Memory as a Generative Epistemic Source

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Memory as a Generative Epistemic Source

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It is widely assumed that memory has only the capacity to preserve epistemic features that have been generated by other sources. Specifically, if S knows (justifiedly believes/rationally believes) that p via memory at T2, then it is argued that (i) S must have known (justifiedly believed/rationally believed) that p when it was originally acquired at T1, and (ii) S must have acquired knowledge that p (justification with respect to p/rationality with respect to p) at T1 via a non-memorial source. Thus, according to this view, memory cannot make an unknown proposition known, an unjustified belief justified, or an irrational belief rational—it can only preserve what is already known, justified, or rational. In this paper, I argue that condition (i) is false and, a fortiori, that condition (ii) is false. Hence, I show that, contrary to received wisdom in contemporary epistemology, memory can function as a generative epistemic source.

Memory, we are told, is strikingly similar to testimony in several crucial respects. First and perhaps most significant, neither source is regarded as generative with respect to knowledge. In particular, memory preserves knowledge from one time to another while testimony transmits knowledge from one person to another. In this way, it is said to be true for both memorial knowledge, on the one hand, and testimonial knowledge, on the other hand, that the proposition in question must be known when it was originally acquired and, accordingly, that a source other than memory and testimony, respectively, must be responsible for its original acquisition. So, for instance, Robert Audi says that “[j]ust as we cannot know that p from memory unless we have come to know it in another way, say through perception, we cannot know that p on the basis of testimony unless the attester...has come to know it (at least in part) in another way.... Memory and testimony...are not generative with respect to knowledge: characteristically, the former is preservative, the latter transmissive.”1 Following this view, Michael Dummett says, “Memory is not a source, still less a ground, of knowledge: it is the maintenance of knowledge formerly acquired by whatever means.”

1 Audi (1997, p. 410).
2 Dummett (1994, p. 262, emphasis in the original).
In addition to the thesis that neither memory nor testimony can generate new knowledge, it is often further noted that neither is a generative epistemic source more broadly. Specifically, both sources are said to be incapable of generating epistemic justification, warrant, rationality, and the like. For example, if I justifiedly believe that p on the basis of memory, then I must have acquired this justification in a non-memorial way at an earlier time. Similarly, if my belief that p is irrational when it was originally acquired, then it will continue to be just as irrational when it is remembered at a later time. Alvin Plantinga makes this point when he writes: “...memory beliefs depend, for their warrant, upon the warrant of earlier beliefs. I have an orange for breakfast; if this belief has no warrant, then my later belief that I had an orange for breakfast will also have no warrant. Memory beliefs are like testimonial beliefs...: the warrant they have is dependent upon the warrant enjoyed by an earlier belief.” In a similar spirit, David Owens claims that “If a belief is irrational when adopted, it remains just as irrational while laid up in memory.”

We have seen, therefore, that with respect to memorial beliefs in particular, the standard view is that memory cannot make a proposition acquire an epistemic status greater than the one it had at an earlier time. Thus, for example, memory cannot make an unknown proposition known, an unjustified belief justified, or an irrational belief rational—it can only preserve what is already known, justified, or rational. Let us call this the Preservation View of Memory and formulate it in the following way:

\[ \text{[PVM]}: \text{S knows (justifiedly believes/rationally believes) that p on the basis of memory at T2 only if: (i) S knows (justifiedly believes/rationally believes) that p at an earlier time T1, and (ii) S acquired the knowledge that p (justification with respect to p /rationality with respect to p) at T1 via a source other than memory.} \]

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3 I am here assuming that justification is a necessary condition for knowledge.
4 Plantinga (1993, p. 61, fn. 22). This point is attributed to Tom Senor, though Plantinga appears to endorse the thesis as well. For related discussion, see Senor (1993).
5 Owens (2000, p. 156).
6 As I have formulated it, the [PVM] has several strands. Not all of the above cited philosophers would endorse every strand. For instance, Audi endorses the [PVM] with respect to memorial knowledge but not memorial justification. (However, it should be noted that, on Audi’s view, justification is not necessary for knowledge. Hence, his claim that memory can generate justification is significantly different than mine in this paper since I am assuming that justification is a necessary condition for knowledge. See his (1995, 1997, and 1998.) Owens endorses the [PVM] with respect to rationality and justification for beliefs, but not necessarily with respect to rationality and justification for agents. See his (2000, p. 157). Nevertheless, the different strands of the [PVM] have enough in common to warrant discussion together.
So, according to the [PVM], memory has the capacity only to preserve epistemic features that have already been generated by other sources.

In this paper, I shall argue that the Preservation View of Memory is false. Specifically, I shall claim that it is not necessary for memorial knowledge (justification/rationality) that the belief in question be known (justifiably believed/rationally believed) when it was acquired earlier and, accordingly, that it need not be known (justifiably believed/rationally believed) in a non-memorial way at this time. In this way, I shall show that condition (i) of the [PVM] is false and, a fortiori, that condition (ii) is false as well. Hence, I shall argue that, contrary to received wisdom in contemporary epistemology, memory can function as a generative epistemic source.

1. Preliminaries

Knowledge, almost everyone agrees, is more than just true belief. But there is far less agreement about what precisely needs to be added to true belief to render it knowledge. Despite this disagreement, however, one point that all parties tend to accept is that knowledge is incompatible with the presence of defeaters.

There are two different kinds of defeaters that are standardly taken to be incompatible with knowledge. First, there are what we might call doxastic defeaters. A doxastic defeater is a proposition D that is believed by S to be true, yet indicates that S’s belief that p is either false or unreliably formed or sustained. Defeaters in this sense function by virtue of being believed, regardless of their truth value or justificatory status. Second, there are what we might call normative defeaters. A normative defeater is a proposition D that S ought to believe to be true, yet indicates that S’s belief that p is either

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7 I develop a similar line of argument against the Transmission View of Testimony, that is, against the view that testimony can only transmit, rather than generate epistemic features, in my (1999 and 2003).

8 Condition (i) requires that the proposition in question be known (justifiedly believed/rationally believed) while condition (ii) specifies the way in which the proposition needs to be known (justifiably believed/rationally believed). If, however, the proposition doesn’t need to be known (justifiably believed/rationally believed), as I shall show, then it doesn’t need to be known (justifiably believed/rationally believed) in a particular sort of way.

