

Anand Vaidya and  
Purushottama Bilimoria

# *Advaita Vedānta and the Mind Extension Hypothesis*

## *Panpsychism and Perception*

**Abstract:** *The extended mind hypothesis for the case of belief, defended by Clark and Chalmers (1998), is an intriguing hypothesis about the nature of human minds that rests on functionalism about various components of mindedness. In this paper we present the Advaita Vedānta account of perception as continuous-part extension against the backdrop of panpsychism. We argue that this view is interesting because it allows us to see how an extended mind style hypothesis can be argued for against the backdrop of panpsychism, as opposed to functionalism.*

### **1. Introduction**

In the prevailing scientific era many of us are attracted to promissory note physicalism, PNP, as an overarching view about the place of mind in nature. On the one hand, PNP grants that our current understanding of consciousness and cognition is incomplete. On the other hand, it holds that a complete account, which is consistent with the current trajectory of research in physics, chemistry, and biology, will eventually come about. There are two important challenges to PNP.

One challenge concerns the nature of *consciousness*. Some, such as Galen Strawson, have argued for *panpsychism* in opposition to physicalism. The broad understanding of panpsychism is that either

Correspondence:

Anand Vaidya, Department of Philosophy, San Jose State University, 1  
Washington Square, San Jose, California, USA.  
Email: [anand.vaidya@sjsu.edu](mailto:anand.vaidya@sjsu.edu)

everything is conscious or that the ingredients of consciousness are to be found at the fundamental level of explanation.<sup>1</sup> On the other hand, concerning *cognition*, some, such as Andy Clark and David Chalmers, have argued for the *extended mind hypothesis*. The broad understanding of the extended mind hypothesis is that the mind need not be co-located with the brain.<sup>2</sup>

Panpsychism challenges PNP by arguing that consciousness is a fundamental feature of reality that cannot be explained by something that is fundamentally not conscious. Thus, physicalism is false, since consciousness cannot be explained by emergence from what physics describes as fundamental. The extended mind hypothesis challenges PNP by arguing that the mind can be constituted by elements external to the body and the brain. Thus, biologism is false, since cognition need not be housed in biological material.

Our work here departs from an interest in the *connection question*: assuming that both panpsychism and the extended mind hypothesis are legitimate challenges to PNP, how might they be connected? Working from the perspectives of both classical Indian philosophy and contemporary Anglo-analytic philosophy we found that Advaita Vedānta has something interesting to say about the connection question because it embraces panpsychism while at the same time defending a view of perception that is a novel form of mind extension.

In what follows we present the Advaita Vedānta argument for the claim that *perception is a kind of mental state that involves the continuous extension of the mind outside of the body*. We present this argument alongside a partial defence of the kind of *panpsychism* they articulate, which we take to be closely related to a version of Itay Shani's *cosmopsychism*,<sup>3</sup> as opposed to Galen Strawson's *micro-psychism*. In general, we hold that Advaita Vedānta philosophy of mind presents an hypothesis about the mind, we call *the mind extension hypothesis*, MEH. We begin our articulation of it by

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- <sup>1</sup> See Strawson (2006) for a defence of the claim that physicalism entails panpsychism, and Chalmers (forthcoming a) for presentation and discussion of a variety of views in the area of panpsychism, such as neutral monism.
  - <sup>2</sup> See Clark and Chalmers (1998) for the initial articulation and defence of the extended mind hypothesis. See Rowlands (2010) for an extended discussion of a variety of views related to the extended mind hypothesis.
  - <sup>3</sup> We would like to thank Itay Shani for his presentation and discussion of cosmopsychism in Kolkata, India, in January 2015. His (forthcoming) 'Cosmopsychism: A Holistic Approach to the Metaphysics of Experience' is the source and background of our response to the combination problem.

situating it against its contemporary alternative, *the extended mind hypothesis*, EMH.

## 2. The Extended Mind Hypothesis

*The Extended Mind Hypothesis*, EMH, can initially be characterized as a denial of the body-boundary condition, which maintains that all mentality or mindedness is skin deep, and that while it is possible for entities external to the body to causally influence the mind, none of those elements external to the mind are in fact *proper parts* of the mind. Consider Clark and Chalmers' defence of EMH.

[C]onsider a normal case of belief embedded in memory. Inga hears from a friend that there is an exhibition at the Museum of Modern Art, and decides to go see it. She thinks for a moment and recalls that the museum is on 53<sup>rd</sup> Street, so she walks to 53<sup>rd</sup> Street and goes into the museum. It seems clear that Inga believes the museum is on 53<sup>rd</sup> Street, and that she believed this even before she consulted her memory. It was not previously an *occurrent* belief, but then neither are most of our beliefs. The belief was sitting somewhere in memory, waiting to be accessed.

Now consider Otto, Otto suffers from Alzheimer's disease, and like many Alzheimer's patients, he relies on information in the environment to help structure his life. Otto carries a notebook around with him everywhere he goes. When he learns new information, he writes it down. When he needs some old information, he looks it up. For Otto, his notebook plays the role usually played by biological memory. Today, Otto hears about the exhibition at the Museum of Modern Art, and decides to go see it. He consults the notebook, which says that the museum is on 53<sup>rd</sup> Street, so he walks to 53<sup>rd</sup> Street and goes into the museum.

