Speak, Memory: Dignāga, Consciousness, and Awareness

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Abstract:

When someone is in a conscious state, must they be aware of it? The Buddhist philosopher Dignāga offers a brilliant route to answering this question by leveraging the role awareness might play as a constraint on memory. I begin by clarifying his strategy and what conclusions it might be used to establish, and then turn to explain why it fails. The first main problem is that, contrary to his contemporary defenders, there is no good way to use it to reach a conclusion about all conscious states. The second main problem is that the proposed awareness constraint on memory is highly problematic, in tension both with ancient objections as well as current psychology.

Keywords:

consciousness; higher-order theories of consciousness; memory; inner awareness; Buddhist philosophy

Introduction

When someone is in a conscious state, must they be aware of it? To some the answer might seem to be an obvious yes: someone's being unaware of their mental state straightforwardly entails that the mental state is not conscious. We then have the possibility of explaining consciousness in terms of self-awareness.[1] To others the answer might seem to be an obvious no: there are ever so many cases of someone having a conscious state without awareness of

[1] See e.g. Rosenthal 2005, Kriegel 2009, or Lau 2022.

it.[2] Consciousness will have to be explained in some other way, if at all. Many of the rest of us might see only an impasse.

How to move forward? You might say it is a matter of definition that a subject's mental state is conscious only if they are aware of it (Lycan 2001). But that drains the claim of substantive interest. You might say we can tell by introspection that our mental states are conscious only if we are aware of them. But trying to answer our question via introspection stacks the deck. Whenever we introspect our conscious states, of course we only find conscious states of which we are aware (Kriegel 2009a, 2012).

The opponent might go to the other extreme, and say it is clear from introspection that we *can't* be aware of any of our experiences. Perhaps we can at best be aware of what we experience rather than of our experiences themselves, as is held by proponents of the so-called "transparency of experience" such as Harman 1990. But it is highly debatable whether experiences indeed are transparent in this sense (Kind 2003, Stoljar 2004). By focusing on what we can achieve through active, reflective introspection, the opponent may be missing the point about the kind of awareness we are supposed to have of our experiences. Perhaps the relevant form of awareness is not active or reflective[3] (although the harder this point is pushed, the harder it will be to make an introspective case for our ever having this subtle form of awareness). Or perhaps we can be actively and reflectively aware of our experiences, simply only indirectly via awareness of what we experience. Finally, as Dretske 2003 shrewdly asked, assuming we can't be aware of our experiences at all, how can we then even know that we ever have them in the first place?

The Buddhist philosopher Dignāga offers a brilliant alternative route by examining what being aware of a conscious state might do for us, simultaneously giving us a richer

[2] See e.g. Dretske 1993, Block 2007, 2011 Neander 1998, Block 2007, 2019, Lamme 2015.
[3] See Rosenthal 2005, Coseru 2012: 241 and further references there, also Coseru 2015.

sense of why it might matter whether we are aware of our mental states. In particular, he argues that awareness might play a role as a constraint on memory--that we remember now only what we were aware of earlier. Our present possession of memories of past conscious states would then entail that we had past awareness of those states. This would be enough to refute proponents of the "transparency of experience" such as Harman 1990 and Dretske 2003. There may also be a dialectically effective way here to level up to the view that, whenever someone is in a conscious state, they are aware of that state.

While I admire the potential of the strategy, my aim here is to explain why it fails, and to give us a better map of the interrelations between consciousness, self-awareness, and memory. The first main problem is that, contrary to its proponents such as Thompson 2011, Kriegel 2019, or Giustina 2022, there is no available way to use a constraint on memory to reach a conclusion about all conscious states (section 2).[4] The second main problem is that the proposed awareness constraint on memory is highly problematic, in tension both with ancient objections and contemporary psychology (section 3). Before we get to all that, I'll clarify the conclusion of the argument (section 1).

1. The Conclusion

We will work with the following sort of template:

> **Necessary Awareness** For any conscious state M and subject S, if S is in M, then S is aware of M.

[4] For further key English language articles on Dignaga's argument, see Ganeri 1999, Garfield 2006, Kellner 2010, 2011, or Chadha 2017.
For book-length more general treatments of consciousness and self-awareness in Buddhist philosophy, see Williams 1998 (especially appendix 2), Yao 2005, also Coseru 2012: ch. 8, Ganeri 2012: ch. 9, Garfield 2015: ch. 5.

Now, there are many issues in need of clarification here. I will survey only some of them.[5]

When I speak of conscious states, I am concerned with phenomenal mental states. Consider paradigmatic examples of eating strawberry ice cream, getting pricked by a thorn, or unexpectedly sitting on something wet. Contrast unconscious states such as your stored beliefs about various capitals.

The kind of awareness in play is critical to the assessment of Necessary Awareness, but tends to be underspecified in the literature. In what follows I will generally work with as broad an understanding of the relevant form of awareness as possible, in order to engage with the broadest range of proponents of Necessary Awareness as possible. For example, one set of issues concerns the character of awareness. Is it conscious or not? Can it be reductively analyzed in terms of notions such as those of perception, acquaintance, or thought, or is the awareness instead sui generis? By leaving these questions open, we can address more proponents of Necessary Awareness. A further issue concerns the vehicle of awareness, and whether it is the mental state itself, so that we are concerned with reflexive awareness (Kriegel 2009). I will mainly remain neutral on vehicles in order to engage with a broader range of opponents (note that Dignāga himself seems to proceed in two stages by first arguing that some form of awareness accompanies conscious mental states, then using a regress argument to try to establish that the awareness in question is reflexive (see Kellner 2010: 213)). Finally, as far as the object of awareness is concerned, let me clarify that I take it simply to be the mental state M rather than the self or some more complex entity such as one's having M. I do this both for the sake of simplicity as well as for the sake of having

[5] For more overview of the options, see Farrell and McClelland 2017, Stoljar 2021, and Giustina 2022.

greater neutrality about issues about the self.[6] It will be more apt then in what follows to speak of inner awareness rather than self-awareness.

