

The structure of episodic memory: Ganeri's "Mental Time Travel and attention"*

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Do you remember reading "Mental Time Travel and Attention"? Where were you when you were taking in the paper? Or if you have ever ridden a bicycle, do you remember when you first rode one? Were you scared? The memories such questions elicit, at least when they are based on a putative past experience, are the target of a range of theories in Jonardon Ganeri's "Mental Time Travel and Attention". Such memories are examples of *episodic* memories.

Episodic memories differ from some memories of events one didn't live through (the time one's parents met each other) and of facts that aren't about events at all (sulfur burns yellow) – both examples of 'semantic memory'.¹ Arguably, you can even semantically remember an event you did live through, as when you might remember that you entered Bulgaria on June 27th, 1964, thanks only to a stamp on your passport (Vendler 1979).² Episodic memories are also distinct from memories encoded in skilled action, such as remembering how to cook rice – a paradigm of 'procedural memory'.³

To get a more vivid feel for the memories Ganeri has in mind, consider this passage he cites from Buddhaghosa:

"When [entering] purely at the mind-door, there is no stimulating of a sense faculty's sensitivity. Those kinds of objects normally come into focus as seen, as heard, as smelt, as tasted, or as touched. How? Here someone circumambulates the Great Shrine [in Anurādhapura], which is all whitewashed, painted with yellow and red ochre, etc., hung with many kinds of flags and banners, festooned with garlands of flowers.... Then after he has seen the Shrine ... at another time, wherever he goes, while he is sitting in his day quarters or his night quarters, as soon as he adverts to it, it is as if the Great Shrine decked with ornaments came into focus in [lit. came to the

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¹ One could also semantically remember falsehoods.

² For a contrasting attempt to assimilate episodic to semantic memory see Barclay (1994).

³ Some mental phenomena combine procedural and semantic memories, such as when one recognizes something or someone one has seen before. If you know what avocados look like, you are skilled at identifying the avocados at the produce stand, but you presumably also know some facts about what visible features avocados have, such as their typical shapes, size, and texture. For discussion of this phenomenon, see McGrath (forthcoming).

avenue of] the eye door” (quoted by Ganeri).

Here is how Ganeri interprets the main passage from which this is drawn.

“Buddhaghosa...reconstructs in detail the situation in which the original experience takes place and provides a phenomenologically rich description of the sensory and motor aspects of the experience. He then describes a way in which memory involves a simulation of a previous experience...The earlier modal state [eg, visual or auditory] is as if again seen at the eye-door, and comes into focus...because of having been seen.” (p. 9)

According to Buddhaghosa, the mind is structured by doors. There are doors for each of the senses (the eye-door, the ear-door, and so on), and then there are things that enter the doors such as shrines (called “visible data as objects” on Ganeri’s translation). There is also a door for the mind (the mind-door), and things can enter the mind-door without any new sensory stimulation.

According to Ganeri, there are two roles for a past perceptual experience in the structure of episodic memory. A past perceptual experience is both part of what’s remembered (“memory involves a simulation of a previous experience”) and it helps explain the existence of the memory (“the earlier modal state is as if again seen...*because of having been seen*”). Presumably it’s not exactly the modal state that is “as if again seen” – it is rather a scene or event that someone earlier saw, by having the experience. But even with this adjustment, the previous experience (“modal state”) in having which one saw the temple helps explain why one remembers it, and in that sense, the past experience sustains the memory.

When thinking about episodic memory, we find it helpful to distinguish between two dimensions of it, corresponding to these two roles for experience. The *memory relation* designates how a subject has to be related to a past episode in order to remember it, whereas the *memory perspective* designates how a past or putative past episode is characterized by the rememberer. This distinction (which we explain in detail later) provides a framework for discussing what a Buddhist theory of episodic memory might say.

In his paper, Ganeri discusses a range of Buddhist ideas that speak to both aspects of episodic memory. He also examines whether episodic memories present a past episode to the rememberer as one that she underwent, and if so, by means of what kind of first-personal elements. In particular, he examines how to theorize memory in light of a Buddhist denial of the existence of a persisting self. Ganeri’s tentative conclusion is in favor of the approach he finds in Buddhaghosa. We will argue that Buddhaghosa has much less of a theory of episodic memory and its first-person elements than Ganeri suggests. We don’t know the extent to which further resources for articulating it are present in Buddhaghosa’s texts.

To probe what a Buddhist theory of episodic memory might look like, we first need more analysis of the structure of episodic memory than we find in Ganeri's discussion. We start in sections 1 and 2 by discussing in detail the distinction between the memory relation and the memory perspective, and their respective interactions with Buddhist theories about the self. In sections 2-6 we turn to the three main tools Ganeri uses in his interpretation of Buddhaghosa: the metaphor of mental time travel, the idea that episodic memory is 'reliving past experience', and the idea that the 'reliving' in episodic memory is a kind of attention. We conclude in section 7 by explaining how Ganeri uses these tools to locate the first-personal elements of episodic memory as he thinks Buddhaghosa construes them, and argue that the resulting account does not amount to a theory of a memory perspective, or a full account of the memory relation.

1. The memory relation, the memory perspective, and the self

The difference between the memory relation and the memory perspective has an analog in perception. When we study perception, we can ask at least two kinds of questions.

First, we can ask how someone has to be related to an object, event, property, process, plurality or anything else, in order to perceive that thing. For instance, many 20th century theorists including Grice (1988) and Lewis (1980) develop the idea that perceived things cause effects in the perceiver, whereas Ptolemy and other extramissionist theorists of perception posit visual rays that emanate from perceivers, enabling their contact with a part of the world.⁴ Both kinds of causal theories aim to explain what kinds of causal dependence constitute perceiving. Other philosophers such as Hyman (1992) have denied that the perceptual relation is causal at all.

Second, we can ask which mental states constitute one's perspective when one stands in the perceptual relation. The differences between how things appear in different perceptions are differences in perceptual perspective. Abstracting from these differences, we can ask what kinds of states constitute one's perspective, for instance by asking whether one could be in the same kind of state, no matter whether one is hallucinating, imagining, dreaming, or failing in some other way to stand in any perceptual relation to the things one hallucinates, imagines, or dreams,

⁴ On extramission theories, see Hatfield (2002).

and merely seems to be perceptually related to.⁵ When one does stand in a perceptual relation, typically, one also enjoys a perceptual perspective.⁶

An analogous distinction between these two directions of inquiry applies to memory. The episodic memory relation (which we'll keep calling simply 'the memory relation', since for us the other kinds of memory aren't at issue) is a relation between a rememberer and an episode in the past. When we ask what the memory relation is, we are asking how someone has to be related to something in the past, such as a specific episode, or a type of episode, in order to remember it. For instance, analytic philosophers have disagreed about whether the remembered episode has to cause the rememberer to have the memory (as per Martin and Deutscher 1966, or not as per Malcolm 1963), and about whether the memory relation is simply a relation of awareness to the thing remembered (Russell 1912) or not (Russell 1921). On behalf of Buddhaghosa, Ganeri develops the idea that the memory relation is a form of attention (as is the memory perspective as well).

