

The Self in Early Nyāya: A Minimal Conclusion

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In this paper I revisit the early Nyāya argument for the existence of a self. In section 1, I reconstruct the argument in Nyāya-sūtra 1.1.10 as an argument from recognition following the interpretation in the Nyāyasūtra-Bhāṣya and the Nyāya-Vārttika. In Section 2, I reassess the plausibility of the Nyāya argument from memory/recognition in the Bhāṣya and the Vārttika in the light of recent empirical research. I conclude that the early Nyāya version of the argument from recognition can only establish a minimal conclusion that self is a unitary and persisting conscious agent, in contrast to the ontological conclusion that the self is distinct a substance qualified by consciousness. In the final section, I address the tension between the two conclusions in Nyāya and suggest how it might be resolved.

I. Introduction

Nyāya tradition has a long history of exploring a range of arguments for its theory of ‘self’, most of which are inspired by the inferential proof for the existence of self in the original Gautama *Nyāya-sūtra* 1.1.10. For some leading classical Nyāya philosophers, for example Vātsyāyana and Jayanta, self is imperceptible; it is not an object of direct cognition; it can only be inferred. For others, for example, Vācaspati Miśra and Udayana, however, self can be apprehended through perception and other cognitive instruments. Still others, for example Uddyotakara, are ambivalent about perception of self but in favour of its inference. The focus of this paper is on the inference for the existence of self as presented in *Nyāya-sūtra* 1.1.10, rather than on arguments for its direct perceptibility. All classical Hindu philosophical traditions, Nyāya included, evolved in a series of commentaries and sub-commentaries interpreting the original aphoristic *sūtras*. Therefore, in the Nyāya corpus we do not see any single interpretation that can be labelled as *the* Nyāya argument for inference of the self. There is a plethora of arguments and interpretations of these arguments. This paper will address one of the early

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interpretations of the original argument in *Nyāya-sūtra* 1.1.10. This interpretation is based on recognition, which played a pivotal role in the Nyāya-Buddhist debate.

The earliest commentary on the Gautama *Nyāya-sūtra*, Vātsyāyana's *Nyāya-sūtra-Bhāṣya* (henceforth *Bhāṣya*) presents one version of the inferential proof for the existence of self. The *Nyāya-Vārttika* (henceforth *Vārttika*) intended as a defence of the *Bhāṣya* against the critiques of the Buddhist philosophers presents three versions of this argument. Using the logical vocabulary developed by Nyāya philosophers, we can label these three versions as the argument from negative inference (*kevalavyatirekin*), the argument from positive inference (*kevalānvayin*), and the argument from eliminative inference (*śeṣavat*, method of residues). This paper will concentrate on the argument of negative inference based on recognition.¹ The negative inference, or the argument from recognition, is closest to the *Bhāṣya* interpretation (in the *Vārttika*, Uddyotakara defends it against an imaginary Buddhist opponent). This argument from recognition has been quite influential in the ancient *Nyāya-Vaiśeṣika* corpus, for example in *Nyāya-vārttika-tātparyatikā*, *Nyāya-vārttika-tātparya-pariśuddhi*, and the celebrated *Tarkasamgraha* (Annambhatta, 1983).² The concept of recognition is also central to other Nyāya-Buddhist debates, for example in the argument for persistence of objects (*Vārttika* on 2.1.16). The argument from recognition in *Nyāya-sūtra* 1.1.10 becomes much more powerful when considered in the light of other germane *sūtras* from Adhyaya 3 of Gautama *Nyāya-sūtra*, which add weight to the negative inference by clarifying the specific notion of recognition that the Naiyāyikas employ in their argument for the existence of the self. In section 1 below, I will revisit the Nyāya argument from recognition with the caveat that my exposition is limited to the development of this argument, as it evolved in early debates with the Buddhists in the *Bhāṣya* and the *Vārttika*. That this early version of Nyāya argument from recognition has not received much contemporary attention is, I believe, due to two reasons.

First, Taber (1990), in his very influential paper on the Mīmāṃsā theory of self-recognition, writes off the early Nyāya argument from memory/recognition as inconclusive for inferring the existence of a continuing self in the light of Buddhist critiques (p. 37).³ Instead, he argues that the stronger *Mīmāṃsā-sūtra* argument from memory for the existence of self is an advance on the Nyāya argument and successfully meets the Buddhist criticism. However, recent empirical evidence shows that the Mīmāṃsā argument is based on a mistaken account of the content of memory and, furthermore, that the Nyāya account of recognition is actually likely to be closer to the fact. This should give contemporary Nyāya scholars reason to pay more attention to the argument from recognition. In Section 2, I will reassess the plausibility of the Nyāya argument from memory/recognition in the *Bhāṣya* and the *Vārttika*.

Second, I suspect that contemporary Nyāya scholars may be concerned that the argument from recognition can only establish a *minimal* conclusion that self is a unitary and persisting conscious agent, in contrast to the ontological conclusion that the self is distinct a substance qualified by consciousness, the standard Upanishadic conception of the self, or *ātman*, in all Hindu philosophy including Nyāya.⁴ 'Ātman' is usually translated as soul. In this paper, however, it will be translated as

‘self’, a neutral term that applies to both the above conceptions: minimal and ontological. The minimal conclusion cannot, in any way, lead to the ontological conclusion, because the self it establishes depends on the body. This follows from Nyāya theses about the nature of conscious experiences which will be discussed in section 3. This makes the minimal conclusion undesirable from Nyāya perspective: a possible reason that contemporary Nyāya scholars ignore the early version of the argument from recognition. However, the tension only arises if we consider that the early Naiyāyikas (like adherents of all other Hindu philosophical schools) are committed to the possibility of Release (*mokṣa*), a state where the ontological self exists as a substance without the quality of consciousness. However, we can choose to drop the soteriological commitments (to do with the possibility of release) of the early Nyāya philosophers, following the re-interpretative strategy recommended by Chakravarti (2007, p. 93). This way we resolve this tension. Once that is done and minimal conclusion defended, Nyāya can be seen as defending a non-reductive physicalist view of the self.⁵

