

RELIABILISM'S MEMORY LOSS

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Generativism about memory justification is the view that memory can generate epistemic justification. Generativism is gaining popularity, but process reliabilists tend to resist it. Process reliabilism explains the justification of beliefs by way of the reliability of the processes they result from. Some advocates of reliabilism deny various forms of generativism. Other reliabilists reject or remain neutral about only the more extreme forms. I argue that an extreme form of generativism follows from reliabilism. This result weakens a longstanding argument for reliabilism.

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1. Introduction

Generativism about memory justification is on the rise. Stated simply, it's the view that memory can generate epistemic justification. Generativism is popular among so-called 'current time-slice' epistemologists, philosophers who think that just the way a subject is at a time settles what she is justified in believing then.¹ Her past and future don't matter. If current time-slice epistemology is correct, then generativism looks promising. Whenever memory plays a role in our having justification it must be generating justification at the time. It is not instead preserving past justification.

Process reliabilists, however, tend to resist generativism. Roughly, process reliabilism explains the justification of beliefs in terms of the reliability of the processes they result from, where the reliability of a process is its tendency to produce true beliefs. Some advocates of

¹ Goldman (1979: 14) says he borrows 'current time-slice' from Robert Nozick. The phrase applies to e.g. Conee and Feldman (2004), McCain (2014), and Smithies (2014).

reliabilism deny various forms of generativism.² Other reliabilists reject or remain neutral about only the more extreme forms.³

I will argue that a most extreme form of generativism *follows* from reliabilism. This discovery might be in perfect keeping with the spirit of reliabilism. Yet it weakens reliabilism's standing, since it weakens a longstanding argument for reliabilism. Alvin Goldman lays out the argument. He (2009: 322) thinks the justificatory status of a belief 'held at time *t* partly depends, in the general case, on what transpired in the subject's cognitive history prior to *t*.' According to Goldman this 'historicity of justifiedness is a major problem' for current time-slice views. But reliabilism, Goldman (1979: 14) claims, is an 'Historical theory' and as such it 'makes the justificational status of a belief depend on its prior history.' Reliabilism gets things right, or so Goldman claims.

However, if an extreme form of generativism follows from reliabilism, then reliabilism does not get things right. On this extreme form, memory could generate justification for any previously unjustified belief. Contrary to Goldman, reliabilism could ignore a belief's past. Because reliabilism is sometimes oversimplified in a way that masks its relation to generativism, I state these views carefully (in Section 2) before arguing (in Section 3) that an extreme form of generativism follows from reliabilism. Then (in Section 4) I address several objections to my argument, objections that concern cognitive penetration, belief individuation, and reliabilism's generality problem. I conclude (in Section 5) by presenting reliabilism with a dilemma.

2. Reliabilism and Generativism

Reliabilism implies that features of a process that causes a belief affect the belief's justificatory status. But reliabilism does not *require* that a justified belief results from a plainly reliable process. For there is an important divide among processes that cause beliefs. Some

² See e.g. Senor (2007, 2009, 2010).

³ Goldman (2009) and Senor (2017) reject the extreme forms. Lyons (2009) declares neutrality. Lackey (2005, 2007) and Michaelian (2011) endorse only non-extreme forms explicitly.

processes are *belief-independent*, yielding beliefs without taking any beliefs as inputs. A basic perceptual process could be belief-independent. Your visual experience of a blue sky results in you believing that you see something blue. It could be that the experience is part of a process that did not involve any of your other beliefs, and this process results in you believing that you see something blue. Reliabilism states that if a belief results from a reliable, belief-independent process, then it is justified.⁴

However, other processes are *belief-dependent*. These processes yield beliefs in a way that directly depends on other beliefs. A belief-dependent process takes some beliefs as inputs. An inferential process is belief-dependent. It takes beliefs in premises as inputs, and it results in a belief in a conclusion. Memory is also belief-dependent when, for example, it preserves a belief over time—when it takes a belief that p at t_1 as an input and results in a belief that p at t_2 .⁵ The justification conditions for a belief that results from a belief-dependent process are not simple. A belief-dependent process may be unreliable if its input beliefs are often false (an inferential rule, for example, may tend to yield false conclusions, if typically applied to false premises). Yet the process can still have a key asset: *when* all its belief inputs are true, it tends to yield truths. The process is *conditionally-reliable*. And a conditionally-reliable belief-dependent process can yield a justified belief, provided that all belief inputs are justified. Belief in a conclusion is justified if the inferential process is conditionally-reliable and the beliefs in the premises are justified.

According to reliabilism, there are no other conditions in which a belief is justified. To be clear, then, reliabilism states:

- R1. If S's belief that p at t results from a reliable, belief-independent process, then S's belief that p is justified at t .
- R2. If S's belief that p at t results from a belief-dependent process that is conditionally-reliable and all belief inputs to which were justified, then S's belief that p is justified at t .

⁴ See Goldman (1979: 13).

⁵ Inference and memory are Goldman's (1979: 13) original examples of belief-dependent processes.

R3. If S's belief that p is justified at t , then it satisfies R1 or R2.⁶

R3 is included because R1 and R2 are jointly exhaustive. On reliabilism, a belief is unjustified if it satisfies neither R1 nor R2.

The literature often overlooks R2 and R3, glossing reliabilism as a biconditional resembling R1. That is, some philosophers suggest reliabilism makes unconditional reliability not just sufficient but also *necessary* for justification. Usually this is inconsequential. Sometimes it is not. John Turri (2015: 529) for example claims that 'A consensus view in contemporary epistemology is that knowledge must proceed from reliable processes, abilities or dispositions.' He attributes this view to reliabilists because he attributes to them the view that knowledge requires justified belief, which requires reliability. Turri attacks this allegedly consensus view. Crucially, his attack assumes that the reliability required for knowledge is unconditional. But R2 makes clear that not even reliabilists hold that justification requires unconditional reliability—not even reliabilists would consent to the allegedly consensus view.

