

Leibnizian Consciousness Reconsidered*

By

ALISON SIMMONS (CAMBRIDGE, USA)

I. Introduction

Some features of Leibniz's philosophy of mind are unique: immaterial substances, or monads, existing throughout nature, each representing the whole cosmos from a unique point of view; pre-established harmony between mind and body, and between one monad and another. Other features, while unusual in Leibniz's own day, are common in today's philosophy of mind: unconscious perceptions, processes, and motivations; the centrality of representation. Among the more modern-day sounding features of Leibniz's philosophy of mind is his theory of consciousness, for he is said to have advanced a higher-order theory of consciousness¹. In a pair of recent papers, Larry Jorgensen has pushed back against the higher-order reading of Leibnizian consciousness². His extensive and insightful criticisms invite us to re-examine the texts, for while a number of Leibniz's commentators have tackled the topic of consciousness³, there has

* Many thanks are due to the organizers and participants of the "Early Modern Conceptions of Consciousness" workshop at the *Humboldt-Universität zu Berlin* in May of 2011. The discussion there was critical to the reworking of this paper. I am grateful to an anonymous reader for *Studia Leibnitiana* who pressed me to clarify a number of points and re-think some translations. My colleague, Jeff McDonough, was a constant source of feedback, texts, translation advice, and general optimism in the face of the Leibnizian labyrinth. My deepest gratitude, however, is to two young Leibniz scholars, Christian Barth and Larry Jorgensen, whose work I have enjoyed engaging with in this paper and whose correspondence has helped to clarify (and even change) my position.

- 1 See R. Gennaro: "Leibniz on Consciousness and Self-consciousness", in: R. Gennaro/C. Huenemann (eds.): *New Essays on the Rationalists*, New York 1999, pp. 353-372 (hereafter Gennaro); M. Kulstad: *Leibniz on Apperception, Consciousness, and Reflection*, München 1991 (hereafter Kulstad); A. Simmons: "Changing the Cartesian Mind: Leibniz on Sensation, Representation and Consciousness", in: *Philosophical Review* 101 (2001), pp. 31-75 (hereafter Simmons).
- 2 L. M. Jorgensen: "The Principle of Continuity and Leibniz's Theory of Consciousness", in: *Journal of the History of Philosophy* 47/2 (2009), pp. 223-248 (hereafter Jorgensen 2009) and L. M. Jorgensen: "Leibniz on Memory and Consciousness", in: *British Journal for the History of Philosophy* 19/5 (2011), pp. 887-916 (hereafter Jorgensen 2011).
- 3 In addition to the authors listed above, see R. F. McRae: *Leibniz: Perception, Apperception, and Thought*, Toronto 1976 (hereafter McRae); G. H. R. Parkinson: "The 'Intellectualization

been remarkably little consensus on the details. One thing, however, is becoming clear from the work done so far: we need to distinguish two different forms of consciousness in Leibniz, which I call *external world consciousness* and *reflective self-consciousness*. Leibniz has many interesting and controversial things to say about each, but my primary concern here is the nature of external world consciousness. While I agree with Jorgensen that this form of Leibnizian consciousness is not, after all, a higher-order phenomenon, I disagree with his positive construal of it⁴. I call particular attention to the role that memory plays in this form of consciousness⁵. With memory in place, we see that external world consciousness is not an intrinsic property of any given Leibnizian perception, but a process that takes time, and a process that involves the linking together of perceptions. What is more, we see that memory and consciousness are important to understanding the unity that Leibniz insists is unique to immaterial substances.

I begin with a review of the different sorts of immaterial substance at play in Leibniz's mature ontology, which will help us to draw the important distinction between external world consciousness and reflective self-consciousness. I then look at the recent debate over whether Leibnizian consciousness is a higher-order phenomenon in the light of this distinction. The remainder of the paper is devoted to examining the nature of external world consciousness in particular.

II. The Monadic Hierarchy

Simple immaterial substances, or monads, are central to Leibniz's mature ontology⁶. Their intrinsic properties include only perceptions and appetitions⁷. Perceptions are representational (or in Leibniz's terms "expressive") states; more specifically, they are representations (or expressions) of "many things in one" or of "a plurality in a unity"⁸; appetition is the active principle responsible for the monad's progressing from one perceptual state to the next⁹. From the 1680s on, Leibniz consistently distinguishes three basic sorts of monad: the simple monad,

of Appearance': Aspects of Leibniz's Theory of Sensation and Thought", in: M. Hooker (ed.): *Leibniz: Critical and Interpretive Essays*, Minneapolis 1982, pp. 3-20; C. Barth: "Another Case of Illegitimate Backward Projection: Why Leibnizian Apperception is not (Essentially) Reflection in the *New Essays*", manuscript 2010 (hereafter Barth 2010); and C. Barth: "Leibnizian *Conscientia* and its Cartesian Roots" (in this volume, hereafter Barth 2013).

4 I therefore am modifying the view I defended in Simmons.

5 Others have attended to the role of memory in consciousness, but, as I argue below, their arguments pertain more directly to what I am calling "reflective self-consciousness".

6 Because most of the texts I draw on are from Leibniz's later works (from the 1680's on), I use "monad" as a generic term to refer to what Leibniz also refers to with the terms like "mind," "soul," "entelechy," and "form." I put aside the much-debated question whether these things should be thought of as the substantial forms of corporeal substances or as immaterial substances in their own right.

7 See GP VI, 506, 598, 608-609.

8 See A VI, 4, 1625; GP VI, 599, 608; and GP VII, 329-330.

9 See GP VI, 598, 609.

the animal soul, and the human mind¹⁰. Each comes equipped with perceptions and appetitions, but there are important differences among them that are worth reviewing.