So far we have mainly spoken as if you lived through the episodes you episodically remember. But this way of speaking seems at odds with a great range of Buddhist theories and commitments concerning the human subject. If subjects such as Buddhists construe them nonetheless have episodic memories, what structure might those episodic memories have? Our distinction between the memory relation and the memory perspective provides a framework for discussing what a Buddhist theory of episodic memory might say, as the Buddhist denial of persisting selves puts different constraints on each dimension.

The Buddhist constraint on the memory relation is initially straightforward. The relation cannot ever hold between the rememberer on Tuesday and an episode that *she* lived through on Monday, because on Monday the rememberer didn't exist. By contrast, the Buddhist denial of persisting selves has a different kind of impact on the memory perspective. It constrains what a memory perspective can accurately present as having obtained, rather than directly constraining what memory perspectives can present.

⁵ Some approaches to perception attempts to analyze some perceptual perspectives in terms of perceptual relations. A related idea is that there are perceptual perspectives one has when dreaming or hallucinating that cannot be analyzed in terms of perceptual relations. For an overview, see Soteriou (2016).

⁶ Are perceptual relations essentially perceptual perspectives? On one interpretation, at the end of Perky's (1910) experiment in which the subjects start out looking at a blank screen and imagining a sunset and end up seeing a picture of a sunset that is gradually projected onto the screen, these subjects combine a perceptual relation (to a picture) with a non-perceptual imaginative perspective, by perceiving (a picture of) a sunset while seeming merely to imagine one.

In the rest of this section, we'll explore issues with a more intricate way to reconcile a denial of a persisting self with the possibility of the episodic memory relation. We'll discuss the memory perspective in more detail in the next section.

Again, if you didn't exist yesterday, you can't remember what *you* did yesterday. However, Buddhaghosa still could allow that you bear the episodic memory relation to the past. For instance, Buddhaghosa could replace episodic memory by persisting selves with episodic memory by and of *continuants*, understood roughly as locuses of potential experience that are continuous with each other in an appropriate way, such as psychological continuity, or bodily continuity, or mere causal continuity.⁷ Where S_{Tuesday} is the continuant of a locus of experience who existed on Monday (we can call that locus of experience S_{Monday}), on Tuesday, S_{Tuesday} can episodically remember what happened on Monday to S_{Monday} . You could then bear the episodic memory relation to the past of your continuant predecessors.

Applying this idea to Buddhaghosa's passage contrasting the operations of the mind-door with the operations of the eye-door, the ear-door, and so on might yield a picture like this: the eye-door, the ear-door, and the other sensory doors are faculties that deliver experiences to a string of continuants, and the memory relation can provide a basis for knowing what befell the continuants whose experiences belong to a continuous life. In his paper, Ganeri does not allude at all to continuants of any kind. Since we take Ganeri to be addressing what a theory that denies persisting selves could say about memory, we are going to discuss Ganeri's Buddhaghosa as if episodic memory, for him, relates a rememberer to a predecessor in continuation.

Appeals to some types of continuity, however, face potential complications. The complications stem from the metaphysical theories that sometimes embed the Buddhist constraint. Consider the idea that the memory relation relates a subject to earlier episodes befalling her predecessor-in-continuation. This idea appeals to a kind of psychological continuity. If something like this idea helped make sense of Buddhaghosa's outlook as Ganeri interprets it, then it would have to be squared with another idea Ganeri finds in Buddhaghosa: that there are no human agents, and therefore no bodily or mental actions that would structure either persistence or psychological continuity. Ganeri (personal communication) points to *The Dispeller of Delusion*, 1767-1783, which contains discussions of several phenomena (including bending and stretching one's body, putting on a robe, drinking from a bowl) that seem to reject analyses of these phenomena in terms of agency, in favor of analyses that avoid it. For instance in the part about eating (1782), Buddhaghosa writes:

Inside [the body?] there is no self which devours....The making up of the ball of food, the lifting of the ball and the opening of the mouth come about

⁷ For discussion (sometimes critical) of how to analyze psychological continuity, see Shoemaker's 1984 or chapters 1 and 2 of Olson 1997. For discussion in particular of causal continuity, see section 2 of Chadha 2014.

merely by means of the diffusion of the air element through the action of consciousness. No one opens the jaw bones with a key or a contrivance.⁸

If one follows Ganeri in interpreting Buddhaghosa's last remark ("no one opens the jaw-bones with a key...") as implying that the jaw-bones are not opened by anyone at all, and more generally as construing "actions of consciousness" as modifications of consciousness that do not involve agency, then any account of what it takes for two locuses of consciousness to be continuants would have to avoid relying on the idea that either of them exercises agency. For instance, S_{Tuesday} could not fulfill S_{Monday} 's intentions, or fittingly feel proud or embarrassed by what S_{Monday} did. These forms of psychological continuity could not help to constitute the continuity relation. For all that, Buddhaghosa presumably allows that there's a difference between opening one's mouth for a reason (such as because one wants to eat), and opening one's mouth involuntarily, or under coercion. If so, he owes a reconstruction of this difference that's compatible with denials of agency.

If psychological accounts of continuity were unavailable to Buddhaghosa, could he invoke another mode of continuity, such as bodily continuity or causal continuity involving the mental faculties? If mental faculties like mind-doors or eye-doors don't persist, then presumably their operations would be analyzed in terms of faculty-continuity, re-raising the question of exactly what kind of continuity that could be.⁹

Some Buddhists' metaphysical pictures, such as the one commonly attributed to Dharmakirti, potentially pose even more radical challenges to analyzing the memory relation. Suppose that there are no persisting selves because the world is maximally fluxy: *nothing* persists. Then the only kind of continuity that could underlie the memory relation would be links between momentary occurrences. It is open to debate whether such links could be used to single out a recognizable memory relation.

We have focused on challenges that arise for analyzing the memory relation if selves or other entities do not persist over time. A further challenge arises if no selves or human bodies even exist at a time. Setting aside how to chain together momentary entities through some form of continuity, denying the existence of human selves or human bodies raises the question of what momentary entities are even available to be chained together over time. If there ultimately are no relata chained together by continuity, then presumably there can be no memory relation, either.¹⁰

⁸ We're grateful to Jonardon Ganeri for pointing us to these passages.