Clearly, Otto walked to 53<sup>rd</sup> Street because he wanted to go to the museum and he believed the museum was on 53<sup>rd</sup> Street. And just as Inga had her belief even before she consulted her memory, it seems reasonable to say that Otto believed the museum was on 53<sup>rd</sup> Street even before consulting his notebook. For in relevant respects the cases are entirely analogous: the notebook plays for Otto the same role that memory plays for Inga. The information in the notebook functions just like the information constituting an ordinary non-occurrent belief; it just happens that the information lies beyond the skin. (Clark and Chalmers, 1998, p. 12)

The moral is that when it comes to belief, there is nothing sacred about the skull and the skin. What makes some information count as a belief is the role it plays, and there is no reason why the relevant role can be played only from inside the head. (*Ibid.*, p. 14)

There are three important points about EMH that we need to have in place prior to our cross-cultural presentation of the Advaita Vedānta *mind extension hypothesis*.

First, EMH is best characterized as a *possibility* claim: it holds that it is possible for the mind to be constituted in part by an entity that is external to the body, even if for a given person it was never the case that any of that person's mind was constituted by entities external to her body. Notice Inga has no extended mind, but Otto does.

Second, EMH is a general claim that must be argued for in a given domain of mentality. Humans, in general, have a multitude of distinct mental state types, such as beliefs, desires, and perceptions. To hold EMH is to hold it by argument for a particular mental state type. Notice that Clark and Chalmers argue that Otto, who suffers from Alzheimer's disease, has a mind that extends beyond his body, since he has a *belief* about the address of the Museum of Modern Art written in his notebook and the address written in the notebook is, for Otto, functionally equivalent to a belief about the location that would be stored in his memory were he not to have Alzheimer's disease. However, even if Clark and Chalmers are correct about mind extension in the case of belief, it would not follow that because the mind can extend in the case of *belief*, it can also extend in the case of *desire*, *vision*, *expectation*, or for various *emotions*.

As we will see in what follows, the case for mind extension has to be made in a given domain. And some domains intuitively resist *externalization* and *extension*. For example, *appearances* and *perceptual phenomenology* are, at least intuitively, not external to the body. How things seem to me is internal to my body. Nevertheless, Wilson (2010) has taken on the intuitive resistance of the application of EMH to vision. His work suggests that even in domains where externalization is counter-intuitive, it is still possible for compelling arguments to be made.

Third, EMH is a thesis about the constitution of the mind. It is not a thesis about *embodied cognition* or *embedded cognition* or the *extension of the self* outside of the body through technology.

Clark and Chalmers' argument for the case of belief is compelling. However, EMH is a controversial thesis. Rowlands (2010) helpfully distinguishes two important objections one could raise against EMH. *The mark of the mental objection* aims to establish that EMH should be rejected because it is inconsistent with a genuine account of what is cognitive or mental. For example, if what it is for something to be mental or cognitive is for it to exhibit intentionality — a distinctive

sort of *aboutness* — then if an item is external and does not exhibit the distinctive type of intentionality then it cannot be mental. The *coupling-constitution fallacy* aims to show that EMH confuses the fact that the *mind* can causally connect to and interact with entities external to the body without being constituted by those entities external to the body. The general worry is that there is no need to say that the mind extends beyond the body when it is simply sufficient to hold that the mind depends on or is causally influenced by entities beyond the body.

In our presentation of the Advaita Vedānta theory of mind we will be primarily concerned with the coupling-constitution fallacy, and secondarily with the mark of the mental objection.

### 3. Conditions for Mind Extension

In this section we want to borrow an account of how to defend EMH from the coupling-constitution fallacy. This account will be useful for setting up our presentation of the Advaita Vedānta *mind extension hypothesis*. From our perspective Adams and Maher (2012), A&M, provide an outstanding articulation, analysis, and defence of EMH from A&A's — Adams and Aizawa (2001; 2010) — coupling-constitution objection. Their account of the debate also presents a set of conditions under which *mind extension/cognitive spread* can be said to occur. Since we are accepting most of A&M's analysis of how to defend EMH from the coupling-constitution objection we will present only the essentials of A&M's account of the main argument for EMH, as well as their diagnosis of the problem with A&A's coupling-constitution objection.

On A&M's account the Master Argument for EMH is as follows.

1. Y is part of a cognitive system Z.
2. X (an external item) has the same high-bandwidth interaction with other parts of Z that Y has.
- ∴
3. X is functionally equivalent to Y.
- ∴
4. X is part of Z.

Recall the case of Otto. In the case of his belief about the location of the museum the master argument drives us to the conclusion that the mind does extend beyond the boundary of the body because there is an entity external to Otto's body, the information in Otto's notebook, that

is such that, if it were internal to Otto, we would, because of functional equivalence, deem it a proper part of his mind. The general idea is that the only *reason* we hesitate in a case where the element is external, but functionally equivalent to something that in another case is internal, is simply because the element is merely *external*. However, this objection is not the only reason that one might resist the master argument. In general, as A&A argue, there is a distinction between X and Y coupling through a causal relation, and X and Y combining together in a constitution relation.

The coupling-constitution fallacy holds that (i) is insufficient for the truth of (ii):

- (i) X is coupled to Y.
- (ii) So, X is part of Y.

The fallacy allows one to maintain, in the face of Clark and Chalmers' argument, that the notebook *merely* couples with the mind that is internal to Otto. It causally influences his actions, but there is no reason to say that part of Otto's mind, his particular belief about the location of the museum, is external to his body.

Insightfully, A&M point out that the coupling-constitution fallacy is ubiquitous, and that perhaps the ubiquity of it suggests that it is not actually at play in the presentation of EMH. There are many cases where two things come together, but the two things do not form a proper constitution relationship. The reason why things can come together and not form a constitution relation is because there is a difference between:

- (a) X is a *mere* causal influence on a system involving Y.
- (b) X is *genuinely* coupled to Y to form a system Z.