In contemporary debates, proponents of Necessary Awareness do not simply accept the claim as a constraint on conscious states and stop there, they also tend to affirm a stronger claim about the nature of consciousness (Giustina 2022). We can put the view as follows:

> **Constitutive Awareness** For any conscious state M and subject S, if S is in M, then what makes it the case that M is conscious is that S is aware of M.

When we consider Constitutive Awareness, we enter the realm of questions of the nature of consciousness and about what makes it the case that a mental state is conscious, where these questions are more fine-grained than questions about what is necessary and/or sufficient for consciousness. Establishing Necessary Awareness does not suffice to establish Constitutive Awareness. For example, even if consciousness always goes along with inner awareness, it could still be that inner awareness fails to explain consciousness, where instead consciousness explains inner awareness. So Necessary Awareness is compatible with the following converse of Constitutive Awareness:

> **Constitutive Consciousness** For any conscious state M and subject S, if S is in M, then what makes it the case that S is aware of M is that M is conscious.

[6] Stoljar 2021 surveys further candidate objects of awareness, although note that Thompson 2010 and others advise against taking there even to be an object of the awareness in question. See also Brown 2014 or Rosenthal 2018 on "nonrelational" versions of higher-order theories of consciousness.

In what follows our focus will usually be on Necessary Awareness, but we will sometimes consider important hurdles for getting all the way to Constitutive Awareness (for a defense of a view along the lines of Constitutive Consciousness, see Silins forthcoming).[7]

2. Speak, Memory.

We can now look more closely at Dignāga's argumentation. It is misleading to speak of "the" memory argument here, as the secondary literature often does. In what follows we will consider multiple quite different arguments departing from his text.

I'll start with the following dense key quote as rendered in Kellner 2010: 213, presented by Dignāga in the context as an account of why "[cognition] is also brought to awareness by itself":

> PSV: Why?
> PS 1.11d: Because this [memory] does not apply to what was not experienced [before].
> PSV: [To explain:] Because there is no memory of an object-awareness (*arthavedana*) that was not experienced before, just as [there is no] memory of colour and the like [when these were not experienced before].[8]

The crucial ingredient here is the constraint on memory in terms of experience. To see the contemporary appeal of the constraint, it helps to zoom in to the category of episodic memory. Consider your memory of your birthday party last year, as opposed to your factual

[7] A further challenge in the Buddhist context is about what sense, if any, there is an "I" to have any mental states or be aware of them. For useful discussion of how to navigate that challenge, see Thompson 2010. Notice though that episodic memory here is being used by the theorist to infer a conclusion about past inner awareness of a mental state, without assuming that episodic memory somehow contains in itself information in terms of any past or present self. For all the memory constraint says, episodic memory might not involve any reference to any self. So we can at least sidestep controversy over Tulving (1985, 2002)'s view that epistemic memory has a self-involving "autonoetic" character. For further discussion of this potential aspect of episodic memory see e.g. Klein and Nichols 2012 or Klein 2016.

[8] See also Ganeri 1999: 473.

memory that your birthday is on such and such a day, or your procedural memory of how to sing a happy birthday song. Episodic memories are somehow experiential, and can be thought of as a form of "mental time travel" to the past, although how exactly to cash out these thoughts is not so clear. What matters here is that, when we single out episodic memories, it can seem highly plausible that we remember an event only if we previously experienced that event.

What goes for events plausibly goes for conscious states as well. And while Dignāga's point is put in terms of experience, I will assume we can speak in terms of awareness as the current literature standardly does:

> **Dignāga's Constraint** If you have an episodic memory of a conscious state M that occurred at t, then you were aware at t of M.[9]

When we bring in the plausible claim that we have some episodic memories of past conscious states, we can now easily conclude that we had some past awareness of some past conscious states. So when you have an episodic memory of smelling the acrid smoke of the candles on your birthday cake, it turns out to follow that, at that earlier time, you were aware of smelling the acrid smoke of the candles on your birthday cake. We can think of this line of thought as the *episodic argument* (or arguments).

So far, so not yet good. Since we do not remember many of our conscious states, we have not established that we were aware of those conscious states when we had them. If the aim is to show something about all conscious mental states, this aim has not yet been

[9] Kriegel (2019)'s own formulation of the argument uses one premise only about events and another premise only about conscious states, and strictly speaking is invalid. Giustina 2022 notes the problem and offers another solution, bringing in a Kimian view of events on which they are property instantiations. I take it we can avoid the problem without committing to any controversial metaphysics of events.

reached. (If the aim was only to show that we sometimes have inner awareness of our conscious mental states, we might still have an argument against proponents of the transparency of experience such as Harman 1990. I will block this possibility in section 3 when I turn to direct challenges to the memory constraint).

One prominent option is to take a crucial modal step, and to exploit the claim that all of our conscious states are such that they *can* be remembered (See Ganeri 1999, Kriegel 2019 and Giustina 2022). I will now explain why this option doesn't work.[10]

We can put the key starting point as follows:

> Every conscious state is such that it is possible for there to be some later time at which its subject has a memory of it (Kriegel 2019: 152).

Depending on the notion of possibility used here, this claim will be more or less demanding. Most objections I raise will apply regardless of which kind of possibility is invoked.

There is an important challenge here though. The more liberal the form of possibility invoked, the more plausible it will be that *every* mental state is such that it can be remembered, whether the mental state is conscious or not. We will then have a risk of the episodic argument leading to a much stronger conclusion than at least many contemporaries would intend: every mental state you are in will be such that you are aware of it. The episodic argument would take us all the way to

> **Unrestricted Awareness** For any mental state M and subject S, if S is in M, then S is aware of M.

[10] Ganeri (1999: 475) adds the point that Dignāga must be committed to such a modal claim in order for a further regress argument of Dignāga's to go through.

