodies as consisting in being perceived and their material reality as consisting in being aggregates of monads (section 5). Finally, I go on to look at statements of the Harmony Principle in the mature period, making the case that, with the exception of a couple of outlier passages, the principle continues to be articulated in epistemic terms in this period (section 6). I conclude by returning to the discussion of the nature versus the criterion of truth, and arguing that it is a mistake to read the Harmony Principle as both an epistemic and a metaphysical principle.

II. The Harmony Principle

Recall the Harmony Principle, as formulated above:

> *Harmony Principle* There is a close relationship between the reality of bodies and the mutual harmony of our perceptions of them.

At this point, it is no doubt unclear what the Harmony Principle really amounts to. In my formulation of it, I have been careful to remain neutral between metaphysical and epistemic interpretations of it. The proponent of the Strong Phenomenalist Thesis wants to read the Harmony Principle as a metaphysical principle. Accordingly, she would take the placeholder expression 'close relationship' to stand for a metaphysical dependence relation, like the relation of consisting in:

Harmony Principle (metaphysical reading)	The reality of bodies consists in the mutual harmony of the monads' perceptions of them.

On the other hand, I think that the Harmony Principle ought to be read as an epistemic principle. Accordingly, I think the placeholder expression 'close relationship' stands for an epistemic relation, like the relation of being indicated by:

Harmony Principle (epistemic reading)	The reality of bodies is indicated by the mutual harmony of the monads' perceptions of them.

A few caveats about my original formulation of the principle are in order. First, there are three main species of harmony that fall under 'mutual harmony' as I use it. The first of these is inter-subjective and intra-subjective harmony (AG181). The second of these is accordance with past experience, in such a way as to allow for the formation of hypotheses for the prediction of future phenomena (L151, 232, 364). The third species of harmony is agreement with the truths of logic and mathematics (GII, 282; GIV, 569). In his statements of the Harmony Principle, Leibniz does not always take care to list all the species of harmony identified above. However, it is natural to see them as complementary, and I will assume that Leibniz has all of these species of harmony in mind in his statements of the Harmony Principle.

Second, by 'real bodies' I mean bodies that are not imaginary (where imaginary bodies are those that appear to us in dreams, hallucinations, and illusions).[16] Depending on the context, I may choose to speak of 'true appearances' or 'real

16. With this sense of 'real' in mind, one way of characterizing my disagreement with the proponent of the strong phenomenalist reading of Leibniz is in terms of the answer to the following question: what sets real bodies apart from imaginary ones? The proponent of the Strong Phenomenalist Thesis takes the mutual harmony of our perceptions to be what sets real bodies apart from imaginary ones. Against this, I will argue that what sets real bodies apart from imaginary ones is that real bodies are aggregates of monads.

phenomena' instead of real bodies, and 'false appearances' or 'imaginary phenomena' instead of imaginary bodies. No theoretically substantive matter hangs on these choices.

Third, Leibniz predicates harmony of bodies (variously called phenomena or appearances), perceptions, and perceivers alike. This usage is somewhat confusing, but I will assume that there is a straightforward conversion between these predications, according to which some class of bodies is harmonious just in case our perceptions of those bodies are harmonious, and our perceptions are harmonious just in case we, as perceivers, are in harmony with ourselves and one another.

Fourth, there are two roughly equivalent conditions for phenomenality. The first condition for phenomenality is non-substantiality: if something is characterized as a phenomenon, then it is not fully 'real'—it does not belong to the most fundamental level of reality. Thus, it is common for Leibniz to say bodies are not substances but 'mere' phenomena (L343, 457, 600). The second condition for phenomenality is perception-dependence: bodies are phenomena in that their existence in some way depends on their being perceived. The two conditions are roughly equivalent, in that, with the possible exception of space and time, all and only substances are perception-independent.[17]

Fifth and last, Leibniz does not always articulate the claim that I am calling the 'Harmony Principle' in terms of 'harmony': there are a number of other terms that he treats more or less interchangeably with 'harmony', including 'agreement', 'consistency', 'coherence', 'connection', 'regulation', and 'well-orderedness'. I take all of these terms to be more or less synonymous for Leibniz. Depending on the context, however, I may choose to use one instead of the others.

III. The Early Period

One of Leibniz's earliest statements of the Harmony Principle appears in a letter from 1675 to Simon Foucher, a self-proclaimed Academic skeptic.[18] Like the external world skeptic familiar from contemporary epistemology, the Academic skeptics denied that it is possible to know that there is an external world. Leibniz

17. See Cover & Harz (1988) for an argument that space and time belong not to the phenomenal but to the ideal realm for Leibniz. Allowing that perception-dependence is sufficient for phenomenality, it follows that space and time, while *mind*-dependent, are *perception*-independent. For simplicity, however, I will treat 'non-substantial' and 'phenomenal' as coextensive.

18. Brown (2004: 75), GPI 388. As my argument will bring out, Leibniz was more sympathetic to skepticism than is commonly recognized. For more on this, see de Olaso (1997) and Popkin (2003).

thus begins the letter by observing that Foucher's purpose is 'to examine those truths which affirm that there is something outside of us' (L151). After drawing a distinction between 'eternal' or necessary truths and truths 'which tell of the actual existence of things', Leibniz goes on to observe, in an apparent concession to Academic skepticism, that

> at bottom all our experiences assure us of only two things: first, that there is a connection among our appearances which provides the means to predict future appearances successfully; and, second, that this connection must have a constant cause. But it does not follow strictly from this that matter or bodies exist but only that there is something which gives us appearances in a good sequence. (L153)

Leibniz admits that, ultimately, the only thing our experiences 'assure' us of is that appearances are harmoniously connected, which connection allows us to successfully predict future appearances on the basis of past ones. While this connection must have a 'constant cause', it does not 'follow strictly' that bodies or matter 'exist' (where the kind of existence in question is presumably perception-independent existence). This is because

> if some invisible power were to take pleasure in giving us dreams that are well tied into our preceding life and in conformity with each other, could we distinguish them from reality before we had awakened? Now, what prevents the course of our life from being one long well-ordered dream, about which we could be undeceived in a moment? (153–54)

Assuming that these questions are rhetorical, Leibniz seems to think that (i) if an 'invisible power' was, in fact, supplying us with well-ordered dreams, we would not be able to distinguish such dreams from reality, and (ii) nothing prevents our whole life from being such a well-ordered dream. The good order of appearances does not entail that they are real, because such order is compatible with us being in a skeptical scenario, where appearances are not real. This means that the reality of bodies does not consist in the mutual harmony of our perceptions of them—that it is metaphysically possible for harmonious bodies to be the contents of a dream.[19]

19. Leibniz typically characterizes metaphysically necessary truths as those whose contrary involves a contradiction (L488, 394, 697). This implies that he took metaphysical possibility to be coextensive with logical possibility. However, his treatment of the PSR and PII (which he characterizes as 'principles of true metaphysics'—AG328) is taken by some to indicate that he took metaphysical possibility to be more restrictive than logical possibility. For more on this, see Jauernig (2008: 224–25) and Cover & Hawthorne (1999: 211).