A statement of a generic generativism is already at hand: memory can generate justification. At first glance this view seems unobjectionable. After all, perception, introspection, intuition, etc. generate justification, and memory does not seem to have a defect these other faculties lack. However, on a standard folk psychological view—one that many philosophers (e.g. Burge 2003: 321) endorse—memory has a relevantly unique and limited function. Memory generally aims to preserve what it receives from these other faculties. Memory does not create any new information, except when it errs. So, when memory is responsible for our having

⁶ Cf. Feldman (2003: 93) and Goldman (1979: 13-4). Lyons' (2009: 177-8) reliabilism is more complex but relevantly similar. He (2009: 137) thinks the 'all' condition in R2 should be weaker. No careful statement of reliabilism in the literature departs notably from R1, R2 and R3. Goldman (1979: 14) mistakenly omits 'belief-dependent' from R2. The omission would let any belief resulting from any belief-*in*dependent process count as justified, since any belief-independent process is (trivially) conditionally-reliable, and (trivially) all inputs to any belief-independent process are true. R1 and R2 do not have 'no defeaters' clauses, but this will not matter here—in the cases that I use to show that an extreme form of generativism follows from reliabilism, there are no relevant defeaters.

justification, memory is likely just preserving justification that derives from some other faculty. It is not generating new justification.

By slightly modifying the generic, however, we see moderate and liberal forms of generativism that are consistent with this folk-psychological view of memory. They limit the sorts of justification memory generates or the conditions in which memory generates it. Briefly reviewing these moderate and liberal forms will help us see what makes other forms more extreme. Sven Bernecker (2010: 98-9) advocates one moderate form: ‘The only way for memory to function as a generative source of justification is by removing defeaters and thereby unleashing the justificatory potential that was already present at the time the belief was initially entertained.’ Memory does this, he thinks, in such a case as the following. A subject has a justified belief that p at t_1 , and gains a misleading defeater for this justification at t_2 . As a result, at t_2 the belief is not justified *overall*, but is merely *prima facie* justified—that is, it would be justified overall, in the absence of any defeater. At t_3 , the defeater happens to be lost. So, the belief becomes justified overall at t_3 . From t_1 to t_3 memory retains the belief and its *prima facie* justification, and thanks to memory the belief becomes overall justified at t_3 . In Bernecker’s examples, the defeater is lost via forgetting. So, memory *stops blocking* overall justification in his cases. Bernecker thinks memory is therefore generating overall justification. Set aside exactly how the defeater is lost, and Bernecker’s moderate generativism states simply that memory can generate *overall* justification for some *prima facie* justified beliefs.⁷

Jennifer Lackey (2007: 218-9) advocates a more liberal generativism on which memory generates not just overall but also *prima facie* justification. This generation can occur when a subject’s ‘faculty of memory reliably stored the raw materials from his perceptual experience and then worked these materials into a belief state that is both *prima facie* and [overall] justified.’⁸ For example, a subject distractedly witnesses something, and forms a belief that p about it only later

⁷ See Lackey (2005: 640-4) for an earlier version of this sort of case, but in which memory is not what removes the defeater.

⁸ Cf. Locke (1971: 54).

on. His memory stores perceptual information supporting p and eventually generates a belief based on it. The belief is both *prima facie* and overall justified. Note, however, that this justification is *doxastic*. It is justification belonging to a doxastic attitude—in this case, belief. This justification is generated alongside the attitude. Prior to forming the attitude, though, the subject already had reason (from perception) to believe that p ; the subject had *propositional* justification for believing that p . Perception, not memory, originally generated the propositional justification in this case. Memory generates doxastic justification here by basing belief on that propositional justification. Lackey’s liberal generativism, then, states just that memory can generate *doxastic* justification, *prima facie* and overall, when something else initially provides the propositional justification.⁹

Kourken Michaelian (2011: 337) endorses a generativism he calls ‘radical’. He rejects the folk-psychological view that memory mainly just preserves information originating elsewhere.¹⁰ Memory does of course receive information from other faculties, but doesn’t simply store it all for later retrieval. Memory stores selectively and alters what it stores at several stages of processing. What it later yields, it reconstructs. Michaelian says that ‘memory can generate justification by generating a new content, along with a belief with that content,’ because the memory process generating the belief is reliable. When memory generates in a subject the justified belief that p , the subject needn’t have already had reason to believe that p , much less had reason that traces back to some faculty besides memory. On Michaelian’s radical generativism, then, memory can generate propositional and doxastic justification, *prima facie* and overall, when memory generates a *new* belief in new content.

These increasingly liberal forms of generativism help us see an extreme. A form of generativism could state that memory can generate justification for something other than a new belief in new content—for an old belief in old content, even when believing that content for the

⁹ Cf. Michaelian (2011: 337) and Senor (2017).

¹⁰ Cf. Frise (2018a) and Salvaggio (2018).

subject had been *unjustified* overall and not even prima facie justified. For example, suppose a subject forms a belief that p at t_1 without any good reason, and memory keeps it. A generativism that is beyond radical allows her belief to become justified, somehow via memory, at t_2 . Since there is already a radical generativism in the literature, and this goes beyond it, this is:

Hyperradical generativism. S's memory can generate justification (doxastic, propositional, prima facie, and ultima facie) for any otherwise unjustified belief in memory.

Understand this as a claim about memory's power, not as a modal claim. Any subject's memory has the power to generate justification for any originally unjustified belief her memory preserves. This contrasts radical generativism, which attributes justification from memory only to certain new beliefs. From here on I will, for simplicity, drop the parenthetical in hyperradical generativism about the types of justification.

Several non-reliabilists accept the full spectrum of generativism.¹¹ But reliabilists either hold back from or censure hyperradical generativism.¹² Thomas Senor (2009) says that if a belief has been kept in memory, 'A reliabilist will hold that [it] is justified only if the memorial process that maintains it is reliable and if it was justified when originally formed. To hold otherwise would be very much out of keeping with the spirit of reliabilism.' Similarly, Alvin Goldman (2011: 259-60) says that the cognitive belief-retaining process of preservative memory 'transmits a belief's justifiedness (or unjustifiedness) from one time to a later time.' Apparently, Senor and Goldman deny not only hyperradical generativism, but also the weaker thesis that there is some unjustified belief in someone's memory for which memory can generate justification. And their reasons for denying hyperradical generativism suggest it is not merely false, but necessarily false.

¹¹ See e.g. Feldman (2005) and McGrath (2007). For discussion see Frise (2015).

¹² Lackey (2007) and Michaelian (2011), for example, are silent about hyperradical generativism. Lyons (2009: 127) explicitly declares neutrality on it. Goldman (2009: 327) says one particular view denying hyperradical generativism 'has some definite virtues', and that 'some form of [this view] must be right'. Senor (2009, 2010, 2017: 330-32) makes several claims contradicting hyperradical generativism.

To show that hyperradical generativism is even possibly true, given reliabilism, would be enough to shake up the current reliabilist order.