II.1. Simple monads

Simple monads are the lowest form of monad¹¹. These are the monads of simple living things, among which Leibniz includes not only plants but also “other sorts of living thing that are entirely unknown to us”¹². Leibniz sometimes calls the simple monad’s perceptions “simple perceptions” (*simple perception*)¹³ or “bare perceptions” (*perception nue*)¹⁴, but they are better known in the literature as “*petites perceptions*”¹⁵. *Petites perceptions* are unconscious in the sense that they do not make the monad aware of whatever it is that they represent¹⁶. Whether the simple monad is itself wholly unconscious – whether it lacks what we today call “creature consciousness” or “global consciousness” – is hard to say because Leibniz uses two very different metaphors to describe its predicament. Sometimes he compares the simple monad to a human being in a dreamless sleep, a faint, or a coma, which makes it sound like the simple monad has no creature consciousness at all¹⁷. Other times, however, Leibniz compares the simple monad to a human being in a daze¹⁸, which makes it sound like the simple monad is subject to a Jamesian blooming buzzing confusion: it has creature consciousness, but nothing in particular stands out to it amidst all the chaos¹⁹. This much we can say with confidence: simple monads have

10 See GP VI, 506, 599–600, 604, 610.

11 Leibniz also calls these monads “entelechies”, and “bare monads” (see GP VI, 600, 610–611).

12 GP VI, 539; see also A VI, 6, 139 for the extension simply to plants.

13 GP VI, 610.

14 A VI, 6, 173.

15 See A VI, 6, 54 and GP VI, 610. I will leave the expression “*petites perceptions*” untranslated since it is familiar in the literature.

16 A VI, 6, 116.

17 In *Monadology* § 20, for example, he writes: “For we experience within ourselves a state in which we remember nothing and have no distinguished perception, as when we faint or when we are overcome by a deep, dreamless sleep. In this state the soul does not differ sensibly from a simple monad, but since this state does not last, and since the soul emerges from it, [the soul] is something more” (GP VI, 610; see also GP VI, 600; A VI, 6, 113, 139).

18 In *Monadology* § 21, for example, he writes: “It does not follow that the simple substance is without any perception. This is not even possible for the aforementioned reasons; for it cannot perish, and it also cannot subsist without any affection, which is nothing other than its perception. But when there is a great multitude of *petites perceptions* in which there is nothing to distinguish them, we are dazed [étourdi], like when we spin continuously in the same direction several times, from which a dizziness arises that can make us swoon and prevents us from distinguishing anything” (GP VI, 610; see also 611).

19 Thanks to Jeff McDonough for pressing me on these two ways of conceiving the condition of bare monads.

perceptions that represent things but they are not, in virtue of those perceptions, aware of anything in particular.

II.2. Animal souls

In addition to *petites perceptions*, animal souls have sensations²⁰. Sensations are conscious perceptions. They are conscious in the sense that they make the monad aware of the external objects they represent: “I will call something a sensation [*sensation*] when one is aware of an external object [*s’apperçoit d’un objet externe*]”²¹ and “one has sensation [*sensation*] when one is aware of an external object [*s’apperçoit d’un objet externe*]; thus a wild boar is aware of [*s’apperçoit de*] a person who is screaming at it”²².

Animals, Leibniz tells us, have sensations because their bodies have organs that result in impressions, and also perceptions representing those impressions to the soul, that “stand out” and are “distinguished” (*il y a du relief et du distingué*)²³, or are “heightened” (*relevées*) or of a “stronger flavor” (*plus haut gout*) than others²⁴. He frequently describes sensations as perceptions that are more “distinct” (*plus distincte*) than others: “If perception is more distinct it makes a sensation”²⁵. The technical notion of distinctness is tricky. Leibniz clearly defines the notion as it applies to *concepts* or *ideas* in terms of definability²⁶, but scholars agree that this is not (indeed cannot be) the notion of distinctness that applies to *perceptions*²⁷. What, then, does it mean as applied to perceptions? I think we should take our interpretive lead from the affiliated terms that Leibniz uses to describe the perceptions that count as sensations: distinguished (*distinguées*), heightened (*relevées*), and standing out (*a du relief*), terms he seems to use more or less synonymously with distinctness in the perceptual context. Sensations are thus especially distinct perceptions in the sense that they stand out against or distinguish themselves from other perceptions; they are, we might say, *distinctive*. So considered, perceptual distinctness is clearly not only a matter of degree (a perception can *more or less* distinct) but also comparative

20 GP VI, 599, 610; A VI, 6, 67, 72.

21 A VI, 6, 161.

22 A VI, 6, 173.

23 See GP VI, 599, 611.

24 See GP VI, 611.

25 A VI, 4, 1625; see also GP VI, 610 and GP VII, 330.

26 See A VI, 4, 585-592 and A VI, 6, 254-256.

27 For one thing, the cognitive activities in terms of which conceptual distinctness is defined makes sense only within the life of a *mind* capable of reflection, concept formation, and reason, while perceptual distinctness is attributed to *souls* and other lower monads in the passages in question. For discussion of the difference, see R. Brandom: “Leibniz and Degrees of Perception”, in: *Journal of the History of Philosophy* 19/4 (1981), pp. 447-479; M. Wilson: “Confused vs. Distinct Perception in Leibniz: Consciousness, Representation, and God’s Mind”, in: P. Cummins/G. Zöller (eds.): *Minds, Ideas and Objects*, Atascadero 1992, pp. 135-150; and Simmons fn. 41, p. 53.

(it is more distinct *than the surrounding perceptions*). I follow the literature in referring to sensations simply as “distinct” perceptions, or sometimes “distinctive” perceptions to indicate the difference from conceptual distinctness, but it should be understood throughout that perceptual distinctness is by its nature a relative and comparative phenomenon.

Confused
perception

Although sensations are distinct in the sense of being distinctive, Leibniz also describes them as “confused” perceptions. They are confused in the sense that they are collections of many *petites perceptions* all run together²⁸. Leibniz further insists that it is “their nature to be and remain confused”²⁹ so that “to want these confused phantoms [the sensations] to remain and at the same time to unravel their ingredients by the imagination is to contradict oneself”³⁰. Sensations, then, are both distinct (in the sense of distinctive) and confused perceptions. Perplexing as that sounds in the abstract, the relationship is reasonably straightforward: a sensation achieves its distinctness (or distinctiveness) by being, constitutively, a confusion of individually indistinct (or indistinctive) perceptions³¹. To use Leibniz’s own favorite example: individual waves make no audible sound, but a collection of waves together results in our hearing the roar of the ocean. Just what the relationship is between a sensation’s distinctness and its consciousness, however, is a matter of interpretive disagreement that I turn to below.