A few things need to be noted here. First, the skeptical scenario Leibniz entertains in the above passage is not nearly as radical as Descartes' Evil Genius hypothesis, which puts our entire cognitive faculties under question. Leibniz is not entertaining the kind of doubt that questions our ability to know the basic truths of logic and mathematics.[20] As his earlier characterization of Foucher indicates as well, the kind of skepticism at issue here strictly concerns our perceptual experiences of the external world. More precisely, it concerns our purported inability to tell whether our perceptual experiences are false appearances (in this case, the contents of a dream) supplied by an 'invisible power'. From the fact that we may, at any given moment, be dreaming without realizing that we are dreaming, Leibniz concludes that, for all we know on the basis of our perceptual experiences, our whole life may be a dream. Thus, while the notion of an invisible power taking pleasure in deceiving us harkens back to Descartes' Evil Genius, the kind of skeptical doubt at issue here could just as well be achieved by a simpler dreaming scenario.[21]

And this is, indeed, how Leibniz ultimately articulates the doubt: 'what prevents the course of our life from being one long well-ordered dream?' His immediate remarks after posing this question indicate that he thinks the answer is 'nothing': 'Nor do I see that such a power would be imperfect just on this ground, as Descartes asserts' (L154). Descartes famously rejects the hypothesis that our cognitive faculties systematically mislead us on the grounds that God is not a deceiver. Leibniz thinks this is not a legitimate line of response to the skeptical threat: it is compatible with God not being a deceiver that our whole life is a well-ordered dream.

Where does this leave us? Leibniz has conceded that neither the well-connectedness of phenomena nor God's infinite perfection guarantee that the bodies we perceive are real. Nonetheless, he goes on to insist that there is great 'assurance' to be gained from observing the 'consistency' and order of our appearance, down to the microscopic level:

20. On Leibniz's view, necessary truths do not depend on God's will: God could not have chosen to create a world in which the necessary truths of logic and mathematics failed to hold. This sets him apart from Descartes who, to quote Curley, thought that 'since God's will was free, he could have created a world in which [necessary] truths did not hold' (1984: 569). This perhaps in part explains why Leibniz never seriously entertained the kind of skepticism that questions our ability to know the truths of reason. For more on this, see Popkin (2003: 266–67).

21. Dreaming skeptical hypotheses do not always undermine the *truth* of our perceptual beliefs—there might still be an external world even if right now I am merely dreaming that there is an external world. But they do undermine our justification for them, which is all the skeptic needs. As Pryor puts it, 'The dreaming hypothesis...introduce[s] a nonstandard explanation of your experiences. And this explanation would undermine the support your experiences give you for your perceptual beliefs—in the sense that, if you were to learn that you are dreaming, then you would have reason to doubt that your experiences were a trustworthy basis for beliefs about the external world' (2000: 527).

> The more consistency we see in what happens to us...the more our belief is confirmed that what appears to us is reality. [Moreover] the more closely we examine our appearances, the better ordered we find them, as microscopes and other means of observation have shown. (L154)

The assurance we gain from observing the harmony of phenomena is not definitive. It is an incrementally-gained, fallible assurance that Leibniz elsewhere calls 'moral' or 'practical', in contrast to the 'metaphysical' or 'absolute' certainty of the truths of logic and mathematics (L260, 364).[22] As will become clear in the course of this paper, Leibniz thinks that we can never be metaphysically certain that the bodies we perceive are real, regardless of how harmonious they are. This is because it is metaphysically possible for harmonious bodies to not be real, and only metaphysically necessary truths are metaphysically certain.[23]

There is much talk of consistency, well-orderedness, and connection in the passages from the 1675 letter to Foucher just examined. Such notions are all mentioned in relation to the question of the existence of an external world. The passages suggest that in engaging with the question of whether there is an external world (whether bodies exist independently of perception, or whether our appearances are true), the most important criterion we can resort to is the consistency and order of appearances. This consistency allows us to predict future phenomena on the basis of past ones—something Leibniz places much emphasis on in later texts as well. This criterion is not infallible: the consistency of phenomena does not conclusively rule out that we are in a skeptical scenario. This means that a judgment affirming the existence of an external world made on the basis of the consistency of phenomena is not *guaranteed* to be true. Here, thus, we have an early statement of the Harmony Principle, in a context that leaves

22. By contrast, in the *Principles of Philosophy*, which, according to Curley, contains his most explicit discussion of the distinction between metaphysical and moral certainty, Descartes claims to have established that the existence of the material world is metaphysically certain, just like the truths of mathematics (1993: 18–9). For more on varieties of certainty in Leibniz, see Weckend (2017).

23. While Leibniz often speaks in terms of certainty and not knowledge, I think we can translate a lot of what he says about metaphysical and moral certainty into contemporary epistemic language by thinking of metaphysically certain propositions as those that can be known infallibly, and morally certain propositions as those that can *only* be known fallibly (where to have fallible knowledge of p is to know p on the basis of evidence that is metaphysically consistent with p's being false—see Pryor [2000: 543]). In contemporary epistemology, the skeptic argues, from the premise that it is metaphysically possible that we are in a skeptical scenario, to the conclusion that we do not have any knowledge about the external world. Similarly, an Academic skeptic like Foucher argues, from the premise that propositions affirming the existence of an external world are not metaphysically necessary, to the conclusion that we cannot be certain there is an external world. The present-day fallibilist responds to the skeptic by denying that we can only have knowledge on the basis of indefeasible evidence. Likewise, Leibniz responds to the Academic skeptic by denying that we can only be certain of metaphysically necessary truths.

little doubt that it is an epistemic principle, and a fallible one at that. Nowhere in the passage is it implied that the reality of bodies *consists* in the harmony of phenomena, as the metaphysical reading of the Harmony Principle would have.

In a text from 1679 (that is, four years after the letter to Foucher just examined was written) titled 'On Universal Synthesis and Analysis', Leibniz again mentions the Harmony Principle, once more in the context of discussing different kinds of knowledge. Observing that the containment of the predicate concept in the subject concept in a judgement is 'the only, and the highest, criterion of truth' in 'things which do not depend on experience', he goes on to say that in 'factual or contingent matters' we need 'other principles and other criteria' for judging the truth of a proposition. In such matters—that is, in 'matters which do not possess metaphysical necessity'—Leibniz says, 'we must regard the agreement of phenomena as truth'. Other criteria of truth for contingent propositions include 'authority' and 'public testimony'.[24] It is through the application of such criteria that we are able to 'gain faith' in our senses 'in opposition to the skeptics' (L232).