9 To be even more precise, there are two different kinds of doxastic defeaters: rebutting defeaters are propositions that are believed by S to be true yet indicate that the target belief is false while undercutting defeaters are propositions that are believed by S to be true yet indicate that the target belief is unreliably formed or sustained. See Pollock (1986) for further development of the distinction between rebutting and undercutting defeaters.

10 In other work, I use the term “psychological defeater” to subsume experiences and doubts, in addition to beliefs, that indicate that a subject’s belief is either false or unreliably formed or sustained. The arguments in this paper, however, are not affected by my here focusing only on the narrower class of “doxastic defeaters.”
false or unreliably formed or sustained.¹¹ Defeaters in this sense function by virtue of being propositions that $S$ should believe (whether or not $S$ does believe them) given the presence of certain available evidence. The underlying thought here is that certain kinds of counterbeliefs and counterevidence contribute epistemically unacceptable irrationality to doxastic systems and, accordingly, that justification and knowledge can be defeated or undermined by their presence.¹²

Moreover, a defeater may itself be either defeated or undefeated. Suppose, for instance, that Chester believes that there is apple pie in the kitchen because he saw it there this morning, but Vera tells him and he comes to believe that she just ate the last piece. Now, the justification Chester had for believing that there is apple pie in the kitchen has been defeated by his belief that Vera just ate the last piece. But since doxastic defeaters are themselves beliefs, they, too, are candidates for defeat. For instance, suppose that Chester goes into the kitchen to check whether Vera did in fact just eat the last piece of apple pie and he discovers that there is still pie on the counter. In this case, Chester’s perceptual belief provides him with a doxastic defeater for the belief that he acquired via Vera’s testimony, and hence it provides him with a defeater-defeater for his original belief that there is apple pie in the kitchen. And, as might be suspected, defeater-defeaters can also be defeated by further beliefs, which in turn can be defeated by further beliefs, and so on. Similar considerations involving reasons, rather than beliefs, apply in the case of normative defeaters. Now, when one has a defeater $D$ for one’s belief that $p$ that is not itself defeated, one has what is called an undefeated defeater for one’s belief that $p$. It is the presence of undefeated defeaters, not merely defeaters, that is incompatible with knowledge (justification/rationality).¹³

¹¹ Following the distinction in note 9, there are rebutting and undercutting normative defeaters. The only difference is that doxastic defeaters are propositions that are believed, while their normative counterparts are propositions that should be believed.

¹² In addition to doxastic and normative defeaters, there are what we might call factual defeaters. A factual defeater is a true proposition, $D$, such that if $D$ were added to $S$’s belief system, then $S$ would no longer be justified in believing that $p$. Defeaters in this sense function by virtue of being true. For instance, you may correctly believe that you saw a coyote in Joshua Tree National Park and yet the fact that there are dogs that you would not be able to distinguish from coyotes that frequently visit this park may nonetheless prevent such a belief from being an instance of knowledge. In particular, that there are dogs indistinguishable to you from coyotes that frequent the park in which you saw the real coyote is a true proposition which, if added to your belief system, would result in your belief being unjustified. (See, for instance, Lehrer (1965 and 1974), Lehrer and Paxson (1969), Klein (1971, 1976, 1979, and 1980), Sosa (1974 and 1980), and Swain (1981).) This third class of defeaters is intended to rule out Gettier-type cases. (See Gettier (1963) and Shope (1983).) In what follows, however, I shall focus only on cases involving doxastic and normative defeaters.

¹³ I shall not here argue on behalf of the necessity of these no-defeater conditions. In addition to the sheer plausibility of the view that knowledge is incompatible with the presence of explicit epistemic irrationality, the literature is dominated by endorsements of these
2. Normative Defeaters

With these points in mind, consider the following:

Case 1: Two days ago, Arthur was visiting his Aunt Lola and, while they were eating lunch, she mentioned to him without disclosing the source of her information that the mayor of their city had been caught accepting bribes in exchange for political favors. Arthur unhesitatingly formed the corresponding belief. At the same time, however, there was a vast conspiracy on the part of the mayor's allies to protect his political reputation, and so they exploited their high-powered connections in the media to cover up this indiscretion. To this end, they convinced all of the major newspapers and television stations to report that the mayor's political opponents had orchestrated a plan to win the upcoming election by falsely presenting him as having been the recipient of bribes. However, because both Arthur and Aunt Lola rarely pay attention to the news, they were entirely unaware of all of the stories surrounding the mayor. Thus, unbeknownst to both Arthur and Aunt Lola, every major newspaper and television network was reporting that the mayor had not accepted bribes and was instead the victim of a devious scheme at the very time that Arthur was forming the belief that the mayor had been the recipient of bribes on the basis of Aunt Lola's testimony. Now, as it turns out, the mayor had in fact accepted bribes in exchange for political favors, all of the reports to the contrary were false, Aunt Lola was not only a highly reliable source of information in general, but had also heard this news directly from the mayor's epistemically reliable secretary, and Arthur's true belief about the mayor was reliably formed.

Since then and, once again, unbeknownst to Arthur and Aunt Lola, the scheme to cover up the mayor's indiscretion has been exposed, and all of the major newspapers and television stations are now reporting that the mayor did accept political bribes. At the present time, then, there no longer are vast amounts of available evidence indicating that the mayor had been framed. Throughout all of this, Arthur has remained blissfully ignorant of all of the relevant reports, and he currently continues to believe that the mayor was the recipient of bribes solely on the basis of remembering Aunt Lola's original testimony.14

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Now, when Arthur first acquired his belief that the mayor had accepted bribes in exchange for political favors (at T1), he had an undefeated normative defeater for this belief and, accordingly, failed to have the knowledge in question at this time. Specifically, because every major newspaper and television station was reporting that the mayor had instead been framed by his political opponents, Arthur should have believed that the mayor had *not* actually been the recipient of such bribes. At the present time (at T2), however, it is no longer the case that Arthur should hold this belief because all of the major newspapers and television stations have ceased reporting this false information. Arthur, then, does not have an undefeated normative defeater at T2 for his belief about the mayor. Given that the presence of this defeater was the only factor preventing Arthur’s true belief from being an instance of knowledge at T1, its absence enables him to have the knowledge in question at T2. So, Arthur knows at T2 that the mayor had accepted bribes in exchange for political favors without knowing this proposition when it was originally acquired at T1. Thus, with respect to knowledge in particular, Case 1 shows that both conditions (i) and (ii) of the [PVM] are false.