II.3. Human minds

reflection

In addition to *petites perceptions* and sensations, the human mind has the capacity to *reflect* on its perceptions, a capacity Leibniz explicitly denies animals in many places³². Through reflection, the mind has what we might describe as *self-consciousness*; that is, it has conscious cognitive access not only to external objects, but also to itself. Leibniz writes: “[...] reflection is nothing other than attention to what is within us, and the senses do not give us what we carry within us already”³³. The human mind’s capacity for reflection has a number of important consequences. First, through reflection the mind is aware of itself as the subject of its perceptions (*le moi*) and of its changing perceptions, and so is capable of thinking “I perceive x”. Second, through reflection the mind is capable of forming intellectual ideas that are different in kind from sensations: “Intellectual ideas, which are the source of necessary truths, do not come from the senses but arise from the mind’s reflection when it turns back on itself”³⁴. These intellectual ideas include ideas of its own permanent properties, such as

28 See GP VI, 604; A VI, 6, 53-55, 120, 132, 134, 165, 195, 403.

29 A VI, 6, 403.

30 A VI, 6, 404.

31 For a fuller discussion of the relationship between a sensation’s distinctness and confusion, see Simmons, pp. 61-66.

32 See A VI, 4, 1490, 1625; A VI, 6, 51, 134, 139, 173; GP VI, 542-543, 600-601, 612.

33 A VI, 6, 51.

34 A VI, 6, 81.

“Being, Unity, Substance, Duration, Change, Action, Perception, Pleasure, and a thousand other objects of our intellectual ideas”³⁵. All this enables the human mind to rise to the level of reason, that is, of not simply knowing that something is the case but of understanding why it is the case, and of deriving necessary truths from its ideas³⁶. Finally, reflection affords the human mind a sense of self or personal identity, which in turn grants it a moral status that none of the other monads have; human minds participate not only in the kingdom of nature, but also in the kingdom of grace³⁷.

III. Re-orienting the Consciousness Debate

Where in the monadic hierarchy does consciousness fall? That’s a difficult question. Leibniz follows his Cartesian predecessors so far as words go: he tends to reserve the terms *conscience* and *conscientia* (along with his neologisms *conscienciosité* and *consciosité*) for human minds that reflect on their thoughts. These terms refer to what I have been describing so far as *self-consciousness*. Thus, for example, he writes: “those souls alone are minds in which cognition of one’s own self, i. e., *conscientia*, occurs [...] I acknowledge perception in beasts, i. e., the sensing of those things that are taking place [...] But I do not acknowledge *conscientia* in them”³⁸. Leibnizian consciousness proper, then, is not the awareness of external objects, but the awareness of one’s own mental states³⁹. Nevertheless, Leibniz quite clearly recognizes a form of consciousness in animal sensations, as I suggested above. One of his explicit points of contrast with the Cartesians is that in having sensations animals are aware of (*s’appercevoir de*) things in their external environment. This awareness is a form of consciousness as we understand it today. Animals, we might say, have a conscious mental life but they are not conscious of it⁴⁰. To avoid confusion I introduce a terminological distinction to mark these two concepts of consciousness. I will call the kind of consciousness restricted to human minds *reflective self-consciousness* to signal that it involves reflection and an apprehension of the inner. I will also occasionally use the Latin *conscientia* to refer to this form of consciousness, as Leibniz does. I will call the more primitive form of consciousness extended to animals *external world consciousness* to signal that it confers an awareness of the outer world on the monad’s mental life. Leibniz has no unique term for

Two concepts
of
consciousness

35 A VI, 6, 51; see also A VI, 6, 111; GP VI, 601, 612. For a helpful discussion of the various capacities that reflection affords the human mind see Barth 2013.

36 See GP VI, 600-601; A VI, 6, 142-143, 173.

37 See A VI, 4, 1625; GP VI, 605, 621 ff.

38 A VI, 4, 1490. This text from the 1680s is a bit earlier than most of the texts I appeal to in this paper, but what he says here is consistent with things he says later in, e. g., the *Nouveaux Essais*.

39 Christian Barth argues extensively and convincingly for limiting Leibnizian *conscientia* and *conscience* to human minds in Barth 2013.

40 I borrow this apt way of putting the difference from C. Korsgaard: *The Sources of Normativity*, New York 1996, p. 93.

this form of consciousness⁴¹. Unfortunately, this distinction between two forms of consciousness has not been very systematically observed in the literature on Leibnizian consciousness⁴².

It is worth noting that perception, external world consciousness, and reflective self-consciousness all go hand in hand for the Cartesians of the period; and they are all restricted to the human mind. You simply cannot have a perception of something, according to the Cartesians, without being aware of what you perceive, and without being reflectively conscious of yourself in the process. That is why none of these things are attributed to animals, much less to lower forms of life; all Cartesian perception is perception *for* and *to* a subject, and self-consciously so⁴³. Leibniz, by contrast, disentangles these three phenomena. A monad *might* have all three at once, as I do when I think to myself “I am fortunate to be able to smell the roses right now” while walking through the garden. But a monad might just as well have a perception without reflective self-consciousness, as when I take in the smell of the roses while walking in the garden without giving it any explicit notice or thought; this is the most a Leibnizian animal can achieve. Or, finally, a monad might have an unconscious perception, as perhaps I do of the roses when I walk through the garden deep in thought about a philosophical problem; this is the sort of *petite perception* with which all Leibnizian monads come stocked. What seems most strikingly new in all this is Leibniz’s introduction of unconscious *petites perceptions*, since they seem to usher in something hitherto unheard of. But the sensations of animals would have been just as anathema to the Cartesians for their lack of reflective self-awareness: in being aware of the roses, they would insist, one must inevitably be aware of one’s being aware. When Leibniz chides the Cartesians for missing much of what is in the mind, then, it is not just that they have missed the unconscious *petites perceptions*; they have also missed conscious sensations that lack reflective self-awareness. What is more, they have missed these phenomena both as they exist in other living things (animals and simple living things) and in the human mind itself, where all three co-exist⁴⁴.

Contrast with
Cartesianism

41 I will address the vexed matter where the term “apperception” (*l’apperception*) fits in shortly.

42 Commentators have long recognized a problem about extending consciousness to animals given Leibniz’s tendency to reserve the relevant terms for human minds (this is sometimes called “the animal problem”), but the distinction between these two forms of consciousness has not been clearly made. Jorgensen 2011, Barth 2010 and Barth 2013 are notable recent exceptions.

43 For an excellent discussion of this point, see M. Somers: “All Consciousness is Self-consciousness”, manuscript 2011.

44 Leibniz clearly recognizes that some of his readers will struggle with his expansive conception of the mental. Having just treated some of the differences between human minds and lower forms of soul or form in “A Specimen of Discoveries about Marvelous Secrets” he feels the need to justify his distinction: “In order to prevent people protesting that this notion of soul, insofar as it is distinguished from mind, is not clear enough, and that the notion of form is even less so, it must be known that these notions depend on the notion of substance explained above” (A VI, 4, 1625).