Those familiar with Leibniz's logic will know that in better-known texts from his middle period, he puts forward the view that all truths (not just necessary ones) are analyzable into identities.[25] This view goes hand in hand with his predicate-in-subject account of truth, according to which the truth of a proposition consists in the containment of the predicate concept in the subject concept. It might seem like what Leibniz says in the passages just quoted goes against this account of truth. That is, it may seem like in the above passages Leibniz is denying the universality of the predicate-in-subject account of truth, and limiting its scope to necessary truths only.[26] Such a reading of the above passage, however, requires that one ignore the distinction between the nature of truth, on the one hand, and the criteria of truth, on the other. Thinking that we need different *criteria* for judging necessary and contingent truths is compatible with thinking that the same account of the *nature* of truth applies to both. Moreover, thinking that the containment of the predicate concept in the subject concept is a *criterion* for judging necessary truths is compatible with thinking that such containment is *also* what the truth of necessary truths *consists in*.

24. Leibniz also mentions the 'utility of faith' but does not elaborate on it.

25. The paradigmatic expression of this view can be found in 'On Contingency' (1686) and 'Primary Truths' (1686). For other statements of this account of truth, see PE19, 28, 30, 31, *Generales inquisitiones* §132, and GII 56.

26. There are indeed commentators who think that the scope of Leibniz's predicate-in-subject account of truth is not universal. For example, Russell (1900) thinks that all existential propositions (except for the existential proposition that God exists) are synthetic for Leibniz, and Mates (1989: 86) thinks that the containment of the predicate concept in the subject concept is not a necessary and sufficient condition of the truth of existential propositions. Most commentators, however, take Leibniz at his word when he says that *all* true propositions are reducible to identities (see Adams 1994; Couturat 1901; McDonough 2018; Meijering 1978).

Though he does not say why this is the case, Leibniz's reasons for thinking that the predicate-in-subject criterion of truth does not help us judge the truth of contingent propositions can be gleaned from his later elaboration on this topic: while the analysis of necessary truths terminates in an identity in a finite number of steps, the analysis of contingent truths requires an infinite number of steps. Finite beings like humans are incapable of locating the predicate concept in the subject concept of contingent truths, though God 'traverses the infinite series in one stroke of mind' (AG28). The need for two sets of criteria, one for necessary truths and one for contingent truths, is thus due to the nature and limits of human cognition.[27]

I have argued that Leibniz's predicate-in-subject account of the nature of truth is compatible with his identification of two sets of criteria for judging the truth of necessary and contingent propositions. Indeed, it is what we *should* expect Leibniz to say, given the practical impossibility, for humans, of using the predicate-in-subject criterion for judging the truth of contingent propositions.[28] Still, his claim that in making judgments about contingent matters 'we must regard the agreement of phenomena as truth' might strike some as a metaphysical claim about the nature of truth. After all, he does not say that we should take the agreement of phenomena as a reliable *guide* to the truth in matters of fact. Rather, he says that we should take the agreement of phenomena *as* the truth in matters of fact. It might, therefore, be thought that Leibniz is not treating the predicate-in-subject account of truth as universal here: perhaps he is putting forward an alternative account of the nature of contingent truths in the present text.

There are a few reasons why I think we should resist such a reading. First, Leibniz follows this claim by mentioning the importance of 'authority' and 'public testimony' to our knowledge of phenomena, both of which are typically taken as reliable, though fallible, guides to contingent truths. This suggests that the topic under discussion is not the nature of truth, but the criteria we should employ in making judgments about contingent matters. The larger context of discussion, as well, concerns, as I have argued, *criteria* of truth, and not the nature of truth—just a few lines prior, Leibniz is, as we have seen, discussing the highest 'criterion' of necessary truths. It makes sense that he would follow up that discussion by an account of the criteria of contingent truths. Lastly, the very claim that in contingent matters *we must regard* the agreement of phenomena as

27. This does not mean that the distinction between necessary and contingent truths is ultimately a 'subjective' or human-centric one for Leibniz: in his philosophical writings, he outlines a number of different ways for fleshing out the difference between necessary and contingent truths, including, as mentioned, (i) the number of steps their respective analyses require; (ii) their relation to God's will and intellect; and (iii) whether their contrary involves a contradiction. Presumably, these ways of distinguishing necessary truths from contingent ones are extensionally equivalent.

28. I am here ignoring the problem of lucky proof. For more on this problem, see Rodriguez-Pereyra (2011).

truth sounds like an epistemic directive, albeit somewhat carelessly articulated. Leibniz does not say, without any qualification, that in contingent matters the agreement of phenomena *is* the truth—only that in such matters we ought to *treat* it as the truth.[29]

As with his letter to Foucher, Leibniz's statement of the Harmony Principle in 'On Universal Synthesis and Analysis' is more plausibly read as the statement of an epistemic criterion. Moreover, and, once again, as with his letter to Foucher, skeptical worries figure closely in the context of Leibniz's statement of this principle in 'On Universal Synthesis and Analysis'. Of course, the texts so far examined date to Leibniz's early period, and the proponent of the metaphysical reading of the Harmony Principle will no doubt argue that, even if Leibniz treated the Harmony Principle as an epistemic criterion during this period, there is plenty of time left until the mature period for him to change his mind regarding the reality of bodies. Perhaps Leibniz started out thinking that the agreement of appearances is a reliable *guide* to their truth, but later came to think that there is nothing *to* the truth of appearances beyond their agreement. Let us, then, look at texts from Leibniz's middle period—that is, the 1680's and 1690's—in which the Harmony Principle makes an appearance.

IV. The Middle Period

Leibniz continues to invoke the Harmony Principle in a number of texts in the middle period. In *Critical Thoughts on the General Part of The Principles of Descartes* (1692) he observes,

> About sensible things we can know nothing more, nor ought we to desire to know more, than that they are consistent with each other as well as with rational principles that cannot be doubted, and hence that future events can to some extent be foreseen from past. To seek any other truth or reality than what this contains is vain, and skeptics ought not to demand any other, nor dogmatists promise it. (L384)

Once again, Leibniz explicitly articulates the Harmony Principle with reference to what we can know about the reality of bodies, in much the same way as he did in his letter to Foucher almost 20 years prior. He moreover advocates for epistemic humility in the face of both the skeptical threat and the dogmatist temptation: we *ought* not to strive for the kind of knowledge that the skeptic

29. Compare: 'As a jury, we must regard the uncontroverted testimony of multiple eyewitnesses as true.' Thanks to Don Garrett for this example.

demands and the dogmatist promises. All we can and need to know is that the bodies we perceive are appropriately harmonious. The Harmony Principle is not exactly put forward as an epistemic *criterion* here: Leibniz is not explicitly saying that the harmony of bodies is a reliable indication of their reality. He is merely, in a fashion reminiscent of Kant, demarcating the limits of what we can hope to know. Nonetheless, what he says is compatible with reading the Harmony Principle as stating an epistemic criterion meant to guide us in forming judgments about the reality of bodies. What is certain is that in the passage quoted, the Harmony Principle is *not* put forward as a metaphysical principle regarding what the reality of bodies consists in.