Unrestricted Awareness is highly dubious, now that we have become comfortable with accepting mental states that are not conscious. Assuming this current consensus, Unrestricted Awareness will conflict with any contemporary ambition to explain consciousness in terms of our awareness of mental states, since conscious states will now fail to be distinctive in terms of our always being aware of them. (It may be that Dignāga and at least some other classical Buddhist philosophers would be happy to hold that all mental states are conscious.)[11]

Even if all mental states can be remembered, perhaps not all mental states can be remembered episodically. Whether this is true as a matter of unrestricted possibility is not clear. In any case, we can put the challenge in terms of standing mental states such as beliefs that are not conscious, but arguably have the potential to become conscious when we consciously judge something to be true. Since it is possible to have episodic memories of standing beliefs, at least via episodic memories of conscious judgments, the current version of the episodic argument risks leading to the too strong conclusion that all standing beliefs are actually conscious, not just potentially conscious.

The prospect for using the modalized episodic argument to get to Constitutive Awareness are poor. I'll now focus on whether the argument can even get us to Necessary Awareness.

In order to draw a conclusion about all conscious states, we need to make contact with constraints on episodic memory. So far we have the claim that:

[11] While Coseru 2012 does not explicitly address whether all mental states are conscious, his chapter 8 on consciousness and inner awareness is happy to speak interchangeably of all mental states and all conscious states. For close textual consideration of Dignāga here, concluding that he did intend his argument to apply to all mental states, see Kellner (2010: 215). She does not however directly address the question of whether Dignāga would countenance mental states that are not conscious.

(**Memorability**): Every conscious state is such that it is possible for there to be some later time at which you have an episodic memory of it.

So far, so better, but we are still not good. Dignāga's constraint was not formulated in terms of all conscious states it is possible for us to remember:

Dignāga's Constraint If you have an episodic memory of a conscious state M that occurred at t, then you were aware at t of M.

Given the current formulation of the constraint, it does not pair with Memorability so as to entail a conclusion about all conscious mental states. Compare the following invalid argument: Every person can be tickled. If a person is tickled, then they are laughing. So, every person is laughing. Dignāga's constraint tells us about what follows when someone has an actual episodic memory of a conscious mental state, it does not tell us what follows when it is merely possible for someone to have an episodic memory of a conscious mental state.

Contemporary discussants such as Ganeri and Kriegel in effect respond by using a modal version of Dignāga's Constraint.

Dignāga's Constraint Modalized If it is possible for you to have an episodic memory of a conscious state M of yours that occurred at t, then you were aware at t of M (see Kriegel 2019: 151).

The new constraint does pair with Memorability; they jointly entail that all conscious states come along with awareness of them. So far so good? No, now it gets bad. In order to pair with Memorability, the episodic argument has brought in a claim that is false. To check whether there are counterexamples, we need to check whether an instance of the antecedent is true when the corresponding instance of the consequent is false. The search for one is

short. For example, Eric does not remember hearing the singing telegram outside his building that his friend arranged for Eric's birthday, and in fact never was aware of the singing telegram, given that Eric went out in a rush wearing his earbuds on full blast. Here the relevant consequent is false: Eric was not aware in the morning of the singing telegram. However, the relevant antecedent here is true. While Eric does not remember the singing telegram, it is by no means impossible for Eric to remember the singing telegram, there is an (accessible) possible scenario in which Eric does remember the singing telegram---for example one where he did hear it and not forget it.

We do not need to appeal to broad notions of possibility such as logical possibility to make our point, there are even nearby possible situations where Eric remembers the singing telegram. These are all accessible from situations in which Eric was not aware of the singing telegram.[12]

The core problem here is that possibility is cheap, but actuality is expensive. Since the antecedent of the modalized version of Dignāga's Constraint concerns possible memories, while the consequent concerns actual inner awareness, it is easy to get counterexamples to the modal constraint.

Now, it may be that, in any possible scenario in which Eric does have an episodic memory of hearing the singing telegram, he was aware earlier of hearing the singing telegram. But that is irrelevant to the assessment of the modalized memory constraint, and instead only verifies the following weaker conditional:

[12] Kriegel 2019 glosses the memory constraint as a matter of conceptual possibility. I take it to be especially clear that is conceptually possible for Eric to remember hearing the singing telegram. There is no contradiction involved in saying so, even if there is a contradiction in saying that it is possible for [Eric to remember hearing the singing telegram when never having been aware of it].

> Necessarily, if you have an episodic memory of event e that occurred at t, then you were aware at t of e.[13]

In response, you might tweak the formulation in the following way:

> **Dignāga's Constraint Modalized PLUS** For any conscious state M of yours at t, if it is possible for you at a later time to have an episodic memory of M, then you are aware of M at t.

Since our initial counterexamples involved possible mental states subjects did not actually have, this formulation is not vulnerable to those examples.

One question about the new proposal concerns its motivation. We might agree that you remember your actual mental states only if you were actually aware of them. Here actual awareness serves as a constraint on actual episodic memories. But the current proposal makes a different and stronger demand: actual awareness serves as a constraint on non-actual possible episodic memories as well as actual episodic memories. Why not instead merely require that possible awareness serve as a constraint on possible episodic memories? We can clarify the challenge by adapting our earlier analogy. We might well agree that, for any actual person, if they are being tickled, then they are laughing. But we shouldn't conclude that, for any actual person, if it is possible for them to be tickled, then they are laughing. It's much more reasonable instead simply to hold that, if it is possible for a person to be tickled, then it is possible for them to be laughing.