⁹ In principle one could deny persisting selves while affirming persisting faculties, but this combination of commitments would need a special defense to show why the factors that supposedly rule out persisting selves allow for persisting faculties, such as the mind-door.

¹⁰ For further discussion of how memory might work if there is no self at a time, see Ganeri on Vasubhandhu, also Chadha 2014.

Before looking more closely at Ganeri's rendition of Buddhaghosa's ideas about the memory relation, we look more closely at what an account of the memory perspective would illuminate.

2. The memory perspective and the self

The memory perspective is the perspective of the rememberer on a past episode or putative past episode. An account of the memory perspective is an account of the way a putative past episode is presented to the subject in her memory. Here and throughout we will focus on a subject's conscious episodic memories, setting aside the potential possibility of unconscious episodic memories.

The memory perspective has two crucial aspects. First, in a memory perspective, an episode is in some way presented as having occurred in the past. By analogy, just as a spectator in the theater takes in the drama as bounded by the fiction presented on the stage, the rememberer in a memory perspective apprehends the past episode as having occurred in the past. Cast in terms of logic, marking off as past could be expressed by a temporal operator (such as *past*, *future*, or *now*) that attaches to a timeless proposition, and allows us to evaluate whether the proposition is true at any of the times indicated by the operator. Alternatively, it could be expressed inside the content of a time-bound proposition.¹¹

Second, once an episode is marked off as past, the memory perspective might carry implications about whose past the episode occurred in. The second crucial feature of the memory perspective is its stance on the relationship between the rememberer

¹¹ Could the passing thought of an episode count as an episodic memory, if the episode seemed merely possible (perhaps appealing or aversive) but didn't seem to the subject to be something occurred in the past – even though it actually did? For a classic example in which a painter remembers a scene without believing that he remembers the scene, and instead believes that he only imagines the scene, see Martin and Deutscher (1966: 167-8). Martin and Deutscher however do not speak directly to whether the scene is presented as past by the painter's memory itself. But suppose S_{Monday} walked on the beach, S_{Tuesday} vividly entertained a scenario of walking on the beach, complete with the perspectival aspects of S_{Monday} 's experience, and due in part to that experience, but without marking the scenario as something that occurred in the past. Here, some aspects of the memory relation connect Tuesday's mental state to Monday's walk, without the typical memory perspective. We won't count this scenario as an episodic memory, because we want to ask how the 'pastness' of an experience might figure in the structure of the memory perspective. We therefore focus exclusively on memory perspectives that present a remembered episode as having occurred in the past, so that we may see in what way Buddhaghosa's theory, according to Ganeri, might account for this aspect of paradigmatic episodic memories.

and the subject of the remembered episode. Here the Buddhist denial of a persisting self would interact in different ways with the status of the memory perspective.

On one option, your present memory perspective would say that the past episode happened specifically to you. Here the Buddhist constraint would not rule out the existence of a memory perspective implying one's past existence, since the Buddhist constraint can allow that episodic memory perspectives are systematically mistaken. By comparison, even if (as Galileo held) nothing in the world is colored, there might still be color experiences that falsely present things as colored.

The Buddhist constraint would not even have to require that your memory perspective is inaccurate. Your memory perspective might just say that the past episode happened to someone continuous with you, without saying that the episode happened to you. Or your present memory might say that one of the two previous options is correct, without saying which. Or your present memory perspective might even be neutral on those options.¹² Even if Buddhist theories deny the existence of a persisting self, there is still room on these options for your episodic memory perspective to be accurate. (We bracket the further problem of how to analyze the memory perspective when denying the existence of a self that exists at any time, let alone over time).

Husserl describes these two aspects of the memory perspective (pastness, and the stance on the relation of past to the rememberer's life) in his discussion of imagistic fantasy and memory:

If we remember A, we have a *phantasy* appearance of A; that is, according to my presentation, an "image" appearance which, therefore, in spite of all the similarity with a perceptual appearance, is differentiated from the latter by the characteristic of 'imaging'. Here, however, the mode of apprehension is not the mere apprehension belonging to a phantasy presentation. What

¹² On one interpretation, Evans (1982) argues that this last option is incoherent. Even by his lights, something nearby might be coherent. By contrast with paradigmatic memories, some mythical crystal balls work this way: you gaze into the ball and see that someone walked on the beach last Monday, without any presumption that it was you, or someone in any way continuous with you. Perhaps if the experience of looking into the crystal ball were combined with a belief that the person who walked on the beach was continuous with the crystal-ball gazer, where the belief was based on testimony, then the resulting combination could be a hybrid of episodic and semantic memory. This kind of case falls into a large grey area surrounding the category of episodic memory.

In contrast to both paradigmatic memories and the crystal ball hybrid, if a mental state presented an episode (such as walking into a shrine) as past, and was committed to the *discontinuity* between that past experience and the rememberer, then arguably that mental state would not be a memory perspective.

appears in the image is apprehended as something past; specifically, as something that has been present (to me)(2005:22)...

One might deny that the memory perspective contains an image. But even if the memory perspective is structured entirely by a non-imagistic informational states, rather than by any images, the same point about the internal structure of the memory perspective would still hold.

When describing Buddhaghosa on the memory perspective, Ganeri writes, “In memory it is *as if* (*viya*) one is perceiving again. This encapsulates the key idea of mental time travel, a reliving of past experience” (8). Ganeri seems to identify mental time travel with reliving past experience, and here he may be following Wheeler and Tulving, who make a similar conflation.¹³ There are important differences between these formulations, however, and they have different limitations in illuminating the structure of episodic memory. We therefore discuss them separately. We argue that neither of them provides the resources needed to illuminate the memory perspective or the memory relation.

3. Reliving past experience

We will work with a fairly literal understanding of the idea of reliving, taking it to consist in the exact repetition of a past experience. Taking the idea of reliving past experience as a guide to both the memory relation and the memory perspective, the memory relation would be the reliving relation to a past experience, and the memory perspective would be characterized in part by the experience that’s ‘relived’.

However, reliving in the form of exact repetition is not necessary for either the memory relation or the memory perspective. Since it is possible to remember slowly something on Tuesday that happened quickly on Monday, not all remembering involves exact repetition.

Repetition is also not sufficient for the memory relation or the memory perspective. Regarding the memory perspective: you could repeat an experience without experiencing it as something that happened already in the past. For instance, you might pass a pond without realizing that you have made a giant circle on your hike, and have a perceptual experience upon passing the pond for the second time just like the one you had the first time you passed it. Here your experience (type) would be repeated, but you could still fail to have the memory perspective on your original experience, or bear the memory relation to your previous experience. “*Déjà vecu*” (already lived) need not mean the same as “*déjà vu*”.