In *On the Method of Distinguishing Real From Imaginary Phenomena*, an essay that Loemker dates (albeit not definitively) to the 1690's, Leibniz unambiguously characterizes harmony as an epistemic criterion for testing the truth of judgments about the reality of bodies. He begins by listing the 'criteria' by which 'we may know which phenomena are real' (L363). Among these are vividness, complexity, and internal coherence. After expanding on the notions of vividness and complexity, he goes on to characterize the coherence of a phenomenon as involving, among other things, conformity to recurrent past phenomena, and explainability in terms of immediately preceding phenomena. 'A most valid criterion' of the reality of phenomena is 'consensus with the whole sequence of life, especially if many others affirm the same thing to be coherent with their phenomena also'. Yet,

> the most powerful criterion of the reality of phenomena, sufficient even by itself, is success in predicting future phenomena from past and present ones...Indeed, even if this whole life were said to be only a dream, and the visible world only a phantasm, I should call this dream or this phantasm real enough if we were never deceived by it when we make good use of reason. But just as we know from these marks which phenomena should be seen as real, so we also conclude, on the contrary, that any phenomena which conflict with those that we judge to be real...are merely apparent. (L364)

The most powerful indication that phenomena are real, Leibniz says, is our ability to predict future phenomena from past and present phenomena. I take this 'most powerful criterion of the reality of phenomena' to ultimately amount to a species of harmony: harmony of future phenomena with past phenomena. What Leibniz says in the second sentence implies that he does not take this criterion to be infallible: even if we are able to successfully predict future phenomena, it might still turn out that our whole life has been a dream, and the visible world a 'phantasm'. Such a phantasm would, nonetheless, be 'real enough' if

the 'good use' of our reason never 'deceived' us in our dream. What does 'not being deceived' by the good use of our reason amount to in this case? As I have indicated, I think the context implies that it broadly concerns our ability to successfully predict future phenomena. More precisely, reason deceives us when it drives us to seek a reason for events in a world in which phenomena follow no laws discoverable by us. By contrast, it is *not* a deception of reason if we mistakenly take imaginary phenomena to be real: there is no rational directive to do so.

Leibniz seems to be saying, in a pragmatist vein similar to what we saw in *On Universal Synthesis* and *Critical Thoughts*, that as long as phenomena are well-ordered enough for us to be able to successfully predict the future, it does not matter whether they are real or merely 'apparent'. Phenomena that have the requisite 'marks' (foremost among which is harmony) 'should be seen as real'. Leibniz does not say that such phenomena *are* real—he leaves a logical gap between the harmony of phenomena and their reality. The reality of bodies cannot consist in their harmony, because it is possible for harmonious bodies to be imaginary—for instance, the contents of a maximally harmonious dream. Nonetheless, the harmony of bodies is a powerful *indication* of their reality, and ultimately, it does not *matter* for our purposes whether phenomena are real as long as they are sufficiently harmonious to allow us to successfully predict future phenomena.

Leibniz goes on to say that there are, indeed, *no* sufficient criteria for establishing the reality of phenomena:

> We must admit it to be true that the criteria for real phenomena thus far offered, even when taken together, are not demonstrative, even though they have the greatest probability; or to speak popularly, that they provide a moral certainty but do not establish a metaphysical certainty, so that to affirm the contrary would involve a contradiction. Thus by no argument can it be demonstrated absolutely that bodies exist, nor is there anything to prevent certain well-ordered dreams from being the objects of our mind, which we judge to be true and which, because of their accord with each other, are equivalent to truth so far as practice is concerned. (L364)

The point is put in terms of demonstration and certainty here—much the same way as it was in the 1675 letter to Foucher, where Leibniz observes that the 'assurance' we get regarding the reality of appearances from observing their 'permanent consistency' is 'only moral' (L154). For Leibniz, to demonstrate a proposition is to reduce it to an identity by an appeal to definitions and 'rules of valid substitution and inference'.[30] While all true propositions are in principle reduc-

30. McDonough & Soysal (2018: 28).

ible to identities, only necessary truths can be demonstrated in a *finite* number of steps—the demonstration of contingent propositions involves an 'infinite analysis' (L265). In saying that the existence of bodies cannot be demonstrated by any argument, Leibniz is in effect saying that the proposition that bodies exist cannot be reduced to an identity in a finite number of steps. Given that Leibniz takes all existential propositions (except for the existential proposition that God exists) to be contingent, this should not be surprising. Finite beings like humans cannot see the connection of the terms in contingent truths; accordingly, we can never demonstrate that bodies exist. Insofar as 'practice is concerned', however, 'well-ordered dreams' and other appropriately harmonious phenomena are 'equivalent to truth': judgments regarding the reality of phenomena, made on the basis of the latter's coherence, can be regarded as true for practical purposes.

Leibniz's remarks are quite unambiguous here: there is a metaphysical difference between merely having well-ordered dreams and perceiving real phenomena. The proponents of the strong phenomenalist reading, however, think that, for the mature Leibniz at least, there is no such difference: according to them, the mature Leibniz takes the reality of phenomena to *consist* in their well-orderedness. The texts examined so far span roughly two decades (from the mid-1670s to the mid-1690s) and show that Leibniz had a remarkably consistent understanding of the Harmony Principle during this time period. Is it the case that what he says in his mature period (charitably understood to begin in 1704) departs so drastically from what he says in the texts so far examined?[31] The next section will be devoted to answering this question.

V. The Aggregate Thesis and Moderate Phenomenalism

The central thesis of Leibniz's mature metaphysics is that the ultimate constituents or elements of reality are monads. This view is most prominently articulated in the *Monadology* (1714), but an oft-quoted formulation of it appears in a 1704 letter to De Volder, where Leibniz writes: 'considering the matter carefully, it may be said that there is nothing in the world except simple substances, and, in them, perceptions and appetite' (L537).[32] In itself, this metaphysical thesis says

31. I say 'charitably' because if we take the mature period to begin in 1686, as Rescher and Jolley do, then the task of showing that Leibniz was not a strong phenomenalist in his mature period may already be done: some of the texts I have so far examined postdate 1686, and, if I am right, none of them commit Leibniz to strong phenomenalism. However, Loeb, whose strong phenomenalist reading of Leibniz is one of my main targets in this paper, takes Leibniz's mature metaphysics to begin in 1704 (1986: 299).