What the above case reveals is that a subject’s relation to normative defeaters can change over time as a result of changes in the external environment, thereby enabling memory to generate knowledge. In particular, if the presence of an undefeated normative defeater is the only factor preventing a belief from being an instance of knowledge, then such a belief can become

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15 It was suggested to me by an anonymous referee that this case could be described, not in terms of a normative defeater, but rather as involving what I referred to in note 12 as a factual defeater. In order to avoid this alternative analysis, however, we could simply modify the case so that there is a factual defeater-defeater at T1 for the defeater in question. For instance, we could stipulate that there is at least one fairly unknown newspaper that is reporting that the mayor had accepted bribes and that the reports to the contrary were merely part of a scheme to cover up this indiscretion. This true proposition would, then, defeat the original factual defeater at T1. But since this newspaper is relatively unknown and all of the major newspapers are making reports to the contrary, this proposition is not something that the subject ought to believe in any reasonable sense. There would, then, not be a normative defeater-defeater for the belief in question at T1. Hence, with this modification, the only available analysis would be that Arthur has a normative defeater at T1 for his belief that the mayor was the recipient of bribes.

16 Though there may be a sense of both rationality and epistemic justification that memory generates in Case 1, I shall restrict my conclusion here to knowledge since there are many competing and divergent views regarding the former. Nevertheless, the conclusion that is drawn in the next two sections will show that memory can generate rationality and epistemic justification in addition to knowledge.
memorial knowledge at a later time when changes in the external environment result in the absence of such a defeater.17

There are, however, two central ways in which one may attempt to deny that the above case provides a counterexample to the Preservation View of Memory. First, one may deny that Arthur does not have the knowledge in question at T1. Second, one may deny that he does have the knowledge at T2. Let us examine these in turn.

In order to deny that Arthur does not know at T1—that is, to affirm that he does know at this time—that the mayor had accepted political bribes, one may simply point to all of the epistemically positive features of his belief at this time. For, Arthur’s belief at T1 was true, reliably produced via the testimony of Aunt Lola, and formed through Arthur’s reliable cognitive faculties. Moreover, the evidence against Arthur’s belief about the mayor was produced by sources that were unreliable with respect to the information in question. So why, one might ask, is such unreliable counterevidence capable of preventing an otherwise epistemically impeccable belief from being an instance of knowledge?18

One diagnosis of Case 1 is that even though Arthur is not actually aware of the evidence against his belief about the mayor, there are certain pieces of information that one is expected to be aware of by virtue of being a member of society, and the mere fact that one happens to be ignorant of such information does not enable one to have knowledge that everyone else lacks.19 As Ernest Sosa notes, “[i]t seems plausible...that knowledge has a further ‘social aspect,’ that it cannot depend on one’s missing or blinking what is generally known.”20 Were Arthur to turn on any channel of the evening news, pick up any local newspaper, or chat with almost anyone on the street, he would have

17 Why, one might ask, are we not attributing the generation of the epistemic status of knowledge in Case 1 to the environment in question rather than to memory? (I owe this objection to an anonymous referee.) The reason is this: a change in an environment has epistemic significance only relative to some particular faculty of a given subject. The only plausible candidate for a faculty operative in this case is memory insofar as the subject in question is not perceiving or inferring anything. Hence proper credit for the generation of the epistemic properties at T2 should be understood to accrue to memory as it functions in the environment in question.

18 It was suggested to me by Robert Almeder that false propositions cannot, strictly speaking, be either evidence or counterevidence and hence cannot function as normative defeaters in the relevant sense. Even if this is correct, however, the proposition in question that is actually doing the defeating work is true; namely, that every major newspaper and television network is reporting that the mayor had not accepted bribes and was instead the victim of a devious scheme.

19 For instance, John Pollock says, “[w]e are ‘socially expected’ to be aware of various things. We are expected to know what is announced on television, and we are expected to know what is in our mail. If we fail to know all these things and that makes a difference to whether we are justified in believing some true proposition P, then our objectively justified belief in P does not constitute knowledge.” Pollock (1986, p. 192).

believed that the mayor had not accepted political bribes. So, Arthur’s having a true belief rather than a false one at T1 depends on his being ignorant of information that is, so to speak, “common knowledge.” And unless this sort of ignorance is appropriately grounded (e.g., on some occasions, one may have good reason for deliberately remaining ignorant of certain pieces of “common knowledge”), it is incompatible with having the knowledge in question.

The second strategy for defending the [PVM] from Case 1 is to grant that Arthur does not have the knowledge in question at T1, but to argue that he doesn’t have this knowledge at T2 either. In particular, one might claim that because of the massive amounts of evidence against Arthur’s belief about the mayor, such a belief was not formed in a reliable way when it was originally acquired. After all, the epistemic negligence Arthur exhibitd in Case 1 is a type of cognitive defect, and it is plausible to think that a cognitive defect of this sort undermines the agent’s ability to reliably form true beliefs regarding the subject matter in question.

By way of response to this point, notice that, as Case 1 is described, both of the processes responsible for the production and formation of Arthur’s belief about the mayor are, in fact, reliable: Aunt Lola is a highly reliable testifier in general and with respect to the particular information in question, and Arthur is a reliable recipient of her testimony. For, though epistemic negligence of the sort Arthur exhibits in the above case may be a cognitive defect, it does not necessarily affect a subject’s ability to reliably form true beliefs. This is just the converse of the familiar point that even the most responsible epistemic agent may still fail to be reliable. In this way, just as epistemic responsibility and reliability can come apart, so too can epistemic negligence and unreliability. Indeed, it is for precisely this reason that the

21 Pollock calls these “common knowledge” defeaters. One may find the term “common knowledge” misleading here since the content of the reports in question is false. However, as mentioned in note 18, the proposition that is doing the defeating work, i.e., that every major newspaper and television network is reporting that the mayor had not accepted bribes and was instead the victim of a devious scheme, is appropriately described as common knowledge.