Also, all parties in the debate should aim for a conclusion that isn't restricted to those mental states that happen to be our actual conscious states. We need a conclusion that applies at least also to possible conscious states we are not actually in but easily could have

[13] For discussion of a related challenge to a related argument, see Stoljar 2021 section 11. Here I offer different verdicts on the truth-values of the premises of the argument, and a different diagnosis of the source of the problem.

been in. For example, the new conclusion restricted to actual mental states would be consistent with the claim that, in nearby possible scenarios in which I ate something different for breakfast and had different taste experiences, conscious mental states fail to be accompanied by inner awareness of them. In other words, all of our conscious mental states come along with inner awareness, but there might have been conscious mental states without inner awareness if I had a bagel with lox for breakfast rather than oatmeal. Presumably the link between consciousness and inner awareness is not so modally fragile. The new twist in our formulation only enables arguments for too restricted a conclusion about conscious states. At a minimum, we need a view that applies to conscious mental states we weren't in but easily could have been in.

What went wrong? I suspect some have read too much into our ordinary ways of speaking. We might easily say things along the following lines:

If you're a married man, you can't be a bachelor.

But when we say that of a married man, we don't mean that it's impossible for them to be a bachelor in any sense of possibility, narrow or broad. Roughly speaking, we're instead using a shorthand for:

It can't be that you're both a married man and a bachelor.

Likewise when we say things along the following lines:

If Tess isn't aware of smelling smoke, then Tess can't remember smelling smoke.

The most straightforward way to understand these sorts of claims is as a shorthand for:

It can't be that Tess both remembers smelling smoke and wasn't aware of smelling smoke.

Given this straightforward way of understanding talk about what Tess "can't remember", we have no basis for any claims along the lines of the modalized version of Dignāga's constraint. If Tess wasn't aware of smelling smoke, it won't yet follow that it's not possible for her to remember smelling smoke. Instead at most we can say that it's not possible for her to [remember smelling smoke and never to have been aware of smelling smoke]. [14]

I'll now turn to an important and far-reaching challenge to the separate claim that every conscious state can be episodically remembered:

> **Memorability** Every conscious state is such that it is possible for there to be some later time at which its subject has an episodic memory of it.

The problem comes from the phenomenon of "phenomenal overflow". To illustrate it, I will use the relatively simple case of the Sperling 1960 partial report paradigm. In this experimental paradigm, subjects are shown a display like the one below for 15-500 milliseconds.

LARP

WNAB

[14] There might be a way here to get to a modalized conclusion about conscious and awareness:

> **Modalized Awareness** If you have a conscious state M at t, then it is possible for you to be aware of M at t.

This conclusion is not trivial. It rules out the scenario that some mental states are highly fragile, where becoming aware of them changes their character so radically that they cease to exist. Be that as it may, this conclusion is not what Dignāga and his contemporary proponents had in mind. For some further discussion of modal versions of Awareness, see Stoljar 2021 section 11.

VNGR

Within as little as 150ms of the display disappearing, subjects then hear a randomly chosen tone, and are asked to report the letters they saw in the row indicated by the tone (top row by high tone, and so on). The results tend to be as follows. Participants cannot report the letters in un-cued rows, but, for any single row that is cued, they typically report 3-4 letters of the cued row. Given that subjects say that they can see all 12 letters when they are shown, and given that subjects can report any given row, one might reasonably conclude that subjects experience all (or nearly all) of the letters in the display as the letters they are.

This is the "phenomenal overflow" or "rich" take on the case by Block 2007, 2011 and others, where the capacity of consciousness exceeds the capacity of memory and report (rival views are defended by Philipps 2011 and others).[15] If the rich interpretation of the Sperling case is correct, we have an abundance of cases where subjects have a conscious experience of all the letters as the letters they are, without being able to have an episodic (or other) memory of that experience. Here Memorability is false.

In response, one could try to maintain that subjects do have an accurate episodic memory of all the letters before 150ms have elapsed, and simply lose it by then. I take this move to be insufficiently supported by our overall evidence, especially considering the generally poor performance of the subjects when asked to remember more than 4 letters or numbers in displays in Sperling's experiment 1 (1960: 4-6).[16]

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[15] For a useful overview of the current state of the debate, with a broad range of references to some of the many experimental variations on Sperling 1960, see Lau 2022: ch. 4. An especially important recent variation on Sperling 1960 favoring phenomenal overflow can be found in Usher et al 2018.

[16] In the main text I have bracketed questions about the kind of possibility used for the assessment of Memorability. If merely logical possibility is in question, then the claim is more likely to dodge empirical objections. However, if merely logical possibility is involved, the corresponding modalized version of Dignaga's constraint will be much less likely to be true. We have seen good reason to doubt that, if it is logically possible for someone to remember an experience, then they were aware of that experience. There is at least a better prospect for the claim that, if there is a nearby situation where someone remembers an experience, then they were aware of that experience. But now the matching version of Memorability in terms of nearby possibilities will be vulnerable to empirical

In a separate line of response, one might appeal to rival takes on Sperling's results. According to one important view floated by Cohen and Dennett 2011 and others, the subject in the experiment does not have a conscious experience of all the letters as the letters they are, or indeed even a conscious experience of the letters in the cued row as the letters they are. The subject is instead able to report the cued row only thanks to some form of unconscious perceptual processing (whose exact character needn't be settled right now).

This suggestion might initially seem helpful. Since there is no global conscious experience of all the letters or a local conscious experience of a row of letters here to begin with, there is no threat to any thesis about the memorability of conscious experiences.

A new problem is that we now have a threat to Dignāga's constraint. According to the constraint as defended by figures such as Thompson 2010, memory requires specifically conscious awareness. Indeed, Dignāga's own statement of the constraint is explicitly in terms of "experience", at least as rendered in Kellner 2010: 213 and Ganeri 1999: 473. If we go with the unconscious processing response to the Sperling paradigm, however, then we break the connection between episodic memory and conscious awareness. The subject turns out to have an episodic memory of the appearance of a row without ever having had conscious awareness or experience of the appearance of a row. As evidence that specifically episodic memory is in play, bear in mind that their task was to answer the episodically flavored question of "what did you see?", not "what was there?".