¹³ E.g., Wheeler, Stuss, and Tulving write: “One of the most fascinating achievements of the human mind is the ability to mentally travel through time. It is somehow possible for a person to relive experiences by thinking back to previous situations and happenings in the past (1997: 331)”.

Analyzing episodic memory in terms of reliving of a past experience suggests that the memory is exactly the same as the past experience. Herein lies a further limitation in accounting for the memory perspective. If memory were exactly the same as perception, it would crowd out present perceptual experiences. A theory of memory that predicts such crowding out seems wrong. On Tuesday, one can remember Monday's visit to the temple, at the very same time as one is experiencing something entirely different (such as the inside of an airport). Buddhaghosa's own discussion of 'triggers' of memory (or imagination) arguably relies on this observation.¹⁴ In whatever ways a memory might involve a 'reliving' of a past experience, the memory perspective cannot be wholly constituted by the experience remembered.

These limitations can be overcome only by a more developed theory of the memory relation (to rule out mere repetition), and an account of how the memory perspective is structured in way that marks out an episode as past. It is not enough to account for this aspect of the memory perspective to specify a route by which a past episode affects the current state of the mind, such as the fact that it enters the mind-door, or the fact that the rememberer attends to it. What's needed is an analysis of how the episode is marked as past. Notice that, without an analysis of pastness in the memory perspective, we will also lack an account of how the memory perspective stands on the relation between the rememberer and the subject remembered.

A final limitation of "reliving" concerns the distinction between 'field' and 'observer' memories (briefly discussed by Ganeri on p.X). Nigros and Neisser introduce the distinction like this:

In some memories one seems to have the position of an onlooker or observer, looking at the situation from an external vantage point and seeing oneself 'from the outside.' In other memories the scene appears from one's own position; one seems to have roughly the field of view that was available in the original situation and one does not "see oneself." (467-468)¹⁵

When remembering from the observer perspective, there will be typically be no question of reliving one's experience from the time, since one's experience from the time presumably was not from the observer perspective (although Nigros and Neisser do intriguingly "attest to the possibility of experiencing events from a 'detached' perspective as they occur (1983: 468)").

¹⁴ Buddhaghosa does not explicitly say that you can continue to feel your present uncomfortable bed while thinking back to your past comfortable bed, but we take it to be overwhelmingly plausible that you can remember a past episode while still experiencing a present trigger of your memory.

¹⁵ In Burge's 2013: 155-60 taxonomy of episodic memory and self-representation, he also cites Freud 1899 on the field/observer distinction. For some skepticism about the distinction, see Vendler 1984 or Wollheim 1984, with a response in Sutton 2010.

Given the problems we have described, neither the memory relation nor the memory perspective can be understood as forms of reliving past experience. Interestingly, observer memory may be better captured by the other part of Ganeri's formulation that he equates with reliving past experience: mental time travel. In mental travel to a past event, one could take up the perspective of an observer on oneself, rather than one's past perspective. Time travel scenes are often depicted this way in literature and film. But we argue next that the metaphor of mental time travel also lacks resources to analyze the memory perspective, though for slightly different reasons.¹⁶

4. Mental time travel

Unlike the idea of reliving a past experience, the metaphor of mental time travel has a distinctive limitation concerning memories of types of experiences, where one can remember the type because one has undergone experiences of that type in the past (or because one's predecessor has). To borrow an example from novelist Tom McCarthy, the narrator of his novel *Satin Island*, U, remembers the bodily, kinesthetic, and emotional experiences of pedaling backwards on a bicycle that is moving forward. U remembers the lasting thrill of this directional disconnect, in contrast to the feeling of riding a more primitive (foot-braked) bicycle that can only be made to move by pedaling in the direction one wants to go. From U's point of view, he is remembering (and perhaps simulating) a feeling he used to have while riding a bicycle.¹⁷

Memories of this sort do not purport to identify a unique past episode, and in this respect they are not episodic memories as we initially defined them. But they are closely related, and can be seen as relivings of at least some aspects of past experience by abstracting from them. For all Buddhaghosa's passage says, they may fall within the class of phenomena that he intends to be illuminating.

Interestingly, as Ganeri brings out in other work, Buddhaghosa explores something like this process of abstraction for the case of perception.¹⁸ In discussing the richness of perceptual experience, Ganeri's Buddhaghosa writes:

“When an opportunity for experiencing the stimulus of an object has been encountered, each of the remaining dhammas associated [with feel] only experiences a [particular] portion... Just as a cook prepares a many-savoured

¹⁶ For recent book length treatment of memory as mental time travel, see Michaelian 2016.

¹⁷ Imaginative simulation can also occur without memory of any kind, and perhaps imaginative simulation without memory is the paradigm of such simulation. Our point is that memory of experience types can occur simultaneously with imaginative simulation.

¹⁸ Ganeri discusses this passage in chapter 4 of *Attention: Not Self*. Oxford University Press, 2017.

dish, puts it in a box, and seals it up, after which he undoes it in the king's presence, breaks the seal, opens the box and taking the best from all the soups and sauces, puts them into a dish, and after tasting them in order to find out whether there is any fault or not, he then brings the dish varied with the flavours to the king, and the king makes use of whatever he wishes... For just as the cook only investigates a mere portion of the food, so the remaining dhammas only experience a mere portion of the object's stimulus (flavour).”
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If ‘the object's stimulus (flavour)’ is a low-level gustatory sensation from which experience is drawn, then Buddhaghosa is describing a sparse sampling of a rich feast, where the sparse sampling yields an experience that abstracts from the richness of a prior gustatory state. (Alternatively, if Buddhaghosa is describing a sparse sampling of flavors or other properties of objects in the external world, then the process is less closely analogous to abstracting from a mental states or set of mental states (experiences) to form another mental state (a memory)).

Memories of types of experiences are difficult to accommodate with the metaphor of time travel. Since time travel is travel to a specific past or future time, mental time travel to the past involves a psychological connection to a specific past episode.

The metaphor of mental time travel has a more serious limitation that seems to be inherited by Buddhaghosa. He writes:

[A]fter he has seen the Shrine thus...at another time, wherever he goes, while he is sitting in this day quarters or his night quarters, as soon as he adverts to it, it is as if the Great Shrine decked with ornaments came into focus in [lit. came into the avenue of] the eye-door, and it seems like the time when he circumambulated the Shrine...” (p. 10).

Here the idea of mental time travel is arguably not specific enough to distinguish memory from other modes in which the mind constructs or apprehends scenarios besides the ones it is perceiving.