This reliabilist opposition to hyperradical generativism, I believe, traces back to the reliabilist thesis R2. R2 says that if a belief results from a belief-dependent process, that belief is justified if that process is conditionally-reliable and if all belief inputs to that process were justified. When memory sustains a belief that p from t_1 to t_2 , the belief that p at t_1 is itself an input to the belief-dependent process that maintains the belief that p at t_2 . If the belief that p was unjustified at t_1 , then of course not all inputs to this sustaining process are justified.¹³ R2 will not be satisfied. So it might look like, on reliabilism, memory could preserve a positive or negative justificatory status from the past, but cannot generate a better one for an old belief. Hence reliabilists like Senor defend a so-called ‘preservationist’ view of memory justification. As Senor (2009) says, ‘a belief that had no justification when it was formed, has no justification to be preserved. According to the preservationist, then, such a belief will be unjustified when recalled (and, for that matter, while in memory).’

Senor, Goldman, and other reliabilists might accept hyperradical generativism if it becomes clear they must. And if they must, I see at least three upshots. First, I will have shown that hyperradical generativism—an extreme and controversial thesis—follows from a popular theory of epistemic justification, a theory many regard as hostile to this generativism. Secondly, any reason to accept reliabilism is reason to accept hyperradical generativism. So there are new avenues for supporting this extreme and controversial thesis. And thirdly, as I explain in Section 5, what is perhaps the oldest argument for reliabilism fails if hyperradical generativism is true. Reliabilism, then, is less clearly correct, as its own implications doom a traditional reliabilist argument.

¹³ Cf. Goldberg (2010: 91): ‘The justification of memorial belief involves not just the conditional reliability of the process of recollection, but also the reliability of the process whereby the recalled belief was originally formed.’

3. On What Follows

I will now show that hyperradical generativism follows from reliabilism. In the section after, I will respond to three objections. Because I am establishing what follows from what, I argue by conditional proof. Assume reliabilism is true, and we can derive hyperradical generativism. That is:

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| CP1. | <u>Reliabilism is true.</u> (Assumption) |
| CP2. | Reconstructive recollection is a reliable, belief-independent memory process. |
| CP3. | If reliabilism is true and reconstructive recollection is a reliable, belief-independent memory process, then S's memory can generate justification for any otherwise unjustified belief in memory. |
| CP4. | S's memory can generate justification for any otherwise unjustified belief in memory. (CP1–CP3) |
| C. | If reliabilism is true, hyperradical generativism is true. (CP1–CP4) |

CP4 just states hyperradical generativism. CP2 identifies a particular belief-independent memory process as reliable. CP3 says hyperradical generativism follows from reliabilism and CP2. In other words, *if* CP2 and CP3 are true, then reliabilism leads to hyperradical generativism. The key question is, then, are CP2 and CP3 true? I will argue that they are. Before this, a pair of clarifications.

The first clarification is on what reconstructive recollection is: it is a normal memory process – not a malfunction – that results in belief about the past, or an experience often leading to such belief, in light of related information that is stored in memory. Michaelian (2011: 325) adopts an influential account of reconstruction from the psychology literature: ‘Whatever information was selected for representation and is still accessible is used, together with general knowledge, (roughly) to generate a hypothesis about what might have happened.’ Reliabilist Mary Salvaggio (2018: 658) describes it as ‘our memory system’s best educated guess about the past given the information available’. Reconstructive recollection’s primary output may be a memory rather than a belief. The memory commonly leads to belief sharing its content, though, and we can assess any of this processing that leads to belief for reliability. Although reconstructive

recollection is non-factive and does not aim to exactly reproduce stored information, reliabilists like Michaelian (2011: 329-30) and Salvaggio (2018) argue it is (conditionally) reliable, playing no small part in our having justification from memory. Reliabilists are divided about just how much memory is reconstructive, and how much is purely preservative. While reliabilists emphasize how reconstructive recollection leads to new belief in new content, a key point I will make is that it could also lead to belief in old content; it can overdetermine belief.¹⁴

Secondly, reconstructive recollection may not be reliable in all worlds.¹⁵ The conditional proof shows that it follows from reliabilism that hyperradical generativism is true in any world where reconstructive recollection is reliable. Senor and Goldman, however, suggest hyperradical generativism is actually false and not even possibly true. If CP2 is *possibly* true, reliabilism possibly leads to hyperradical generativism, and that result is newsworthy enough. But I will argue that CP2 is *in fact* true.

To establish CP2, I will argue that reconstructive recollection is *reliable*, then that it is *belief-independent*, and then that it is a *memory* process.

¹⁴ It might seem like reconstructive recollection mainly has to do with one sort of memory, while the preservationist view of memory (and disinclination toward generativism) has to do with another. The first memory type is episodic. It is typically thought of as autobiographical and imagistic memory of experienced events. The second memory type is semantic. It's typically thought of as memory for information in propositional form. Perhaps (i) episodic memory is often reconstructive, but semantic is not. And perhaps (ii) reliabilists are concerned simply about whether semantic memory generates justification. So it might seem that, (iii) whatever I show about reconstructive recollection, reliabilists gain no reason to waiver in loyalty to preservationism.

I think none of (i) – (iii) is quite right. It's unclear where to draw the line between episodic and semantic memory, much less where to locate reconstructive recollection in that distinction. But rather than argue this I will focus on (ii). It is not semantic memory alone that is of proper concern to reliabilists. Reliabilism has to do with the processes that cause a subject to have a belief. And episodic memory, by causing recollection of an event, can cause belief. And it can cause not just belief in new content, but also in content previously believed. Further, note that reliabilists like Lackey (2005) and Michaelian (2011) have used episodic memory to motivate their versions of generativism. And other reliabilists, like Senor (2007), oppose even this. And note some reliabilists remarks about memory's preservative justificatory power have implications for whether *any* kind of memory could generate justification. For example, as mentioned above, Goldman (2011: 259-60) says preservative memory *transmits* unjustifiedness. If he is right, it follows that episodic memory cannot generate justification for an otherwise unjustified belief. And for example, Senor's (2009) remark above places conditions on justification from memory such that it follows that episodic memory cannot generate justification for an otherwise unjustified belief. So, (ii) is incorrect; reliabilism must square with how even episodic memory generates justification. It follows that (iii) is incorrect; the generative powers of reconstructive recollection, even in episodic memory, could challenge preservationism. I thank an anonymous reviewer for calling for clarification here.

¹⁵ On most but not all accounts, reliability can vary across worlds; see Frise (2018b) for discussion.