22 In a similar spirit, one may argue that it is merely an accident that Arthur has a true belief rather than a false one at T1 because he could have just as easily turned on the evening news or read the newspaper and formed the belief that the mayor had not been the recipient of bribes. And because this sort of accidentality is relevant to the very formation of the belief in question, one might claim that it still prevents Arthur from knowing at T2 that the mayor had accepted bribes, despite the changes in the external environment at this time. However, as Case 1 is described, both Arthur and Aunt Lola rarely pay attention to the news, and so it is simply not the case that he could have just as easily formed the false belief that the mayor had not accepted political bribes. Therefore, it is not an accident that Arthur has a true belief rather than a false one at T1 and, accordingly, there is no problem of this sort with his true belief at T2 either.

23 For an argument showing that both of these conditions are necessary for testimonial knowledge, see my (2003).
inclusion of the no-defeater condition is taken to be an additional constraint on knowledge, one that cannot simply be subsumed by the reliability condition. There is, then, no reason to doubt that Arthur has the knowledge in question at T2. Thus, Case 1 shows that, contrary to the [PVM], memory can function as a generative source with respect to knowledge.

3. Doxastic Defeaters

In this section, I shall present a further case against the [PVM]. This example differs from the previous one in two central ways: first, the following case exploits certain features about doxastic, rather than normative, defeaters. Second, unlike Case 1, which showed only that memory can generate knowledge, the conclusion to be drawn from this example is that memory can function as a generative epistemic source more broadly—that is, that in addition to knowledge, justification and rationality can be generated by memory as well.

With these points in mind, consider the following case:

Case 2: While an undergraduate in college, Nora was a very careful and epistemically reliable recipient of testimony, with one notable exception: she was overly susceptible to peer-pressure from two of her friends who belonged to a religious cult. After repeatedly hearing them rant and rave about the corrupt minds and souls of non-believers, she eventually became convinced that the testimony of atheists is nearly completely unreliable.24 During this time, Nora had several conversations with Calvin, a fellow student in one of her classes who, as a matter of fact, was an extremely reliable source of information and whom she had every reason to believe was both competent and sincere with respect to his reports. Yet Nora also knew that Calvin was an atheist, and so she believed him to be a highly unreliable epistemic source. One day after class, they were discussing World War II and Calvin told Nora, much to her surprise, that Hitler was raised a Christian. Being momentarily caught off guard, Nora found herself believing this proposition on the basis of Calvin's otherwise epistemically flawless testimony.

Now, several years after graduating from college, Nora is no longer in touch with her friends who were members of the religious cult and she has ceased believing that the majority of the testimony offered by atheists is highly unreliable—such a belief has simply faded from her memory. At the same time, however, she still

24 I say "nearly completely unreliable" because it is rather implausible to suppose that Nora believed that an atheist's reports about, e.g., her name, what she had for breakfast, the time of day, and so on are also highly unreliable.
believes on the basis of memory dating back solely to Calvin’s testimony that Hitler was raised a Christian.

The first point to notice is that when Nora originally acquired her belief that Hitler was raised a Christian (at T1), she had an undefeated doxastic defeater for this belief and, accordingly, cannot be said to have had the knowledge in question at this time. Specifically, by virtue of believing both that the testimony of atheists is highly unreliable and that Calvin is an atheist, she has a belief that indicates that the source of her belief about Hitler is epistemically problematic. In this way, whatever justification she might have acquired from the reliability of Calvin’s testimony is defeated by the irrationality of simultaneously holding a belief on the basis of Calvin’s testimony and believing that he is an unreliable epistemic source. At T1, therefore, Nora does not rationally believe, justifiedly believe, or know that Hitler was raised a Christian.

At the present time (at T2), however, it is not irrational for Nora to believe that Hitler was raised a Christian on the basis of memory that is traced back solely to the testimony offered by Calvin because she no longer believes that the testimony of atheists is highly unreliable. Nora, then, does not have an undefeated doxastic defeater for her current belief about Hitler and, accordingly, the justification conferred on her belief by Calvin’s testimony being in fact reliable is not defeated. Given that the only factor preventing Nora’s belief from being an instance of knowledge at T1 was the presence of an undefeated doxastic defeater, the absence of this factor renders her current belief an instance of knowledge at T2. Thus, Nora rationally believes, justifiedly believes, and knows at T2 that Hitler was raised a Christian without rationally believing, justifiedly believing, or knowing this proposition when it was originally acquired at T1. So, condition (i) of the [PVM] is not necessary for memorial knowledge, justification, or rationality and, a fortiori, condition (ii) is not necessary. Hence, memory can function as a generative source with respect to each of these epistemic properties.

The general point exploited by Case 2 is that undefeated doxastic defeaters are not necessarily retained with their defeatees via memory. For, as we saw with Nora, a subject may simply forget the belief that did the defeating work in question while retaining the belief that was originally defeated. In this way, doxastic defeaters do not simply “come along for the ride” when their defeatees are remembered over time. Rather, such beliefs themselves need to be independently remembered. So, just as a subject’s relation to normative defeaters can change over time because of developments in the external environment, a subject’s relation to doxastic defeaters can change over time as the subject’s doxastic system evolves. Because of this, if the presence of an undefeated doxastic defeater is the only factor preventing a belief from being an instance of knowledge (justified belief/rational belief), then such a belief
can become knowledge (justified belief/rational belief) via memory when the
defeater itself is forgotten at a later time.25

Against Case 2, however, it may be argued that Nora does in fact know at
T1 that Hitler was raised a Christian. In particular, it may be doubted whether
an unjustified belief, such as Nora’s belief about the unreliability of atheists
at T1, can really do the defeating work in question. For, one might ask, how

25 There is a second type of case involving doxastic defeaters that shows the [PVM] to be
false. Consider the following:

Case 2*: During her Introduction to Philosophy class last semester, Claire
was introduced to the evil demon argument in Descartes’ Meditations.
Through the course of the lecture and discussion, she became increasingly
plagued by skeptical worries, so much so that by the end of the class period,
she was utterly convinced that she could be the victim of an evil demon’s
deceptive ways and, accordingly, was not justified in holding the vast major-
ity of her beliefs. As a matter of fact, however, Claire was not being so
deceived, and her perceptual faculties were a highly reliable means of
acquiring true beliefs. At this time, Claire momentarily drifted out of the
discussion, glanced out the classroom window, and saw a red-tailed hawk fly
across the quad. Despite her skeptical doubts, she found herself falling into
her old epistemic ways by forming the corresponding true belief that a red-
tailed hawk just flew across the quad.