II. Nyāya Argument from Recognition

In *Nyāya-sūtra* 1.1.9, Gautama lists the self as the first *pramēya* (object of cognition). *Bhāṣya*, the first commentary on *Nyāya-sūtra*, explains this *sūtra* as follows:

As a matter of fact, it is found that the Self is not apprehended by Perception, the question thus arises as to whether it is known only by ‘reliable assertion’ (of the Veda, for instance). The answer is that it is not so; as the Self is cognised by Inference also. (Jha, 1984, p. 216, modified)

Next, *Nyāya-sūtra* 1.1.10 presents the central argument for the existence of the self:

Desire, Aversion, Effort, Pleasure, Pain and Cognition are the indicatives (*linga*) of the Self. (Jha, 1984, p. 217, modified)

Bhāṣya comments on this *sūtra* as follows: Desire is indicative of the self in the sense that desire for an object perceived now is possible only on account of the same agent having perceived the object on an earlier occasion and having experienced pleasure by coming into contact with it.⁶ Desire would not be possible without a *single* agent that cognises and recognises the object, and this *single* agent is the self. The same argument is generalised to other indicatives mentioned in the *sūtra*, except cognition. Cognition reveals a peculiar Nyāya view about the nature of knowledge. The *Bhāṣya* explains that knowledge is preceded by doubt. A person desiring to know the real nature of a thing begins with a doubt in the form of ‘what may this be?’ and ends with the knowledge in the form of ‘this is such and such’. The argument concludes that this knowledge or cognition becomes an indicator of the presence of a single agent (the self) that is both the final knower and the initial doubter (Jha, 1984, p. 218).

Uddyotakara’s commentary, *Vārttika*, on this *sūtra* is in response to the Buddhist challenge to the above *Bhāṣya* inference: in every case of inference the indicative proves the conclusion only when the indicative is itself perceived, but desire and

other indicatives cannot be perceived. The fire at a distance is inferred by perceiving smoke at a distance; how can the self then be inferred if the desire etc., themselves cannot be perceived? Uddyotakara, in response, shifts the weight of the argument from desire, etc., to recognition. He points out that states like desire, etc., prove the existence of the self because they depend on recognition. Uddyotakara thus rests his interpretation of the *Bhāṣya* inference on recognition that is not questioned by the Buddhist opponent. Uddyotakara formulates the argument from recognition as negative inference (*kevala-vyatireka*): my present desire and a certain past experience are unified insofar as they concern the same object; I recognise that the thing I desire now is of the sort I experienced to be a cause of pleasure in the past. Recognition requires a persisting unitary agent, *since that which does not have the same agent is never recognised*, for example I can never recognise my friend's cognitions; therefore, recognition cannot be explained without postulating a persisting unitary agent, i.e., a self. The Buddhists question the Naiyāyika's above reasoning. They argue that recognition does not presuppose the existence of a persisting unitary agent; it only requires a causally related series of momentary cognitions or psychological states (*skandhas*). The Buddhists proffer the following example: a paddy seed sown sprouts, and this sprout endowed with the potency of paddy by reason of its being produced by a paddy-seed yields, with the help of other elements (water, soil, etc.), a grain of paddy and not a grain of barley; nothing persists through these various stages, but we recognise the paddy-grain by virtue of its causal connection to the seed (Jha, 1984, p. 221).

The Naiyāyikas argue that causal relations cannot explain recognition by offering a counterexample: a piece of cloth is caused by the yarn composing it, but it would be wrong to say that we recognise that this cloth is the same as the yarn. The Buddhists explain that they are not offering an account of recognition per se. Their claim is not that there is recognition *because* there is a causal relation, but that the argument in the negative inference contains the only-game-in-town fallacy 'that which does not have the same agent is never recognised'. They aver that there can be two explanations for *that which is not recognised*; one that the cognitions have different agents, and the other that the cognitions are not the cause of each other. If that be the case, is the absence of recognition due to the first or the second explanation? *Prima facie*, there seems no reason to prefer one explanation over the other. Therefore, unless the Naiyāyikas offer a better argument, the Buddhists cannot accept that recognition requires a unitary persisting agent.⁷

Clearly, the main contention between the Buddhists and the Naiyāyikas is on recognition predicated on a persisting agent (the self). According to the Buddhists, 'the series of psychological states' in which the cognition and recognition appear, is both the cogniser and the recogniser; there is no need to postulate a self apart from these states. However, this fails to address the Naiyāyikas' concern that nothing persists in this series to warrant a connection between the original cognition and the subsequent recognition. While, the Naiyāyikas concede that cognitions are ephemeral, they aver that these leave behind latent memory impressions, which, in turn, bring about the later recognition. On their view, it is absolutely essential for this

process that the recogniser continues to exist from the time of the cognition to the time of the recognition. However, the Buddhists do not admit of anything but momentary cognitions, each one self-reflexive and self-aware (i.e., transparent). These latent memory impressions, which by their nature are below the level of consciousness, are unavailable to do any explanatory work in the Buddhist explanation. This leads the Naiyāyikas to ask the next question: what happens to the latent memory impressions when there is no awareness of them?

In answer, Buddhists appeal to the notion of basic or repository consciousness (*ālaya-vijñāna*),⁸ a receptacle of latent dispositions that co-exists with the manifest conscious states in an unconscious way (not amenable to introspection).⁹ This repository consciousness provides the link between the earlier cognition and the subsequent recognition via the memory dispositions that it contains. Therefore, even though the earlier cognition and the subsequent recognition are transient, there is the repository consciousness connection between them, which informs one cognition of another, thus bringing about the recognition. Uddyotakara, in *Vārttika*, argues that the repository consciousness stratagem does not help, because it cannot affect any present or future cognitions. This, he says, is because, according to Buddhists themselves, present cognition is immaculate (untouched by *kalpanā* or mental activity) and, therefore, cannot be influenced in any way by mental dispositions of repository consciousness, and as for future cognitions, they are yet to happen and, therefore, in any case have no connection, whatsoever, with repository consciousness. The Naiyāyikas, in general, are unlikely to accept that postulating another level of 'unconscious' series of conscious states strengthens the Buddhist argument, because this too, like every other consciousness series, is ephemeral; for the Buddhists, there are no moments when, in the repository consciousness, the seeds are not fruiting, and new ones are not getting added by the process of cognitive awareness; *ālaya-vijñāna*, like everything else in the Buddhist universe, is in a state of flux and thus cannot explain recognition.