Reconstructive recollection is at least contingently reliable. Beliefs resulting from it tend to be true. They are true far more often than they are false. So reconstructive recollection is at least contingently reliable. As noted, some reliabilists already argue as much. I submit reliabilists have special reason to agree. Although Michaelian (2011) is silent about hyperradical generativism, he does argue that reliabilism entails radical generativism; on reliabilism, memory can (and does) generate new justified beliefs in new content.¹⁶ Whatever memory process produces a new justified belief with new content p , it obviously does not take an old belief that p as an input. Yet it is reconstructive and reliable. But, as I make clear below, precisely this sort of process can lead to belief that p even if there is antecedent belief that p . The reconstructive process relevant to hyperradical generativism is the same reliable one that leads to radical generativism. It is plausible that reconstructive recollection is reliable, given radical generativism.

Some reconstructive recollection is belief-independent. This may seem incorrect, because some reconstructive recollection is obviously belief-dependent. Sometimes, a subject reconstructively recollects that p , and some belief—perhaps even her past belief that p —is an input to this recollection process. She reconstructively recollects that p in part *because* she believed it in the past. But it would be a mistake to conclude that no process type can have both belief-independent and belief-dependent tokens. Whenever a process has belief inputs, it is belief-dependent. Whenever it has no belief inputs, it is belief-independent. And it is plausible, especially in light of cognitive psychological research, that some reconstructive recollection has or easily could have no belief inputs.¹⁷ Memory is normally generative with respect to content. Ordinarily, the content of recollection is something memory assembles from various sources. Several potential sources lie in the circumstance in which the subject retrieves information from memory. The particular cue that initiates retrieval, the subject's recent thoughts, and the amount and kind of information retrieved, for example, standardly affect the content of recollection.

¹⁶ Cf. Salvaggio (2018: 658), who thinks the general reliability of memory counts towards the justification of 'newly constructed memory contents'.

¹⁷ For an overview of the relevant research, see Michaelian (2011) and Frise (2018a).

These sorts of factors can, in ordinary circumstances, result in a subject recollecting that *p*, *independently* of the subject already believing that *p* or believing anything else. Even when a subject who believes *p* recollects that *p* in part because she bears a relation to a mental representation that *p*, it may not be a *believing* relation that contributes to the recollection (past imagining might cause the recollection instead). A subject's past belief that *p* need not be an input to her present reconstructive recollection that *p*.

Finally, reconstructive recollection is a memory process. If there is purely preservative recollection, it is of course a memory process. If *reconstructive* recollection is not a memory process, there must be some relevant difference between preservative and reconstructive recollection. And there is no relevant difference.

But perhaps it seems otherwise. Perhaps preservative recollection is factive—you can recollect only what is true. And reconstructive recollection is non-factive. But this is a nonstarter. In the literature it is at best controversial that preservative recollection is factive. More importantly, since it is already plausible that there are justified *false* memory beliefs, the non-factivity of reconstructive recollection should not disqualify it from being a memory process.

Here is another potentially relevant difference. It might appear that any memory process has a suitable causal connection to the past, and that preservative recollection has such a connection. Any recollecting that *p* is caused in part by previous learning that *p* or by a past experience in which *p*. But reconstructive recollection might not have such a connection. It can be causally isolated from any particular past learning or experience.

It's not a given in the literature that reconstructive recollection lacks a causal connection. It might have one. And if it has a causal connection, the objection falls flat—there is no difference between preservative and reconstructive recollection here. At any rate, a causal condition on any recollection fits poorly with reliabilism. Reliabilists like Michaelian (2016: ch.6) argue at length specifically against it. Moreover, naturalistically-oriented reliabilists like Goldman

(1979: 13), Michaelian, and Salvaggio (2018) individuate processes psychologically and functionally, without reference to the past.¹⁸ Memory processing is picked out by the operative mechanisms within the individual at the time. And preservative recollection and reconstructive recollection in fact depend on either relevantly similar or perhaps even identical networks of brain regions. If we count preservative recollection but not reconstructive recollection as a memory process, we insist from the armchair on a substantive view about what memory is and how it works. And we don't carve nature at its joints. Reliabilists will excuse themselves from the table.

There is no relevant difference between preservative recollection and reconstructive recollection. Reconstructive recollection is a memory process, and it is reliable and belief-independent. This establishes CP2.

Now I will argue for CP3, the claim that if reliabilism is true and reconstructive recollection is a reliable belief-independent memory process, then hyperradical generativism is true. Recall that reliabilism states two sufficient conditions for justified belief (R1 and R2), and an exhaustivity clause saying these conditions together tell the complete story (R3). According to R1, if a belief that p results from *any* reliable belief-independent process—memory or otherwise—then the belief is justified. My defense of the previous premise, CP2, shows that beliefs from belief-independent reconstructive recollection satisfy the antecedent of R1. So, given R1, memory can generate justification for any belief, even for a belief that memory is retaining and that is otherwise unjustified. That is, CP3: given reliabilism and the status of reconstructive recollection, hyperradical generativism is true.

Let's see this more concretely. Without good reason, Rico formed a belief that p at t_1 . His belief is unjustified then. Memory retains this belief up through t_2 , but by t_2 Rico has forgotten how his belief came about. In fact if it came to mind, it would seem to him as innocent as any of

¹⁸ Cf. Fernández (2018).

his other beliefs. So Rico believes that p at t_2 because memory retains it from t_1 . But also at t_2 , Rico reconstructively recollects that p . This particular reconstructive recollection is belief-independent—none of Rico’s beliefs, not even his past belief that p , contributed to it. So, as a result of reconstructively recollecting that p , Rico believes that p at t_2 . Memory is also retaining his belief that p from t_1 . Memory overdetermines his believing that p at t_2 . Still, if reliabilism is true, then memory generates justification for an otherwise unjustified belief in memory.

Belief overdetermination of this sort is possible on more than one theory of belief. Suppose dispositionalism is true: a subject believes that p *iff* she has a suitable set of dispositions toward p . Reconstructive recollection could overdetermine belief by overdetermining that the subject has a particular suitable set or by causing her to have a second suitable set. Suppose instead representationalism is true: believing is a matter of bearing a certain relation to a mental representation. Reconstructive recollection could overdetermine that the subject bears that relation.

The overdetermined belief could have any content within the limits of what’s psychologically possible for the subject to believe via memory. Process types aren’t individuated by belief output content. As with any other process, there’s no special limit to what reconstructive recollection might yield belief in. The output belief is justified on reliabilism if reconstructive recollection is reliable. Of course, the subject could have a defeater for the belief, in which case the justification is *prima facie* but not overall. A defeater may be especially easily acquired when the belief has a certain type of content—such as an apparent contradiction or apparently necessary falsehood. But the subject may also have a defeater for any defeater (e.g. reason to believe any contradiction here is merely apparent). In that case, the belief is justified overall. Memory has the power to generate justification of any sort, for any otherwise unjustified belief. At any rate, any constraints on the justification memory can generate are simply those shared with other justificatory sources; there is no special limit to memory’s justificatory power.