At the present time, Claire is no longer taking any philosophy classes and
she has ceased entertaining skeptical worries—indeed, since becoming a
business major, philosophical thoughts couldn’t be further from her mind.
Today, the topic of regional wild birds came up while Claire was talking to a
friend and she remembered her experience of seeing a red-tailed hawk fly
across the quad last semester.

Now, when Claire originally acquired her belief that a red-tailed hawk flew across the
quad (at T1), she had an undefeated doxastic defeater for this belief and, accordingly,
cannot be said to have had the knowledge in question at this time. In particular, while in
the grips of deep skeptical worries, her belief that she could be the victim of an evil
demon prevented her from rationally trusting her senses and, therewith, from being epis-
temically justified in forming the corresponding beliefs. However, since Claire is not in
the grips of skeptical worries at the present time (at T2), she does not have an undefeated
doxastic defeater for her current belief that she previously saw a red-tailed hawk fly
across the quad, and thus it is not irrational for her to hold this belief. Because of this, the
justification that was conferred on her belief by the fact that it was reliably produced is
no longer defeated. Given that the only factor preventing Claire’s belief from being an
instance of knowledge at T1 was the presence of an undefeated doxastic defeater, the
absence of this factor renders her current belief an instance of knowledge at T2. Thus,
Claire rationally believes, justifiedly believes, and knows that a red-tailed hawk flew
across the quad at T2 without rationally believing, justifiedly believing, and knowing this
proposition when it was originally acquired at T1.

Although Case 2 and Case 2* are structurally similar examples, i.e., they both exploit
the failure of undefeated doxastic defeaters being retained with their defeatees, they
may appeal to slightly different intuitions. For instance, while Case 2* draws on contextu-
alist and skeptical intuitions, Case 2 focuses more directly on the incompatibility
of knowledge and irrationality. The contextualist intuition I have in mind is that skeptical
doubts can defeat or undermine knowledge while those doubts are being entertained, but
need not do so in ordinary or everyday contexts. (For ease of discussion, let us assume in
Case 2* that the attributer of knowledge is the subject herself.) For different versions of
can a belief that is false, unreliable produced, and unreasonable (i.e., not supported by good epistemic reasons) prevent a belief that is true, reliably produced, and otherwise reasonable from being an instance of knowledge?

By way of response to this objection, it is important to notice that what makes an undefeated doxastic defeater epistemically problematic is that it is held in conjunction with another belief. The defeater itself need not be true, justifiedly believed, or rationally believed to have the power to defeat other beliefs precisely because it need not be true, justifiedly believed, or rationally believed to render it irrational to hold certain other beliefs. For instance, given that Nora in the envisaged case above believes that the testimony of atheists is very unreliable, it is highly irrational for her to accept the testimony of someone whom she knows to be an atheist. That is, it is irrational for her to hold both of these beliefs. So, even if the doxastic defeater in question is itself epistemically problematic, this does not prevent it from having the capacity to defeat other beliefs.

A second way to reject the force of the above case is to grant that Nora does not know at T1 that Hitler was raised a Christian, but to argue that neither does she know this at T2. Specifically, one might claim that unless Nora acquires some reason to reject her earlier belief that the testimony of atheists is highly unreliable, she still has an undefeated doxastic defeater at this time—that is to say, the defeater is still capable of doing the defeating work at T2 even though she does not then believe it.

The most straightforward response to offer here is to point out that doxastic defeaters are, by definition, propositions that are believed by the subject in question to be true. Given that it is stipulated in the example that Nora no longer believes at T2 that the testimony of atheists is highly unreliable, it is true by definition that she does not have the undefeated doxastic defeater in question at this time.

A more promising line of argument, however, is to argue, not that Nora has an undefeated doxastic defeater but, rather, that she has an undefeated normative defeater at T2 that prevents her from knowing that Hitler was raised a Christian. For recall that a normative defeater is a proposition that a subject should believe (whether or not she does believe it) given the evidence that is available to her. One might argue, then, that in the absence of any reason to reject her earlier belief that the testimony of atheists is highly unreliable, Nora should hold this belief at T2 even if, as a matter of fact, she does not.

It is, no doubt, true that there are cases in which a subject's undefeated doxastic defeater, so to speak, "turns into" an undefeated normative defeater when it is merely forgotten rather than itself defeated. For instance, suppose that Gordon comes to truly believe that Wendy is a compulsive liar on the basis of an extremely reliable epistemic source whom he has very good rea-
son to trust. Years later he bumps into Wendy and, having forgotten his earlier belief about her reporting habits, he comes to believe that she was just awarded a Mellon Fellowship on the basis of her testimony. Here, one might rightly argue that there is an important sense in which Gordon’s undefeated doxastic defeater becomes an undefeated normative defeater when it is forgotten, thereby still preventing Wendy’s testimony from imparting knowledge (or justified belief/rational belief) to him. For Gordon’s earlier belief that Wendy is a compulsive liar is, from an epistemic point of view, quite impeccable: it is true, reliably produced, and supported by good reasons. Given this, one might claim that merely forgetting such a belief does not prevent it from continuing to defeat beliefs that Gordon forms on the basis of Wendy’s testimony. More precisely, if a subject justifiably holds an undefeated doxastic defeater, then such a belief may “turn into” an undefeated normative defeater if it is merely forgotten rather than itself defeated.26