Many proponents of Dignāga's strategy are not explicit about how they understand the "awareness" in his memory constraint. But a natural understanding of "awareness" is in terms of conscious awareness. So many initially promising versions of the episodic argument will face a dilemma from Sperling's results. Either we will have a conscious experience that

objections. In sum, the most promising version of Memorability for the episodic argument needs to be put in terms that are vulnerable to empirical objections.

cannot be remembered, thereby blocking the use of considerations about how we remember our conscious states to draw a conclusion about their nature. Or we will fail to have a conscious experience, yet will have a case of episodic memory without earlier awareness, thereby generating counterexamples to Dignāga's memory constraint.[17]

In sum, experiments in the Sperling paradigm raise threatening objections to the episodic argument, regardless of whether they establish that there is phenomenal overflow.

So far I have explained why the modalized episodic argument is doubly unsound. A different way to go is in terms of inference to the best explanation or other non-deductive routes, as Thompson 2010 and Giustina 2022 initially present their strategies.[18]

One idea is that there is nothing special about the conscious states we do remember, that they are fundamentally the same in their nature as any of our conscious states, including those we do not remember.[19] Compare how we might draw a conclusion about all members

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[17] All that said, it is not mandatory to understanding awareness as conscious awareness. For example, Rosenthal (2005) demands that someone's mental state is conscious only if they are aware of the mental state, but clarifies that the awareness in question need not be conscious, in his quest to avoid generating a regress here. There is still no guarantee that subjects in the Sperling line had awareness of the cued line they are later able to report. Here it is crucial to see how the possibility of some form of unconscious visual processing does not guarantee the presence of subject level unconscious perception or awareness (see e.g. the debate in Phillips and Block 2017). So even if Dignāga's memory constraint is not understood in terms of conscious awareness, a threat to the constraint remains (I take it we can draw the personal/subpersonal distinction without appealing to any robust notion of a subject or self).

[18] What they actually do at the end of the day is not so clear.

The proposed inference to the best explanation in Thompson 2010: 162-3 ends up aiming for the different conclusion that some remembered conscious states were reflexively self-aware. Setting aside whether or not he reaches that conclusion, Thompson does not actually address how to generalize the conclusion to mental states that are not remembered.

While Giustina 2022 frames her argument as an abductive one, at the end of the day her ultimate version of the argument seems deductive, and vulnerable to the objection we raised in the previous section. I say this because of her key move here:

> for any conscious experience we have forgotten, there is the nomological possibility for us to recall it (had it entered the right web of associations that traps it in long-term memory). And there can only be the nomological possibility for us to recall an experience (or indeed any event) if we were aware of it at the time of its occurrence (2022: 350).

I again object that, even if we are not actually aware of a given event, we usually could have been aware of the event (without any change in the laws of nature).

[19] For a suggested argument for Awareness along these lines, see Giustina 2022: 350.

of a natural kind based on our observation of only some of them. Now, if we had established that our awareness is part of what explains the nature of the conscious states we do remember, we would now be in a position to infer that we have awareness of each of our conscious states, including those we don't remember. But we have not yet established any such conclusion. For all that has been said, all of our conscious states do have the same nature, even though many of them occur without awareness.

You might protest that it seems arbitrary to align inner awareness more or less only with our remembered conscious states. Why should there be such a coincidence? It might seem to make more sense to say that all of our mental states come along with inner awareness. But here the rival hypothesis is more straightforward. If awareness is indeed a constraint on memory, of course we remember only those conscious states we were aware of at the earlier time. Those mental states were distinctive in that they came along with inner awareness, enabling us to remember them. Any conscious state that didn't come along with awareness will fail to be remembered, at least by the lights of the episodic argument. If we were to have inner awareness more or less only of those mental states that we remember, that would not be a mysterious coincidence.

We lack the grounds to abductively infer that all of our conscious states go along with inner awareness. Inferring that all of our conscious states go along with inner awareness is not like the move from all observed emeralds are green to all emeralds are green, but rather like a move from all observed emeralds are observed to all emeralds are observed.

3. The Requirements of Memory

We have so far mainly conceded Dignāga's constraint to defenders of Necessary Awareness. I will now argue that the constraint is both unmotivated and false. The challenges I discuss

are both ancient and modern. They will give us a better understanding of episodic memory, and of its independence from past awareness. Here we will see that the memory argument doesn't even establish that we sometimes have inner awareness of our conscious mental states.

I'll begin with an ancient objection from verse 73 of Candrakīrti's *Madhyamakāvatāra* (as translated in Mipham 2002, see Garfield 2015 for further discussion of this objection as well as of other relevant objections):

> 73 Now, that this nature "self-experiences" is quite unproved.
> And if you say it's proved by later memory,
> The evidence you give to prove what is unproved
> Itself remains unproved and thus supplies no proof!

The objection is elaborated in Mipham's commentary as follows:

> we cannot cite reflexive awareness as a cause of memory, since it is precisely reflexive awareness that we are aiming to establish, and therefore it cannot be adduced as evidence (2002, 158-9)

Here the objection is that the proponent of the episodic argument begs the question. In particular, perhaps they cannot legitimately maintain that we have memories of our past experiences in a form that allows for the application of Dignāga 's memory constraint.

This particular ancient objection is unsuccessful. When the proponent of the episodic argument holds that we have memories of our past experiences, they need not thereby assume reflexive awareness in any way. The key claim about our present memories need only be this: we sometimes remember our past experiences. This claim is by itself entirely neutral about whether our current memories themselves come along with inner awareness, as well as about exactly how our current memories present our past experiences. To say that we have memories of our past experiences also does not beg any question about whether Necessary

Awareness is correct, and so can be granted by many parties here.[20] It shouldn't be controversial whether we ever remember our past experiences. The controversy instead should be over whether it was necessary in the past to have awareness of our experiences in order to remember them now.