The debate whether Leibniz held a higher-order or first-order theory of consciousness is complicated by the twofold nature of consciousness, for as I mentioned above commentators have not been clear about the distinction. Some of the critical evidence for attributing a higher-order theory of consciousness to Leibniz comes from passages in which he distinguishes perception from apperception. The *locus classicus* is *Principles of Nature and Grace* § 4⁴⁵:

“Thus it is good to make a distinction between *perception*, which is the internal state of the monad representing external things, and *apperception*, which is *consciousness*, or the reflective cognition of this internal state [of the perception], something not given to all souls, nor at all times to a given soul”⁴⁶.

The distinction between perception and apperception here looks to be a distinction between a perception and a perception of a perception: apperception is the reflective cognition (*la connaissance reflexive*) of a first-order perception, and so a higher-order perception. Apperception is also explicitly identified with consciousness (*conscience*). Thus consciousness is a higher-order phenomenon. But which kind of consciousness? External-world consciousness or reflective self-consciousness?

The context of PNG § 4 suggests that apperception is at play in external-world consciousness, for Leibniz introduces the perception-apperception distinction in the process of describing the difference between the simple monad’s simple perceptions and the animal soul’s sensations:

“It is true that animals are sometimes in the condition of simple living things, and their souls in the condition of simple monads, namely when their perceptions are not sufficiently distinguished to be remembered, as happens in a deep, dreamless sleep or in a fainting spell. But perceptions which have become entirely confused must be unraveled again in animals [...] Thus it is good to make a distinction between *perception* [...] and *apperception* [...]”⁴⁷.

Leibniz goes on in this passage to compare the distinction between perception and apperception to the distinction between imperceptible and perceptible bodies, complaining that “it is because of this distinction [between perception and apperception] that the Cartesians have fallen short, taking for nothing the perceptions we are not aware of [*dont on ne s’apperçoit pas*], just as people take for nothing insensible bodies”⁴⁸. Assuming the mental equivalents of imperceptible bodies are unconscious perceptions, it is reasonable to conclude that the sort of consciousness that apperception ushers in is the external world consciousness that attends animal sensations. If that’s right, then it looks like the external world consciousness of animals is a kind of higher-order phenomenon⁴⁹.

On the other hand, the use of “reflective” in this passage sits uneasily with this reading, since, as I noted above, Leibniz typically restricts reflection to the human

45 Hereafter PNG.

46 GP VI, 600.

47 Ibid.

48 Ibid., emphasis mine.

49 This is how Kulstad reads the passage (Kulstad, ch. 1) and it is also how I read the passage in Simmons.

does
apperception
involve
reflection?

mind. If apperception involves reflection, then it would seem to be a distinctively human phenomenon, and so be a matter of reflective self-consciousness⁵⁰. And if that's right, then what Leibniz is distinguishing in *PNG* § 4 and related passages is not simple perception from sensation, but simple perception and sensation on the one hand from reflectively self-conscious perceptions on the other. On this reading *neither* simple perceptions *nor* sensations involve *either* apperception *or* consciousness. And what Leibniz charges the Cartesians with having missed by "taking for nothing perceptions we are not aware of" are *both* unconscious perceptions *and* animal sensations.

What is attractive about this second reading is that Leibniz does typically seem to reserve the terms *conscience* and *conscientia* for the human mind, as I said above, and he also seems to think the Cartesians are guilty for having missed both unconscious perceptions and animal sensations. This reading therefore seems to get the general taxonomy right. What is unattractive about this reading is that one has to explain (away) Leibniz's persistent attribution of apperception to animal souls in the *New Essays on Human Understanding*⁵¹. I am persuaded by Christian Barth's argument that Leibniz's use of the extraordinary French noun *l'apperception* in the *New Essays* is non-technical; it is a simple nominalization of the verb *s'appercevoir de* and so has only the connotation of what I'm calling external world consciousness. In the later *Principles of Nature and Grace* and *Monadology*, by contrast, the term has come into technical use, and is restricted, along with "reflection", to human minds⁵². What is important for present purposes is that if apperception is restricted to human minds, then so too is any higher-order reading of Leibnizian consciousness that is based on this passage: Leibniz may be a higher-order theorist about human reflective self-consciousness, but that does not tell us anything about external world consciousness⁵³. Since Leibniz does recognize the phenomenon of external world consciousness, we want to know what his theory of *that* is. Many of us who have been involved in the debate about the nature of Leibnizian consciousness have, implicitly or explicitly, meant to capture precisely the external world consciousness that attends sensation, and not simply the reflective self-consciousness distinctive of human beings.

50 This is how McRae reads the passage (McRae, p. 31). An alternative is to argue, as Kulstad does, that we need to distinguish a sort of "simple" reflection of which animals are capable from the "focused" reflection of which only human minds are capable, and argue that apperception requires only simple reflection, so that animals too have apperception (see Kulstad, ch. 1).

Kulstad's
alternative

51 Hereafter *New Essays*. Consider, for example: "This is why death can only be a sleep, and not even one that lasts; the perceptions only cease to be distinguished enough and are reduced to a state of confusion in the animals, which interrupts *l'apperception*, but which cannot last forever" (A VI, 6, 55; see also A VI, 6, 48, 173).

52 See Barth 2010.

53 On Kulstad's reading, by contrast, the higher-order nature of consciousness will apply to animal consciousness as well as human consciousness since apperception (with its "simple" reflection) is part and parcel of animal consciousness.

Let us put aside, then, Leibniz's technical notion of apperception. To evaluate the higher-order reading more generally we should look at passages that discuss animal sensation, since it is in sensation that we can be sure a monad has external world consciousness, and since sensation clearly extends even to animal souls who lack reflective self-consciousness⁵⁴. What we want to know is: **in virtue of what is a sensation a conscious perception of something in the world?** As I mentioned above, one feature that Leibniz appeals to again and again when distinguishing sensations from simple perceptions is perceptual distinctness. Distinctness, then, must have something to do with external world consciousness. But precisely what is the connection? Arguing in favor of a same-order theory of consciousness, Jorgensen suggests that the relationship is quite simple: **perceptual distinctness constitutes external world consciousness; or rather, since even bare monads have perceptions of various degrees of distinctness, sufficient perceptual distinctness constitutes external world consciousness.** Once some bar of distinctness is reached, a perception becomes, just in virtue of that level of distinctness, a conscious perception (or awareness) of an external object⁵⁵. **I have argued, by contrast, that perceptual distinctness grounds external world consciousness, and so helps to explain why some perceptions are conscious while other are not, but that it does not constitute consciousness.** Consciousness, I argued, requires the presence of a higher-order perception that takes the sufficiently distinct perception as its object, or notices it. **Distinct perceptions call attention to themselves, but it is the successful attraction of a higher-order perception that renders the first-order perception conscious**⁵⁶.