Nora’s epistemic situation, however, is importantly different from Gordon’s. For Nora’s belief about the testimony of atheists was never epistemically justified to begin with—quite the contrary. She formed this belief because she repeatedly heard a couple of her friends who belong to a religious cult rant and rave about the corrupt minds and souls of non-believers. To claim that Nora’s undefeated doxastic defeater turned into an undefeated normative defeater, then, is to claim that Nora should hold a belief at T2 that she never should have held in the first place (at T1). For recall that the precise characterization of a normative defeater is that it is a proposition that a subject ought to believe to be true, yet indicates that a further belief of this subject’s is either false or unreliably formed or sustained. This characterization of a normative defeater is often, in turn, fleshed out in terms of being a proposition that a subject is justified in believing to be true. But in what sense could it correctly be said that Nora is justified in believing at T2 that the testimony of atheists is highly unreliable? Such a proposition, were she to believe it at T2, would be neither externally justified (e.g., it wouldn’t be reliably produced) nor internally justified (e.g., it wouldn’t be held on the basis of good epistemic reasons).27 So, Nora has neither an undefeated doxastic nor a nor-

26 It should be emphasized that such a justified undefeated doxastic defeater may turn into an undefeated normative defeater, but it need not. In Case 2* from note 25, for instance, Claire merely forgot at T2 the justified skeptical worries that defeated her red-tailed hawk belief at T1, and yet there I claimed that Claire could still have the knowledge in question at T2. Why? Well, skeptical doubts are a very unique kind of doxastic defeater, in large part because it is doubtful whether there can be a genuine defeater-defeater for such a defeater. Thus, as noted earlier, we must either agree that forgotten skeptical worries need not turn into undefeated normative defeaters or conclude that nearly everyone who has been convinced by skeptical doubts knows very little thereafter.

27 Because Nora’s belief about the testimony of atheists is highly irrational itself, it may be said that she has a normative defeater for the undefeated doxastic defeater in question. What is important to recognize, however, is that the relationship between a normative defeater and a doxastic defeater differs from the relationship between a defeater-
mative defeater at T2 and, therefore, can be said to have the knowledge in question at this time.

The third strategy for defending the [PVM] from the above case is to argue that even if Nora can properly be said to know at T2 that Hitler was raised a Christian, the knowledge in question is not purely memorial. For the most natural interpretation of the situation is that Nora no longer believes at T2 that the testimony of atheists is highly unreliable because she acquired a defeater-defeater for this belief after graduating from college. That is, through the acquisition of further relevant information, the undefeated doxastic defeater from T1 is itself defeated at T2. The knowledge in question at T2, then, is a hybrid case, consisting of contributions made by memory, inference, and whatever the source of the further information is. Thus, so long as the [PVM] is restricted to cases of pure memorial knowledge, one may argue that (i) and (ii) are indeed necessary conditions.

While it is true that Nora might have ceased holding the doxastic defeater in question by virtue of acquiring a defeater-defeater at T2, it is by no means necessary that this is the case. Indeed, in the way the example itself is constructed, such a belief is said to have “simply faded from her memory.” So, even if the [PVM] applies only to cases of pure memorial knowledge, there is no reason to suppose that Nora’s knowledge that Hitler was raised a Christian fails to qualify as such at T2.

One final question that may be lingering with respect to both Cases 1 and 2, however, is this: in what sense precisely is memory functioning as a generative source in the above cases? For in both Cases 1 and 2, testimony produced the original belief in question and memory preserved it over time. What, then, is memory generating?

By way of response to this question, it is important to notice that in both Cases 1 and 2, a belief that was not known (or, in Case 2, justified or rational) when originally acquired became known (and, Case 2, justified/rational) at a later time without input or assistance from any other epistemic source besides memory. Thus, even though memory did not generate the belief in question, it generated the epistemic status of the belief in question. And this is sufficient not only to falsify the [PVM], but also to conclude that memory has the capacity to function as a generative epistemic source.

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28 Of course, there is a difference in the way that the epistemic status is generated in Cases 1 and 2. In Case 1, knowledge is generated at T2 by virtue of memory operating in a different epistemic environment than at T1, while in Case 2 knowledge (justification/rationality) is generated by virtue of a subject forgetting information at T2 that functioned as a doxastic defeater at T1.
4. Lack of Belief

In this section, I shall present one further case against the Preservation View of Memory. Unlike those found in the previous sections, however, this example does not depend on features about either undefeated normative or doxastic defeaters. Instead, this case shows that, through certain changes in a subject’s cognitive system over time, memory has the capacity not only to generate the epistemic status of the item in question, but also to generate the belief itself.

To begin, consider the following:

Case 3: Yesterday morning was like most others for Clifford: he spent it drinking coffee, listening to the radio, and driving in his car during his hour-and-a-half commute to work. As was typical for these commutes, Clifford’s attention was divided between the other cars on the road, the surrounding environment, the discussion and music on the radio, and his thoughts about the day’s work. Because of this perceptual and cognitive overload, Clifford found himself, as he often did on these drives, taking in more pieces of information than he actually processed at that time.

Indeed, this was made apparent earlier this morning, when Clifford bumped into his friend, Phoebe, at the bakery and started talking about his commute. During this conversation, Phoebe asked him whether construction had begun on I55. Though this is not the freeway that Clifford takes to work, he does pass it every day and, moreover, it is the route that he occasionally takes to a nearby shopping center. Upon being asked this question by Phoebe, Clifford paused, called to mind passing I55 on his drive to work yesterday, and correctly remembered seeing construction work being done on this freeway. He, therefore, responded affirmatively to Phoebe’s question, adding that he will be sure to map some alternate routes so as to avoid the traffic delays inevitably brought by construction. Prior to the recollection of the visual image triggered by this question, however, Clifford would have continued taking I55 to the shopping center and wouldn’t have made even minor efforts to avoid this freeway.

The first point to notice about this case is that before the conversation with Phoebe in the bakery (at T1), it would not be correct to say that Clifford believed that there was construction work being done on I55. For though he had reliably taken in the visual image of the construction workers on this freeway and had properly registered this information in his cognitive system, he had not actually formed the corresponding belief. And since it does not make sense to say that a subject rationally believes, justifiedly believes, or
has knowledge of a proposition that is not even believed by this subject, Clifford fails to satisfy both (i) and (ii) of the [PVM] at T1.

