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## Consciousness and Memory: A Transactional Approach

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### Abstract

The prevailing view about our memory skills is that they serve a complex epistemic function. I shall call this the “monistic view.” Instead of a monistic, exclusively epistemic approach, I propose a transactional view. On this approach, autobiographical memory is irreducible to the epistemic functions of episodic memory because of its essentially moral and empathic character. I argue that this transactional view provides a more plausible and integral account of memory capacities in humans, based on theoretical and empirical reasons. Memory, on this account, plays two distinctive roles. The episodic memory system satisfies epistemic needs and is valuable because it is a source of justification for beliefs about the past. Autobiographical memory satisfies moral and narrative-autonoetic needs, and is valuable because it is a source of personally meaningful and insightful experiences about our past. Unlike autobiographical memory, episodic memory is only weakly auto-noetic. The relation between these two roles of memory is captured by the tension between a narrative and an accurate report.

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## 1. Introduction

Nelson Goodman described a tension between the cognitive functions of reporting and narrating.<sup>1</sup> The cognitive function of reporting is best understood as epistemic. Its purpose is to provide reliable information about events. A report, if accurate, can be used as evidence. The cognitive function of narrating a story is different. Its main purpose is not necessarily to provide accurate information, but rather to make events cohere in an insightful manner. “Insightful” here is best understood in terms of moral or aesthetic relevance. The narrative must rank events in an order of importance that is not epistemic—a ranking of events from the most valuable and consequential to the more peripheral—independently of their being accurate or fictitious. Memories of an event (e.g., the taste of a madeleine dipped in tea, or the drowsy experience produced by intense sunlight as one stands on a beach) may vary in degrees of accuracy but preserve the event’s value and significance. Generally, the truth of a description concerning an event, even if satisfies the highest epistemic standards, is not relevant to its narrative significance. What truly matters for narrative value are the essential insights one can draw from the event.

Frequently, by turning a narrative into a mere report we lose its insightfulness. Likewise, by turning a report into an interesting narrative we lose some of its accuracy and strictly epistemic value. Although Goodman did not apply this analysis to memory, I argue that this tension between reporting and narrating is crucial for understanding how human memory capacities work. This is a natural extension of Goodman’s distinction. Reports and narratives are the subject matter of history, and it is a notorious difficulty to interpret the narrative relevance of accurate documents or even of entire archives. The task of the historian can be understood in terms of the creation of collective memories that identify critical events as the most momentous and valuable ones, thereby establishing a ranking of all accurate events. This ranking of events must emphasize why something that occurred—and which was witnessed by reliable historical figures—matters for the integration of a larger narrative that humans should care about. Presumably, the origin of the two distinctive cognitive functions of reporting and narrating is the way in which human memory works. An analysis of this distinction in the context of human memory, I propose, yields important new insights that can help explain findings in psychology. This distinction, I shall argue, also has broader implications for the nature of conscious experience.

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<sup>1</sup> Nelson Goodman, “Twisted Tales; or, Story, Study, and Symphony,” In *On Narrative*, ed. W. J. T. Michell (Chicago: University of Chicago Press, 1981), 99–115.

One view of the content of a narrative is that all of its cognitive aspects ultimately depend upon the degree of accuracy of the events it describes. This reductive view, which collapses the narrative elements into descriptive ones, is implausible in general. For instance, the moral insights of fictional tales are extremely powerful, and a substantial part of their potency lies largely in being independent from the contingencies of concrete facts. Cultures around the world teach about their moral values through this type of fictional narrative, even though the events described in the stories are intentionally allegorical. Similar considerations apply to literature. The tension between description and narration finds interesting limit points in genres such as biographies, autobiographies, and journalism. If one considers aesthetic value, instead of moral value, the reductive view is even more implausible. The aesthetic value of a painting (e.g., a landscape or a portrait) in no way depends on the accuracy of the depiction. If we want to analyze the moral and aesthetic dimensions of narrative, we must adopt a nonreductive view, according to which narrative value is not reducible to descriptive accuracy. Although giving a full account of moral and aesthetic value is a complex matter that I cannot pursue here in detail, it suffices for our purposes to understand Goodman's distinction in terms of the irreducibility of the ranking of events or experiences, in terms of their narrative value, to their accuracy.