One advantage of Jorgensen's reading is that it adheres to Leibniz's principle of continuity, viz., the principle that nature makes no leaps and that all change, including the change from unconscious perception to conscious perception, is continuous. Perceptual distinctness comes in degrees, and so the line between an unconscious simple perception and a conscious sensation is a matter of degree not kind on Jorgensen's reading. **By contrast, the higher-order theory seems to violate the principle of continuity:** the presence of a higher-order perception looks like a difference in kind not merely degree between the unconscious and conscious perception. I am not convinced that Leibniz can avoid violating the principle of continuity, for I still think he endorses a higher-order theory of consciousness, but I now think he endorses it only at the level of the human mind that is capable of reflection (and so of reflective self-consciousness or *consci-*

54 Unfortunately, even this is not an entirely straightforward matter. Leibniz tends to focus on the case of the human mind, and in the human mind sensations are often accompanied by reflective self-consciousness. Leibniz clearly thinks that the human mind *has* sensations that are unaccompanied by reflection (and so unaccompanied by *conscientia*) just as the animals do (see GP VI, 543), but we often have sensations accompanied by reflection (and so *conscientia*). Consequently, unless he specifically restricts himself to the sensations of animals, it is difficult to know whether what he says about sensations is meant to pertain to external world consciousness on its own or accompanied by reflective self-consciousness.

55 Jorgensen 2009, pp. 241-245.

56 See Simmons, pp. 52-61.

Distinctness &
external world
consciousness

Does
distinctness
constitute
external-world
consciousness
or simply
ground it?

entia). I no longer think the external world consciousness of sensation involves higher-order perception. Nor, however, do not think it reduces to perceptual distinctness. I will continue to argue that (a sufficient amount of) perceptual distinctness grounds a sensation's consciousness, and that something more is needed to elevate a perception from unconscious to conscious perception. That something more is memory.

IV. Memory and External World Consciousness

IV.1. A myriad of memories

The idea that memory plays an important role in Leibnizian consciousness is not itself new. In fact, it is one of the things adduced as evidence that Leibniz holds a higher-order theory of consciousness. The argument runs as follows: Leibniz claims that memory (of the right sort) makes a perception conscious; memory entails a higher-order perception directed at a first-order perception that it renders conscious; hence Leibniz had a higher-order theory of consciousness⁵⁷. As in the case of apperception-based arguments for the higher-order reading, however, many of the passages that the memory-based argument relies on concern only the higher form of self-reflective consciousness found in humans, viz., *conscientia* proper⁵⁸. Typically they occur in Leibniz's discussion of personal identity, where consciousness (*conscience* or *conscienciosité*) is identified as a form of "present or immediate memory"⁵⁹ and even as a form of reflection that allows for the moral responsibility distinctive of human minds. In some passages he explicitly denies this form of memory to animals:

Memory and
HOT
interpretations

"I do not acknowledge *conscientia* in [beasts], as would certainly be the case if they, having been presented with a certain thought, were to perceive that it or something similar had already been present to them. And so reflection or memory or consciousness is proper to mind. Properly speaking, reflection is memory of a proximately preceding cognition"⁶⁰.

57 See Gennaro, pp. 356-357.

58 Jorgensen makes this point against Gennaro at Jorgensen 2011, pp. 902-904 and 908.

59 A VI, 6, 238.

60 A VI, 4, 1490. Consider also: "memory is given only to those [souls] in which there is *conscientia* and the understanding of rewards and punishments" (A VI, 4, 1624; and see also A VI, 4, 1583). These texts are from a period slightly earlier than most of the text I draw on, so one might argue that Leibniz simply changed his mind: perhaps in this period he denied memory (and so a higher-order memory-involving consciousness) to animals, but later he allows that all souls have both memory and a higher-order form of consciousness as well. The problem with this line of objection is that the form of memory he attributes to animals later is *not* one that he is talking about in these passages, which he calls *souvenir* in the *New Essays* (A VI, 6, 161), and which is form of self-conscious remembering that is critical to moral identity in particular and is consistently attributed only to minds. I argue below that the form of memory he does attribute to animals is *not* a higher-order phenomenon. For a good discussion of Leibniz's rather complicated views about memory, along with an argument that it does *not* change over time but rather involves at least three different kinds of memory which appear throughout his career, see Jorgensen 2011.

Thus even if we can establish that (a) memory is critical to *conscientia* and that (b) it is a higher-order phenomenon, so that (c) *conscientia* is a higher-order phenomenon, this will not help us to account for the external world consciousness had by non-human animals any more than the apperception-based argument will⁶¹.

What we need is the suggestion that memory plays a role in external world consciousness, and the place to look for that is in his treatment of sensation. Leibniz does indeed link sensation with memory in a host of passages. When he distinguishes the simple monad from the animal soul in *PNG* § 4, for instance, he writes:

“But when the monad has organs so adjusted that, by their means, there is something standing out and distinguished in the impressions they receive, and consequently the perceptions that represent them, [...] then this may approach sensation, *that is a perception accompanied by memory*, i. e., a perception of which a certain echo remains long enough to make itself heard on the occasion. Such a living thing is called an animal, as its monad is called a *soul*”⁶².

What, then, is this memory that plays a(n apparently a constitutive) role in sensation and what is its connection to a sensation’s relative perceptual distinctness and to its external world consciousness?

As Jorgensen notes, Leibniz’s definitions of memory are “all over the map”⁶³. In one sense, every perception of every monad involves memory. A monad’s perceptions are interconnected in such a way that at any given perceptual moment the monad “retains impressions of everything that ever happened to it and it even has presentiments of everything that will happen to it”⁶⁴. What Leibniz has in mind here is that every perception representationally encodes (or “expresses”) the content of every past and future perception. Every perception of every monad thus has what we might call “implicit memory” and also “implicit precognition” that connects it with the past and the future. All of this is entirely unconscious. In another sense, memory involves the conscious recurrence or resurrection of a past perception, which belongs only to animals and higher monads⁶⁵. Leibniz calls this form of memory “reminiscence” in the *New Essays*, and, following Jorgensen, I will use this term to refer to the conscious recurrence of a past

61 See Barth 2013 and Jorgensen 2011 for two attempts to sort out the relationship between memory and *conscientia*. Barth defends a higher-order reading; Jorgensen argues against it.