Buddhaghosa's distinction between “entering the mind-door” without “stimulating the sense-faculty,” and “entering the eye-door”, which does (constitutively?) stimulate a “sense-faculty” might seem to introduce a structure analogous to the one introduced by Husserl's mode of apprehension, and that structure is a step toward marking an experience as having occurred in the past. But “objects entering the mind-door” could presumably enter the “mind-door” without memory, such as by imagination enabled by past experiences. Such imaginations, in turn, could in principle be supplemented by beliefs that the experiences belong to a past continuous with the rememberer, or by other forms of commitment to this effect. If they are so supplemented, they're at best a hybrid of episodic memory and imagination. If they're not so supplemented, they are not at all like memory perspectives. Given these contingencies, the structure introduced by the doors in Buddhaghosa's passage does not by itself analyze the memory perspective.

In part of the long passage cited by Ganeri (part of which is cited in the opening section of this commentary), Buddhaghosa discusses how one might think back to past fine food when confronted with a present pile of beans, or think back to a past comfortable bed when faced with a present uncomfortable bed.¹⁹ These parts might seem to single out memory. But the overall structure introduced by the mind-door and the sense-doors in the passage Ganeri cites seem to concern simply cognition of scenes that can be sensed, in the absence of sensory stimulation by those scenes (or by scenes like them). The structure does not pin down either imagination or memory. Perhaps Buddhaghosa in these passages is best interpreted as aiming to analyze a general form of cognition of non-present scenarios, of which memory would be a special instance.²⁰

Still, we can ask what a theory of episodic memory might look like that began from the ingredients Ganeri highlights. Here we will move beyond the idea of mental time travel, and focus on how Ganeri develops the idea that episodic memory is a form of attention. We argue that the analysis raises important questions about the relation of the memory relation, but that here, too, more resources are needed to analyze the part of the memory perspective that takes a stand on the nature of the first-person elements, and on the relationship between the rememberer and the locus of the past experience.

5. Reliving through attention

What kind of attention figures in episodic memory, according to Ganeri's Buddhaghosa? What are its objects? Heard in one way, these questions concern the memory relation. If there was a hurricane on Monday, and Tuesday you episodically remember it without defects either in Monday's experience or its retention, does the memory relation relate you to Monday's hurricane, or to your experience of it on Monday, or both?²¹ Here we will survey the role of attention in Buddhaghosa's

¹⁹ Here we have in mind the following passage of Buddhaghosa quoted on page 8 of Ganeri (emphasis ours): And when **he has made use of special food** of the various kinds, sharing it out with his companions in the Life Divine, then at another time, wherever he gets a meal of beans, as soon as he adverts '**At that time I made use of special food** of the various kinds sharing out with my companions in the Life Divine' it is as if that flavour as object comes into focus as tasted. This is how a flavour as object comes into focus as tasted. And when he makes use of a bed or chair or a coverlet or robe that has a pleasant touch, then at another time wherever he makes his bed in discomfort, as soon as he adverts 'At that time I used a soft bed and chair' it is as if that tangible datum as object (phoṭṭhabhārāmaṇa) comes into focus as touched.

²⁰ A recent view that construes memory as a special case of this kind of imagination is developed by De Brigard 2014.

²¹ Once one tries to account for distorted memories, answers become more complex. The complexities we're setting aside include the possibilities that an episodic

account, try to resolve an apparent conflict within the account, and try to clarify how to define the specific form of attention involved in the account.

What does the attempt to analyze reliving in terms of attention imply about the memory perspective? According to Ganeri, the work of the contemporary experimental researcher Marvin Chun is helpful in clarifying the role of attention in memory. According to Chun and his collaborators, there is a distinction between *external, perceptual* attention to ordinary non-mental entities, and *internal, reflective* attention to mental episodes or representations, “such as thoughts, memories, imagery, [or] decision options” (ibid.). Notice how Chun seems to introduce the distinction between these two kinds of attention in terms of the respective objects of attention.

At first blush, we might expect that according to Ganeri, Buddhaghosa’s episodic memory involves reflective attention to one’s past perceptual experiences. But second blush is not so clear. Immediately after describing the work of Chun, apparently with approval, Ganeri goes on to write: “Buddhaghosa’s careful reconstruction of a case-study...seems to me to fit the paradigm of simulation in grounded cognition (Barsalou 2008) rather than selection of a stored representation”. Ganeri goes on to describe episodic memory in terms of simulation rather than attention, and also as “non-representationalist”, again apparently in opposition to Chun and his collaborators.

What are the respective roles of Chun and Barsalou in illuminating what Ganeri takes to be Buddhaghosa’s view? It might seem initially (as it did to us) that Chun et al are simply a foil to the superior view of Barsalou that is ultimately a closer match to Buddhaghosa - and is possibly endorsed by Ganeri as correct, or at least as promising, in its own right. But the reading on which Chun is cast away is hard to square with Ganeri’s remark near the conclusion of the relevant section that “Buddhaghosa treats memory as a kind of attention, the kind which, following Chun, we can call *reflective attention*” (p. 10).

While Ganeri himself does seem to oppose simulation and selection (where selection presumably goes along with attention), perhaps these two operations are compatible. For instance, when Barsalou speaks of simulation, perhaps simulating a past perceptual experience is a way of attending to it.

According to a potential challenge to the idea that simulating is a way of attending in memory, *experiences* are simulated, but *things experienced*, such as colors, can be selected or attended, but not simulated.

This challenge would be neutralized, however, if the following observation is correct: one can attend to a past smell or color by attending to a past perceptual

memory can inherit the misperceptions in the remembered experiences, producing a correct memory of an incorrect experience.

experience of the smell or color.²² Together with the hypothesis that memory is attention to a past experience, this observation seems to imply that remembering a color experience includes remembering the color. And this consequence seems plausible. What would it be to remember living through the hurricane (the hurricane experience), without remembering (even if partly misremembering) the hurricane?

By drawing on this observation, we can respect the point that for Ganeri's Buddhaghosa, "Episodic memory is attention to objects from past perceptual encounters." (**Ganeri p. X**) On this reading, Chun's account provides supplementary detail about how one manages to attend to the past color sounds or smell experienced, by attending to one's past perceptual experiences of them. In particular, Chun provides a bridge between present perceptual cuing and the past objects or properties experienced. Perhaps this combination of ideas is behind Ganeri's remark that "For Buddhaghosa, the role of selection in retrieval is performed by perceptual cueing, something in one's present perceptual environment prompting one to select among many potential past experiences."

These observations have an important upshot for understanding the distinction between external and reflective attention used by Ganeri. If some "internal" reflective attention to perceptual experiences turns out to also involve attending to the external objects and properties previously experienced, we won't be able to characterize "external" attention simply as that kind directed to external objects and properties. Some reflective attention will be to past perceptual episodes as well as to what those past perceptual attitudes were of.