To bring out the problem for Candrakīrti's objection in a different way, consider that the first stage of the memory argument aims only to establish that we had awareness of some form or another of our past experiences when we had them, the claim is not yet that we had specifically reflexive awareness of our past experiences (my two-stage reading of the argument follows Kellner 2010: 213). Recall that inner awareness is a general form of awareness of our own experiences, and that reflexive awareness is a special case of awareness of our own experiences, where the experiences themselves are the vehicles of our awareness of them. So specifically reflexive awareness is not being assumed in any way at the initial stage of the memory argument, the action again instead concerns the constraint on memory in terms of awareness. As Dignāga himself put it, "there is no memory of an object-awareness (*arthavedana)* that was not experienced before, just as [there is no] memory of colour and the like [when these were not experienced before]" (in Kellner 2010: 213). Here he demands previous experience of object-awareness to remember object-awareness, but does not yet specify the form or vehicle of such experience.

The conclusion that we have reflexive awareness of our experiences is instead aimed for at a later stage by consideration of regress problems that might arise if we lack reflexive awareness. As Dignāga puts it later, "When [cognition] is experienced through another cognition, there is no end..." (Kellner 2010: 215).

[20] For further discussion, see Thompson 2010, Chadha 2017, Kriegel 2021.

All that said, contemporary lines of motivation for Dignāga's constraint bring in stronger claims about memory that are open to variants of Candrakīrti's challenge. As we said earlier, the constraint is driven by the idea that there is something essentially experiential about episodic memory. In Giustina's words,

> [episodic memory] consists in first-person recollection of events of one's personal past. . . there is general consensus that having first-personal experience of an event is a necessary condition for episodic memory (2022: 347-8)...

Or as Thompson says, in a more demanding formulation

> Memory requires past experience: when one recollects one recalls both the object perceived and the past seeing of this object (2010: 161-2).

Especially in Thompson, although implicitly in others, the idea seems to be that episodic memory involves a kind of replay of past experience. Since episodic memory involves a replay of past experience, one must have had the earlier experience that is being replayed. As many authors also put it, episodic memory involves a kind of mental time travel returning to the past. When we add the further assumption that we can only remember anything of which we were previously aware, it will follow that we had previous awareness of our experiences.

Here we can update and strengthen Candrakīrti's challenge by questioning the metaphors of episodic memory as replay of past experience or as time travel. The new problem is that, however they are cashed out, the metaphors run afoul of the distinction between participant and observer perspectives in episodic memory. For a classic statement of the distinction, consider Nigro and Neisser:

> 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' (1983: 467–8)[21]

When you have an episodic memory from the participant perspective, it might well be that you in some sense replay or travel back to an experience from your past. We could also call these POV memories. But when you have an episodic memory from the observer perspective, you remember a past external event from the outside, as if you are seeing yourself watch the fireworks. We could also call these drone memories. Unusual cases aside, you did not at the time see yourself watch the fireworks. So here we have a perfectly episodic memory where you recollect the object perceived (the fireworks), but in this instance do not recollect the past seeing of this object. Here we have a direct contradiction to Thompson's formulation. And while Giustina and others do not put their point in such direct terms, I take the use of "first-personal" to demand that you had a first-person perspective in the past that mirrors the experience you seem to have had in the course of your episodic memory. But in the case of observer memories, unusual cases aside, you did not have any first-person perspective in the past that matches the drone-like perspective of your present perfectly episodic memory. Ironically, this is just the sort of external encounter with the past typically depicted in fictions of time travel---you don't somehow become your past self, you instead see your past self from the outside.

The motivation for Dignāga's memory constraint used the idea that episodic memory involves taking up an experiential perspective you had in the past. It turns out that a wide swathe of episodic memories do not involve any such process. It turns out that the initial

[21] See also Burge 2013: 155–60, Sutton 2010 (who responds to skeptical takes on the distinction), Lin 2020, and Siegel and Silins 2018.

motivation for the memory constraint does not work. Here we can challenge the motivation for the memory constraint without invoking the implausible claim that we never remember our experiences and instead at best remember what we experience.[22]

One potential response is to reformulate the argument specifically in terms of observer episodic memories. If that's all the opponent says, I take this move to be ad hoc. In any case there is a further major problem here. The considerations about mental time travel seem to be meant to unpack the present conscious character of memories. But this is the wrong place to look for a defense of Dignāga's memory constraint. What we really need is a defense of the claim that we can in general only remember what we were previously aware of. To defend this essential claim we need to focus on the past time of the formation of memories, and on the requirements of forming such memories. Unpacking the present conscious character of memories won't reveal what it took for such memories to be formed.

In response, you could say that we remember our past experiences specifically as having come along with inner awareness at the previous time (as Thompson 2010 seems to do).[23] Here the theorist could infer past self-awareness from the accuracy of our current memories, never mind earlier necessary conditions for their formation. Since Dignāga's memory constraint has now dropped out of the argument, no longer playing any role as a gatekeeper for memory, we are quite far from his original line of thought. Either way, now the original version of Candrakīrti's challenge will be apt. This sort of fully loaded episodic memory with past inner awareness packed into it has not been proven to exist.

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[22] To settle whether there is direct evidence here for the falsehood of Dignāga's memory constraint, there is a question about the object of episodic memories from the observer perspective. If you have an episodic memory of yourself from the outside watching the fireworks, then we will have a host of direct counterexamples to Dignāga's constraint as well, given that you were not at the time aware of yourself from the outside watching the fireworks. But it might be that, strictly speaking, in such cases you only have an episodic memory of the fireworks, where you indeed were aware of the fireworks at the time. Here the current phenomenological case for the memory constraint would still have failed.

[23] Kellner 2010: 213 ascribes similar takes on the argument to Williams 1983: 325, 1998: 10 as well as to Arnold 2008: 18f.

There is a further line of motivation from Dharmakīrti for the memory constraint to address. Here is his core idea as rendered by Kellner:

> Dharmakīrti for his part specifies that if there were memory of past cognitions without their previous experience, then one's cognition of one's own past cognitions would not be different from determining the cognitions of others (2010: 213).