Towards the end of the discussion of negative inference, Uddyotakara gives another reason to show that the Buddhists cannot explain recognition. He introduces a grammatico-logical thesis: Every *bhāva* (activity) stands in need of *bhavitṛi* (owner of the activity) (Jha, 1984, p. 227).¹⁰ Uddyotakara introduces the thesis with the qualification 'as a matter of fact' and supports it by examples like the action of cooking (*bhāva*) that requires that there be a thing, say the rice (patient), which is being cooked. Therefore, recognition being an activity requires an owner of the activity.¹¹ This owner can be the patient, object remembered (*karman*) or the agent (*kartr*) doing the remembering. Uddyotakara argues that the agent must be the owner for the act of remembering since we can remember absentee things that do not exist at the time we remember them.

The Buddhists challenge the grammatical presumption that activities have owners: recognition, being an effect that is produced, does not require another thing (i.e. the self) to be its owner. Uddyotakara contends that such an argument renders the Buddhist account of recognition meaningless, for if recognition were the *effect* of a causal process, it must be different from that process. But the Buddhists cannot

explain how the production is different from the thing that is produced; production can only be explained by referring to the cause, and since the cause has a momentary existence in the past that no longer obtains, it cannot be wheeled in to explain how remembering is produced. If, on the other hand, the Buddhists aver that the recognition and its production are not different, then there is no way of distinguishing between effects and their causes. In that case, the Buddhist assertion that ‘Recognition is produced as a result of a causal process’ becomes meaningless. Uddyotakara is making the more general point that causality seems to be inexplicable within the Buddhist world-view. He is also challenging the Buddhist opponent to explain the ‘obviously related’ facts of recognition and causation. This completes Uddyotakara’s discussion of the negative inference in the *Vārttika*.

The discussion on Adhyaya 3 of *Nyāya-sūtra* dovetails nicely with the discussion of *Nyāya-sūtra* 1.1.10 in *Bhāṣya* and *Vārttika*. From statements such as ‘I see with my eyes’, ‘I know with my mind’, and ‘I feel pleasure and pain with my body’, we tend to infer an owner or agent, i.e., the self, as distinct from body, sense-organs, and mind. Such statements suggest that there is an agent that employs the senses, the mind, and the body in cognitive acts, and that the agent and the instrument are distinct entities. But the Buddhists might, and they do, contend that even if we accept that the activity of recognition requires an owner or agent, why do we need to postulate the self as the owner over and above the sense faculties, mind, and body? Why can’t the sense faculties, etc., or the psycho-physical complex be the owner of the cognitions? In the *Vārttika*, Uddyotakara explains that while it may appear that such statements merely express a relationship between a part and the whole, that is, they may refer to a relationship, not between a particular faculty and some altogether different entity (a self), but between a particular faculty and the collection of all the faculties that constitute the psycho-physical complex, this view is refuted in *Nyāya-sūtra* 3.1.1 which says that ‘Because the same thing is apprehended by sight and touch’ (Jha, 1984, p. 1092). Vātsyāyana explains the *Nyāya-sūtra* 3.1.1 argument thus: the agent that both sees and feels the same object must be distinct from sense organs, because one sense organ cannot perceive the object of another: an eye, for example, cannot taste. So, there is *something* over and above the sense-organs that recognises the object on seeing, as the same that was touched before. For the same reason, this *something* cannot merely be an aggregate of faculties for it is a single agent that perceives and recognises the object on separate occasions, and not a composite of faculties. In *Vārttika*, Uddyotakara addresses a potential Buddhist objection to this argument: the same object cannot be apprehended by different sense organs because each sense organ is restricted to its proper object. This objection, he contends, instead of refuting the self, actually confirms its existence, in that it follows from the very restriction mentioned. The claim that each sense-organ is restricted to its proper object is consistent with the claim that both sight and touch can apprehend spatial properties; the proper object need not be exclusive. Also, precisely because each sense organ is restricted to its proper object, the self is required for cross-modal integration.

In his commentary on *Nyāya-sūtra* 1.1.10, Uddyotakara notes that the Naiyāyikas have in mind a particular kind of recognition. Vātsyāyana's commentary on the relevant *sūtras* in Adhyaya 3 is useful for clarifying the specific notion of recognition at issue in this debate. Vātsyāyana says

that the very same object which was [formerly] apprehended by the sense of sight is [now] apprehended by the sense of touch, and, one thinks, 'that thing which I saw with my eyes I now touch with the organ of touch' or 'that which I touched with organ of touch I now see with my eyes'. (Jha, 1984, p. 1092)¹²

The point is not just that the self can correlate information from different sense-modalities, but that a self thinks of itself as a conscious agent seeing and touching the same thing. One not only *recognises* that the two cognitions apprehend one and the same object, but also that these two cognitions belong to, or are had, 'by me'. This self-referential feature of first person memory ascriptions suggests that the self has a sense of itself as a persisting conscious agent. This point is reinforced in the following discussion.