According to A&M one problem with applying the coupling-constitution fallacy to EMH is that it incorrectly characterizes the main ideas that are at play in EMH. The core idea is that, 'when two things are tightly coupled, they constitute some third thing, of which they are both parts' (Adams and Maher, 2012, p. 5). The mistake in A&A's coupling-constitution objection to the master argument is that they don't recognize that the argument concerns the fact that two elements X and Y come together to form a third thing Z. There needs to be a system that is formed by the high-bandwidth interaction of X and Y. For example, it is because a certain system Z is formed between Otto and his notebook that the mind extends. It is not simply that Otto uses a notebook. We take this diagnosis of the coupling-

constitution objection to set up a condition for determining whether an account of mind offers a genuine mind extension thesis in the case of a specific kind of mental state, such as belief or perception.

Moving off of A&M's work, we endorse the following as a base criterion for determining whether a theory of mind M offers an *extended mind/mind extension theory* for a mental state type T:

*System*: On theory of mind M, mental state type T can involve mind extension beyond the body boundary only if on M, T is articulated so as to not involve mere causal interaction, but instead to form a genuine system that involves body internal elements and body external elements.

In general, *system* should be read as a necessary condition, not a sufficient one. There are other conditions that M must also satisfy for it to endorse the idea that the mind extends in the case of T. A&M carefully take on the question of what those additional conditions are. They offer what are called *criteria for cognitive spread*. The other condition they argue for departs from an investigation of the question: what makes something a cognitive system? Their proposal is:

[A] system must take *responsibility* for the proper functioning of its *semantic activity* for that *semantic activity* to exhibit original intentionality. By this, we mean that it must be *critical* of its *semantic activity*. (Adams and Maher, 2012, p. 11, emphasis added)

We will refer to the content of their proposal as specifying the *responsibility* condition. The central idea rests on the distinction between original, as opposed to derived, intentionality. Their account goes on to specify what the conditions are for original intentionality in a way that allows for mind extension. A&M offer three levels of self-criticism that govern *semantic activity* that exhibits original intentionality.

A system with original intentionality must:

- (i) Follow norms for producing, manipulating, and removing semantic items.
- (ii) Scrutinize its own norms for modifying semantic items in the system.

&

(iii) Care about getting things right.<sup>4</sup>

A&M's account of mind extension/cognitive spread is intriguing and by our lights plausible. However, as we move forward in our exploration of classical Indian philosophy we will accept the system condition, but push aside the responsibility condition. Here we take note of some points about the system condition in relation to the responsibility condition as our reasons for pushing aside the latter. At the end of Section 5 we will offer yet another set of reasons for thinking that the responsibility condition would not, in general, be in play within classical Indian epistemology.

If mind extension is possible for different mental state types, such as belief and perception, it would seem that (a) the system condition is a necessary condition for all mental state types, since it is necessary for distinguishing between coupling and constitution; but either (b) the responsibility condition is only necessary for some mental state types or (c) the responsibility condition is necessary for all, but its specification changes depending on the state type in question. For example, a close examination of conditions (i)–(iii) reveal them to be most relevant to the case of belief because of their concern with *semantic activity*, which beliefs essentially possess in virtue of being propositional attitudes. Arguably, perception is not concerned with semantic activity. Rather, it is concerned with purposive activity. As a consequence, either the responsibility condition is not at all necessary, or if it is necessary the conditions must be suitably adjusted for the case of *purposive activity*.

Moreover, unlike the system condition which is invariant across all mental state types for which mind extension is possible, the responsibility condition would appear to be variant depending on the mental state type. For example, if belief and perception form distinct kinds of

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<sup>4</sup> According to A&M, one way to see the import of the three levels of self-criticism is by working them through the case of Otto's belief in his notebook. If Otto discovers that his notebook has false information in it, such as 54<sup>th</sup> Street, rather than 53<sup>rd</sup> Street, he must, according to (i), change what is in the notebook. If Otto discovers that whenever he writes something down in his notebook just after waking up it is unreliable since he is still sleepy, he ought to adopt, following (ii), a norm that says critically scrutinize the time at which something was written in the notebook. If Otto discovers that his way of going about the world is *merely* accidental, he must be prepared to give up the notebook and the whole way of going about by use of it. For A&M, to care about getting things right is to be prepared to abandon a whole system of evaluation in much the same way scientists have abandoned one paradigm for understanding reality in favour of a distinct paradigm even though the former one yielded accurate predictions.

systems when they extend, it is plausible to think that the responsibility condition should be suitably adjusted. Since perception can be argued to be deeply theoretically distinct from belief, we should expect that the responsibility condition for perception would be *suitably adjusted* so as to be epistemic, but involve *different* epistemic requirements.

#### 4. Pramāṇa Debates and Anglo-Analytic Epistemology

In order to understand the Advaita Vedānta account of mind extension it will be necessary to engage in a bit of cross-cultural epistemology. The primary reason for this is that the defence of mind extension takes its point of departure from an epistemic concern tied to the question: how can one acquire knowledge through perception? In what follows we offer a brief guide to Indian epistemology, with a summary of some of the main differences between it and Anglo-analytic epistemology deriving from Greek philosophers, such as Plato. This presentation of differences is by no means either exhaustive or uncontroversial, yet it will facilitate an initial comparative understanding of pramāṇa theory in contradistinction to contemporary epistemology, for those already familiar with the latter. For a more exhaustive treatment we urge readers to look at B.K. Matilal's (1986) classic *Perception: An Essay on Classical Indian Theories of Knowledge*, J.N. Mohanty's (2000) *Classical Indian Philosophy*, and S. Phillips's (2012) *Epistemology in Classical Indian Philosophy: The Knowledge Sources of the Nyāya School*.