The new motivation starts by noting an asymmetry between the character of our memories of our own past conscious states, and the character of our memories of those of others. We arguably don't even have episodic memories of others' conscious states---but why? Assuming that there is such an asymmetry, the memory constraint might promise to provide the best candidate explanation of why the asymmetry obtains. Perhaps the best explanation is that we did not have awareness of others' conscious states.

But there is a simpler and better rival explanation. Another asymmetry to bear in mind is that we simply did not have the conscious states of others in the past to begin with. At the same time, we often did have awareness of some form of the conscious states of others, just not inner awareness, so there is actually a question here about what would prevent us from having episodic memories of their mental states. It is far easier to use the point that our memory of the conscious states of others is different because we never had those conscious states to begin with. Here we can provide a leaner account of the difference in character between our memories of our own conscious states and our memories of those of others.[24]

As things stand, we lack sufficient reason to believe the memory constraint. What's worse, we also have reason to suspect it is false. I'll now develop an important direct line of

[24] A more radical response might appeal to views of first-personal memory as one among many forms of simulation, and deny that our memories of our own mental states even are distinctively different from our memories of others'. Perhaps we simply engage in a highly similar form of simulation across all of these cases. See e.g. Schachter et al 2015.

objection to the memory constraint. I'll start with the ancient version of it as rendered in Garfield 2006, including its elaboration by rGyal rshab:

> Śāntideva presents a fanciful analogy to explain the nature of memory in the absence of reflexive awareness. A bear is hibernating and is bitten by a rat. He develops an infection at the site of the wound. When he awakes in the spring he experiences the pain of the infected wound and knows on that basis that he experienced a rat bite, even though at the time he was not aware that he was experiencing the bite...
> *rGyal tshab*:
> ...the fact that the subject does not experience itself is like the fact that the poisoned bite was not experienced. The later memory of the bite is like the memory of the object... (2006: 210).

In rGyal tshab's version of the objection, even though the bear lacked awareness of the rat bite when he got it, the bear is still explicitly able to construct a memory of the past rat bite using the present resources of pain and perceived bodily damage (see also Tsongkhapa's discussion of the animal's memory in Jinpa 2021: 348). These resources arguably enable memory of the past rat bite without ever needing to have had awareness of the rat bite.

The example of the bear points us in the right direction, but we aren't there yet. Now that we have framed the discussion specifically in terms of episodic memory, rGyal tshab's version of the objection in terms of memory needs the specific point that the bear has an episodic memory of the rat bite. Here I take it to be highly dubious that the bear has an episodic memory of any bite received during hibernation.

In response, one might say that it is enough for Śāntideva to show that we can form rich representations of past episodes without ever having had past awareness of them.[25] Perhaps this point about cognition of the past is enough to shift the burden of proof in the debate, whether or not we have an example of episodic memory without past awareness. Here I don't think that a mere analogue to episodic memory would take us far enough. The proponent of the memory argument can easily grant that we come up with reasonable

[25] Thanks here to an anonymous referee for this journal.

hypotheses about the past without having had awareness of the subject matter of those hypotheses. We all knew that from the beginning, and even in the case of memory for semantic memory. In order to object to the memory argument, the focus needs to stay on the requirements of episodic memory. As a further matter, the proponent of the memory argument might be happy enough to concede that the burden of proof is on them. They need not and do not take Dignāga's memory constraint to be a bedrock starting point. As we have seen above, for better or worse they try to support it through examples and otherwise.[26]

The key insight in Śāntideva's objection is about what the bear is able to represent using present resources rather than reactivation of past experience.[27] Here we can update Śāntideva's objection using the dominant strand of research in psychology on which memory is thoroughly constructive in character.[28] For a now classic example of the constructive character of memory, consider the word list paradigm in which subjects tend to easily misremember a word as having appeared in a list of cognate words (of Deese 1959 and Roediger and McDermott 1995). For example, subjects readily seem to remember "bread" as having been presented in a list when that list includes "butter", "food", "eat", "sandwich",

[26] For further discussion of the objection, see Thompson 2010, Chadha 2017, or Finnigan 2018, esp. 398. As far as I can tell, their responses don't address the contemporary version of the objection. In particular, Thompson's discussion develops a Husserlian view of the conscious character of present memories, but therefore seems compatible with a constructive view of the causal/inferential generation of present memories, chopping off any requirement of past awareness at the time remembered.

[27] Garfield mentions a similar point: "And we note that contemporary cognitive science, with its reconstructive, rather than storage-and-retrieval models of memory, is on the side of Candrakīrti and Śāntideva in this debate (2015: 142)." A quibble is that Garfield presents Candrakīrti as holding that "all that is necessary" for memory is that the present memory be "caused in the right way" by a previous experience (141). Some contemporary constructive views drop causal requirements, in any case it is highly debatable whether any causal condition is sufficient for memory. For relevant discussion see Hopkins 2018 or Michaelian and Robbins 2018.

Setting aside constructive views of memory, causal views of memory can be used on their own to raise a challenge here, if the right kind of causal link to a past experience suffices for memory, without past self-awareness being necessary for the causal link to obtain. For relevant discussion by Vasubandhu, see Gold 2015: 280n17. I reject this strategy since I think it's too debatable whether there is any non-trivial causal condition sufficient for memory.

[28] See e.g. De Brigard, 2014; Michaelian 2016, Robbins 2016 and 2019.