Nyāya-sūtra 3.1.12 offers yet another argument based on cross-modality and recognition.¹³ It says:

From the excitation appearing in another sense-organ (than the one that brought about the preceding perception). (Jha, 1984, p. 1137)

Vātsyāyana, in *Bhāṣya*, explains this by offering an example along the following lines: a person who enjoys pizza (associated with a certain look and smell) may salivate while walking past a pizzeria and smelling the aromas wafting through the door. The excitation in the organ of taste is caused by recognition of the taste through olfactory association. The point is that the excitation of the taste organ would not be possible without recognition, which, in turn, requires a single agent. *Sūtra* 3.1.13 puts forth the Buddhist opponent's objection to this reasoning of *sūtra* 3.1.12. The Buddhist opponent says:

The excitation is due to the remembered thing and not due to any such thing as the self. (Jha, 1984, p. 1140)

The following *sūtra* 3.1.14 perfunctorily rejects the opponent's view on the grounds that 'inasmuch as recognition is a quality of the self the denial of the self is not right' (Jha, 1984, p. 1141). The *Bhāṣya*, however, clarifies the argument underlying the bold *Nyāya-sūtra* 3.1.14 by revisiting recognition: the Buddhist is wrong in thinking that the object of recognition is merely the thing that was previously experienced, for we can also remember absent objects, and such a memory requires that we remember the experience; not just the object but also one's own past cognition of it. Thus, we say, 'I knew that thing', or, 'That thing was known by me'. And, with respect to recognising objects that we are perceiving now, we say 'I am seeing the thing I saw before'. This suggests again that recognition has for its object not only the remembered thing by itself, but also the past and present cognitions of it and that both of these belong to a single cognisor, who recalls the cognitions as belonging to itself (Jha, 1984, p. 1143). Thus, the cognitions, past and present, are both ascribed to the same cognisor.

Though the arguments in Adhyaya 3 have a different purpose, they add to the argument from recognition the important claim that when I remember something, it is not just that some past experience causes a present memory, but that I can also attribute that memory to myself in the first person. The ability to self-ascribe such recognitions emphasises the self-referential aspect of these memories. This completes the discussion of the relevant *sūtras* in Adhyaya 3.

Before we summarise the early Nyāya argument from recognition it is worth noting an observation about it. Insofar as desire, etc. (indicators—*hetu*, or *linga*—of the self in the *sūtra*) depend on recognition, the original cognition of the desired object must have been apperceived or represented, since the specific kind of recognition appealed to in this argument requires that the previous cognition, and not just the object, is remembered. The apperception of the initial cognition is important because, according to the Naiyāyikas, not all cognitive states are apperceived; some may pass unnoticed. This is perhaps the reason why the original *sūtra* does not mention merit or demerit, because they are not the sort of things that are apperceived by ordinary subjects and hence there is no scope for recognition.¹⁴ In summary, the thrust of the Nyāya argument from recognition is that the specific kind of recognition establishes the existence of a unitary and persistent conscious agent that represents both the original experience and the present recognition. This agent cannot be a momentary impression (as suggested by the Buddhist opponent), because a momentary impression can only represent a present cognition; it cannot represent a past cognition or the memory impression connecting the two. Without such a single agent, there would be no recognition and no such thought as is expressed in the sentence, ‘What I see now I have seen before’.

Nyāya-sūtras 3.1.12 and 3.1.14 strengthen this negative inference by revealing the specific notion of recognition (viz. episodic memory) invoked by Naiyāyika philosophers in their proof for the existence of a self (discussed in Section 2 below). First, the question: What does the negative inference argument prove? Assuming it is successful, this argument from recognition establishes that, and only that, the self exists as a unitary and persisting conscious agent. This minimal conclusion is a far cry from the ontological self that the Naiyāyikas want to establish.

III. Episodic Memories and the Self

Episodic memory is a significant pursuit in contemporary philosophy and psychology in the study of relations between self and memory. Endel Tulving (1972, 1983) distinguishes between *episodic* and *semantic* memory. *Episodic memory* is autobiographical memory for the events and experiences of one’s past as opposed to semantic memory which consists of generic, context-free knowledge about the world and one’s own self. It is fascinating to note that episodic memory was a focus in the Nyāya-Buddhist debates before the third century CE. To begin with, it is worth noting that the examples used by the Naiyāyikas in their commentaries on Adhyaya 3 suggest that they were appealing to episodic memories. Contemporary psychologists

use exactly the same kind of examples as typical reports of episodic memories, for example ‘I remember eating a burger for lunch yesterday’, ‘I have seen this before’. The distinctive feature of an episodic memory (as opposed to a semantic memory, or any other non-declarative memory) is that it records events as having been experienced in one’s personal past. When retrieved, these events are re-experienced with conscious awareness that ‘I saw that’ (e.g., Suddendorf & Corballis, 1997; Tulving, 1983, 1993; Wheeler, Stuss, & Tulving, 1997). This requires that we remember the earlier cognition, not just the object. Naiyāyikas agree. Furthermore, every episodic memory, by definition, entails a mental representation of the self as the agent or recipient of some action, or as the stimulus or experiencer of some state (Klein, 2012a). In Nyāya also the self is the doer and the experiencer. Furthermore, retrieval from episodic memory has a self referential quality, in that it involves re-experiencing events from one’s past, which seems to be absent from other types of memory (Eakin, 2008; Klein, 2001; Klein, Cosmides, Tooby, & Chance, 2002; Klein & Gangi, 2010). It is this self referential quality of episodic memory that explains the capacity to self-ascribe the memory (or, as the Naiyāyikas would say, ‘I touch what I saw’). It seems obvious that in the argument from recognition the Nyāya employed what we now call episodic memories, though they lacked the label.

The task of this section is to bring into play empirical evidence from contemporary psychology and philosophy in support of the Nyāya argument from recognition. Someone may object that this strategy is wrong-headed; the concerns of contemporary psychologists are very different from those of ancient Naiyāyikas. However, as far as the argument rehearsed in Section 1 is concerned, the main contention is whether we can explain recognition or episodic memories without a persisting agent. The Nyāya claim is that it is impossible to explain recognition without positing a self as persisting agent. To be sure, there are other issues in ancient Indian debates about the nature of self, where contemporary philosophy can be brought to bear upon, for example whether the unitary and persisting conscious agent is a self or a person, and what kinds of things selves or persons are, and the nature of self-awareness.¹⁵ But these issues can be set aside for now, the question that concerns us here is: To what extent do episodic memories provide evidence for numerical identity? Below we look at the empirical evidence for an answer to this question. The empirical evidence is concerned with a sense of identity across time, rather than the reality of identity. But it is important as a first step in this investigation. Galen Strawson (1997) is right, when he states:

Here I think there is a fundamental dependence: metaphysical investigation of the nature of the self is subordinate to phenomenological investigation of the sense of self. There is a strong phenomenological constraint on any acceptable answer to the metaphysical question which can be expressed by saying that the factual question ‘Is there such a thing as a mental self?’ is equivalent to the question ‘Is any (genuine) sense of self an accurate representation of anything that exists?’ (p. 409)

I will show that the evidence supports the Nyāya position against that of Buddhists and Mīmāṃsakas in ancient India.