32. Another well-known formulation is from a 1706 letter to De Volder, where Leibniz writes: 'there can be nothing real in nature but simple substances and the aggregates that result from them' (AG185).

nothing about bodies or what their reality consists in. At most, one can deduce, from the fact that bodies *are not* said to belong to the metaphysical ground-floor, that they must belong to a 'subordinate' level of reality. What Leibniz *does* say about bodies in his mature period confirms this: he unequivocally characterizes bodies as phenomena (GII, 262; AG319).[33] But the mere claim that bodies are phenomena does not amount to strong phenomenalism: it is also compatible with what I have been calling moderate phenomenalism, which is a metaphysical consequence of the Aggregate Thesis.

There are many statements of the Moderate Phenomenalist Thesis and the Aggregate Thesis in writings from the mature period: in his letters to De Volder (1703–1706), Leibniz repeatedly characterizes real bodies as 'well-founded phenomena', which he in turn characterizes as aggregates of monads (AG176–77). He moreover says of aggregates that they are not unities in themselves but are unified by the activity of perceiving substances (AG175, 182). In his letters to Des Bosses (1709–1716), as well, Leibniz repeatedly observes that (1) if there are no substantial chains, then bodies are aggregates of monads; (2) aggregates, in contrast to the hypothetical 'composite substances' made possible by substantial chains, are unified by perception; and thus (3) if there are no substantial chains, then bodies, understood as aggregates of monads, are phenomena. Since Leibniz does not mention substantial chains anywhere else in his writing, I think it is fair to assume that he takes the antecedent of the conditionals in (1) and (3) to be true.[34] If that is the case, then what Leibniz affirms in his letters to Des Bosses regarding the nature of bodies and aggregates very much lines up with what he says in this regard to De Volder ten years prior: bodies are aggregates of monads; aggregates are not true unities; and, therefore, bodies are phenomena. Leibniz goes on to affirm the same thing in a 1716 letter to Samuel Masson, where he writes: 'Matter is an aggregate, not a substance but a *substantiatum* as would be an army or a flock; and, insofar as it is considered as making up one thing, it is a phenomenon, very real, in fact, but a thing whose unity is constructed by our conception' (AG227).

It is important to note that the phenomenality of aggregates is closely related to their non-unitariness: Leibniz takes being and unity to be 'convertible' (GPII, 304). If something is not a true unity, then it is not a true being either (where to be a true being is to be a substance). Moreover, if the unity of something is

33. Cf. 'Against Barbaric Physics' (1710–1716?) 'bodies are only aggregates that constitute a unity accidentally [*per accidens*], or by extrinsic denomination and, to that extent, are well-founded phenomena.' (AG319).

34. Throughout his extensive letters to Des Bosses, Leibniz never once asserts that there are substantial bonds: he always puts his claims about the latter in terms of conditionals. This, in addition to the fact that substantial chains do not appear anywhere else in Leibniz's writing, strongly indicates that this is a notion drawn on primarily in order to appease or otherwise facilitate conversation with the Jesuit Des Bosses. For a more extensive treatment, see Look (2000).

perception-dependent, then its being is also perception-dependent: if aggregates get their unity from perception, then they get their being from perception, too.[35] This is why they are phenomena and not real substances. This might raise a question about the Aggregate Thesis, as formulated at the start of this paper:

The Aggregate Thesis	Bodies are aggregates of monads, and they borrow their reality from the monads they are aggregates of.

If bodies, understood as aggregates, have their being 'in the mind', so to speak, then what does it mean to say that they 'borrow their reality' from the monads they are aggregates of? Clearly monads do not have their being 'in the mind': as the fundamental elements of reality, they are ontologically independent and do not depend on being perceived for their existence. How can bodies have their being in the mind while borrowing their reality from mind-independent entities? This clash between the Moderate Phenomenalist Thesis and the Aggregate Thesis seems to replicate the original clash between the Strong Phenomenalist Thesis and the Aggregate Thesis that was examined at the start of this paper.

As stated in the introduction, some of the proponents of the Strong Phenomenalist Thesis overcome this problem by undermining the significance or centrality of the Aggregate Thesis to Leibniz's mature thought. I think this is a mistake. Whether or not we stick with the potentially confusing terminology of 'borrowing' (Leibniz's own words—GPII, 267), there is no doubt that he thought there is an important sense in which aggregates (and, thus, bodies) *depend* for their reality on their underlying monads. The positing of substantial forms was justified in the middle period in a similar way: in *Primary Truths* (1686) Leibniz observes, '[s]omething lacking extension is required for the substance of bodies, otherwise there would be no source [*principium*] for the reality of phenomena or for true unity' (AG34). All pluralities presuppose unities for their reality (AG86), and aggregates are no exception.

In order to overcome these interpretive difficulties, some commentators have suggested that Leibniz distinguishes between the being and reality of bodies. Puryear (2016) uses this strategy to offer a purported reconciliation of the Strong Phenomenalist Thesis and the Aggregate Thesis.[36] Lodge (2001) uses this strat-

35. Paul Lodge (2001: 481) notes that in a letter to Des Bosses Leibniz writes, 'Being and unity are convertible, and when a being is brought about through aggregation it is also one in this way, even if this being and unity is semi-mental [*semimentalis*]' (GPII, 304). As this passage makes clear, Leibniz takes 'being' and 'unity' to be not just *extensionally* equivalent but also *intensionally*. For more on the notion of aggregate in Leibniz's philosophy, see Lodge's article.

36. Puryear (2016: 119); see also Pearce (2016).

egy to render compatible the seemingly incompatible things Leibniz says about aggregates—that is, to reconcile what I have been calling the *Moderate Phenomenalist Thesis* with the Aggregate Thesis.[37] Leibniz does, at times, draw a distinction between existence (or reality) and essence (or being), assimilating the former to actuality and the latter to possibility.[38] I am doubtful, however, that the modal distinction between possibility and actuality is at work in Leibniz's talk of the being and reality of bodies: after all, it is the being and reality of *actual* bodies that is at stake in the Aggregate Thesis and the Moderate (and, indeed, Strong) Phenomenalist Thesis. Moreover, there are passages where Leibniz appears to treat something's degree of reality as the same as its degree of being. For instance, in a letter to Arnauld from 1687, he writes, 'I conceive no reality without a true unity', just a few lines after having observed that being and unity are 'convertible' (AG86). In a passage from 'Primary Truths', he characterizes substantial forms as the source 'for the reality of phenomena *or* for true unity' (AG34, emphasis added).