Classical Indian schools of philosophy both orthodox, such as Nyāya and Advaita Vedānta, and heterodox, such as Yogacāra and Cārvāka, were involved in debates over the correct account of pramāṇa. Pramāṇa is the central epistemic concept of classical Indian philosophy. It refers to valid cognition/veridical cognition/true cognition or valid means of knowledge acquisition.<sup>5</sup> Pramāṇa theory is the area of Indian philosophy in which questions of epistemology are investigated. Many theories of pramāṇa were developed and debated in classical Indian philosophy just as theories of knowledge were

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<sup>5</sup> A central debate in contemporary philosophical scholarship on pramāṇa concerns its proper translation in epistemological contexts. For a recent examination of the issue see Phillips and Dasti (2010) and Ganeri (2010), as well as Vaidya (2013) for a specific examination of the issue with respect to Nyāya perceptual theory, and Bilimoria (1993) for discussion of pramāṇa epistemology.

developed in ancient Greek philosophy. Different schools of thought had different accounts and arguments about what kinds of cognitions count as valid cognitions or valid means of knowing. The classical list of possible types of cognitions included perception, inference, testimony, and comparison. Some schools, such as the Cārvāka, argued that perception is the only valid means of arriving at knowledge, while others, such as the Mīmāṃsā, argued that testimony and inference were also valid means for arriving at knowledge. The main differences between pramāṇa debates in classical Indian philosophy and contemporary epistemology we wish to highlight are the following.

First, while it is true that pramāṇa theorists discuss cases and definitions of mental processes, such as perception, inference, and testimony, and were concerned with providing an account of these states with respect to knowledge, it is generally *not* true that classical Indian philosophers were interested in capturing the correct account of *knowledge*, as found in Plato and contemporary Anglo-analytic philosophy. That is: they were not specifically interested in debating a *decompositional* account of knowledge that factors it into several distinct components, such as justification, truth, and belief.<sup>6</sup> Rather, classical Indian pramāṇa theorists debated: What is a valid cognition? What is a valid instrument of knowledge? A valid cognition or instrument of knowledge is one that can be used and deployed for a certain purpose. Valid cognitions are discussed generally within the context of knowledge *for the sake of action*, and not knowledge *for the sake of mere contemplation or knowing*. This difference does not go so far as to suggest that classical Indian philosophy endorses a basic pragmatist conception of epistemology as its background for discussing what the valid means for arriving at knowledge for the sake of action are. Rather, the point is that pramāṇa theory is primarily concerned with knowledge in relation to action. This is extremely clear in the case of Nyāya epistemologists, such as Vātsyāyana, and Buddhist epistemologists, such as Dharmakīrti.

Second, and related to the first, one of the central components of western discussions of knowledge centres on how justification is

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<sup>6</sup> It is noteworthy to point out that Timothy Williamson (2000) defends a new movement within analytic epistemology called *knowledge first*. The basic idea of this view is that knowledge is a mental state that cannot be decomposed uniquely into internal and external elements, such as justification, truth, and belief. It is unclear to what degree Williamson's view resembles some positions concerning pramāṇa in classical Indian philosophy.

supposed to be cashed out. For example, one kind of internalist about justification would argue that *justification* is characterized by a subject's ability to provide an argument. That is, justification is the act of *justifying* whereby a person offers arguments for a thesis. By contrast, one kind of externalist, such as a reliabilist, would hold that justification is simply a property of a cognitive process whereby the output of the cognitive process, when properly functioning, is justified only if the process is reliable. The justification for a belief does not depend upon the ability of a subject to provide an argument in favour of a belief when challenged in argument. In fact, knowledge for a reliabilist typically involves denial of the claim that if *x* knows that *p*, then *x* knows that she knows that *p*. The idea for the externalist is that one can know without knowing that they know because they can be justified through a cognitive process that is properly functioning, without knowing how that process works.

By contrast, in *pramāṇa* debates, discussion of justification in relation to knowledge is quite complicated and does not neatly fit into the classical distinction between internalist and externalist camps. Rather, within the vast *pramāṇa* literature one can find discussion of what are acceptable rules for debate whereby one may gain one kind of justification.<sup>7</sup> In addition, one can find a great deal of debate over how the conclusion of an inference is a valid cognition. As well as the following questions: How does inference work? Is testimony a valid means of knowing? Is comparison a valid means of knowing? How exactly does perception provide one with knowledge?

Third, in contemporary Anglo-analytic philosophy there are many discussions of mind and knowledge that are disconnected. That is, one finds rich explorations of the conditions on knowledge absent consideration of what the mind is, and one can find rich discussions of the mind absent discussion of whether the mind, as so understood, can account for various kinds of knowledge that should be accounted for. By contrast, in classical Indian *pramāṇa* debates, the nature of mind and valid cognition are discussed, developed, and debated together. In general, there is a tight integration in these systematic schools for how issues concerning mind and knowing are investigated.

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<sup>7</sup> See Matilal (1998) for an excellent discussion of different forms of debate in which justification can be acquired. And see Phillips's (2012) discussion of certification theory in Nyāya.

These differences suggest that one must be careful in thinking about how the project of knowing is developed and discussed in contemporary Anglo-analytic philosophy in contrast to how it was developed in the *pramāṇa* debates of classical Indian philosophy. *Pramāṇa* theory is simply the overarching project in Indian philosophy where one can find precise definitions of perception and inference as well as arguments about how each can function and what the limits of each are.