Recent psychology research demonstrates that episodic memory seems essential to a sense of identity across time (Atance & O'Neill, 2001, 2005; Klein & Nichols, 2012).¹⁶ It has been proposed that the study of patients suffering amnesia might provide a particularly effective method for examining the respective contributions of episodic and semantic memory to self-knowledge. This is because amnesic patients often experience selective memory loss: their semantic memory (semantic factual knowledge and knowledge of one's own traits in generalisations) is intact, while their episodic memory is compromised (Kihlstrom, Beer, & Klein, 2003); amnesiacs do not recall events from earlier life, but they are able to retrieve generic knowledge about themselves and the world around them, and also learn new facts (Schacter & Tulving, 1982). This allows them to base their identities on updated semantic self-knowledge, even if they totally lack episodic records (Kihlstrom et al., 2003). Patients suffering from total anterograde and retrograde episodic amnesia can describe their own personal traits reliably and accurately (Klein, Loftus, & Kihlstrom, 1996; Tulving, 1993). For example, K.C., a very dense amnesic (consequence of a severe head injury) has both a complete anterograde amnesia covering events since his accident, and a complete retrograde amnesia covering his life before that time; in other words he has no autobiographical memory at all. Moreover, the head injury also resulted in a profound personality change, from extroverted to a rather introverted one. He retains no idea of what he was like earlier (as described by his mother) nor of how he has changed. Nevertheless, he possesses a self-concept that accurately reflects his changed personality, and comports fairly well with his mother's description of him. K.C. has acquired new semantic knowledge about himself, but he has not retained the experiences on which this self-knowledge is based; his newly acquired self-knowledge has effectively replaced the one he possessed before the accident (Tulving, 1993). It is also worth noting that episodic memory is represented in the long-term memory complex independently of semantic memory (Klein & Loftus, 1993).

However, crucially, a number of other cases illustrate that semantic self-trait memory is not sufficient for a sense of numerical identity (Klein, German, Cosmides, & Gabriel, 2004). In the case is of D.B, who suffered extensive hypoxic brain damage, the episodic memory system is severely damaged. He is incapable of remembering a single event or experience from his past. The study of patient D.B. concerns the effects of his amnesia on his inability to imagine what his experiences might be like in the future, in parallel with his difficulties remembering his personal past. In contrast, his capacity to anticipate issues and events in the public domain was largely indistinguishable from that of neurologically healthy, age-matched controls (Klein, 2001). Furthermore, islands of episodic memory seem to be correlated with a sense of identity, even when there has been a dramatic memory loss as in the case of H.M., who after partial removal of his medial temporal lobes to alleviate seizures, lost his capacity to form new episodic memories, but did remember a few stories and experiences from when he was much younger. H.M. after surgery is vastly different from the young man he used to be; he can no longer remember whether his parents are alive or dead, he does not know where he was living, and is not capable of looking

after himself. Yet he identifies himself with the young man from South Coventry, Connecticut, and remembers that he possessed handguns which he used to shoot with when he was young (Hilts, 1995). The case of H.M. shows that when episodic memory is partially intact, people retain a sense of identity even though there has been a dramatic memory loss. The above evidence suggests close connection between episodic memory and a sense of continuing self.¹⁷

More importantly, the evidence seems to support a much stronger thesis that 'mineness' is essentially tied to the content of an episodic memory, a view defended notably by Marya Schechtman (1990) in contemporary times. Such a view was held by Mīmāṃsakas in ancient India, as well as Thomas Reid and Bishop Butler in modern times (Taber, 1990, p. 46). The thrust of the Mīmāṃsa argument, according to Taber (1990), is that:

Memory establishes the existence of a continuous self not insofar as it presupposes a single subject of experience that both had the remembered experience and now remembers it, but insofar as it directly reveals one. For it is part of the content of many of my memories that I, who am now remembering, am the one who did or experienced the thing that is remembering now, am identical with a thing—a subject of experience—that existed in the past. From this I infer that I have existed continuously through time. (p. 37)

The Mīmāṃsa argument is based on the fact that self is part of the content of memory experience and, therefore is recognised as being the same over time. This experience of recognition of myself as identical with a thing in the past is the ground (*hetu*) of the Mīmāṃsa inference for a continuing self. A viable psychological hypothesis to test this view is to ask whether the retrieval of an episodic memory inevitably issues a representation of self as owner; in other words, is the content of an episodic memory separable from its 'mineness' (Klein et al., 2004; Wheeler et al., 1997).

This hypothesis, however, is false, as the case of R.B. demonstrates. R.B. suffered head trauma from an accident that resulted in several cognitive and memory impairments including retrograde and anterograde amnesia for events in close temporal proximity to the accident (for case details, see Klein, 2012b). In particular, R.B. suffered a new form of memory impairment; he was able to remember particular incidents from his life accompanied by temporal, spatial and self-referential knowledge, but he did not feel that these memories belonged to him. This kind of impairment is documented for the first time by Klein (2012b).¹⁸ R.B.'s recollections are not merely semantic memories; they seem to have all features of episodic memories. This is how he describes what it is like for him to recall personal events:

What I realized was that I did not 'own' any memories that came before my injury. I knew things that came before my injury. In fact, it seemed that my memory was just fine for things that happened going back years in the past. (The period close to the injury was more disrupted.) I could answer any question about where I lived at different times in my life, who my friends were, where I went to school, activities I enjoyed, etc. But none of it was 'me'. It was the same sort of knowledge I might

have about how my parents met or the history of the Civil War or something like that. (quoted in Klein & Nichols, 2012)

His testimony is clear: he is recalling scenes, not facts. R.B. could clearly recall a scene of being at beach with his family in his childhood, but the feeling was that the scene was not his memory; it felt as if he was looking at a photo of someone's vacation. R.B. could remember events from graduate school, studying with his friends, he could re-live the experience, but again, he said '[I]t did not feel like it was something that had been a part of my life'. R.B. did not intellectually doubt his memories, he believed that they were his memories because there was continuity of memories that fitted a pattern leading up to the present time. But even that did not help change the feeling of ownership. He was also able to intentionally call such memories into awareness; the ability to be auto-cued being one of the features that separates episodic memory from other kinds of memory that characterise most non-human sentient creatures (Suddendorf & Corballis, 1997). R.B. gradually recovered his physical functions and eventually the feeling of personal ownership of his episodic recollections returned. What does this case show?