I think that there is a simpler way to understand the import of the Moderate Phenomenalist Thesis vis-a-vis the Aggregate Thesis. The solution lies in recognizing that moderate phenomenalism is *moderate* phenomenalism: moderate phenomenalism is not the view that bodies have their being *entirely* in the perceiving subject—*that* would be strong phenomenalism. Rather, moderate phenomenalism is the view that bodies, understood as aggregates of monads, depend on perception for their unity, and, thus, for their being. This does not have to mean that perception is the *only* thing bodies, understood as aggregates of monads, depend on for their being or reality: they also importantly depend on the monads that they are aggregates of. Though Leibniz himself does not use such terminology, we may helpfully think of bodies as depending on perception for their *formal* reality and on the monads they are aggregates of for their *material* reality.[39] There is still a meaningful distinction to be drawn between imaginary bodies, which depend entirely on perception for their being, and real bodies, which depend *partly* on perception for their being: imaginary bodies are not aggregates of monads, or, what amounts to the same thing, they are not *well-*

37. Lodge (2001: 483).

38. See, for instance, AG152; L363. See also Mates (1989: chapter 5) for a discussion of Leibniz's distinction between essential and existential uses of 'is'.

39. I see an affinity between Leibniz and Kant's accounts of bodies here: Kant thought that our cognitive faculties endow appearances with their form, but that their matter comes from 'things in themselves'. Leibniz, I am suggesting, similarly thought that phenomena depend on perception for their unity but have monads as their 'elements' (*Monadology* 3).

founded phenomena. Real bodies are: this (and not harmony) is what makes them real.[40]

Thus, the Aggregate Thesis can be reconciled with the mature Leibniz's contention that bodies are phenomena. Crucial details remain to be filled in about the Aggregate Thesis, including (1) how non-extended monads that are not located in space come to constitute an extended body that is located in space, and (2) what determines which monads constitute a specific body—that is, what determines which monads belong to a specific aggregate. These are contentious questions in Leibniz scholarship, and for considerations of space and scope, I am not able to tackle them in this paper.[41] Nonetheless, I think that, even in the limited form presented here, the Aggregate Thesis is a viable and compelling account of bodies and what their reality consists in.

VI. The Harmony Principle in the Mature Period

Statements of the Harmony Principle continue to appear in writings from the mature period. In a letter to De Volder from 1706, shortly after putting forward one of the paradigmatic formulations of the mature metaphysics, Leibniz writes, 'we don't have, nor should we hope for, any mark of reality in phenomena, but the fact that they agree with one another and with eternal truths' (AG185). In the first draft of the same letter, Leibniz includes the following remarks about phenomena:

> Arguments, in my judgment, can prove the existence of nothing but perceivers and perceptions (if you put aside their common cause), as well as the existence of those things which must be admitted in them, namely, in the perceiver, the passage from perception to perception while the same subject remains, and, in the perceptions, the harmony of the perceivers.

The first quoted passage characterizes the agreement of phenomena as the only (or perhaps highest) 'mark' of their reality. It further states, in a spirit of epis-

40. The proposed hylomorphic analysis of the reality of bodies might be thought to be in tension with Leibniz's repeated contention that the reality of aggregates derives entirely from their monadic constituents (see, for instance, his remarks in a 1704 letter to De Volder: 'anything that is aggregated from many things...has no reality except what has been borrowed from what it contains' (G2:267). I think in such passages, Leibniz is speaking of aggregates qua pluralities, not qua bodies: qua pluralities, aggregates depend entirely on their monadic parts for their reality. Qua bodies, however, they also depend on minds for their reality. Thanks to an anonymous referee for pressing me to clarify this point.

41. Adams (1999) and Loeb (1981) are examples of attempts to provide answers to these questions.

temic humility similar to the one displayed in *Critical Thoughts* (1692), that we should not 'hope' for any other (or perhaps higher) criterion of the reality of phenomena. The second quoted passage reiterates the point, by now familiar, that 'arguments' can only 'prove' the existence of perceivers and perceptions. Now, these remarks are compatible with a further metaphysical claim that there is nothing to the reality of bodies over and above their mutual harmony, but, in themselves, they do not amount to such a metaphysical claim. There is a clear epistemological flavor to the remarks: they concern marks of reality, and what can be established by arguments—not the nature of reality, and what is in fact the case.[42]

To my knowledge, there are two passages in writings from the mature period where Leibniz articulates the Harmony Principle in a way that lends itself to a metaphysical reading. The first is in a letter to De Volder from 1704. Right after putting forward another paradigmatic statement of his mature metaphysics—that 'there is nothing in things but simple substances, and in them perception and appetite'—Leibniz says, 'Moreover, matter and motion are not substances or things as much as they are the phenomena of perceivers, the reality of which is situated in the harmony of the perceivers with themselves (at different times) and with other perceivers [*quorum realitas sita est in percipientium secum ipsis (pro diversis temporibus) et cum caeteris percipientibus harmonia*]' (AG181). I admit that this passage is not easy to explain away, but I maintain that it is more reasonable to hold that Leibniz was overstating his position in this instance than that his repeated identification of bodies with aggregates of monads in his mature period should not be taken at face value.[43]

The second passage that could be read as putting forward a metaphysical version of the Harmony Principle appears in a letter to Des Bosses from 1712, where Leibniz observes that if substantial chains did not exist, then

> all bodies, together with all of their qualities, would be nothing but well-founded phenomena, like a rainbow or an image in a mirror, in a word, continual dreams perfectly in agreement with one another, and in this alone would consist the reality of those phenomena [*et in hoc uno consisteret horum phaenomenorum realitas*]. (L600)

42. I can claim that the existence of God can never be proven by arguments, but this does not amount to the claim that, as a matter of fact or necessity, God does not exist.

43. In this connection, it is worth noting that Adams (1999) distinguishes between two notions of reality at work in Leibniz's characterizations of bodies: reality 'in the fullest sense' requires being grounded in monads, but bodies are 'real enough' if they are appropriately harmonious (259–60).

As I have already indicated, there is good reason to think that Leibniz was not committed to the existence of substantial chains, and that, in his correspondence with Des Bosses, he was arguing for a conclusion that he ultimately rejected. If that is the case, then the remarks in the above passage might well depend on premises that Leibniz rejected as well. Moreover, given the rather excessive use of metaphors in this passage, it is possible that Leibniz is being hyperbolic or rhetorical when he says that if substantial chains did not exist, the reality of bodies would consist in harmony alone.