The reader might have noticed that the antecedent of R2, reliabilism's second sufficient condition for justified belief, isn't satisfied in a case like Rico's. It's not the case that a reliable belief-*dependent* process, with *all* justified belief inputs, is causing Rico to believe that *p*—Rico's past belief that *p* is an unjustified belief input to the belief-dependent process resulting in his belief that *p*. But it would be a mistake to conclude that, on reliabilism, this prevents memory from justifying Rico's belief. Reliabilism does not require for justified belief that the antecedents in *both* R1 and R2 are satisfied. If one antecedent is satisfied, it is irrelevant that the other is not.

This helps reveal that, on reliabilism, a belief's past does not affect its justificatory status so much as some have claimed. For instance, as noted, Goldman (1979: 14) says that reliabilism 'makes the justificational status of a belief depend on its prior history', and he (2011: 259-60) says that preservative memory 'transmits a belief's justifiedness (or unjustifiedness) from one time to a later time.'¹⁹ And fellow reliabilist Sanford Goldberg (2010: 86) concurs: 'whether a particular memorial belief is justified depends, in part, on whether it was justified *on acquisition*.' A main point of contention between reliabilists Lackey (2005, 2007) and Senor (2007) is whether justification and other epistemic goods are things memory cannot generate but only preserve from sources *other than memory*. Senor (2007: 204) thinks: 'in the absence of a new source of justification, a memory belief is justified or known only if it was justified or known earlier'. A case like Rico's shows a new source is unnecessary. Memory has a generative justificatory power not all reliabilists have appreciated. When memory preserves a belief that had been unjustified, it may prevent the satisfaction of R2's antecedent. But preservative memory *does not transmit unjustifiedness* of a belief from the past, on reliabilism—it is not quite in virtue of preservative memory or a belief's past that the belief is ever unjustified, given reliabilism. Rather, a belief is unjustified solely in virtue of what the present conditions are. In particular, belief is unjustified

¹⁹ Cf. Senor (2009); Goldman (2009: 322) claims that the justificatory status of a belief 'held at time *t* partly depends, in the general case, on what transpired in the subject's cognitive history prior to *t*.' For him (2009: 324), 'what transpired' includes whether the subject unjustifiedly believed that *p*. So it seems Goldman has somewhat overgeneralized about the partial dependence of a belief's justificatory status on the past. On reliabilism, present cognitive operations make *irrelevant*—do not simply outweigh—what transpired.

just when neither R1's nor R2's antecedent is satisfied. If R1's antecedent is satisfied—even by memory!—then belief is justified, regardless of what preservative memory preserves.

Given reliabilism, CP2, and CP3, we arrive at CP4—hyperradical generativism. The defense of my conditional proof is complete. If reliabilism is true, hyperradical generativism is true.

In the next section I address three main worries about the conditional proof. But I address one worry about CP2 here, because the worry motivates a second conditional proof for the conclusion that, if reliabilism is true, hyperradical generativism is true. The worry: although I have shown that reconstructive recollection is reliable, and that it is belief-independent, I have not shown that it is reliable *while* belief-independent. It could be that, when reconstructive recollection lacks belief inputs, it does not tend to produce true beliefs.

Here are my replies. First, some reconstructive recollection is due to episodic memory processing. Episodic memory results roughly in the revisiting of an event in one's past. Due to episodic memory, one might represent an episode that one experiences as belonging to one's past. This can and does lead to belief. No one questions the reliability of this process, yet it appears to be belief-independent. So, reconstructive recollection due to episodic memory processing is enough to keep CP2. Secondly, even if reconstructive recollection were unreliable while belief-independent, that would only be contingently true. In worlds where belief-independent reconstructive recollection performs better, hyperradical generativism follows from reliabilism. But leading reliabilists don't think hyperradical generativism is possibly true.

And thirdly, another conditional proof is available, and it does not require CP2. My original conditional proof focuses on R1 and on a belief-independent memory process: reconstructive recollection. Another conditional proof, however, focuses on R2 and a belief-*dependent* memory process. This process could also be reconstructive recollection—again, a process type could have some belief-independent tokens yet some belief-dependent tokens. R2

states that a belief is justified if it results from a belief-dependent process that is conditionally-reliable and all belief inputs to which were justified. Here is how memory can yield a belief satisfying R2, such that reliabilism leads to hyperradical generativism.

Suppose S believes that p unjustifiedly at t_1 , and memory preserves this belief through t_2 . It could be that, at t_2 , S also believes that p on account of a reliable belief-dependent memory process that does not take S's belief that p from t_1 as an input. Had S not already believed that p at t_1 , memory would be *generating* a belief that p at t_2 . Memory is preserving past belief, but also operating causally independently in a way that would have generated belief. This overdetermining route to belief that p at t_2 takes some beliefs, but not the belief that p from t_1 , as inputs. Nothing prevents all belief inputs of this separate route to belief that p from being justified. And there is no reason this route cannot be conditionally-reliable.

After all, as Michaelian (2011: 337) noted, it is plausible that the reconstructive process that generates *new* belief in new content is reliable and conditionally-reliable. This memory process can result in a belief that p when it does not take a past belief that p as a belief input. It can result in a belief that p in the absence of a past belief that p . If that's right, this process should also be able to result in belief that p *even when* memory preserves a past belief that p , independently of that belief. It can overdetermine belief that p . When it does, the past belief that p is not a belief input, so the truth-value of p will not affect the reconstructive process's conditional reliability. So it is conditionally-reliable here if it is in cases where there is no antecedent belief that p . Reconstructive recollection is conditionally-reliable, and can have all justified belief inputs when resulting in belief that p , even when memory preserves an otherwise unjustified belief that p . R2 implies that a memory process can generate justification for an otherwise unjustified belief.²⁰ If reliabilism is true, hyperradical generativism is true.

²⁰ Cf. Goldman (1979: 14): 'Since a dated belief may be over-determined, it may have a number of distinct ancestral trees. These need not all be full of reliable or conditionally-reliable processes. But at least one ancestral tree must have reliable or conditionally-reliable tree throughout.'

On reliabilism, a belief-independent memory process and a belief-dependent memory process each can generate justification for any otherwise unjustified belief.