With respect to our project, it is within *pramāṇa* theory that we believe one can find an argument in favour of an intriguing thesis that sits in the area of the extended mind hypothesis defended by Clark and Chalmers. However, the formal resemblances and or superficial similarities that the thesis bears to EMH are not important.<sup>8</sup> Returning to our *introduction*, what is important is the manner in which the Advaita Vedānta develops an argument for an extended-mind-like thesis from within epistemology against the background ontology of *panpsychism*. The argument they offer can be found within the Advaita Vedānta Theory of Mind, AVM, with respect to perception, rather than belief. The specific work we will be drawing from is Purushottama Bilimoria's (1980 and 1985) work on epistemology in Advaita Vedānta. The argument we offer proceeds by considering how *pratyakṣa*, *manas*, *antaḥkāraṇa*, and *vṛtti* are developed in the theory to provide an account of how perception (*pratyakṣa*) is an instrument for knowledge (*pramāṇa*). That is, AVM offers an account of how perception, mind, inner vehicle, and mental state are related to one another in a set of cases that allows them to argue that perception is a valid cognition — a means for the acquisition of knowledge, in particular a means for the direct acquisition of knowledge. In the development of this account of perception one finds a set of ideas and arguments that are similar to EMH, but distinct. Because the view is distinct, we refer to the classical Indian philosophical hypothesis as: *the mind extension hypothesis*, MEH.

Before we proceed to an articulation of the AVM route to MEH we want to note an important point about our overall aim. We do not hold that Advaita Vedānta is the *only* school of classical Indian philosophy that has anything to say about mind extension. Rather, we maintain

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<sup>8</sup> We would like to thank a reviewer for pushing us in the direction of seeing that the EMH as defended by Clark and Chalmers is only superficially similar to the AVM account.

that both the Nyāya and the Sāṅkya schools of philosophy likely have their own version of some kind of mind extension thesis.

For example, Akṣapāda Gautama, the founder of the Nyāya School, wrote a treatise called the *Nyāya-sūtra* (*Nys*). This work is considered to be one of the most important works of classical Indian philosophy. Many other schools, both orthodox and heterodox, engaged the work both directly and through the large number of Nyāya philosophers, such as Vātsyāyana, that commented on the work.

At *Nys* 1.1.4 Gautama offers an extremely important definition of perception. *Perception is a cognition that arises from*

- (i) the contact of the sense organ and object;
- (ii) which is not impregnated by words;
- (iii) is unerring;
- (iv) is well-ascertained.

On at least one reading of condition (i), when the sense organ, such as the eye, is *in contact* with an object it would be in virtue of the fact that the senses can go through the eye organ to the object. This would appear to gesture toward some form of mind extension. However, we should note that this kind of mind extension is more appropriately labelled *sense extension*, since it is the sense organ that goes out to make contact with the object in order to give rise to a cognition. More importantly, though, the theory of sense extension, in its articulation by the Nyāya, may be too weak to be said to satisfy the system condition for cognitive spread.<sup>9</sup>

### **5. The Mind Extension Hypothesis in the Advaita Vedānta Theory of Mind: The System Condition without the Responsibility Condition**

The AVM definition of perception and the elaboration of it allows for a simple set of arguments that lead to the conclusion that AVM captures the *system* condition for mind extension.<sup>10</sup> In order to understand the argument we must first present some components of AVM. In particular, the AVM account of *manas* and *antaḥkaraṇa*. Bilimoria (1980) offers a key summary of the relevant points.

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<sup>9</sup> Importantly, Chadha (2010) points out the textual translation difficulty in the Nyāya account of perception at condition (i).

<sup>10</sup> Our engagement with Advaita Vedānta is not tied to Śaṅkara's view in the *Bhrama-sūtra Bhāṣya*. Rather it is developed out of work culminating in the *Vedānta Paribhāṣā*.

First, *manas*, which can be more or less rendered as ‘mind’, is an important faculty postulated in Advaitic theory. *Manas* is not a sense organ (*indriya*)... *Manas* is not an independent reality existing outside the subjective whole. Advaita regards *manas* to be part of a complex, unified inner organ which is termed *antaḥkaraṇa*, literally ‘inner vehicle’. *Antaḥkaraṇa* is described by Madhusūdana Sarasvatī as being composed of five subtle elements (*tan-matras*), namely, the subtle essences of earth, water, air, fire, and ether [*ākāśa*] with the predominance of the latter over the former... *Antaḥkaraṇa is of light nature and ‘having therein at the same time the predominance of the sattva-guna (lightness tendency), being extremely clear like a mirror, etc., is capable of flowing out through the sense, and like the solar light it is capable of speedily contracting and expanding.’ The antaḥkaraṇa, unlike the ‘mind’ of Locke, is not a passive recipient of data it is an active instrument in the process of perception.* (Bilimoria, 1980, p. 36, emphasis added)

For present purposes the key ideas are the following: (i) AVM posits a faculty that is an inner organ; (ii) the inner organ is not a sense organ, such as an eye; (iii) the inner organ has the capacity to *go out through* the sense organs; (iv) the fact that the inner organ can *go out* allows the mind to be active in its relation to the world as opposed to being a merely passive recipient of data from the world. With this account of AVM in place, let us now look carefully at two key passages from *Vedānta Paribhāṣā* (VP). The first passage contains the criterion (*prayojaka*) of perception. It is offered as a response to a request for it in a dialectical challenge.

*Objection:* What, then is the criterion (*prayojaka*) of perception according to the tenets of Vedānta?