It is not just that, the above two passages aside, Leibniz consistently gave an epistemological formulation of the Harmony Principle in his early and middle periods. It is also that such a formulation continues to appear in writings from the mature period, both before and after the two problematic passages just cited were written. In a passage from a short dialogue titled "Conversation of Philarète and Ariste" (1711), for instance, the character presenting Leibniz's views (Philarète) says,

> My friend, whose opinions I have detailed to you, gives evidence enough of leaning to this view, since he reduces everything to monads or to simple substances and their modifications, along with the phenomena which result from them and whose reality is marked [*marquée*] by their relations, which distinguish [*distingue*] them from dreams. (L625, translation altered)

Phenomena are said to 'result from' monads, and their reality is 'marked' or indicated by their (presumably harmonious) relations. Notably, Loemker, who seems to have been partial to the view that Leibniz was a strong phenomenalist, translates '*marquée*' as 'established', which significantly changes the import of the passage.[44]

Still, it might be thought that the passage quoted from the dialogue is not entirely amenable to my reading of the Harmony Principle: the character relaying Leibniz's views is saying that the harmonious relations of phenomena distinguish them from dreams. I have been arguing that Leibniz thinks it is metaphysically possible for our whole life to have been a well-ordered dream. If disharmony is not essential to dreams—if appropriately harmonious dreams are

44. In his introduction and notes to *Leibniz: Philosophical Papers and Letters* (1969), Loemker repeatedly characterizes Leibniz as a phenomenalist. This is technically compatible with Loemker having taken Leibniz to have merely been a *moderate* phenomenalist. But given the prominence of the strong phenomenalist reading of Leibniz in the literature, and the fact that the only other alternative to it was seen as the Aggregate Thesis, I think it is fair to assume that by 'phenomenalism' Loemker has something similar to what I am calling 'strong phenomenalism' in mind.

metaphysically possible—then it cannot be the case that harmony is what sets real phenomena apart from dreams.

In fact, however, what Leibniz says in the dialogue need not be incompatible with the reading I have been developing. For one thing, it can be argued that in saying that harmony distinguishes real phenomena from dreams, Leibniz means something like 'harmony *helps us* distinguish real phenomena from dreams'—this is what Leibniz says in 'On Universal Synthesis and Analysis' (1679), a text already examined: 'it is only through [the] agreement [of] phenomena that we distinguish dreams from waking' (L232).

Even without recourse to the not-face-value reading proposed above, however, there is a simple way to square what Leibniz says in the dialogue with what I have been arguing: dreams are only harmonious and indistinguishable from waking experience *in skeptical scenarios*. In non-skeptical scenarios, dreams are sufficiently disharmonious to be distinguishable from waking experience. In other words, harmony *does* distinguish real phenomena from dreams in non-skeptical contexts. It is true that Leibniz holds that we cannot be metaphysically certain that we are not in a skeptical context—that is, we cannot be metaphysically certain that our whole life is not just a well-ordered dream. But assuming that we are not in a skeptical context—and, after all, we have good reasons to operate based on this assumption—harmony does set real phenomena apart from dreams. This is not to say, as the proponent of the Strong Phenomenalist Thesis would, that the reality of real phenomena *consists* in their harmony. It is only to say that *in a non-skeptical context*, the harmony of phenomena is a sufficient indication of their reality, in a way that it is not in a skeptical context.

A related objection that the proponent of the metaphysical reading of the Harmony Principle might put forward is that a maximally harmonious dream fails to meet the criterion of inter-subjective harmony that the reality of bodies requires: if I am the only one dreaming, then no matter how harmonious the contents of my dreams are, they are presumably not shared by other monads, and so cannot constitute reality. The objection aims to show that the metaphysical possibility of my whole life having been a maximally harmonious dream does not undermine the metaphysical reading of the Harmony Principle.

It is true that skeptical doubts are typically articulated as individual doubts, but I do not think this means they cannot be generalized. If an individual can be deceived about her surroundings, why cannot an entire collective? In order for the objection to have any force, the proponent of the metaphysical reading of the Harmony Principle would have to maintain that collective delusion is a metaphysical impossibility for Leibniz, which is highly unlikely. It is more plausible to think that even if all monads were simultaneously dreaming the same harmonious dream, the contents of that dream could fail to correspond to real-

ity: such monads could perceive a different world when they wake up.[45] Even if the contents of the dream happen (by chance or design) to correspond to reality, that is still different from them *constituting* reality. This is because the bodies perceived in the dream cannot literally be aggregates of monads, as real bodies are. Of course, the proponent of the metaphysical reading of the Harmony Principle could deny that real bodies are aggregates of monads, but then she would have to explain away Leibniz's repeated avowal of the Aggregate Thesis.

A potential objection to my overall approach might go as follows: while there is a lot of textual evidence that Leibniz took harmony to be a reliable criterion of the truth of our judgments about the reality of phenomena, this does not by itself refute the metaphysical reading of the Harmony Principle. Taking harmony to be a criterion of truth in a certain domain is consistent with taking it to exhaust the nature of truth in that domain. In fact, it might be thought that the two positions are quite amenable to one another. So even if I have succeeded in showing that Leibniz was committed to the former position, the objection would go, this does not amount to showing that he was *not* committed to the latter position.

I agree that the two positions need not be incompatible. Many proponents of the Strong Phenomenalist Thesis could in principle accommodate the claim that Leibniz took harmony to also be a reliable criterion of truth. In fact, I think given their views on what Leibniz took truth about phenomena to consist in, they *ought* to think that he took harmony to be a reliable criterion of truth as well. The strong phenomenalist reading of Leibniz makes him out to be something of a coherentist regarding contingent truths (where the relevant notion of coherence is harmony as defined in section 2, and what is to be cohered with is the set of all monadic perceptions). Thus, considering the distinction between (a) taking coherence to be what truth consists in and (b) taking coherence to be a reliable criterion of truth might help us get clear on the topic under discussion.[46] It is generally thought that while these two positions are distinct, it is very natural for someone committed to the former to also be committed to the latter. As Ralph Walker (1989) observes in his book on coherentism, 'it would not be particularly attractive to combine the thesis that the *nature* of truth is coherence with the thesis that the *criterion* of truth is something else' because 'a great advantage of the coherence theory [of truth] is that it offers to obliterate the potential gap between our methods of discovering reality and reality itself'.[47] Returning to Leibniz, this

45. As Furth (1967: 188) observes, it is also possible for the contents of that collectively shared, harmonious dream to *fail* to correspond to reality. Of course, Furth is ultimately in favor of a strong phenomenalist reading of Leibniz and does not put much weight on this possibility.

46. For a discussion of this distinction, see Stern (2004) and Rescher (1973: chapter 2).

47. Walker (1989: 14).

means that those who think Leibniz took harmony to exhaust the nature of truth in the phenomenal realm not only can, but probably should, agree that Leibniz took harmony to be a reliable criterion of truth.