Once Phoebe’s question prompts the recollection of the relevant visual image (at T2), however, the raw materials from Clifford’s original perceptual experience are turned into a belief state. In particular, by virtue of calling to mind and processing the information that he had taken in at T1, he forms the corresponding belief at T2 that construction work was being done on 155. Moreover, because this information had been both reliably produced and reliably registered in Clifford’s cognitive system, there is nothing to prevent this newly formed memorial belief from being rational, justified, and known at T2. Thus, Clifford rationally believes, justifiedly believes, and knows at T2 that construction work was being done on 155 without rationally believing, justifiedly believing, or knowing this proposition when it was originally acquired at T1.29

I suspect that a proponent of the [PVM] is most likely to reject the force of Case 3 by arguing that Clifford does, in fact, have the belief in question at T1. Specifically, one might claim that the changes in Clifford’s cognitive system between T1 and T2 do not take him from the absence of belief to belief but, rather, from a tacit or merely dispositional belief to an explicit or conscious belief state. This, of course, is a common epistemic occurrence: you ask me whether I believe that oranges don’t grow on kangaroos and, even though I had never consciously formed this belief prior to your question, I readily assent—your question, that is, merely prompts me to explicitly believe something that I tacitly believed all along.

Despite the fact that it is not uncommon for a tacit or merely dispositional belief to become a conscious belief, however, this is not what is taking place in Clifford’s cognitive system in Case 3. For notice that everything about Clifford’s behavior prior to his conversation with Phoebe supports the thesis that he does not have any sort of belief about the construction in question. He would, for instance, have taken 155 to the shopping center, he wouldn’t have made even minor efforts to avoid this freeway, and so on. Notice further that after speaking with Phoebe, Clifford vows to change his behavior by taking steps to avoid 155 because of the likely traffic delays. Now compare this with the example of my tacit or dispositional belief that oranges don’t grow on kangaroos. It is reasonable to think that my behavior prior to and after your question would be strikingly similar: at both times, for instance, I would not turn to a kangaroo to quench my thirst, I would be surprised to learn that our oranges at home were from Australia, and so on. What

29 It was suggested to me by an anonymous referee that although this example does falsify the [PVM], it does not undermine a weaker version of this thesis requiring only that the subject be justified in believing the proposition in question at T1. While this is true, Cases 1 and 2 do undermine even this weaker version of the [PVM]. Thus, this sort of modification will not render the spirit of the [PVM] defensible.
these considerations suggest is that there is an intimate connection between beliefs and actions, even when the former are tacit or merely dispositional. Given that all of Clifford's actions at T1 are consistent with him not believing that construction is being done on I55, it seems clear that he fails to even tacitly or dispositionally hold this belief at this time.  

Nevertheless, a proponent of the [PVM] may pursue a different line of defense by arguing that the knowledge (justification/rationality) in question at T2 is not, in fact, generated by the faculty of memory; instead, it is generated by reason, with the resulting knowledge (justification/rationality) being inferential rather than memorial in character. For instance, Oscar asks Sally whether it is cold outside today. Sally pauses, calls to mind having seen people wearing coats and hats this morning when she looked out the window, forms the belief that it is cold outside today, and responds affirmatively to Oscar's question. Now, though the resulting knowledge prompted by Oscar's question is newly acquired and owes much to the visual image that had been stored by memory in Sally's cognitive system, one might argue that it is not itself generated by memory. For, the raw materials from Sally's original perceptual experience of seeing the people out the window were used to infer that it is cold outside today, thereby making the knowledge in question inferential. And, one might ask, isn't this very similar to how Clifford's knowledge about the construction work on I55 is generated in the above case?  

Even if we grant both that Sally's knowledge of the weather is inferential rather than memorial and that there are similarities between her cognitive situation and Clifford's in Case 3, there is nonetheless a crucial difference; namely, that while the content of Sally's belief about it being cold outside goes beyond the content of the information that had been stored in her memory, the content of Clifford's belief simply mirrors the information that had been stored in his. To see this, notice that the two cases would be analogous in this respect if, for instance, Sally merely came to know that people were wearing coats and hats this morning or, alternatively, if Clifford came to know that there would be traffic delays on I55 (because of the construction work). But as Case 3 is described, there is simply no relevant inference taking place in the formation of Clifford’s belief about the construction work at T2.  

Of course, being manifested in Clifford's behavior is not a criterion of his believing that construction is being done on I55; rather, it is good evidence for thinking that he holds such a belief. Moreover, it is not my intention here to be offering necessary and/or sufficient conditions for belief but, rather, to be working with an intuitive distinction (one that is recognized by many philosophers and cognitive scientists) between belief-states and states that are merely informational.

It was brought to my attention by Dean Zimmerman that since it doesn't make sense to say that Clifford literally saw construction work taking place on I55 at T1—rather, he saw, for instance, workers in hardhats drilling with jackhammers—he is inferring that construction work is taking place on I55 at T2. Because of this, isn't it correct to say that Clifford's knowledge of the construction work at T2 is inferential? I am inclined to say

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least none that isn’t also found in nearly every other case of belief forma-
tion.32

Memory, therefore, does not merely have the capacity to preserve epistemic features generated by other sources. For, as we have seen, there are two different ways in which memory can function generatively: first, memory can generate the epistemic status of an already held belief and, second, memory can generate the belief itself. Thus, contrary to the standard view in contemporary epistemology, memory can indeed function as a generative epistemic source.

that seeing workers in hardhats drilling on the freeway with jackhammers just is to see construction work being done. Nevertheless, those who resist this can simply modify Case 3 so that Clifford’s belief that construction work is being done on 155 is replaced with the belief that workers in hardhats were drilling on 155 with jackhammers.

A further strategy for resisting Case 3 is to argue that while it is correct to say that Clifford fails to believe that construction work is being done on 155 at T1, it is on the basis of delayed perception rather than memory that Clifford comes to know this proposition at T2. For instance, consider the following: a split second after Harriet perceives that she has fallen into a vat of liquid nitrogen, she freezes completely, and all of her cognitive activities cease. She remains frozen until the year 2525, when she is instantaneously thawed. At that moment, Harriet’s cognitive activities pick up where they left off: she processes the information that she acquired through perception 5 centuries earlier, and thereby comes to believe and know that she has fallen into a vat of liquid nitrogen. Now, this, one might claim, is clearly a case of delayed perceptual knowledge—not memorial knowledge. So, why can’t the same thing be said with respect to Clifford’s case? (I owe this objection to Cody Gilmore.)