For our purposes, R.B.'s case shows that though episodic memories are typically associated with an irresistible sense of being the same person, the 'mineness' is not part of the content of episodic memories. The sense of identity turns out to be, *pace* Mīmāṃsakas and Reid and Schechtman, a contingent feature of episodic memory (Klein & Nichols, 2012). R.B. had episodic memory of past events during the period of non-ownership but he lacked a sense of diachronic identity with his past self. During this period R.B. could represent his past experiences, but only as 'R.B. had that experience'. He could auto-cue those memories; he also had the knowledge that the memories are about him, and not someone else. It is clear that even though R.B.'s episodic memories during this period involved a weak sense of self-reference, they lack the sense of ownership or 'mineness' that typically accompanies episodic memory recollections. The apparent deficit is in terms of self-ascribing these experiences; what R.B. lacks is the sense that 'I had these experiences'. This can be explained by a special kind of conceptual self-representation, typically associated with episodic memories, that is missing in R.B.'s case (Klein & Nichols, 2012). There is also independent reason to think that there is a special conceptual self-representation that is typically associated with some uses of first-person 'I' (Perry, 1977, p. 494). This account of episodic memory and its contingent relation with a self-representation is contrary to the Mīmāṃsa view of self-recognition; the self-representation, which explains the 'mineness' is not a part of the content of the episodic memory. The case of R.B. shows that it is a distinct representation which is inserted into the agent slot of an episodic memory attribution.

The Nyāya view, on the other hand, sits well with this empirical picture. Episodic memories, for Nyāya, require representations of the past experience and the present recognition and an awareness that both these representations belong to, or are ascribed to, the same persisting agent (i.e. self). That the self is a single persisting agent is indicated by the unification of the representations of the past and the present

in the same consciousness; the self is not conceptually contained in these representations, as suggested by the Mīmāṃsa view. Furthermore, the claim that there is a distinct conceptual self-representation (self as owner) that is contingently, but typically, associated with an episodic memory, works against the Buddhist view, while suggesting that the Nyāya view is closer to the truth. Recall that in the Buddhist view, recognition (itself being an effect) does not require an owner. The Buddhist position, that the sense of identity, or the notion of ‘I’, is a delusion, is, therefore, refuted by the empirical evidence. However, the Naiyāyikas view that the sense of identity or the ability to self-ascribe episodic memories indicates a unitary and persistent conscious agent is much stronger than that supported by contemporary research, which is more cautious:

Does the sense of [personal] identity provide evidence of numerical identity? These are large and difficult issues, but future investigations into the matter might draw on the fact that the sense of [personal] identity is really a byproduct of the episodic memory system. That’s just how episodic memory happens to work . . . Knowing the nature of the systems that deliver these judgments might be an important source of information for evaluating the extent to which the sense of identity can be taken to reflect the reality of identity. (Klein & Nichols, 2012)¹⁹

Before closing this section, I will briefly answer another contemporary objection (Ganeri, 2000) raised against the argument from recognition. Ganeri (2000) believes that an interpretation of *Nyāya-sūtra* 3.1.1 as an argument based on recognition might lead to circularity problems (p. 642). Highlighting the role of self-ascription in the *sūtra* argument, he says

[t]here is no good argument from the fact that perceptions in different modalities can be of the same object to the existence of a substantial self, without reference to the nature of self-ascriptive judgements of the ‘I touch what I see’ type. (Ganeri, 2000, p. 643)

I agree that the notion of self-ascription is critical to the argument. However, according to Nyāya, apperception (and so *recognition*) is essential for self-ascription of the ‘I touch what I see’ type judgements, because we can only self-ascribe the cognitions that have been apperceived. But, the Naiyāyikas believe that not all cognitions are apperceived; some pass unnoticed. The move from cross-modal integration to self-ascription is not available to the Naiyāyika philosopher without having apperceived the cognitions in the first place; recognition ensures that the cognitions ascribed in ‘I touch what I see’ type judgments are apperceived. Furthermore, the circularity would arise only if the Naiyāyikas thought of memories as constitutive of the self, which they do not: memory is used in this argument as evidence for the self; it does not constitute what it is to be the same self over time.

IV. The Tension in Early Nyāya: Minimal vs. Ontological

The Nyāya argument from recognition aims to establish the minimal conclusion: self as the unitary and persisting conscious agent. However, this is quite different from

the ontological conclusion that the self is a distinct substance (*ātman*). Even though the notion of substance is central to Nyāya-Vaiśeṣika ontology, early Naiyāyikas did not clarify their doctrine of substance (Matilal, 1985, p. 274). The self is a distinct substance in early Nyāya but it is not clear whether we should interpret ‘distinct’ as ‘independent’ in the Cartesian sense. However, insofar as the early Naiyāyikas (as Hindus) are committed to the possibility of release (*mokṣa*) they are committed to the self being an independent substance, since the mere possibility of release requires that self is capable of existing as pure substance (*ātman*) without any qualities. The task of this section is to highlight this tension between the minimal and ontological conclusions in the early Nyāya. First I show that the self as a unitary and persisting conscious agent depends on the body. Then, that the self as an independent substance cannot depend on the body. I also note that early Nyāya arguments for eternity and immateriality of the self do not conflict with the claim that the self depends on the body.