*Reply:* Do you inquire about the criterion of the perception of knowledge or of the objects? If it be the former, we say it is the unity of the Consciousness reflected in the means of knowledge with the Consciousness limited by the object. To be explicit: Consciousness is threefold — as associated with the object (*viśaya*), with the means of knowledge (*pramāṇa*) and with the subject or knower (*pramātr*). Of these, Consciousness limited by a jar is the consciousness associated with the means of knowledge; and that limited by the mind is the Consciousness with the subject. (VP, pp. 15–16)

It is important to note the qualification that is present in the response. On AVM one can distinguish between the perception of *knowledge and its object*, such as in ‘this jar’, from mere perception of *the jar* without knowledge. This qualification is important because a primary project of *pramāṇa* theory is to provide an account of when an instrument properly functions as an instrument of knowledge. The definition

is offered to capture the case of perception of knowledge with objects, and not of mere perception of objects. The initial definition tells us that consciousness is threefold: the object of consciousness, the instrument of consciousness, and the subject of consciousness. The threefold nature can be separated in a theoretical sense into two components that come together to form the consciousness. *Part 1*: a subject's consciousness as *limited* by a jar is the consciousness associated with perception as an instrument of knowing. *Part 2*: a subject's consciousness as *limited* by the mind is the consciousness associated with the subject. However, the initial definition does nothing to suggest that in perception the mind *extends beyond the body*. The second passage is where the criterion is further examined, and the theory of perception begins to take on the shape of mind extension in the case of visual perception through the satisfaction of the *system* condition.

...[T]he luminous mind, issuing through the medium of the eye goes to the space occupied by objects such as a jar, and is modified into the form of a jar or any other object. That very modification is called a state (*vr̥tti*). But in the case of inference the mind does not go to the space occupied by fire, for the latter are not in contact with the eye. Thus in the case of perception such as, 'This jar,' *the jar and the mental state in the form of those combine in the same space outside the body, and hence the Consciousness limited by both is one and the same*; for the mental state and objects such as a jar, although (usually) they are dividing factors, do not (here) produce any difference, since they occupy the same space... [I]n the case of the perception of a jar as, 'This jar,' the mental state with the form of the jar being in contact with it, the Consciousness limited by the mental state is not different from the Consciousness limited by the jar, and hence in the knowledge of the jar there is a perception so far as the jar is concerned. (VP, pp. 16–17, emphasis added)

To understand this passage we need to draw out two important components of the elaboration. First, the contrast between perception and inference must be made clear. On the AVM theory both perception and inference are *pramāṇa*, instruments of knowledge. That is, for Advaita Vedānta, as opposed to the Cārvāka, one can gain knowledge by the use of either perception or inference. The two cases are the following:

- (a) X perceives smoke above a hill off in the distance. X's uses their knowledge by perception along with other premises, such as that smoke is present when and only when fire is present, to infer that there is a fire on the hill off in the distance.
- (b) X perceives a jar present before her.

In the elaboration on the nature of perception we are told that perception is different from inference because in the case of *inference* the mind does not extend because there is no mechanism by which the mind can extend through the eye beyond the body to the fire. The idea here is that the hill is not in the field of vision of the eye, and thus the eye cannot enable the mind to go out to the hill. The inference is made because perception cannot occur. However, in the case of perception the mind moves through the eye to the space where the jar is present and is modified by the jar. The idea here is that the jar is in the field of vision of the eye, thus the eye can enable the mind to go out and be modified by the jar.

*Second*, in the elaboration we are told that a mental state (*vr̥tti*) is a modification of the mind by an external object. Given that the conclusion of an inference is also a mental state, but the mind does not extend in that case — because there is no contact — we can infer that on AVM *some mental states, such as visual perception, extend beyond the boundary of the body, while others do not, such as the mental state type one arrives at when one draws the conclusion of an inference.*

However, a critical examination of AVM must put any talk of *mind extension* within the critical context of the coupling-constitution fallacy. Thus, our critical question is: does AVM maintain that the mind forms a system with the object external to it or does AVM maintain that the object external to the mind merely causally influences the mind? A claim to the effect that the mind extends beyond the body is not an instance of mind extension on the Adams and Maher (2012) account unless it satisfies the *system* condition.

On a first reading of the second portion of the passage it appears that the idea that the mind *merely* causally couples with the jar external to it is *not* at all that is being advocated, especially in light of the fact that we are talking about perception for the sake of knowledge. Consider the passage again:

Thus, in the case of perception such as, ‘This jar,’ the jar and the mental state in the form of those combine in the same space outside the body, and hence the Consciousness limited by both is one and the same; for the mental state and objects, such as a jar, although (usually) they are dividing factors, do not (here) produce any difference, since they occupy the same space. (VP, p. 17)

Here we are told that **/the jar/** and **/the form of the jar in the medium of the mind limited by the jar/** combine in **/the same space outside the body/**. What is *striking* is that the passage reads as being strongly in favour of a *tight coupling* that does *not* allow for *mere*

causal influence. The consciousness in the perceptual act is one and the same and limited by both the jar and the mind extending out and being modified by the jar. Mere causal influence is not occurring, because the part of the mind that is modified by the jar through the perceptual act where the mind goes out to the jar via the eye *is identical* with something that is outside of the body. Overall the passage yields the following argument for an AVM account of mind extension in the case of visual perception.

1. The mind modified by the jar external to the body = M.
2. The jar external to the body = J.
3. The consciousness of the subject as limited by the jar external to the body and the mind modified by the jar external to the body = C.
4.  $M + J = C$ .
5. Since C is a new system composed of differential parts M and J, J does not *merely causally* influence M.
- ∴
6. Mental state C meets the *system* condition for mind extension.

Recall that when two elements come together to form a third thing, we are in a position to assess whether the mind has genuinely extended because a genuine system is present. Mere coupling occurs in cases where X causally influences Y, but there is no further system Z that is formed through the causal influence. AVM does not maintain that the jar merely causally influences the mind. Rather, the mind as modified by the jar and the jar come together to form a conscious state C. The consciousness, thus formed, is limited by both the jar and the mind as modified by the jar. This argument substantiates the claim that the AVM account of visual perception satisfies the *system* condition.