To my mind, what the case of Harriet reveals is not that Clifford’s knowledge is perceptual instead of memorial but, rather, that the sheer amount of time that passes between the acquisition of information and the formation of the corresponding belief has nothing of importance to do with what kind of knowledge is at issue. For what really matters for individuating kinds of knowledge are differences in the kinds of cognitive processing that are operative in a subject’s system. For instance, the typical case of memorial knowledge involves information—usually in the form of a belief—having been stored at an earlier time and then recalled or retrieved at a later time. No such cognitive processes take place either in the case of Harriet or in the standard case of perceptual knowledge. Thus, to show that Clifford’s knowledge at T2 can plausibly be regarded as perceptual, more needs to be done than revealing that a great deal of time can pass between the reception of information and the formation of a perceptual belief. It also needs to be shown that the very same cognitive processing that we standardly attribute to memory can occur with the resulting knowledge being perceptual rather than memorial.

Moreover, notice that the cognitive processing that is operative in Clifford’s system—the storing and retrieving of information—is identical to standard cases of memorial knowledge. Indeed, the only difference between Clifford’s knowledge at T2 and typical cases of memorial knowledge is that the psychological item that is stored in and then retrieved from his cognitive system is merely an informational state rather than a belief. And in the absence of an argument showing why this fact should render the resulting knowledge perceptual, it must either be conceded that Clifford’s knowledge at T2 is indeed memorial or the very distinction between perceptual and memorial knowledge is in danger of collapsing.
5. Concluding Remarks

In this final section, I shall briefly sketch an alternative conception of memory, one that avoids the objections afflicting the [PVM] and adequately captures the capacities of memory as an epistemic source.

There are two central insights underlying the Preservation View of Memory that are both true and important. The first is that memory, unlike sources such as sense perception and reason, must ultimately depend on resources produced by another epistemic source. For instance, while I may come to know that there is currently an owl in my backyard merely on the basis of sense perception, my remembering that there was an owl in my backyard yesterday ultimately depends both on memory and the source responsible for the original production of this information. The second insight is that in order for this information to be capable of later qualifying as justified belief or knowledge, it needs to be stored and accessed by memory in a reliable or otherwise truth-conducive way.

These insights, however, are accompanied by some widespread errors in the epistemology of memory—errors that were made apparent in the preceding sections. For instance, it is thought that the information stored in memory must always be in the form of belief, a thesis shown to be false by Case 3. Moreover, it is assumed that the only way for this information to be stored and accessed in a reliable way is for it to enter a subject’s cognitive framework as justified belief or knowledge, an assumption shown to be false by Cases 1-2. And finally, it is believed that the sort of dependence that memory has on other sources leads to the conclusion that memory cannot function as a generative epistemic source—a conclusion that has been argued against throughout this paper.

What we need, then, is a view of memory that captures the important insights mentioned above yet avoids the errors found in the [PVM]. To this end, I propose the following:

\[ M \]: S knows (justifiedly believes/rationally believes) that \( p \) on the basis of memory at \( T_2 \) only if: (i) the information that \( p \) was reliably registered in S’s cognitive system at an earlier time, \( T_1 \),

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33 "Ultimately" is key here. For notice that in Case 3, Clifford depends only on resources provided by memory at the time that he is forming the belief about construction on 155. Nevertheless, the information that he accesses via memory was originally stored by a non-memorial source; namely, sense perception. So, it is true that Clifford’s remembering that there is construction being done on 155 ultimately depends both on memory and the source responsible for the original production of this information.

34 It should be noted that there are wildly different conceptions of rationality, ranging from highly internalist and subjective views to entirely externalist and objective one. Thus, these necessary conditions should be read as applying to only one kind of rationality.

35 Note that this condition merely requires that the information that \( p \) be reliably registered in S’s cognitive system at an earlier time rather than when the information was originally stored.
(ii) the information that p was registered in S's cognitive system at T1 via a source other than memory, (iii) the information that p is reliably retrieved by S at T2, and (iv) S does not have any undefeated defeaters for the belief that p at T2.\(^3\)

The notion of reliability found in conditions (i) and (iii) is intended to be unspecific—it can be fleshed out in terms of a general externalist conception of epistemic justification. For instance, in order for the information that p to be reliably registered, it may need to “track the truth” in Nozick’s sense, i.e., if p were not true, then p would not be registered in S’s cognitive system and if p were true, then p would be registered in S’s cognitive system.\(^3\) Or, in order for the information that p to be reliably retrieved, it may need to be formed by a virtuous or properly functioning cognitive agent in an appropriate environment.\(^3\) But no matter how the details of these conditions are worked out, the point that is of import here is that neither justified belief nor knowledge is required in order for information to be reliably stored and retrieved by the faculty of memory.\(^3\)

The notion of information found in conditions (i)-(iii) is also intended to be fairly unspecific so as to be compatible with various theories.\(^4\) Informational states may, for instance, have propositional content, conceptual content, non-conceptual content, and so on. The crucial point for our purposes, however, is that informational states need not be in the form of beliefs in order to be properly registered in cognitive systems.

Finally, as with the [PVM], [M] does not specify sufficient conditions. Other necessary conditions may need to be added as well—for example, one that rules out Gettier cases—but these will most likely be conditions that

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\(^{36}\) See Nozick (1981).


\(^{39}\) A condition requiring the truth of the information will need to be included to distinguish memorial knowledge from memorial justification.

\(^{40}\) It should be noted that a consequence of requiring condition (i) for memorial justification is that subjects inhabiting a world under the influence of a Cartesian demon would be justified in holding very few, if any, of their memorial beliefs. As indicated in note 3, however, I am assuming that justification is a necessary condition for knowledge. In this sense of justification, it seems reasonable to deny such subjects memorial justification. In the sense of justification having to do with being epistemically responsible in one’s believings (which may or may not be necessary for knowledge), such subjects can be said to be justified in holding their memorial beliefs.

See, for instance, Grice (1957), Dennett (1969), and Dretske (1981).
figure in a general epistemology. For, in [M], we find what is distinctive about memorial justification and knowledge. And what we find is that memory not only has the capacity to preserve justified belief and knowledge, but also the capacity to generate these epistemic features in its own right, a view importantly different from that currently dominating the epistemology of memory.41

References


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