With respect to memory, however, the reductive approach is quite plausible and, in fact, it is the prevailing view. The reductive approach correlates with the view of memory that I shall call "monistic," and the nonreductive view corresponds to the transactional view defended in this paper. The monistic view states that memory is "personal" by virtue of the reliable information provided by episodic memory about events in our past, which we use to reliably plan for the future. On this view, episodic memory is what allows us to have autobiographical narratives. The alternative view I defend here, the "transactional view," proposes the irreducibility of a personal narrative to mere informational access and accuracy. It is "transactional" because the epistemic and narrative functions of memory constantly interact with each other in order to balance accuracy and narrative trade-offs. Briefly stated, the challenge presented here against the monistic view is that accuracy is insufficient for narrative relevance, although accuracy might be necessary in many cases. Although this is not an entirely uncontroversial way of parsing the functions of memory, I shall argue that it is justified by Goodman's important distinction.

A distinct difficulty in the case of memory, which goes beyond the tension between narrative value and descriptive accuracy, is that autobiographical memories are deeply personal; their value is unique to an individual at a time. This aspect of autobiographical memory cannot be reduced to the accuracy of events stored in episodic memory either. On the one hand, our memories are related to our personal identity, and may even constitute who we are, according to the psychological continuity view. On the other hand,

memory is a fundamental epistemic capacity that reliably provides information that we acquired in the past in order to inform perception, action, decision making, as well as successful communication with others. Based on this accurate information, we can be relied upon as witnesses of past events. Although the tension between essentially indexical information and publicly shared reliable information is not the main topic of this paper, I provide reasons in support of the view that without a transactional approach, we cannot explain the personal and unique value of autobiographical memory. More precisely, the arguments below provide reasons in support of the view that the non-epistemically reducible information provided by autobiographical memory is a necessary condition for the essentially indexical character of memory.

Despite the complexities of the topics of introspection and indexical content, the main point is that the transactional view can account for the uniquely personal way in which memories are ranked in terms of value, without reducing their value to epistemic and introspective attitudes and judgments about the contents of memory. The unique perspective of a subject can be understood in terms of the experienced intensity and meaningfulness of his or her experiences, as experienced by the subject, rather than as epistemically assessed by the subject through belief or judgment. These value rankings in terms of intensity and meaningfulness would, on this account, constitute the subjective perspective of an individual's memories, not because of epistemic attitudes toward contents, but because amalgamating memories in terms of value is the proper function of a distinct type of memory: autobiographical memory. As explained below, significant problems emerge if autobiographical memory is construed in terms of mere introspective judgments and epistemic attitudes. A way of avoiding these problems is to explain autobiographical memory in its own terms, as a phenomenally conscious type of memory that provides personal value. Thus, the question this paper addresses can be stated as follows. Can autobiographical memory (i.e., remembering what happened as determined by my self-narrative) be reduced to episodic memory (i.e., the capacity for accurately remembering events and their chronology as framed by my temporal perspective)? This paper defends two claims. The first is that there is a fundamental tension between the narrative and epistemic roles of memory, analogous to the tension between reports and narratives. Autobiographical memory is not reducible to episodic memory. The memory system must somehow achieve an optimal balance between epistemic and narrative trade-offs, or between accuracy and personal value. The second claim is that the distinction between phenomenally conscious and other types of implicit memory helps clarify how memory achieves this balance. Autobiographical memory tracks a conscious person's valuable phenomenal experiences, not a series of accurate recollections.<sup>2</sup>

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<sup>2</sup> See also Carlos Montemayor and Harry Haroutioun Haladjian, *Consciousness, Attention, and Conscious*

These are the central claims of the transactional view. This view entails that episodic memory, which some authors describe as narrative and essentially auto-noetic, is insufficient to explain the vividness and personal relevance of autobiographical memories. I argue that autobiographical memory plays the unique role of narrative-engagement. More specifically, the second thesis states that episodic memory is insufficient to account for the *phenomenology* of autobiographical memory. Crucially, the transactional view explains why autobiographical memory has a proper function to perform within the memory system. Episodic memory has its own, strictly epistemic functions. Autobiographical memory, by contrast, has a narrative and moral function (and perhaps even an aesthetic one), rather than a strictly epistemic function. A narrative is not valuable simply in virtue of being a narrative. A narrative, however, provides the necessary structure for value assignments that create personal value, and this structure is incompatible with the purely accurate temporal structure of episodic memory.