62 GP VI, 599, first emphasis mine. In *Monadology* § 19, Leibniz similarly associates sensation with memory (GP VI, 610). In the *New Essays*, he associates sensation with both memory and attention (A VI, 6, 54, 115); sensations, he explains here, are perceptions that attract our attention; but attention requires memory; and so here too it looks like memory is a necessary condition on a perception being a sensation.

63 Jorgensen 2011, p. 890.

64 A VI, 6, 239; see also A VI, 6, 55, 113–114, 239; GP VI, 604, 610.

65 See A VI, 4, 1490; A VI, 6, 51, 161. Note that this form of memory, and its attribution to animals, occurs already in a text from the 1680s (A VI, 4, 1490) though not under the label “memory” (he describes it as *recursum priorum imaginum*). The same phenomenon is identified as a form of memory in the later texts.

implicit
memory
(virtual
memory?)

reminiscence

perception, though it should be said that Leibniz himself does not consistently use the term in this way⁶⁶. Reminiscence relies on a set of associations among select perceptions that goes beyond the merely representational connection that links all perceptions; the associations here are only among perceptions that have been linked together in conscious sensory experience⁶⁷. It is this sort of memory that seems to be at work in “empiric” or associative reasoning:

“[...] when animals have the perception of something that strikes them, and a perception of which they have had a similar perception before, then, through a representation in their memory, they expect what was joined to the thing in this preceding perception, and are carried to sensations similar to those they had before”⁶⁸.

recognition
memory

When a dog sees a rolled up newspaper in its master’s hand, the past association of a newspaper with a painful swat on the nose triggers a conscious recurrence, a conscious image, of the painful swat that the dog now expects. Or, to use another Leibnizian example, hearing the first few words of a song triggers the conscious recurrence of the rest of the song in one’s head⁶⁹. The capacity to reflect gives the human mind a further form of memory: the capacity to recognize a resurrected perception as a perception it has had before⁷⁰. This capacity in turn establishes connections among an even more limited set of perceptions than reminiscence, for it joins not all those perceptions that happen to be associated and that might trigger expectations in the future, but only those one explicitly remembers having had before. This explicit memory is what accounts for the human mind’s having a moral identity and moral responsibility: for Leibniz, as for Locke, moral identity and moral responsibility turn on our ability to take conscious ownership of our past thoughts and actions by remembering them as our own⁷¹. These three forms of memory have two things in common: they all facilitate the repetition (in some form) of past perceptual contents in the present and they all involve a network of interconnected perceptions.

Unfortunately, none of these forms of memory seems equipped to capture the sense in which *sensation* involves memory, for they all concern the repetition of the content of a *past* perception, sometimes a *long* past perception, and the connection of perceptions across long patches of time and over considerable gaps. The memory involved in sensation, by contrast, concerns only a *present* perception; it helps to turn a present perception into a sensation somehow. We will have to take our cues from the passages themselves.

In our PNG § 4 passage, the memory involved in sensation seems to amount to a prolongation of a perception in time: a sensation is a perception of which there

66 See A VI, 6, 161, but cf. a somewhat earlier text from around 1688, A VI, 4, 1624, where he uses *reminiscentia* to refer to a form of memory had only by human minds capable of understanding rewards and punishments.

67 See A VI, 6, 143.

68 GP VI, 611; see also GP VI, 600; A VI, 4, 1490; A VI, 6, 51, 143, 271.

69 See A VI, 6, 52.

70 See A VI, 6, 161.

71 See A VI, 6, 239.

remains an echo. It is like other forms of memory in that it involves a kind of repetition of the content of a perception, but in this case there is no gap between the original perception and the repetition; the perception is simply sustained in time. I will risk anachronism here and call this peculiar form of memory “working memory”. Of course, in some sense it is true of every perception that there remains an echo of it in all the subsequent states of the monad. In the case of this working memory, however, the “echo” seems to be doing something to the perception itself: it helps to account for the fact that the perception in question is not simply a representation of an external object, but an awareness of an external object – a representation of which there remains an echo long enough to make itself heard. And so the addition of this echo to the perception, or at least a sufficient length of it, is helping to account for the perception being a conscious perception.

I want to acknowledge straight away that this form of working memory need not be, and in fact seems not to be, a higher-order phenomenon – a perception after the fact of a previous perception. It amounts simply to a prolongation of the perception itself: the perception remains active over time. Working memory here is a trans-temporal phenomenon not a higher-order phenomenon. To the extent that this sort of memory takes time, and to the extent that it is responsible for the perception being an awareness of an external object, then so too external world consciousness takes time. The perception has to last long enough to be heard.

IV.2. Memory, distinctness, and external world consciousness

It is a bit unusual for Leibniz to cast sensation as perception accompanied by memory in the way that he does in our PNG § 4 passage. But that’s not all he says in this passage. He says, more familiarly, that sensation is an especially distinct perception: when the perception is such that “there is some standing out and distinguished (*distingué*) [...] it approaches sensation, that is perception accompanied by memory”⁷². Perceptual distinctness (or distinctiveness) and memory, then, are both important ingredients in the making of a sensation. In the corresponding passage of the *Monadology* (§ 19) Leibniz again cites both memory and distinctness as essential ingredients of a sensation:

“since sensation [*sentiment*] is something more than a simple perception, I think that the general name of monad and entelechy is sufficient for simple substances that only have [simple perception], and that we should call *souls* only those substances in which perception is more distinct and accompanied by memory (*plus distincte et accompagnée de mémoire*)”⁷³.

What, then, is the relationship between perceptual distinctness and memory? More specifically, is one rather than the other more explanatorily responsible for making a perception an awareness of an external object, and so for explaining external world consciousness? There are three interpretive options available to

⁷² GP VI, 599.

⁷³ GP VI, 610; he also cites them both when describing sensation at GP VII, 330.

us. Option A: a sufficient echo of the perception in working memory *renders the perception more distinct*, and a sufficient amount of distinctness constitutes its being conscious. Option A is a twist on Jorgensen's reading of Leibnizian consciousness insofar as it claims that a sufficient amount of distinctness constitutes consciousness. Option B flips the explanatory priority: only sufficiently distinct perceptions create an echo in memory long enough to be heard, and that echo in memory constitutes consciousness. Option C reduces memory to a mere after-effect of an already conscious sensation: a perception's being sufficiently distinct constitutes its being conscious *and that makes it likely to be remembered* in a quite ordinary sense of the term, viz., it is more likely to be consciously recalled later on. Like Option A, Option C takes sufficient perceptual distinctness to constitute external world consciousness, and so is compatible with Jorgensen's view. In what follows I argue for Option B and against Options A and C: sufficient perceptual distinctness does not constitute external world consciousness for Leibniz. It is being sustained long enough in working memory that constitutes consciousness.