The reverse, however, does not hold: taking harmony to be a criterion of truth does not commit one to the view that harmony is what truth consists in—at least, not if harmony is taken to be a *fallible* criterion of truth. The comparison with coherentism might be helpful again. As has been suggested by Nicholas Rescher (1973), if one takes coherence to be a 'foolproof' test for truth, that is, a '*guaranteeing* criterion' of truth, then one has to take coherence to 'represent the nature of truth' as well.[48] In other words, to take coherence to be an infallible criterion of truth amounts to committing to a coherentist theory of truth, according to which truth *consists* in coherence. Taking coherence to be a fallible test of truth, on the other hand, involves no such commitment: one might think that truth consists in correspondence to mind-independent facts, but that one way of ensuring that our beliefs correspond to facts is by ensuring that they are coherent.[49] Indeed, taking coherence to be a fallible criterion of truth arguably amounts to a *rejection* of the coherentist theory of truth: as Walker's remarks suggest, if one thinks truth consists in coherence, then one ought to think that coherence is a sufficient criterion of truth as well. Returning to Leibniz, there is a lot of textual evidence that he did not take harmony to be an infallible criterion of truth: the metaphysical possibility of a maximally harmonious collective dream is a testament to that. This means that he need not, and should not, be read as committed to the view that truth consists in harmony.

Lastly, it might be objected that it is the intersubjective harmony of the primarily *unconscious* perceptions of monads that the reality of bodies is supposed to consist in. According to the doctrine of pre-established harmony, each monad is harmonized not only with its own body but, through the interconnection of bodies, with all bodies in the world.[50] Thus, Leibniz writes in the *Principles of Nature and Grace* (1714) that each monad is a 'living mirror that represents the universe according to its own point of view' and 'must have its perceptions and its appetites as well ordered as is compatible with all the rest' (AG211). Indeed, such a view predates the publication of the *New System of Nature* (1695), where Leibniz first introduces the doctrine of pre-established harmony: in the *Discourse on Metaphysics* (1686), it is already observed that 'the perceptions of

48. Rescher (1973: 30).

49. In the words of Stern (2004: 303), to treat coherence as a fallible test of truth amounts to thinking that 'in order to tell whether something is the case, we can and must consider how far believing it to be the case would make our belief-system or view of the world more or less coherent'.

50. For more on the doctrine of pre-established harmony, see McDonough (2017).

all substances mutually correspond in such a way that each one, carefully following certain reasons or laws it has observed, coincides with others doing the same' (AG47).

There is no denying that Leibniz thought each monad perceives, albeit unconsciously, all that happens in the world, and thus, that the unconscious perceptions of monads are mutually harmonious and veridical. But this hardly amounts to thinking that the reality of bodies *consists* in the mutual harmony of the unconscious perceptions of monads. The doctrine of pre-established harmony is often explicitly presented as a solution to the problem of mind-body interaction (see, for instance, AG144, 148, 184, 197). Likewise, precursors to the doctrine are often put forward as a solution to the problem of inter-substantial interaction: in his quest to render substances maximally independent, Leibniz denied that they can act on one another directly, maintaining instead that God has brought it about that 'what happens to one [substance] corresponds with what happens to all the others' (AG46).[51] Neither of these problems—that of mind-body interaction, and that of inter-substantial interaction—are related to the question of the reality of bodies. While it may be an *implication* of Leibniz's solution to them that the unconscious perceptions of monads are mutually harmonious and veridical, such a solution in no way requires that the reality of bodies *consist* in the aforementioned harmony.

It should be noted that the intersubjective harmony of the unconscious perceptions of monads cannot be an epistemic criterion: an epistemic criterion must in principle be accessible to subjects, and there is no way to check for the harmony of one's unconscious perceptions with the unconscious perceptions of others. If it is the harmony of *unconscious* perceptions that the Strong Phenomenalist Thesis is concerned with, then the fact that the harmony of the *conscious* perceptions of monads is not an infallible criterion of truth is no longer a problem for the strong phenomenalist reader. The strong phenomenalist reader can maintain that she is committed to both a metaphysical and an epistemic version of the Harmony Principle, but that the metaphysical version concerns unconscious perceptions while the epistemic version concerns conscious perceptions. While this is a coherent view, it is still in conflict with the Aggregate Thesis as articulated above. If bodies are aggregates of monads, then their reality cannot consist in the mutual harmony of the perceptions of monads—whether these perceptions be conscious *or* unconscious.

51. In a 1686 letter to Arnauld, Leibniz writes, 'when we say that one [substance] acts upon another, we mean that the distinct expression of the one acted upon is diminished, and that of the one acting is augmented, in conformity with the series of thoughts involved in its notion" (AG76). For more on Leibniz's essentialism about substances, see Cover & Hawthorne (1999: chapter 3).

5.0 Conclusion

In this paper, I have argued that Leibniz ought not to be read as a strong phenomenalist: the text does not force such a reading upon us, and, moreover, there are important systematic reasons to avoid such a reading. Since the difficulties of reconciling the Strong Phenomenalist Thesis with the Aggregate Thesis are well-documented in the secondary literature on Leibniz, I have focused on the task of showing that the textual evidence for the strong phenomenalist reading is sparse. I have worked toward this task in two ways. First, I have argued that the Harmony Principle, which is traditionally taken as evidence for Leibniz's commitment to strong phenomenalism, is more naturally read as an epistemic principle. Second, I have argued that Leibniz's repeated characterization of bodies as phenomena is equally amenable to a weaker reading of him as a *moderate* phenomenalist. The failure to distinguish between moderate and strong phenomenalism in the secondary literature has led proponents of the strong phenomenalist reading to take any passages where such characterizations occur as evidence for their reading. But such characterizations, unlike the Strong Phenomenalist Thesis, are reconcilable with the Aggregate Thesis.

In the process of arguing for an epistemological reading of the Harmony Principle, I have drawn attention to the centrality of skeptical concerns to the contexts in which this principle is stated. In such contexts, Leibniz typically observes that we can never be metaphysically certain that the bodies we perceive are real (where for a body to be real is, in the context ofthe mature metaphysics, for it to be an aggregate of monads). He further allows that it is metaphysically possible for our whole life to have been a maximally harmonious dream. This means that the reality of bodies does not consist in their harmony (for, if it did, a maximally harmonious dream would be a contradiction in terms). Nonetheless, Leibniz thinks that the harmony of bodies is a reliable indication of their reality: it does not *entail* their reality, but it gives us moral assurance that they are real—and moral assurance is all we need for practical purposes. To ask for any other kind of assurance would be a mistake.[52]

Competing Interests

The author has no competing interests to declare.

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