## 2. The epistemic roles of memory

The monistic view is based on an epistemic approach to memory. It is the most popular view of memory (as documented below), and it is also extremely intuitive. Its plausibility comes from many sources, but I shall focus on a particular powerful consideration: an analogy between memory and perception. Analogously to perceptual capacities, memory requires accuracy conditions. For memory to constitute knowledge, memories need to accurately represent causal relations, temporal information, and semantic contents.<sup>3</sup> Information acquired in the past needs to be reliable in order for it to serve as the evidential basis for beliefs about future regularities, plans, and expectations. Memory affords knowledge about information learned in the past that can be used to envision the future, and it provides the basis for counterfactual reasoning and long-term planning.<sup>4</sup>

Like “perceiving,” “remembering” seems to be a success term—by perceiving, one successfully becomes acquainted with features of the environment, and by remembering one successfully gains access to the past. Perceptual illusions are a type of partial failure, as are forms of confabulation. The worst type of perceptual failure, hallucination, correlates with a disturbing epistemic failure: a fully confabulated memory. Perception and memory are key, and analogous, epistemic capacities. Any successful epistemic agent

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*Attention* (Cambridge, MA: MIT Press, 2015) for the larger implications of the distinction between phenomenal consciousness and several forms of attention.

<sup>3</sup> John Campbell, *Past, Space, and Self* (Cambridge, MA: MIT Press, 1995).

<sup>4</sup> Felipe De Brigard, “Is Memory for Remembering? Recollection as a Form of Episodic Hypothetical Thinking,” *Synthese* 191, no. 2 (2014): 1–31.

needs the mutual cooperation of perceptual and mnemonic skills in order to navigate the world.<sup>5</sup>

In addition, memory is not just a discrete section of the “body of knowledge” a person has at a moment in time. Rather, it is a capacity, a competence, with proper functions, which are described in more detail below. Like perception, memory is fundamentally the exercise of memory skills. This point deserves emphasis. At storage and retrieval, memories about a specific event must be unified and archived as memories about the *same* episode, analogously to the binding problem in perception in which various features must be unified into a single object. The integration of information in memory and perception must also comply with requirements for knowledge, in the sense that they should provide safe, nonaccidental, and justified true beliefs that serve as guides toward successful action.

These are substantial advantages of the monistic view. Its main limitation, however, is that it cannot explain important aspects of conscious memory, in particular, the phenomenology of autobiographical memory. This seems to be an asymmetry between perception and memory. Conscious autobiographical memory is unlike conscious perception in fundamental respects, because its proper function is *narrative*, rather than strictly epistemic. Autobiographical memory does not integrate information in order to accurately represent events. It integrates events in order to construct a meaningful personal narrative. How can this be reconciled with the need for accuracy? The transactional approach proposes a specific trade-off to solve this problem. This trade-off requires a distinction between phenomenally conscious memory and other forms of not necessarily conscious memory. In fact, the distinction can be made in terms of phenomenal and access memory (semantic and episodic), as explained below.

Before presenting the transactional view, the monistic view must be explained in more detail. Johannes Mahr and Gergely Csibra’s characterization of episodic memory is one of the most comprehensive accounts of the monistic view.<sup>6</sup> According to them, an im-

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<sup>5</sup> It is important to clarify that this “success term” view is not as popular in psychology. Future planning, in particular, need not require completely accurate memories (this is related to some issues associated with the trade-offs discussed below). In fact, it has been proposed that not having perfectly accurate memories is adaptive and advantageous (see Daniel L. Schacter, Mieke Verfaillie, and Dan Pradere, “The Neuropsychology of Memory Illusions: False Recall and Recognition in Amnesic Patients,” *Journal of Memory and Language* 35, no. 2 [2011]: 319–34).