Ganeri seems to need to draw the distinction between external and reflective attention in a different way. Perhaps we should say that external attention is directly only at external objects and properties, where as reflective attention is always directed at internal mental states, and only to external objects and properties via internal mental states.²³

6. Attention: sparse or rich?

We now raise exegetical questions about the relationship between attention and the memory perspective, beginning with the relation between perception and attention.

²² For discussions of whether it really is possible to attend to a perceptual experience, and if so how, see Kind (2003) and Stoljar (2004). As their discussion brings out, in principle one might attend to one's past perceptual experiences by attending to past entities experienced, in a reversal of the direction we discuss in the main text. We won't pursue the option further though.

²³ For clear evidence that Chun actually does allow for reflective attention and perceptual attention to have the same objects, see pp. 522-523 of Chun and Johnson 2011.

First recall that Buddhaghosa describes his initial visit to the Great Shrine in great detail. The temple, presumably from the perspective of the observer, is said to be

whitewashed, painted with yellow and red ochre, etc., hung with many kinds of flags and banners, festooned with garlands of flowers, surrounded with clusters of lamps, gleaming with the loveliest radiance and decked with ornaments.

Does Buddhaghosa's detailed description require that the perceiver attends to all of those details? If so, perceptual experience is "sparse", and you experience only those objects, spaces, or properties to which you attend, and attention therefore functions as a "gatekeeper" for perception. Or does Buddhaghosa allow that some aspects of the scene are experienced without necessarily being attended? If so, perceptual experience is "abundant," and it is possible to experience entities without attending to them, and attention does not function as a gatekeeper for perception.²⁴ At first these questions about perception might seem orthogonal to Ganeri's own focus on memory. But given his use of the idea of reliving previous perceptual experiences, we think we need to hear more about the nature and structure of those previous experiences to understand what view of memory Ganeri is proposing on behalf of Buddhaghosa.

The distinction between sparse and abundant perception also allows us to formulate parallel question about whether memory is sparse or abundant, for Ganeri's Buddhaghosa.

First, we can ask whether (external) attention is a gatekeeper for storage. If it is, then storage is sparse, and you remember only what you (or your predecessor) attended to in perception.²⁵ If attention is not a gatekeeper for storage, then storage is abundant, and you can remember entities that were experienced outside attention. Given Buddhaghosa's detailed description of the Great Shrine, he might sympathize with both abundant views of perception and storage (perhaps the 'sparse sampling of a rich feast' passage quoted earlier could be read in this way). Here attention would neither be a gatekeeper for perception nor for the retention of what you perceive in memory.

Second, we can ask whether (reflective) attention is a gatekeeper for retrieval. If it is, then retrieval is sparse, and you episodically remember only what you presently (reflectively) attend to.²⁶ Ganeri seems to sign up Buddhaghosa for such a view by speaking as if memory is identical to reflective attention (to such and such objects). But it is possible to have an essential link between episodic memory and attention

²⁴ For an overview of the debate, see Wu (2014) *Attention* (Routledge). And for some classic papers in the debate, see Noe (2002).

²⁵ For a classic example of such a view, see Wolfe (1999).

²⁶ De Brigard (2012) argues that you presently remember x only if you internally attend to x.

without going so far as to identify memory and attention. On an abundant view of retrieval, you can episodically remember something without attending to it. But while you need not attend to all of what you episodically remember, perhaps you always must attend to some of what you episodically remember. On this picture, episodic memories would be structured into an attended foreground and an unattended background.²⁷ If Buddhaghosa indeed allows abundant perception, this might be a natural picture of what it is like in episodic memory to relive an abundant experience of a richly detailed scene.

Summing up, we can illustrate the exegetical options as follows:

	Perception	Storage	Retrieval
1	Sparse	Sparse	Sparse
2	Sparse	Sparse	Abundant
3	Sparse	Abundant	Abundant
4	Abundant	Abundant	Abundant
5	Abundant	Abundant	Sparse
6	Abundant	Sparse	Sparse
7	Abundant	Sparse	Abundant
8	Sparse	Abundant	Sparse

Which combination does Buddhaghosa hold, and why? Again, if we are analyzing memory in terms of the reliving of past experience, it would be good to hear more about what past experiences themselves were like according to Buddhaghosa.

7. “Been there, done that”: Memory and the first person

Having teased apart the different ways in which Ganeri discusses the structure of episodic memory, and having discussed some of their pros and cons, we now tackle the question of whether and how memory engages the past self.

A first attempt by Ganeri to identify the first-person element in the memory perspective centers on the pathological case of R.B., who Ganeri seems to claim is missing a ‘feeling of ownership’ with respect to a past experience that he remembers (the case is from Klein and Nichols 2012). As Roache 2016 puts it, this is the Minus Mineness view of R.B. Here the methodology seems to be to look at a pathological case where something normal is missing, both to show that episodic memory doesn’t necessarily include a first-personal element, and to indirectly tease out what the first-personal element involves. A first proposal, then, is that for Buddhaghosa, the memory perspective somehow attaches the “feeling of

²⁷ See Gurwitsch (1964), Jennings (2015), and Watzl (2017) for extended analyses of the idea that attention structures perceptual experience. We discuss attention and the epistemology of perception in Siegel and Silins (2014) and Siegel and Silins (forthcoming).

ownership” (which R.B. is missing) to the past experience. We’ll start by fleshing out an initial proposal apparently by Ganeri on R.B., and then will turn to a quite different way to read Ganeri on R.B.

Here is how Ganeri tries to articulate what is missing from R.B.’s episodic memories. On the basis of his interpretation of R.B.’s own reports, Ganeri suggests that R.B. remembers doing something without remembering himself doing it. For example, R.B. remembers studying in the lounge, but not himself studying in the lounge. As we suggest in our section title, Ganeri’s emphasis here is on “been there, done that”, rather than “I’ve been there, I’ve done that”. Notice that episodic memories hereby could avoid committing even to the existence of a subject that existed at all at the past time, never mind over time. So the memories in question potentially could be accurate even according to Buddhist views on which subjects don’t persist over time, and don’t even exist at all.

Let’s now examine R.B.’s reports directly:

I can see the scene in my head. I’m studying with friends in the lounge at my residence hall. I am able to re-live it. I have a feeling ... a sense of being there, at MIT, in the lounge. But it doesn’t feel like I own it. It’s like I’m imagining, re-living the experience but it was described by someone else (Klein and Nichols 2012: 687).

I knew that I once could walk, but it wasn’t ‘me’ who once could walk (Klein and Nichols 2012: 688).