"rye" and so on, even if the list did not contain "bread". Now you might object that this is not a case of episodic memory. But bear in mind that for example Payne et al (1996) specifically target which of two speakers had uttered such and such word. Also, there are important further strands of evidence from manipulations of memories of car accidents and other events of the sort conducted by Loftus 1974 (of course, there can be non-episodic memories of events, but the wording of the queries by Loftus and others seem to target episodic memories).[29]

It is not news that our apparent memories can be mistaken. The important lesson is that memory does not function by storing and reproducing the past, but rather by constructing a representation of the past from present cognitive resources (which is not yet to say that causal traces from the past are irrelevant). Here I take it we should prefer the simplicity of a uniform story about the formation of our apparent memories, whether they be accurate or not. So our lesson holds both for our accurate memories as well for our inaccurate apparent memories (while the psychological literature counts inaccurate apparent memories as genuine memories, the challenge to the memory argument does not require us to take a stand on this classificatory question here).

How exactly to develop and defend an appropriate constructive theory of episodic memory can remain open. One extreme option is taken by Michaelian 2016, who largely abandons causal constraints on memory, as well as traditional accuracy constraints on memory, in favor of an account in terms of mental simulation. He reaches the radical conclusion that "one can in principle remember an entire episode that one did not experience" (Michaelian 2016: 118). Here one easily can remember a conscious state one was not aware

[29] See Loftus 2005 for more overview.

of being in at the earlier time, since one can remember conscious states one never was in it at all.

It is not necessary to take such an extreme stance to oppose the memory constraint. The picture of memory as constructive can be developed and defended in many ways. One could hold on to the constraint that one remembers a conscious state only if one was in the state, and one could even require that the past state is somehow a causal factor of one's own current memory (see e.g. Hopkins 2018 for some of the options here). Either way, if memory is constructive, it seems highly unlikely that even successful, genuine episodic memory should require past awareness. When you accurately remember the occurrence of "sandwich" in a list, just as when you apparently but inaccurately remember the occurrence of "bread" in a list, there is no retrieval of a stored previous event. If our memory functions in this way, as the current consensus in psychology seems to indicate, there does not seem to be any reason for past awareness to serve as a necessary condition on present memory. A requirement of past awareness would make sense as a requirement for storage for future retrieval. But if memory instead functions via present construction of representations of the past, a wide range of causal traces from the past and other present resources could allow for (accurate) episodic memory of a past conscious state.

The point that memory constructs rather than retrieves does not strictly entail that Dignāga 's memory constraint is false. But the point gives us good reason to doubt the demand, given the availability of multiple resources for construction of an episodic memory of a past mental state. We are unlikely to need to have had past awareness of a mental state when there are many other routes to remembering it episodically.

Conclusion

An important virtue of the episodic argument is that it examines what awareness might do for us in our mental economies, enabling us to remember external events and our own conscious states of mind. The argument can thereby allay the concern that it doesn't matter whether we have awareness of our conscious states or not, especially as the concern arises for views that hold our inner awareness to be highly or completely peripheral in our conscious perspectives.

This virtue of the episodic argument is also its downfall. The argument comes along with a plausible account of why awareness might go along only with some of our conscious states rather than all. If awareness is a requirement for memory, it will follow that we were aware of all conscious states we remember, but it will also remain comfortably open whether *all* conscious states, remembered or not remembered, go along with awareness of them.

We have also seen strong reasons to doubt that memory requires awareness. The motivation for the claim ignores the important distinction between participant and observer perspectives. And the broad range of evidence for the view that memory is constructive suggests that memory does not function by exploiting previous awareness of what we remember.

I will now close with a suggestive opportunity to turn memory against Necessary Awareness, in a reversal of Dignāga's strategy. Developing the reversal fully would take much more work, and we'll see reason to doubt any such work can succeed.

Perhaps we can remember situations in which we were in some sense fully absorbed in a task or activity, where episodic memory actually ends up delivering counterexamples to Necessary Awareness.[30] The strategy is tempting, but it has to be taken with care. For example, appealing to stories of "blacking out" from athletes will not do. If "blacking out" is taken more or less literally, the cases will fail to be cases of consciousness in the first place.

[30] See especially Dicey-Jennings 2020 ch. 5, also Garfield 2015 and Stoljar 2021.

A further challenge arises in this interview with the veteran professional skateboarder Andrew Reynolds:

> The blackout is what you're searching for constantly from trying a trick. Even when I was really young I noticed it because I would skate a lot of contests and stuff in Florida and people afterwards would say like, "Oh that was cool they were playing Zeppelin," or whatever and I would just be like, "I have no idea what you're talking about." For me it was just silence the whole time I skated…
> **Besides not hearing the music, is there actually any blackout throughout the run or trick?**
> I mean, you know what you're doing… I think it's the reason people pay money to learn how to meditate and do yoga to quiet their mind, you know? It's like the most extreme form of that.[31]

Here Reynolds seems to suggest that there is some presence of consciousness when "blacking out", but at the same time also some presence of inner awareness---"you know what you're doing". Here the athlete seems to confirm Necessary Awareness rather than disconfirm it.

In order to use memory against Necessary Awareness, it is not enough to remember being extremely absorbed in some task or activity. That is all compatible with the remembered presence of inner awareness, as well as with the possibility of a non-remembered presence of inner awareness. To use memory against Necessary Awareness, we would need to remember not just absorption but also the absence of inner awareness.[32] It is far from clear whether our episodic memories ever provide such a highly specific verdict about the content of our experience and awareness from the past. The strategy of using memory against Necessary Awareness is intriguing, but you can reasonably doubt that episodic memory delivers such a rich amount of detail about the absence of inner awareness.

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[31] https://www.jenkemmag.com/home/2014/09/02/the-andrew-reynolds-interview-2/

[32] A different move would be to argue that inner awareness is absent in much conscious expert athletic performance since its presence interferes with performance. See Dicey-Jennings 2014. The proponent of Awareness might respond that the inner awareness they are concerned with is highly peripheral and non-reflective, unlikely to interfere with performance (see also a similar point in the introduction). This might be correct, although I note again that, the more subtle and epiphenomenal inner awareness is, the less likely we are to be able to have introspective evidence for it, and the less likely it is to matter whether we have it.

Memory has spoken. But what did it say?

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