Consider the two theses accepted by all Nyāya philosophers: (a) the distinctive qualities of the self (desire, aversion, effort, pain, pleasure and cognition) are either intentional (*saviśayaka*; object-directed) states or depend on intentional states, and (b) the intentional states depend on the body. In (a) cognition is assumed to be intrinsically intentional and the other qualities depend on intentional states because they are based on recognition. Again (b) follows from the Nyāya definition of body as the locus of activity, sense organs, and pleasure and pain (*Nyāya-sūtra* 1.1.11). Since sense-organs are located in the body, and perceptual cognitions depend on the body (other cognitions e.g., inference, verbal testimony, etc., in turn depend on perceptual cognition), it follows that cognition and thus recognition must depend on the body. Therefore, insofar as qualities of the self are intentional states they depend on the body. In other words, a disembodied self *cannot* be an agent of cognition and recognition. Therefore, the proof for the self in *Nyāya-sūtra* 1.1.10, interpreted as an argument from recognition, delivers a surprising conclusion: the self as the unitary and persistent conscious agent depends on the body.

Next, note that the Naiyāyikas are committed to the possibility of release (*mokṣa*), which requires that the self is capable of existing independently without any qualities. According the Naiyāyikas, release is characterised as a painless state which marks the cessation of the series of birth and rebirth (*Nyāya-sūtras* 1.1.9 and 4.1.59). Release is the only state in the history of an individual self where it exists as a pure substantial self (*ātman*) independently of its qualities; in this state the self is without *consciousness* and without a *body*. But, as shown above, the Nyāya argument from recognition can only sustain the minimal conclusion that the self is a unitary and persistent conscious agent that depends on the body. This is the point where these two distinct notions of self come apart in Nyāya; but it is important to note that this is the only point where this happens.

That there is no conflict in the case of self being immaterial can be seen as follows. The Nyāya grant that the individual material elements earth, water, fire and air cannot be the substratum of the distinctive properties (desire, etc.) of the self: the only serious candidate is the body. The Nyāya argument for the claim that the self is

distinct from the body is based on the distinction between qualities of the self and qualities of the body. The real qualities of the body are found as long as the body lasts but conscious states (properties of the self, e.g. desire, etc.) depart the body at death, and, furthermore, conscious states are intimate in that they are only directly perceived by the self unlike properties of the body which are either available to external perception or are totally imperceptible (*Nyāya-sūtra* 3.2.46–3.2.55). Setting aside the question whether the argument succeeds, it does not even touch the claim that the distinctive properties (*linga*) of the self, desire, etc., are dependent on the body. Note that minimal conclusion is limited to the self being dependent on the body: it is not that the self is identical with or reducible to the body. The strong Cartesian distinction between consciousness and matter (or mind/soul and body) is not applicable to Nyāya or indeed to most classical Indian schools. The claim that the self is not a material entity is not by itself incompatible with the claim that the self depends on the body.

On the claim of eternity of the self, the early arguments in the *Bhāṣya* and *Vārttika* are, unsurprisingly, based on facts of experience and do not conflict with the claim that the self is dependent on the body. They argue that the soul is eternal because the newborn infant experiences joy, fear and sorrow, and has desire for the milk from the mother's breast (*Nyāya-sūtra* 3.1.18–21). The experiences of joy, fear and sorrow are indicated by the infant's smiles and cries; the desire for milk is indicated by its groping for the mother's breast. Uddyotakara explains that the desire (for milk) is inferred from the activity (groping for the breast), which, in turn, leads to the inference of remembrance of the past, remembrance leads to the inference of impressions, the impressions to that of previous cognition, and that cognition leads to the inference of the existence of a previous body (Jha, 1984, p. 1163). On the basis of this argument, the Naiyāyika claims that the infant had a body previous to this one and that the infant's self departed the previous body at death and has become endowed with a new body at this birth. The early Naiyāyikas do not say anything about the existence of self between death and the acquisition of a new body (perhaps, assumed instantaneous and hence in need of no elaboration). The argument for the eternity of the self proves nothing more than the fact that the infant's self as an experiencer (of joys, etc.) and doer (activity of groping) is dependent on a previous body; it says nothing about the existence of the self apart from a body or about the existence of the self between the death of one body and acquisition of another. Setting aside the question whether the argument for eternity of the self succeeds to establish the desired conclusion; the argument shows that the self depends on a body; not necessarily *this* one, perhaps a *series* of bodies with which a self is endowed in its numerous lives.

V. Conclusion

Insofar as all the indicatives (*linga*) of the self depend on recognition (*Bhāṣya* and *Vārttika* interpretation of *Nyāya-sūtra* 1.1.10), there seems no reason to believe that

the self exists in a disembodied form. At no point in these early commentaries is the Naiyāyika philosopher arguing for an *ātman*; the sole interest of these arguments is to establish a self as a unitary and persistent conscious agent. Historically, Nyāya never used the kind of argument offered in *Nyāya-sūtra* 1.1.10, interpreted as an argument from recognition, to establish the ontological conclusion. However, some scholars like Chakravarti (personal communication, 1977), suggest that the Nyāya philosophers *point* to an ontological self when describing and defending self as a unitary and persistent conscious agent. Chakravarti (2011, pp. 325–327), while discussing Udayana's (Nyāya philosopher, tenth CE) arguments for the self, resorts to a phenomenological argument to establish a unitary consciousness (akin to the minimal conclusion) but takes it to be a property of the ontological self (*ātman*). However, insofar as a unitary consciousness must be embodied, it is not clear whether it can be a property of the ontological self which is a substance capable of independent existence. I believe that this tension is to be expected in Nyāya because of their unfaltering commitment, simultaneously, to the voice of reason and argument (together with a broadly empiricist and direct realist attitude) and the voice of authority (Vedas). We can explain away this tension only if we chose to drop the soteriological commitments (to do with the possibility of release) of the early Nyāya philosophers, following the re-interpretative strategy recommended by Chakravarti (2007, p. 93). The early Nyāya can then be best seen as holding some sort of non-reductive physicalist view of the self.