4. Objections

I will reply to three key objections. Each objection targets my defense of CP3, rather than CP3 itself. The objections also apply to my defense of the premise parallel to CP3 in my second conditional proof, the premise stating that if reliabilism is true and memory can yield a belief satisfying R2, then hyperradical generativism is true. Call this parallel premise CP3*. For simplicity, I will mainly discuss the defense of CP3.

4.1 *The Generality Problem*

The first objection will surprise no reliabilists. The objection is that I have incorrectly identified the process type that, on reliabilism, is *relevant* for determining whether a belief is justified. So, my defense of CP3 does not establish that, on reliabilism, memory generates any justification. This objection arises on account of reliabilism's generality problem. Whatever token process forms any belief is a token of countless types. Reliabilism says a justified belief results only from reliable or conditionally-reliable processes. But just which process type must be reliable or conditionally-reliable, in order for a given belief to be justified? The problem of answering this question is the generality problem.²¹

Here is how the generality problem is relevant to my defenses of CP3. I observed that reconstructive recollection, a reliable memory process, can result in belief that *p* even when memory retains a belief that *p* that had been unjustified. But I did not show that reconstructive recollection is the process *relevant* to that belief's justification. It could be that some other process is relevant. In particular, it could be that the preservative memory process that sustains belief that

²¹ See Conee and Feldman (1998) and Feldman (1985).

p from the past is relevant. If so, then memory does not generate justification. The sustaining process provides no justification if the belief was originally unjustified, and I have not shown that some justifying route to the belief is relevant.

I will make three main responses to this objection, as well as a preliminary comment. The comment: reconstructive recollection is at an appropriately-selected *level* of generality. It isn't uncharitably general or particular. Many reliabilists, at any rate, identify relevant memory processes that are roughly or exactly at this level (Lackey 2007: 218; Michaelian 2016: 48-51; Senor 2017: 328-9).

First main response: the objection appears ad hoc. Reliabilists are content to sequester the generality problem when discussing moderate, liberal, and radical generativism, and when discussing memory's power to preserve the justification of the beliefs it preserves. Those discussions feature no solution to the generality problem. It is suspicious if the absence of a solution blocks reliabilism only from having unwelcome implications. If my defense of CP3 is unsuccessful in the absence of a solution, we should be less confident about *anything* concerning memory justification that reliabilism seems to imply.

Secondly, there is reason to suppose that, if there is a good solution to the generality problem, it will allow that memory can generate justification for any otherwise unjustified belief in memory. This is because a good solution will allow for a similar generation of justification in cases similar to Rico's, but which involve something besides memory. For example, suppose S forms the belief that p without justification at t_1 and memory preserves this belief through t_2 . At t_2 , a seemingly credible person testifies to S that p . This apparently credible testimony is causally independent of S's antecedent belief that p , and it independently leads S to believe that p . S's belief that p at t_2 is overdetermined. And apparently credible testimony is reliable. And it is intuitively a process relevant to justification in this case. What's more, the fact that S already had believed that p doesn't affect whether apparently credible testimony is relevant. So it appears that

testimony generates justification for an otherwise unjustified belief in memory. Rico's case is structurally identical to this case. It just substitutes apparently credible testimony with an apparently credible recollective process: reconstructive recollection. Given this identical structure, it is plausible that the solution to the generality problem will in a uniform way identify processes as relevant to justification in the apparent testimony and apparent recollection cases. And, any subject could reconstructively recollect the content of any particular belief that was initially unjustified. If a subject does so, the reconstructive recollection process is relevant, and justifying. So, for any otherwise unjustified belief in memory, memory has the power to generate justification.

Thirdly, and crucially, the generality problem turns out to be importantly irrelevant to my defense of CP3, and so that defense is especially secure. To demonstrate this, I will begin by explaining how the generality problem is importantly *relevant* to my defense of CP3*. This defense notes that even when memory is preserving a belief that p that had been unjustified in the past, a conditionally-reliable belief-dependent memory process can also result in belief that p , and the latter process needn't take the past belief that p as an input. Two belief-dependent processes can at once result in the belief that p , independently. The generality problem arises here, as it seems unclear which of these belief-dependent processes determines whether the antecedent of reliabilism's second conditional, R2, is satisfied in this case. The belief-dependent process that preserves the past belief that p is potentially the relevant one, potentially preventing the satisfaction of R2's antecedent.

However, my defense of CP3 notes that a reliable belief-*independent* memory process can result in belief that p , even when memory is also preserving belief that p from the past. The preservative process, again, could be the one relevant to whether R2's antecedent is satisfied. But it is *irrelevant* to whether the antecedent of the first conditional of reliabilism, R1, will be satisfied. R1 says that a belief is justified if it results from a reliable belief-independent process. Crucially,

preservative memory is belief-dependent, and so it is not even a candidate for being the relevant belief-independent process. Preservative memory does not compete for relevance with any reliable belief-independent memory process that results in belief. So, preservative memory is not part of a generality problem that arises for my defense of CP3. Preservative memory is irrelevant to whether my defense of CP3 succeeds.

One might protest: preservative memory could still be importantly relevant. A process may be composite, of the form *φ -ing while ψ -ing*. Let φ -ing be a belief-independent memory process that results in belief that p , and let ψ -ing be preserving in memory a belief that p that had been unjustified. In a case of φ -ing where there is also ψ -ing, perhaps φ -ing is not the relevant belief-independent process. Rather, it is the composite. If so, then the epistemic demerits of the preservative memory process may render the composite unreliable, and therefore not justifying.

It is true that a process can be composite. But if a preservative memory process is part of the composite, the composite is not belief-independent. Preservative memory takes the past belief that p as a belief input. So, any composite that a preservative memory process is a part of is belief-dependent. The composite *φ -ing while ψ -ing*, then, is ineligible to be the relevant belief-independent process in any a case of φ -ing where there is also ψ -ing. Preservative memory is no threat to my defense of CP3.

An important moral from this is: since reliabilism states two sufficient conditions for justified belief, *in some cases reliabilism faces two instances of the generality problem*. These would be cases in which each sufficient condition is potentially satisfied. A belief can be overdetermined due to its independently resulting from both a belief-independent process and a belief-dependent process. Since each of these processes is of countless types, each presents a distinct instance of the generality problem. To settle whether the overdetermined belief is justified, we need an account of exactly which belief-independent process is the relevant one, and exactly which belief-dependent process is the relevant one.