<sup>6</sup> See Johannes B. Mahr and Gergely Csibra, “Why Do We Remember? The Communicative Function of Episodic Memory,” *Behavioral and Brain Sciences* 41 (2017): 1–93, doi: 10.1017/S0140525X17000012. Mahr and Csibra’s account of “autonoesis” comes very close to the kind of narrative role I attribute to autobiographical memory, which places their view closer to the transactional view than to the standard



portant aspect of episodic memory is that it is auto-noetic, in the sense that by remembering what happened in a temporally structured way, one reliably gains access to how events occurred in relation to ourselves, from our unique first-person perspective, which is a source of self-knowledge. But as they emphasize in their paper, this typical way of characterizing episodic memory captures only one part of what makes episodic memory epistemically fundamental. Episodic memory, they argue, should not only be understood in terms of auto-noesis but, fundamentally, as a specific *attitude* toward the simulation of an event. According to Mahr and Csibra, episodic memory is a source of psychological and communicative justification that serves as the basis for introspective judgments. Still, the propositional attitude toward the contents of episodic memory involved in these judgments seems epistemic (even assertive) in the sense that communication has accuracy conditions and must be reliable. This constraint accords with the perception-analogy that motivates the monistic view, and seems at odds with the transactional account. Although the expansion of episodic memory into realms of self-knowledge that involves social communication is an attractive feature of Mahr and Csibra's account, it might not be sufficient to account for the phenomenology of autobiographical memory, which is strongly auto-noetic in the sense that memories appear to have a given value independently of introspective judgments about their contents, of the form "I witnessed this."

The view that autobiographical memory is determined by the *contents* of episodic memory is endorsed by Mahr and Csibra. However, they acknowledge that autobiographical memory and episodic memory may not be the same thing. A key issue here is how to understand the propositional attitude toward those contents. Although they do not talk about autobiographical memory in detail, they say that episodic memory is auto-noetic in the sense that events are witnessed or experienced first-hand. This grounds a type of co-witnessing that facilitates communication. But the expression "I witnessed this firsthand" is an introspective judgment, and as such, the propositional attitude involved is epistemic: it is a belief that is immediately justified. Although the communicative character of co-witnessing is not an exclusively epistemic capacity reducible to accuracy conditions because it involves interactions with others, it is epistemic in the sense that it provides the basis for self-knowledge introspections, and these introspections need

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monistic view. I categorize their view as monistic because the trade-off I emphasize here does not play a critical role in their analysis. More importantly, there is a key distinction between the two approaches: the transactional approach avoids the problem of introspective judgments about memory contents and epistemic attitudes toward them, which is a condition for auto-noesis in Mahr and Csibra. For this reason, their account of auto-noesis does not seem to provide the right analysis of the phenomenology of conscious memory, for reasons explained in sections 2 and 3. I would like to thank an anonymous reviewer for pointing out to me the similarities between these two approaches.



not exhaust the attitudes and phenomenology of autobiographical memory value-judgments. In fact, it is a consequence of their account that auto-noesis is also a capacity to assert epistemic authority concerning the past. Social obligations and successful communication rely at least partly on this capacity.<sup>7</sup> These are the essentially epistemic roles of episodic memory, and they are best understood in monistic rather than transactional terms.

One feature of episodic memory I shall focus on now is the interaction between the storage and retrieval of memories, in particular the way memories might be recontextualized during retrieval. My goal is to show that a “trade-offs” approach to the *epistemic* functions of memory can help illuminate the interaction between episodic and autobiographical memory. The trade-offs approach accurately captures essential aspects of the epistemic roles of memory, and it is crucial for the transactional view.<sup>8</sup>

The trade-offs of episodic memory are epistemic in the sense that a balance needs to be achieved between two epistemically problematic but cognitively powerful tendencies. There is, for instance, a trade-off between the rigidly itemized storage and retrieval of event-traces (e.g., memories that are stored in a way that no future information can change their content) and their flexibly structured recontextualization at retrieval (e.g., based on their emotional and social aspects). This is an architectural trade-off. If memory worked the way a von Neumann computer works, memories would be rigidly stored and would require vast amounts of storage space. Retrieval could not change the information stored, and information could not be contextualized because the instructions for retrieval would be rigidly related to stored memories. Here there is a risk of epistemic inflexibility.