Notes

- [1] The argument from eliminative inference has been discussed by Chakrabarti (1982) in his seminal paper on 'The *Nyāya* Proofs for the Existence of the Soul'. His version of argument has an ambitious aim: to establish the existence of the soul as a distinct substance. This argument is originally presented in the *Vārttika* only after other versions have been discussed, because the eliminative inference cannot take off in the context of the debate (with the imaginary Buddhist opponent). Its first premise itself (Desire, etc. are all qualities and qualities must belong to a substance) is rejected outright by the Buddhists. In fact Uddyotakara presents eliminative inference as an alternative interpretation of the argument of the original *sūtra* given by 'some people'. He does not claim authorship of this interpretation, though it is obvious that he does endorse it (see Jha, 1984, p. 232). The argument from positive inference has also not received much attention in the literature, but insofar as it depends on the idea of synchronic unity of consciousness, it can be subsumed under the argument from recognition. Uddyotakara argues that different cognitions of colour, taste, touch, etc., point to a single cause (i.e., the self) that is involved in the occurrence of each of them as well as to many causes (different objects of cognition). The former is explained by the fact that all these different cognitions are connected together in my consciousness by virtue of being experienced 'by me'. The only reason given in the text to support this inference is an argument by analogy. Just as several cognitions (ideas, feelings), caused by a single factor of their origination—an awareness of a particular glance of the dancing girl—appear simultaneously in the minds of multiple spectators of the dance, similarly, several simultaneous cognitions point to a single agent (i.e., self) in virtue of being united in the same consciousness as being had 'by me', for example struggling to think of the right words to express one's thought, listening to the music in the background, being

annoyed by the noise in the corridor, all at the same time. There is one cause (the glance) even though there are several cognitions by several persons, they are all recognised as being brought about by a single common cause, in the same way, there is one cause (the agent) even though her cognitions are several. Several simultaneous cognitions point to a single agent (i.e., self) in virtue of being united in the same consciousness as being had ‘by me’, e.g., struggling to think of the right words to express one’s thought in writing, listening to music in the background, being annoyed by the noise in the corridor, all at the same time. The positive inference, in particular the example used by Uddyotakara, suggests synchronic unity of consciousness as a proof of the existence of the self. The argument from recognition, on the other hand, is concerned with the diachronic unity of consciousness as a proof for the existence of the self.

- [2] However, it is important to note that the version of the argument in the *Tarkasaṃgraha* departs significantly from the original argument in *Nyāya-sūtra* 1.1.10. This issue will be discussed in detail later.
- [3] There are other influential discussions of arguments under the umbrella of Nyāya arguments from recognition. The one most discussed in the contemporary literature is what may be called the argument from ‘cross modal recognition’ in *Nyāya-sūtra* 3.1.1. (See Chakrabarti, 1992 and Ganeri, 2000; neither investigates the negative inference in the *Vārttika*).
- [4] This distinction is inspired by Chakravarti’s (2011) distinction between phenomenological and ontological descriptions of the self in Nyāya .
- [5] I am grateful to Ram-Prasad Chakravarti for his help with clarifying the early Nyāya position on this issue.
- [6] Note that that ‘object’ in this context may refer to particulars or kinds.
- [7] This point is clarified in detail in Vācaspati Miśra’s *Tātparyatikā*. (See footnote, Jha, 1984, p. 222).
- [8] Repository consciousness (ālaya-vijñāna) was postulated by the early Yogācārā philosophers to explain karmic and mental continuities (Waldron, 1995).
- [9] This repository consciousness is considered by the Buddhists to be the basis of the erroneous ‘I’-idea (Waldron, 2003, p. 120).
- [10] Bhāva is an activity signified by a verb-stem, while bhavitṛi denotes the presumed owner of the activity, which, in accordance with the Nyāya kāraka-theory is either a patient (*karman*) or an agent (*kartr*). I am grateful to Jonardon Ganeri for his help with this translation.
- [11] Uddyotakara refers to recognition as an action in the *Vārttika* (*Nyāya-sūtra* 3.1.1).
- [12] This particular argument has been discussed in the contemporary literature (Taber, 1990; Chakrabarti, 1992; and especially Ganeri, 2000). Taber and Ganeri’s discussions will be addressed in Section 2. Though interesting in its own right, Chakrabarti’s discussion has an agenda that will take us far afield from the discussion of the relevant argument. He is interested in showing that there is a two-way entailment between realism about the self and the external world.
- [13] *Nyāya-sūtra* 3.1.7 offers another argument based on recognition for the claim that the conscious agent must be distinct from the body and the various faculties because we recognise with the right eye what we once saw with the left! If the right or left eye were the conscious agent, this could not occur, for, once again, one sense-organ cannot recognise what has been experienced by another sense-organ. It is worth noting that the odd claim that two eyes are distinct faculties is not accepted by commentators, who interpret this *sūtra* variously. In the *Bhāṣya*, Vatsyāyanā interprets it literally and uses it to put forward an argument for the existence of a single agent operating through various sense-organs. Uddyotakara in the *Vārttika* rejects this interpretation and suggests that this argument is put forward as the opponent’s view simply to be refuted.
- [14] A much later and influential eighteenth-century text *Tarkasaṃgraha* lists eight qualities as distinctive (desire aversion, pleasure, pain, cognition, memory, merit and demerit; *Tarkasaṃgraha* 73–78). Insofar as it includes merit and demerit as qualities of the self, it

- departs significantly from the original *Nyāya-sūtra* 1.1.10, because merit and demerit are very different indicators: they are not based on recognition and are not intentional states.
- [15] See Chadha (2011) for a discussion of the Nyāya-Buddhist debate on the nature of self-awareness.
- [16] Though contemporary research is concerned with the sense of personal identity, and Klein and Nichols often focus there, it is obvious from their discussions that they are concerned with numerical identity over time. It is diachronic identity that is at issue in this debate, not whether it concerns persons or selves.
- [17] There is an important caveat to be entered here. The diachronic sense of identity over time is not the only sense of personal continuity available. While it is true that D.B. lacks an episodic memory based diachronic sense of self, his synchronic sense of self is preserved. It might be that there is a sense of personal continuity that derives from the resilient knowledge of one's own traits which serves as the foundation for one's sense of a continuing self.
- [18] Two other cases, with many features common with the R.B. case, are documented by Talland (1964) and Stuss and Gussman (1988)
- [19] I have bracketed 'personal' in the quote above because in the context of discussions of ancient Indian philosophy, the notion of a person is distinct from that of a self. (See Chakravarti, 2011, on this point.)

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