Let me first make the case in favor of Option B: a perception's being sufficiently distinct explains why it lingers in memory, but it is the lingering sufficiently in memory that constitutes its external world consciousness. First, the passage I have been considering from *PNG* §4 suggests that it is the echo or persistence of the perception in memory that makes it a conscious perception: "a perception of which there remains an echo *long enough to make itself heard* on the occasion"⁷⁴. This part of the passage is hard to reconcile with Option C, since the echo is clearly playing a role in rendering the perception conscious; it does not seem to be an after effect. The defender of Option A, by contrast, can handle this passage by arguing that the echo of the perception in memory increases its perceptual distinctness, and that that's what makes it be heard. Whether increased distinctness leads to memory (and so consciousness) or memory to increased distinctness (and so consciousness) is underdetermined by this part of the passage. The way the passage continues, however, favors Option B:

"It is true that animals are sometimes in the condition of simple living things, and their souls in the condition of simple monads, namely when their perceptions are *not sufficiently distinguished to be remembered*, as happens in a deep, dreamless sleep or in a fainting spell"⁷⁵.

That a perception has to be "sufficiently distinct to be remembered" suggests that the level of distinctness determines whether the perception is held in memory and not *vice versa*. This part of the passage is compatible with Option C if one takes memory here to be an after effect: distinctness renders the perception conscious and that explains why we can *later* be apt to remember it. But, as I said, Option C has difficulty with the earlier part of the passage, which clearly treats memory as playing a role in the perception being conscious in the first place. Option B, then, does the best job of making sense of the whole passage.

74 GP VI, 599, emphasis mine.

75 GP VI, 600, emphasis mine.

Against option

Against option A

3 options for explaining the memory-distinctness connection in sensation

Other texts support Option B as well. Consider this familiar passage from the Preface to the *New Essays* in which Leibniz explains how we habituate to the noises around us so that they fade from external world consciousness:

“This is how custom makes us fail to notice the motion of a mill or a waterfall, when we have lived beside it for some time. It is not that the motion no longer strikes our sense-organs, or that something corresponding to it no longer occurs in the soul because of the harmony between the soul and the body; but the impressions that are in the soul and in the body, lacking the appeal of novelty, are not strong enough to attract our attention and our memory, which are applied to more compelling objects. All attention requires memory, and when we are not directed, so to speak, to take note of some of our own present perceptions, we let them pass without reflection, and even without noticing them”⁷⁶.

First, it is clear that Leibniz is primarily talking here about external world consciousness: the issue is our noticing the sound of the mill or waterfall⁷⁷. Second, the monotony or unvaryingness of the mill or waterfall accounts for its no longer having the force to stand out among other perceptions (i.e. accounts for its relative *indistinctness*), which in turn explains why *it fails to attract our attention and our memory* after awhile. And *that* is what makes the perception fall from a conscious sensation to an unconscious simple perception⁷⁸. It doesn't sound, as Option A would have it, as though the failure to attract attention and memory is rendering the perception indistinct and so unconscious. Rather the lack of distinctness is explaining the failure to attract attention and memory. Nor does it sound, as Option C would have it, like the lack of consciousness is explaining the failure to attract attention and memory. Rather the failure to attract attention and memory is explaining the lack of consciousness. Option B is the one reading that gets the relations among distinctness, memory and consciousness just right here⁷⁹.

There are good independent reasons to reject Option A. On this view, recall, a perception's being prolonged in memory *is what makes it more distinct*, and in virtue of being sufficiently distinct it is conscious. There is nothing *prima facie* implausible about thinking that prolongation in memory is one way among the many to increase a perception's level of distinctness. Perceptual distinctness, after all, is not an explanatorily ground-level property. Leibniz routinely explains it in terms of other perceptual properties. Here's a classic passage:

76 A VI, 6, 53-54.

77 He does mention reflection toward the end of the passage, but the idea seems to be that *not only* are we not reflectively self-conscious of the sound of the mill or waterfall (for lack of reflection), *but moreover* we don't even hear the thing, i.e., we don't even have external world consciousness of it.

78 I am setting aside the question what role attention is playing, and in particular whether it is something above and beyond memory that needs to be accommodated in a full account of external world consciousness (or whether it is just another way of referring to external world consciousness). For a discussion of attention and external world consciousness see Barth 2010. What is important for now is the relationship between perceptual distinctness and memory.

79 For related passages, see A VI, 6, 112, 115.

“[There] is at every moment [...] an infinity of changes in the soul itself of which we are not aware because these impressions are too small and numerous or too unvarying, *so that* there isn’t enough to distinguish them from each other”⁸⁰.

Size, number, and novelty are all invoked here as properties that render a perception more distinct or indistinct. Prolongation in memory might simply be added the list of properties that render a perception distinct. The problem with this view is that in the *PNG* § 4 passage, prolongation in memory is not presented as one thing among many that a perception might have to secure its status as a sensation (and so awareness of an object), but as *the* thing it *has* to have. Prolongation in memory looks like a necessary, not merely a sufficient, condition on a perception’s being a sensation. If sufficient distinctness is what makes for a sensation’s external world consciousness, then the defender of Option A will have to argue that memory is *always* playing a role in perceptual distinctness. But that is hard to fit with the texts.

Structurally, the Option B reading is quite similar to the higher-order reading of consciousness I have defended in the past, with working memory substituting for higher-order perception, and trans-temporality substituting for the higher-order structure. A sufficient amount of perceptual distinctness *grounds* and so *explains why* brute consciousness turns up where it does, but it doesn’t *constitute* brute consciousness. *Working memory*, in the form of the sufficient trans-temporal extension of the perception, constitutes brute consciousness. A perception’s being sufficiently distinct explains why it is held in memory; and its being held in memory renders it conscious. Moreover, this newer reading has the advantage of not violating the principle of continuity, for trans-temporal memory (which amounts simply holding the perception in time) is continuous. External world consciousness thus requires more than perceptual distinctness, but it doesn’t require anything that would violate the principle of continuity.