The fact that there can be two instances of the generality problem in a single case matters. Preservative memory inhibits justification only if it is the relevant process that results in belief. Preservative memory is belief-dependent, not belief-independent. So, it could be the relevant belief-dependent process when such a process results in belief, but not the relevant belief-independent process when such a process results in belief. Since preservative memory cannot be the relevant belief-independent process, it cannot inhibit justification when a belief-independent memory process results in belief—even if a belief-dependent process *also* results in belief.

In short, the generality problem may create an opportunity to object to my defense of CP3, but the objection appears ad hoc, mistaken, and importantly irrelevant.

4.2 Belief Individuation

A second key objection to my defense of CP3 is this. I have proposed that memory overdetermines a token belief in cases like Rico's, cases where reconstructive recollection causes belief that p while memory already preserves belief that p . Yet I have not ruled out an alternative explanation of the cases. The alternative is that memory simply creates a new token belief that shares the content of an old belief. Rico's token belief b_1 has the content that p , and this belief is unjustified in the past, at t_1 . Later, due to Rico's reconstructive recollection, memory generates a new token belief b_2 at t_2 that also has the content that p . Since reconstructive recollection is reliable, b_2 is justified by memory at t_2 . Memory is generating justification for a new token belief with the same content as an old unjustified belief. Memory is not, however, promoting an old token belief from unjustified to justified. Until this explanation is ruled out, there is no reason to suppose memory overdetermines a token belief in cases like Rico's. So the cases do not yet support CP3.

Fortunately, reflecting further on b_1 rules this explanation out. Can b_1 , the unjustified token belief from the past, still exist *at* t_2 , the time when memory generates the new and justified belief b_2 ? Suppose the answer is ‘No’: b_1 must cease to exist once b_2 is generated. On this answer, memory can for some reason preserve b_1 only up until it generates b_2 —which happens to be identical in content and doxastic attitude type as b_1 —even though the process generating b_2 functions *independently* of the process preserving b_1 . Perhaps these coincidences could be the case, but the ‘No’ answer says they *must* be the case. Such an empirical prediction is not promising, especially when made from the armchair.

However, it is also implausible to answer ‘Yes’ to the question above, to suppose that b_1 can continue to exist once b_2 is generated. Since b_1 and b_2 share content, a single subject has multiple token beliefs at a time (t_2) with one content. Rico has multiple beliefs that p at once. This is implausible. What’s more, the implausibility explodes, since there would be no clear limit to the number of token beliefs with the same content that a single subject could have at a time. The subject could have a token belief that p for each independent cause of belief that p at the time, and there is no clear limit to the number of potential independent causes. Further, if reconstructive recollection can generate b_2 while memory retains b_1 , it looks like the token doxastic attitudes that memory preserves do not restrict those it can generate. Reconstructive recollection can generate token doxastic attitudes independently of what memory retains. Given this independence, reconstructive recollection should easily lead to implausible combinations of attitudes we do not observe. Memory could at once both preserve a token belief that p and generate token *disbelief* that p via reconstructive recollection. That is, implausibly, a subject could simultaneously believe that p and disbelieve that p . Last, it is needlessly complex to suppose a subject has multiple beliefs that p at a time. A single belief at a time just as adequately explains the subject’s behavior, cognitive processing, and phenomenal life. So it is simpler and no less

explanatorily powerful to suppose the subject has at most one belief that p . For these reasons, we should not suppose that b_1 still exists when reconstructive recollection generates b_2 .

But suppose all my replies to the ‘Yes’ option are bad. Suppose a subject could have multiple beliefs that p at once. Suppose this could happen in a case like Rico’s. Note that this does not yet undermine my defense of CP3. If the belief individuation concern is to undermine my defense of CP3, it must posit that there are multiple beliefs that p at once in *every* case like Rico’s. It must posit that a belief cannot be overdetermined by memory as I’ve described. Yet there is no reason to posit this. It’s more plausible that a belief that p can be overdetermined by memory. And if it can, this possibility is independent of the belief’s content and bearer. It could happen to anyone, with any belief in memory. Overdetermined belief in a case like Rico’s is not impossible, and that supports CP3.

Finally, I point out two surprising upshots of accepting the ‘Yes’ answer. First, if a subject can have multiple beliefs that p at once, the falsity of hyperradical generativism and the truth of the so-called ‘preservationist’ view of memory are far more trivial than we had supposed. A belief’s past does not determine whether memory can generate *a justified belief with the same content* for a subject. Memory can generate a new token belief with justification. So a slightly revised, and still notable, hyperradical generativism would follow from reliabilism: S’s memory can generate justification for believing p and a justified belief that p despite S unjustifiedly believing that p .

And secondly, much theorizing in epistemology is critically underdeveloped, as it ignores the possibility that a subject has multiple beliefs with the same content, and multiple doxastic attitudes toward the same content. Most theories and cases in epistemology turn out under-described. For example, a subject may know that p and testify that p , but may also have a belief that p that is unjustified, so it becomes less clear what testimony from a knower confers to a

hearer. A peer who disagrees with you about p may also agree about p , so the proper response to mere awareness of disagreement becomes less clear.

The second key objection was that I had not ruled out the possibility that memory does not overdetermine belief, but rather generates a new token belief with the same content as an old token. It is safe to rule this possibility out, since there is no credible story of what would become of the old token belief, and why, if a new token were generated.

4.3 Cognitive Penetration

The final objection to my defense of CP3 concerns cognitive penetration. My defense involves the Rico case, in which memory preserves a belief that p that had been unjustified. It could be psychologically unrealistic to suppose that this past belief is ever causally isolated from an experience that would also result in belief that p . It could be that the past belief that p cognitively penetrates any relevant experience that would also result in a belief that p , including a reconstructive recollection that p . *Any* route to the current belief that p will be belief-dependent, taking the past unjustified belief that p as a belief input. If that's so, then according to reliabilism the current belief is unjustified. I have not shown that on reliabilism memory generates justification for an otherwise unjustified belief, unless I rule out the possibility of such pervasive cognitive penetration.

In reply, I first note that even if cognitive penetration is indeed pervasive in this way, it is only contingently so. Possible beings with a slightly different psychology could have recollection experiences that are sometimes insulated from their past beliefs. Reliabilism leads to hyperradical generativism for these beings, and for us in slightly different worlds. Yet, as noted, Goldman (2011) and Senor (2009) seem to deny that hyperradical generativism is even possibly true.