Taking R.B.’s own words at face value for the moment, he remembers himself studying with friends in the lounge, and does not merely remember studying in the lounge. If he lacks some further aspect of self-implication in his memory under the heading of “ownership”, we need to capture it in some other way. The phrases “remembering doing” vs. “remembering oneself doing” are not enough to identify what would be involved in “ownership”. Given that R.B. also speaks of “reliving” his past experiences, it also seems that the language of “reliving” is also insufficient to pin down ownership. The difference between R.B. and rememberers who have the sense of ownership that he says he lacks is not the difference between identifying the remembered experience as something one lived through and not so identifying it. It is a difference between two ways of identifying a past experience as one’s own.

But can we even take R.B.’s words at face value? How can you know that you once could walk, without knowing that “you” once could walk? Perhaps R.B. has perfectly ordinary episodic memories of his own past, but an inability to describe them properly. Here any sort of failure of “ownership” of his past would be at the level of his description of his memories rather than of his memories themselves. As Roache 2016 puts it, this would be R.B. minus minus mineness! Alternatively, as Roache 2016: 486 points out, it could be that the best account of R.B. involves the positive

presence of abnormal phenomenology, rather than just the absence of normal phenomenology. Indeed, some of R.B.'s reports seem to suggest such a view:

“But the feeling was that the scene was not my memory. As if I was looking at a photo of someone else’s vacation. (Klein and Nichols 2012, p. 686).”

Here R.B.'s memory seems to rule out that he is the person in the scene, rather than simply be silent about whether he is the person in the scene. So rather than merely lacking a sense of ownership, here he seems to have a positive sense of exclusion. (For a response, see Klein 2016).

We'll now bracket these questions and will work with the assumption that R.B. does have episodic memories without ownership, and examine how Ganeri might try to capture the phenomenon with his account.

We begin by quoting his formulation of Buddhaghosa's two-factor view:

“In the terminology of Dokic (2014) this as a “two-tiered” account of episodic memory: episodic memory is factored into a component consisting in a first-order memory of a past happening together with a second component. The second component consists in a proprietary kind of phenomenology specific to episodic memory (Dokic describes it as a “metacognitive feeling”) rather than in a representation of oneself as having had the experience in the past, and auto-noesis is a distinct kind of attention, attention to the past by simulating it in working memory.” (Ganeri p. XX).

An initial question is about how to specify the first component of the account. On the face of things, it is awkward to say that episodic memory consists of a memory, together with a second component. What is this first memory? If it's an episodic memory the account seems to be viciously circular. It would tell us what episodic memory is by telling us that episodic memory is episodic memory plus X. Compare someone who tells us that knowledge is knowledge plus X. Alternatively, if the first memory is not an episodic memory, it would be nice to hear more about what kind of memory it is, as well as more about how the phenomenology involved in the second component can interact with it.

On a natural interpretation of Ganeri, the two component view aims to capture cases like that of R.B. by sharply distinguishing between reliving in memory and having ownership of one's past in memory. The components turn out to be separable, and this enables us to explain what is going wrong with cases such as that of R.B., while being able to explain what is going right with cases such as non-pathological subjects. R.B. has the first component without the second, and lacks ownership of his past because he lacks the second component. Non-pathological subjects have both the first component and the second component, and thereby have both relivings of their past and ownership of their past.

What evidence is there in favor of this first reading? First, consider that Ganeri uses the pathological case of R.B. rather than an ordinary example to distinguish between remembering doing and remembering oneself doing. If remembering doing is all that ever happens when we episodically remember, there's no particular need to appeal to R.B. to illustrate the possibility of reliving without ownership---we are all R.B.!

Second, consider Ganeri's (page X) further description of the second component of episodic memory with ownership:

Unlike the feeling of pastness, the episodic feeling has a metacognitive dimension; it somehow concerns the relationship between our present memory and our past experience. ...We may refer to the celebrated passage in William James: "A farther condition is required before the present image can be held to stand for a past original. That condition is the fact that the imagined be expressly referred to the past, thought as in the past...But even that would not be memory. Memory requires more than mere dating of a fact in the past. It must be dated in my past. In other words, I must think that I directly experienced its occurrence. It must have... 'warmth and intimacy'..." (James 1890: 650).

To meet these conditions, it is not enough in some sense to replay an event or action from one's past. One instead must relate our present memory to our past experience, and even think that one had the experience in question in the past, in some phenomenologically rich way. Given that these conditions go far beyond the simulation of a past experience, they seem to go beyond what R.B. does, and instead be designed to capture something like "ownership". When non-pathological subjects episodically remember their past, they would be doing something along those lines.

A problem here is that there is a quite different way to interpret Ganeri. Here we can rely on Ganeri's own words from page 17:

Buddhaghosa clearly wants to explain the phenomenon of mental time travel into one's subjective past without appeal to a retrieval mechanism involving ownership (when he considers someone reflecting on the question "Did I exist in the past?", he does not even entertain the possibility that the question can be answered in the affirmative based on episodic memory (Ma. 68; Jawawickrama 2009, para. 25)).

This discussion of episodic memory seems to conflict with the earlier description from page 12 of Ganeri. There Ganeri went along with the Jamesian claim that memory involves the dating of something in your past, and not just the past. On the Jamesian approach, if you were to ask yourself, "did I exist in the past?" you would

be able to ask the question with a “yes” if you relied just on your episodic memory. But on page 17 of Ganeri, it now sounds like episodic memory leaves the question open, and does not involve a sense of ownership even in ordinary cases.

On the new reading of Ganeri, R.B. satisfies both components of Buddhaghosa’s account without having something like ownership of his past, and no factor of the account is designed to capture ownership. On this interpretation, it seems that we we actually are all R.B.

We are not clear on which reading to favor, or on whether there is a further reading we have so far missed, and would like to hear more on the matter from Ganeri.

Rather than rely on R.B. to highlight a missing factor that can make a reliving of experience into a case of memory, it seems better to highlight the possible ways in which the memory perspective might in principle attribute a past experience to locus of experience. Assuming that the perspectives here mark off a perceptual experience as having occurred in the past, there seem in principle to be at least four possible commitments that a memory perspective could make concerning the first-person perspective embedded in the perceptual experience.

- (i) **Uncommitted to continuity:** the first-person element that picks out the subject of the past experience is neutral on whether or not that locus of past experience is continuous with the rememberer.
- (ii) **Committed to continuity, neutral on identity:** the first-person element that picks out the subject of the past experience is committed to continuity with the rememberer, but neutral on whether the locus is also identical or is merely continuous with the rememberer.
- (iii) **Committed to continuity, denies identity:** the first-person element that picks out the subject of the past experience is committed to mere continuity with the rememberer, and denies identity.
- (iv) **Committed to identity:** the first-person element that picks out the subject of the past experience is committed to the identity of the rememberer and the locus of the past experience.