IV.3. Consciousness as a unifying process

I have argued that being held in working memory is what renders the perception conscious, but I haven’t said why Leibniz (or anyone else) might think that. And I haven’t said how it is supposed to work. My suggestions here are necessarily speculative, as Leibniz himself says precious little, but I think they are not only consistent with Leibniz’s philosophical commitments, but also stand a chance of being true. The fundamental idea behind the claim that prolongation in memory is essential to consciousness is that consciousness takes time. External world consciousness is not a static property of a perception, but a process; it is a process through which an animal (or human being) becomes aware of something that is (already) represented to it. All sorts of things are represented to monads (indeed an *infinite* number of things), but animal souls and human minds that have a limited capacity for attention can only handle some of those

Consciousness
is essentially
temporally
extended

80 A VI, 6, 53, emphasis mine.

representations rising to consciousness on pain of being overwhelmed⁸¹; the majority remain hidden from view, guiding action by sheer instinct⁸². Distinct perceptions rise up as candidates for consciousness; interestingly, Leibniz tends to describe them as *noticeable* perceptions, but not *noticed* perceptions⁸³. They need to remain active long enough to be drawn into the creature's conscious experience of the world.

There is more to say, however, about how this might work. I noted above that the various forms of memory that Leibniz discusses involve not only the repetition of the contents of past perceptions but also the interconnection among past and present perceptions: representational connection in the case of the implicit memory that extends even to simple monads; associative connection in the case of the reminiscence that extends to animal souls; and self-conscious connection in the case of the memory that is restricted to human minds who recognize some of their perceptions as *memories* and who use those memories to construct a sense of self that is responsible for its actions. I suggest that working memory involves the drawing of perceptual connections as well. In particular, it forges connections among the most distinct of our present perceptions, stitching them together into a unified conscious experience of the world. Distinctness makes some of our perceptions stand out, and so apt to be drawn into our conscious experience, but we do not have a unified conscious experience of an external world until they are stitched together. And this is a process that takes time. Working memory, if this is right, is not simply a matter of holding an especially distinct perception in place; it also involves linking that perception with other co-present perceptions to constitute a single experience of the world⁸⁴. If prolongation in time were all there were to working memory, then external world consciousness would amount to a select group of especially distinct perceptions holding forth in the mind, each calling attention to itself. We would have conscious experiences, but not a single unified conscious experience. But that cannot be Leibniz's idea, for the whole point of grounding metaphysics in mind-like substances in the first place was to account for the true unity distinctive of substance that cannot be found in Cartesian matter, but which Leibniz insists again and again is to be found in a perceptual life.

81 See A VI, 6, 113, 134, 139, 165.

82 See A VI, 6, 165.

83 He describes them as *notable* (A VI, 6, 116, 118, 164), *remarquable* (A VI, 6, 117), and even *apperceptible* (A VI, 6, 134).

84 I assume that working memory also links especially distinct perceptions that are adjacent to each other in time, yielding a unified experience not simply at a moment but across time. – This interconnection of perceptions in a single conscious experience also provides the ground for reminiscence and the associational reasoning that enables the animal (and the human being “in three-quarters of their actions” (see A VI, 6, 271; GP VI, 600, 611)) to negotiate the world. Barth 2010 makes a good deal of this associationistic psychology in his own treatment of what I'm calling external world consciousness.

V. Conclusion

Leibnizian monads are, above all, unities. While they are persistently cast as substances with perceptions and appetitions (or, more simply, perceptions and their changes), I have suggested that memory is important to the unity of the Leibnizian monad. In its various forms, memory brings perceptions into the varied and yet singular experiences that are distinctive of the monad: an unconscious “experience” in the case of the simple monad whose perceptions are representationally interconnected by implicit memory; a conscious experience of the world in the case of the animal soul whose perceptions are further connected by working memory in the present (and the immediately adjacent past), and also by the reminiscences that plunge the animal soul deeper into the past and drive its empirical “reasoning”; and finally (though I have not explored it in any detail here) a self-conscious experience of oneself, both in the moment and across gaps, that human minds capable of reflection achieve and that grounds their moral identity⁸⁵.

Leibniz’s treatment of consciousness, then, is part of his effort to account for the special unity to be found in all and only his mental substances. Leibniz has no single theory of consciousness. He has a theory (or at least a set of ideas) concerning the external world consciousness found in both animal souls and human minds; and one concerning the reflective self-consciousness found only in the human mind. Both appeal to the graded distinctness of perceptions and to some form of memory. In the case of external world consciousness, distinctness makes a perception a candidate for inclusion in the creature’s awareness of the world, while memory keeps the perception active long enough to be joined with other co-present (and immediately past) perceptions. The result is a single experience of an integrated and manageable world. If my reading of external world consciousness is correct, then, at least in this species of consciousness, Leibniz is at once more original and more prescient than we have previously thought. He may not have been a higher-order theorist about external world consciousness, but the idea that external world consciousness requires especially distinct perceptions that remain active in working memory and that are interconnected with other representations is very much alive today. Consider, for example, a recent proposal for distinguishing conscious from unconscious representations: “Availability to consciousness depends on quality of representation, where quality of representation is a graded dimension defined over stability in time, strength, and distinctiveness”⁸⁶ that “make it possible for the brain to integrate current input, prior knowledge and expectations about future states into a unified,

85 See A VI, 6, 236 ff. for relevant texts. Jorgensen 2011 and Barth 2013 offer good starts on the topic.

86 A. Cleeremans/J.-C. Sarrazin: “Time, Action, and Consciousness”, in: *Human Movement Science* 26 (2007), p. 183.

rich representations”⁸⁷. These lines could almost have been written by Leibniz himself.

Leibniz’s now much discussed insistence that psychology (or “pneumatology”⁸⁸) cannot succeed without appealing to unconscious mental perceptions, processes and motivations took some 150 years to find its way into mainstream theorizing about the mind. The Leibnizian idea explored here, that the external world consciousness that emerges in animal and human psychology is a process that takes time – time for our most distinct perceptions to remain active, to be integrated with other distinct perceptions, and even to draw on past associations, yielding an awareness of the world that can productively guide action – seems to be an idea whose time may have finally returned.

Prof. Dr. Alison Simmons, Department of Philosophy, Harvard University, 315 Emerson Hall, Cambridge, MA 02138, USA, asimmons@fas.harvard.edu

87 Cleeremans/Sarrazin (see note 86), p. 197.

88 See A VI, 6, 57.