Of course, one might argue that some kind of metaphysics needs to be in place for one to establish that a genuine system on the AVM account has been formed. Here we distinguish between what might be called lateral consciousness and qualified consciousness as a way of clarifying what is in play within AVM metaphysics. *Lateral* consciousness is familiar from the Cartesian/Brentano paradigm in which one is consciousness of an object in virtue of one's consciousness being *about* the object either through sensation or thought. In general, one is conscious of *x* because one's sensation or thought *attaches to x* by being *about x*. By contrast, in Advaita Vedānta, we have *qualified* consciousness where one's consciousness can be said to be *about an entity* because it is qualified by it.

What about the *responsibility* condition? In Section 3 we argued *against* the need to satisfy the *responsibility* condition because: (i) it is articulated primarily for the case of belief via semantic activity, and we are dealing with a case of perception and purposive activity, and (2) even if it is a requirement for the case of perception, it is unlikely that it will be articulated so as to have features pertaining to semantic activity. Here we offer another reason why the *responsibility* condition may be inappropriate.

Classical Indian epistemology leans toward (i) externalist theories of knowledge, and not toward internalist theories of knowledge, and (ii) it does not factor knowledge into justification and some further component, such as belief. These points lead to the general view that with respect to *pratyakṣa* as a *pramāṇa* the concern is not on being *responsible* for something through reflective dialectical criticism. Rather the concern is with being *connected with* something in the appropriate manner for the purposes of knowledge and action.

### **6. Ontology, Panpsychism, and the Combination Problem**

It is clear that AVM has some claim to a mind extension thesis. In this last section we will build out how their MEH is distinct from EMH by drawing an ontological distinction between Clark and Chalmers' account of the extended mind for the case of belief and the AVM account of mind extension for the case of perception.

Clark and Chalmers argue for mind extension in the case of belief against the backdrop of a *functionalist* account of the mind. We note that the kind of mind extension that is at work in the case of Otto's belief is what we call *non-continuous-part-extension*. The mind is extended for Otto because a part of it, a piece of information about the location of a museum, is in a notebook that is clearly outside of Otto's body, and the use of the notebook is *functionally equivalent* to something that would be stored in his brain, if he did not suffer from Alzheimer's disease. That is, the information in the notebook is used in the same way that it would be used if it were stored in Otto's brain, encoded in a bit of grey matter. Our point about *non-continuous-part-extension* can be made lucid by considering a set of thought experiment questions concerning Anu, an additional character, different from Inga and Otto.

- (i) Suppose that the portion of Anu's brain where the address of the museum is stored were cut out and put on a table in front of

her and *a set of wires connecting that bit of her brain to the rest of her brain were in play so that she could access the information and use it*. Question: is a part of Anu's mind outside her body?

- (ii) Suppose that the portion of Anu's brain where the address of the museum is stored were cut out and put on a table in front of her and *a wi-fi system were in play, rather than wires, so that she could access the information and use it*. Question: is a part of Anu's mind outside her body?
- (iii) Suppose that, like Otto, Anu has Alzheimer's disease, and like Otto she uses a notebook to navigate. Question: is a part of Anu's mind outside her body?

We think that if one is comfortable saying yes to (i) and (ii), they should be comfortable saying yes to (iii). We think these examples help set up the ontological notion of *non-continuous-part-extension*. Just as a part of the brain that codes some information can be on the table in front of Anu, so can a notebook with that same information, as long as the use of it is functionally equivalent to what would be in the piece of grey matter on the table with a wi-fi system. This is *the extended mind thesis* by way of *non-continuous-part-extension*, whether it is a bit of grey matter or the information that would be encoded in the grey matter. The idea is that a part of the mind is not in continuous connection with other parts of the mind.

AVM is *not* offering a *non-continuous-part-extension* model of how the mind extends. The reason why is that AVM is based on *pan-psychism* and not functionalism. On AVM part of the mind extends by *literally* going out — we refer to this model as the *continuous-part-extension* model, which is why we prefer the phrase *mind extension* in opposition to *extended mind*. On the *non-continuous-part-extension* model the mind is like a scattered object, with parts in different locations. What unifies the mind is a functional connection between the different scattered parts. On the *continuous-part-extension* model part of the mind *internal* to the body goes *out* of the body to the world to form a system. As a quick logical note, we would like point out that the two hypotheses can be jointly true. That is, in the case of belief the extended mind hypothesis holds, while in the case of perception the mind extension hypothesis holds.

We realize that this kind of mind extension must be quite jarring for a promissory note physicalist. As a consequence, we will close this section as follows. First, we will offer a table summarizing the key

differences between Clark and Chalmers' extended mind hypothesis and the AVM mind extension hypothesis. Second, we will offer an initial defence of panpsychism against the combination problem.

In the table below, 'ontology' refers to the base ontology that the theory of mind extension operates under; 'mental state' refers to the main mental state in virtue of which the argument for mind extension is made; 'epistemological link' refers to what kind of epistemic relation is primary; 'type of mind extension' refers to the model of mind extension that we believe is in place.

	<b>Clark and Chalmers</b>	<b>AVM</b>
<b>Ontology</b>	Functionalism	Panpsychism
<b>Mental State</b>	Belief	Perception
<b>Epistemological Link</b>	Responsibility- Based	Knowledge-Based
<b>Type of Mind Extension</b>	Extended Mind by non-continuous-part-extension	Mind Extension by continuous-part-extension

According to Chalmers (forthcoming b) one important problem that panpsychism faces is the *combination problem*, CP. The general idea of the problem is the following: if everything is conscious, why is it the case that only certain things can intelligibly be said to be conscious? In response to this problem, we offer the following.