The opposite tendency, however, generates the epistemic risk of unreliability and con-fabulation. If memories can be modified and updated extensively at retrieval, there could be loss of reliable information that a rigid system would preserve. A completely flexible architecture would need very complex rules for updating memories while preserving the information that is fundamental for these memories to be reliable. Episodic memories must be stored and retrieved in a way that there is enough flexibility at retrieval without

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<sup>7</sup> For an account of the epistemic normativity of social communication, assertion and joint attention, see Abrol Fairweather and Carlos Montemayor, *Knowledge, Dexterity, and Attention: A Theory of Epistemic Agency* (New York: Cambridge University Press, 2017), chapters 5–7.

<sup>8</sup> Some of these trade-offs are introduced, although in a very different context, in Carlos Montemayor, “Memory: Epistemic and Phenomenal Traces,” in *Time and Trace: Multidisciplinary Investigations of Temporality*, ed. Simone Gross and Steve Ostovich (Leiden: Brill, 2016), 215–31.

jeopardizing accuracy. This epistemic trade-off is related to the trade-off between accuracy and narrative value in the sense that accuracy needs to be balanced with flexibility, which may be characterized in terms of contextual-narrative information. The key difference is that this is an entirely architectural trade-off, which can be formulated independently of any considerations about autobiographical narrative.

There is also a trade-off concerning the quality of access to traces, or how *detailed* they are. This is a semantic trade-off. Remembering events in excruciating detail is at one extreme of epistemic accuracy. If we could remember in extreme detail every single aspect of the events of one day in our lives, these memories would be distracting us from more pressing needs to an extent that we might find unnerving or disorienting. If this kind of precision extended to every memory in our lives we would be extremely competent at accessing contents, but we would find it hard to judge which memories are more relevant than others. One would not only remember an event that one needs to retrieve from memory (where was I three months ago?) but also what one was wearing, the exact color of our socks, the precise posture we had when we encountered someone, what we had for breakfast, at what exact time, etc.

Remembering in the most abstract and ambiguous way is at the opposite extreme of mnemonic detail. Instead of remembering every single aspect of an event, the entire day would be categorized in a conceptual frame in which no specific details are provided. One would remember where one was a month ago and that one had the typical daily routine (breakfast, lunch, some meetings, dinner) but no details about specific clothing or features of people would be provided. An epistemic agent with the skills to achieve a balance between extreme detail and extreme abstractness will be better off than those who are at the extremes (although in some contexts, such as memory contests, the one at the remarkable-detail extreme might be better off). The brain normally strikes a balance between these two extremes.<sup>9</sup>

A different balance point concerns the *suppression and intrusion* of memories. Suppression impedes access to a memory that one is trying to remember. In many cases, it is good to suppress memories that would distract us or make our lives more disorienting than they already are. But in extreme cases, suppression could come close to crippling amnesia. The suppression of memories that must be ignored in order to retrieve only those memories that are relevant should not be so pervasive that they make any attempt at retrieval a challenge.

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<sup>9</sup> Rodrigo Quian Quiroga, *Borges and Memory: Encounters with the Human Brain*, translated by Juan Pablo Fernandez (Cambridge, MA: MIT Press, 2012).

Intrusion, by contrast, affords involuntary access to a memory that one is trying to forget. In cases like PTSD, intrusion can lead to epistemic as well as narrative distortions and become a constant source of anxiety. If there were too much suppression, memories could not be either generated spontaneously or related to contexts. Too much intrusion, however, is extremely disrupting. Of these three epistemic trade-offs, this might be the most important one for the relation between accuracy and narrative, although as I argue below, balancing even this trade-off is insufficient to explain autobiographical memory and its phenomenology.