Option (i) seems like a poor candidate for characterizing memory perspectives, because it makes no claim to present episodes that the rememberer or someone continuous with her lived through. For all a perspective conforming to option (i) would say, memory perspectives are like past-directed crystal balls that purport to indicate that a perceptual experiences was had in the past, without taking any stand on how the locus of the past experience is related to you. The perspective could be accurate if someone – anyone – lived through the experience.

At the other extreme, option (iv) predicts systematic error in episodic memories, given the Buddhist view that there are no persisting selves. In contrast, option (ii) characterizes a perspective on which the rememberer is continuous with the subject of the perceptual experience that’s presented as past. But in occupying such a

memory perspective, memory perspectives avoid taking on a stand on the metaphysical question of whether they are identical or merely continuous with the subject of the past experience. Option (iii) makes the memory perspective more committal, but avoids flouting the Buddhist constraint on persisting selves.

In formulating a theory of memory on behalf of Buddhaghosa, Ganeri's strategy seems to be to see how far a memory perspective can be reconstructed using only the first-person elements in the perceptual experience that is 're-lived' or attended. He writes:

What Buddhaghosa does, then, is to separate out two ideas that can easily be confused: the idea that episodic memory is a reliving or re-experiencing of one's personal past experience, and the different idea that episodic memory requires a sense of ownership. The hypothesis that episodic memory is attention to one's past provides a model with the first feature but without the second, and case studies of severe amnesia, such as that of R.B., seem to confirm that the two features are indeed separable. If Buddhaghosa is right, what sets episodic memory apart is a specifically auto-noetic way of attending to events, and there is no requirement to appeal to self-representation or ownership at all.

We've argued that this strategy won't address whether the experience is marked as past, since the same kind of first-person elements could figure in an imagined experience. If you were just imagining being Buddhaghosa walking through a shrine, for instance, rather than remembering walking through a shrine, you could attend to the same experience. What's needed is some indication within the memory perspective of how the subject in the past experience relates to the rememberer.

Conversely, even once that marking-off is added on, the options (i)-(iv) are all still left open. Option (i) seems implausible, and Ganeri perhaps suggests that Buddhaghosa avoids option (iv). Perhaps a theory inspired by Ganeri's Buddhaghosa would offer grounds for selecting option (ii) or (iii).

Conclusion

As we read Ganeri, the theory of episodic memory he reconstructs on Buddhaghosa's behalf includes stances on both the memory relation and the memory perspective. Putting together his formulations of Buddhaghosa's view in terms of attention and reliving past experience, the theory seems to go like this.

Episodic memories occur when a past experience is relived, and a past experience is relived/mental revisited when it is attended to, using reflective attention. We've been assuming that in reflectively attending to a past experience (such as the experience of the hurricane), one is also attending to the event experienced in the past (the hurricane). We set aside complications that arise from when the original experience was not veridical (leaving no events experienced to attend to), or when post-experiential memory distorts the experience (modifying the sense in which one

is attending to the past experience). When these complexities are set aside, the memory relation, on this reconstruction, is a relation of attention, and its relations include both events (like hurricanes) and past experiences of them. And the memory perspective, on this reconstruction, consists in reflectively attending to a putative experience.

In response to Ganeri, we have argued that reliving and mental time travel come apart, and that neither suffices to capture episodic memory, since you can repeat an experience without remembering it, or mentally time travel through imagination rather than memory. We also argued that reliving is not even necessary for episodic memory, since your memory can differ in its duration from the experience you remember, and since you can episodically remember from the observer perspective rather than the participant perspective. So far, our points leave room for the view that memory can be explained as mental time travel through reflective attention. There we responded that too much remains open about exactly how we reflectively attend, as well as about what we reflectively attend to. Also, we argued that the mere fact of attending to a past experience does not imply that it is now in any way grasped or otherwise marked off as having occurred in the past. If a past experience explains a present one, but is not marked in the present perspective as past, then it is a fortiori not marked as having occurred in 'my' past, or in the past belonging to someone of whom I'm a continuant. In this way, one of the difficult philosophical questions about the type of first-person element in memory perspective is not addressed by the theory we take Ganeri to have outlined on behalf of Buddhaghosa.

We close with two residual questions raised by the view of episodic memory developed by Ganeri's Buddhaghosa.

First, once the theory Ganeri outlines on Buddhaghosa's behalf is developed further, can it respect the ways in which memories involve construction? While Ganeri often speaks of memory in terms of "retrieval", and we have done so ourselves above, that metaphor may be inapt for how memory really works. For a classic example, rather than function as a library, your memory might construct a library, as in Brewer and Treyen 1981's case of "scene completion" where subjects recalled the university office they had just been in as containing books---as one would expect a university office to do---when in fact none were there. Or more radically, consider Wade et al 2002's experiments, where they arguably succeeded in inducing episodic memories through interviews in which experimenters and subjects discussed doctored photos of the subjects. In these cases, episodic memory cannot be functioning to retrieve experiences one had, and yet is not conceived of by the experimenters as somehow malfunctioning, but instead of just doing what (episodic) memory does---construct. Given Ganeri's interest in integrating classical Indian philosophy with contemporary cognitive science, we are curious about whether, and how, Ganeri would take current constructive perspectives on memory on board.²⁸

²⁸ For some philosophical overviews on constructive views of memory, see Michaelian 2013, Frise (2017), or Salvaggio (forthcoming).

Second, if memory relates the rememberer to a predecessor-in-continuation, where does leave the idea that suffering stems from attachment? If attachment has to be attachment to one's past self, presumably it is manifested in large part by the memory perspective. For instance, if one hopes to vindicate one's disappointing past in how one tries to shape one's future, the forms of temporal consciousness that go along with this mode of putative agency will involve memory perspectives. But if the memory perspective avoids manifesting the illusion of persisting selves, then it will give rise neither to attachment, if attachment is fundamentally attachment to one's past and present self, nor to the suffering supposedly caused by attachment. This picture would therefore seem to avoid attributing suffering due to any forms of attachment that are built in to memory. It seems to predict far less attachment and suffering than Buddhists are commonly thought to acknowledge.

If the prediction of reduced suffering isn't acceptable to Buddhaghosa, then it would seem that the cause of suffering would have to be re-analyzed in terms of attachment to continuants, rather than being analyzed in terms of attachment to a supposedly persisting self. And in that case, the supposed metaphysical error of positing persisting selves would seem to have little ethical significance.²⁹

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²⁹ There might be another way for Buddhaghosa to explain the emergence of suffering from attachment, consistently with a theory of memory devoid of any sense of persisting self in the memory perspective. Perhaps attachment to a supposedly persisting self arises downstream of memory, for instance in interpretations of it. On that picture, the error would be located in responses to the memory perspective, rather than belonging to the memory perspective itself. Thanks to Cat Prueitt and Parimal Patil for discussion of this point.

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