Although such pervasive cognitive penetration could be actual, it is far from empirically established. Moreover, if this cognitive penetration concern threatens my defense of CP3, there

are devastating consequences for reliabilism. Cognitive penetration would, on reliabilism, prevent any learning via any faculty from *ever* converting an unjustified belief in memory into a justified belief. Even if a subject has an experience decisively establishing p , the subject's past unjustified belief that p will have penetrated that experience. So, the experience may overdetermine belief, but the experience would always be part of a belief-dependent process with an unjustified belief input. The antecedents of neither R1 nor R2 could be satisfied. On reliabilism, no learning of any kind could convert an unjustified belief into a justified belief. Reliabilism would have an unacceptable consequence, if there were such pervasive cognitive penetration.

5. Conclusion

Hyperradical generativism follows from reliabilism. Even if memory preserves a belief that p that had been unjustified, memory can generate prima facie and ultima facie propositional justification for believing that p , and doxastically justified belief that p . Memory generates this justification when its operations result in the satisfaction of the antecedent of either R1 or R2, and the preservation of a previously unjustified belief need not interfere with these operations. In fact, reliabilism leads to hyperradical generativism not just about memory justification, but about any main source of justification—testimony, perception, intuition, and so. Any main source could sustain an otherwise unjustified belief that p while, simultaneously, independently yielding a belief that p that satisfies the antecedent of R1 or R2, thereby generating justification.

Reliabilist doubters of hyperradical generativism about memory justification must pick their poison: embrace hyperradical generativism, renounce reliabilism, or invite incoherence. Reliabilists can, of course, coherently deny a thesis similar to hyperradical generativism. They can coherently deny that *preservative* memory can generate justification for an otherwise unjustified belief in memory. Nevertheless, reliabilism suffers simply by leading to hyperradical generativism (of any kind, but especially about memory justification). Hyperradical generativism greatly

restricts the role of the past in determining present justification. Reliabilists had lauded their theory for not doing precisely this, for instead explaining the alleged intuition that a belief's current justificatory status generally depends on its past. If reliabilism leads to hyperradical generativism, it notably unmoors this status from the past, especially from the belief's past. So reliabilism faces a dilemma. Either hyperradical generativism is true or false. If false, then reliabilism is false, since hyperradical generativism follows from reliabilism. If true, then reliabilism's standing suffers, since it no longer explains an alleged intuition. Either way, reliabilism suffers some memory loss.²²

References

- Bernecker, S. (2010). *Memory: A Philosophical Study*. Oxford: OUP.
- Burge, T. (2003). 'Memory and Persons', *Philosophical Review*, 112: 289–337.
- Conee, E. and Feldman, R. (1998) 'The Generality Problem for Reliabilism', *Philosophical Studies*, 89: 1–29.
- (2004) *Evidentialism: Essays in Epistemology*. Oxford: OUP.
- Feldman, R. (1985) 'Reliability and Justification', *The Monist*, 68: 159–74.
- (2003) *Epistemology*. Upper Saddle River, NJ: Prentice Hall.
- (2005) 'Justification Is Internal', in M. Steup and E. Sosa (eds.) *Contemporary Debates in Epistemology*, 270–84. Malden: Blackwell.
- Fernández, J. (2018) 'The Functional Character of Memory', in K. Michaelian, D. Debus and D. Perrin (eds.) *New Directions in the Philosophy of Memory*, 52–71. New York: Routledge.
- Frise, M. (2015) 'Epistemology of Memory', in J. Fieser and B. Dowden (eds.) *The Internet Encyclopedia of Philosophy* <<http://www.iep.utm.edu/epis-mem/>> accessed 12 August 2017.
- (2018a) 'Eliminating the Problem of Stored Beliefs', *American Philosophical Quarterly*, 55: 63–79.

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- (2018b) ‘The Reliability Problem for Reliabilism’, *Philosophical Studies*, 175: 923–45.
- Goldberg, S. (2010) *Relying on Others: An Essay in Epistemology*. Oxford: OUP.
- Goldman, A. (1979) ‘What Is Justified Belief?’ in G. Pappas (ed.) *Justification and Knowledge*, 1–25. Boston: D. Reidel.
- (2009) ‘Internalism, Externalism, and the Architecture of Justification’, *Journal of Philosophy*, 106: 309–38.
- (2011) ‘Toward a Synthesis of Reliabilism and Evidentialism? Or: Evidentialism’s Troubles, Reliabilism’s Rescue Package’, in T. Dougherty (ed.) *Evidentialism and Its Discontents*. Oxford: OUP.
- Lackey, J. (2005) ‘Memory as a Generative Epistemic Source’, *Philosophy and Phenomenological Research*, 70: 636–58.
- (2007) ‘Why Memory Really Is a Generative Epistemic Source: A Reply to Senor’, *Philosophy and Phenomenological Research*, 74: 209–19.
- Locke, D. (1971) *Memory*. Vol. 13. New York: Macmillan.
- Lyons, J. (2009) *Perception and Basic Belief: Zombies, Modules, and the Problem of the External World*. Oxford: Oxford University Press.
- McCain, K. (2014) *Evidentialism and Epistemic Justification*. New York: Routledge.
- McGrath, M. (2007) ‘Memory and Epistemic Conservatism’, *Synthese*, 157: 1–24.
- Michaelian, K. (2011) ‘Generative Memory’, *Philosophical Psychology*, 24: 323–42.
- (2016) *Mental Time Travel: Episodic Memory and Our Knowledge of the Personal Past*. Cambridge, MA: MIT Press.
- Salvaggio, M. (2018) ‘The Justification of Reconstructive and Reproductive Memory Beliefs’, *Philosophical Studies*, 175: 649–63.
- Senor, T. (2007) ‘Preserving Preservationism: A Reply to Lackey’, *Philosophy and Phenomenological Research*, 74: 199–208.
- (2009) ‘Epistemological Problems of Memory’, in E.N. Zalta (ed.) *The Stanford Encyclopedia of Philosophy*, Fall 2014.
<<http://plato.stanford.edu/archives/fall2014/entries/memory-episprob/>> accessed 12 August 2017.
- (2010) ‘Memory’, in J. Dancy, E. Sosa and M. Steup (eds.) *A Companion to Epistemology*. Malden: Wiley-Blackwell.
- (2017) ‘Preservationism and Generation’, in S. Bernecker and K. Michaelian (eds.) *The Routledge Handbook of Philosophy of Memory*. New York: Routledge.
- Smithies, D. (2014) ‘The Phenomenal Basis of Epistemic Justification’, in J. Kallestrup and M. Sprevak (eds.) *New Waves in Philosophy of Mind*, 98–124. New York: Palgrave MacMillan.
- Turri, J. (2015) ‘Unreliable Knowledge’, *Philosophy and Phenomenological Research*, 90: 529–45.

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