First, we don't see CP as an objection to panpsychism at all, since it could very well be that a rock has *very low-grade* consciousness, and only certain things, such as human beings, given their complexity, exhibit *high-grade* consciousness. So, if there is a problem, it is a problem with respect to how we get more complex forms of consciousness from less complex forms of consciousness.

So, second, CP is *mislabeled*. It is not a problem. Rather, it is a request for a theory. One might imagine a similar request launched at any nascent compositional theory of macroscopic phenomena based on agglomeration from microscopic phenomena. For example, one might ask: how do hydrogen and oxygen come together to form liquid water? That is: how do atoms that are not *liquid* themselves combine to constitute a *liquid*? This question is a request for principles by which certain atomic substances can combine together to form a macroscopic substance. Likewise, panpsychism must produce a theory of how things can combine. Surely, the mere statement of the request is not the positing of a problem. Rather, it is just a legitimate request

for a theory. A request that other theories have faced, and one we would place on any nascent theory aiming to explain something through composition. The core questions are: What are the elements? How do they combine?

Third, the combination problem appears to be a threat to Strawson's (2006) *micropsychism*, but not a threat for AVM's *cosmopsychism*. Micropsychism is the view that only *some* of the fundamental elements of the universe must be experiential in order to explain the fact that there are experiences within the spatio-temporal world. The fundamental idea is that if everything were non-experiential there is no way that emergence alone could explain how macro-experiential phenomena arise. The jump is too large. The idea is that, just as one cannot explain extension in space arising from non-extension in space, one cannot explain conscious (experiential) entities arising from non-conscious (non-experiential) elements. However, *micropsychism* is only one kind of panpsychism.

AVM-style panpsychism is a form of *cosmopsychism* — the view that there is an all-pervading cosmic consciousness that is a fundamental ultimate. Given the nature of the combination problem, it is easy to see the motivation for *cosmopsychism*. The combination problem basically assumes that the metaphysics for how macro-conscious states emerge follows the nature of atomistic chemistry. Atomistic micro-conscious elements combine together to make a macro-conscious element just as micro-chemical elements combine to create a macro-chemical molecule. This atomistic assumption allows for the generation of the basic core questions: What are these elements? How do these elements combine?

While *micropsychism* embraces atomistic metaphysics, and holds that at least some elements are fundamentally experiential/conscious and have the capacity to combine with the non-experiential in order to allow for the emergence of macro-conscious states through complexity, *cosmopsychism* rejects the atomistic assumption. In its place it holds that there is one single conscious entity from which individual conscious entities are derived. Rather than combining upwards to get macro-conscious entities, such as human consciousness, from micro-conscious items, we divide down from a single ultimate conscious entity to smaller localized macro-conscious entities.

A side result of *cosmopsychism* is that it may obviate the apparent impossibility of arriving at perspectival consciousness through

combination.<sup>11</sup> A rough account of the real combination problem is the following:

1. Macro-conscious states, such as human consciousness, are perspectival. *From* the phenomenology of consciousness.
2. Anything that is conscious is perspectival. *From* the metaphysics of consciousness.
3. Micro-conscious states are perspectival. *From* (2).
4. If micro-conscious states combine together in some way with other micro-conscious states or non-conscious states, then macro-conscious states would be perspectival in virtue of the combining of micro-conscious states that are individually perspectival. *Principle of combination*.
5. Individual perspectives (at the micro level) cannot sum to make a macro-perspective. *Datum*.
- ∴
6. Macro-consciousness cannot be built out of micro-conscious entities.

However, whether or not one thinks that premise 5 is true, *cosmopsychism* avoids the problem, since it drops the assumption that macro-conscious states are built out of micro-conscious states. Rather, it holds that macro-conscious states come from a partitioning of a single unified cosmic consciousness. At bottom the point is simply that, while micro-perspectives cannot combine to make a macro-perspective, a single unified macro-perspective can be partitioned off from a single cosmic consciousness. More importantly, AVM panpsychism looks more like *cosmopsychism* than *micropsychism*. So it doesn't face the standard threat to panpsychism. The base ontology is plausible, against the leading problem.

Of course, some will object to the idea and hold that there simply is no scientific evidence for the claim that the mind can literally go out. To this last objection we offer four final comments.

First, let's take note of the space of argumentation we are in. For anyone that comes close to accepting promissory note physicalism, both panpsychism and the extended mind hypothesis are already hard to accept. Thus, we maintain that if we are already in the space of challenging ideas at the forefront of the philosophy of mind (panpsychism) and cognitive science (the extended mind hypothesis), then

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<sup>11</sup> See Coleman (2014) for an excellent discussion and presentation of the problem.

the Advaita Vedānta account, on our contemporary presentation, is only pushing the edge further when it comes to the question: *how might the mind extend into the world for the purposes of genuine knowledge-acquiring cognition, on the assumption that panpsychism is true?*

Second, if there is a single unified consciousness, of which individual minds are local partitions, then it does not seem *odd* to say that the consciousness present in one local mind can connect up with the single unified consciousness outside the locality of the individual mind to make an outward continuous link to an external entity.

Third, the jarring part of the thesis has to do with distance. Maybe a person's mind can extend outside of their body only to some distance, such as in the near field around their body. But, perhaps, it is too much to say that the mind extends to the sun, when we are staring at the sun. So, there is a distance constraint in play, and that constraint will alter how the mind extension hypothesis can be seriously explored.

Finally, we hope to have made plausible the idea that work in cross-cultural (or cosmopolitan) philosophy of mind is useful for future research in philosophy of mind. For even though the ideas are jarring at times, they have the tendency to put us outside of our entrenched background views, and allow us to see things anew.

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