Optimal solutions to these three trade-offs underlie the proper functions of episodic memory. In essence, what drives the balancing of these trade-offs is the goal of achieving the *right degree* of epistemic justification and accuracy for thought, decision-making, and action. It is in this sense that episodic memory is auto-noetic. It provides authoritative, first-person access to memories and their contents in a reliable way, including introspective judgments about contents that lead to the formation of justified beliefs.<sup>10</sup> Episodic memory is, therefore, the most critical source of temporally structured introspection judgments about events in our past in relation to our future plans, which certainly is a fundamental kind of self-knowledge. I shall call this the “minimally auto-noetic” function of memory, because the memory skills involved in episodic memory provide knowledge of ourselves in terms of the accurate retrieval of events in our past.

What about the phenomenology of memory? The monistic view has very little to say about this issue. This might be a consequence of the epistemic approaches to memory that seek to explain its relation to epistemic vigilance, authority, communicability, reliability, and overall epistemic functioning. In other words, what matters about memory according to monistic accounts is the adequate performance of these critical skills, rather than how we experience memories. Implicit memory for motor control, semantic memory for the retrieval of conceptual contents, declarative memory for the communication of inferences and thoughts about memories are all types of memory that constantly interact with episodic memory. Episodic memory is the most epistemically complex form of memory, but can its auto-noetic aspects explain phenomenally conscious memory? Can autobiographical memory just be a memory *content*, rather than a unique type of memory *function* not reducible to the epistemic roles of episodic memory?

Monism answers these questions positively, but I shall answer them negatively. I argue

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<sup>10</sup> This issue is deeply related to the epistemic authority epistemic agents possess because of their capacities. For reasons of space, I cannot delve into this issue here, but see Fairweather and Montemayor, *Knowledge, Dexterity, and Attention*, for a full account of epistemic agency based on a virtue-realist theoretical approach.

that memory provides two types of justification: internal and external. Episodic memory can indeed be described as an epistemic attitude toward information that serves as a source of epistemic justification. It is auto-noetic, but only in a weak sense because its main function concerns skills for reliable communication and epistemic authority with respect to past events, rather than the personal value or narrative insightfulness of some memories. Conscious autobiographical memory is strongly auto-noetic because it balances a *non-epistemic trade-off* concerning the vividness and personal value of memories. Episodic memory provides an external epistemic justification about a background of events we reliably share with others, and which certainly constitute a fundamental source of self-knowledge. Conscious autobiographical memory, however, provides an internal, moral, or empathic kind of justification that truly matters only to us as individuals: it determines which are the memories we cherish or fear the most; which memories bring us enormous pleasure and which we would rather forget.

### 3. The insufficiency of weakly auto-noetic memory

What I shall call the “narrative challenge” justifies the transactional view of autobiographical memory. This challenge is based on findings that show the limitations of the monistic approach, particularly of its weakly auto-noetic contents as an explanation of the emotional relevance and personal value of memory. After reviewing these findings on memory distortions based on narrative effects, I present evidence concerning the moral relevance of conscious memory. The transactional approach, unlike the monistic view, can explain these findings as evidence in support of a comprehensive view of memory that does not reduce personal value to epistemic justification.

Humans distort and confabulate constantly, and in a systematic way, depending on context, semantic information, and the narrative plausibility of unreal events.<sup>11</sup> These epistemic infelicities are based on unusual but not implausible inaccuracy, plausibly doctored photographs, semantic lures, and imagination inflation.<sup>12</sup> These effects are epistemically pernicious, but they can all be characterized as *narrative influences* that

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<sup>11</sup> Elizabeth Loftus and colleagues: Elizabeth F. Loftus, “Leading questions and the eyewitness report,” *Cognitive Psychology* 7 (1975): 560–572; Elizabeth F. Loftus and Jacqueline E. Pickrell, “The formation of false memories,” *Psychiatric Annals* 25 (1995): 720–725.

<sup>12</sup> See, respectively, Ira E. Hyman, Troy H. Husband, and F. James Billings, “False Memories of Childhood Experiences,” *Applied Cognitive Psychology* 9 (1995): 181–97; Stephen D. Lindsay et al., “True Photographs and False Memories,” *Psychological Science* 15, no. 3 (2004): 149–54; Henry L. Roediger and Kathleen B. McDermott, “Creating false memories: Remembering words not presented in lists,” *Journal of Experimental Psychology: Learning, Memory, and Cognition* 21, no. 4 (1995): 803–814; and Lyn M. Goff and Henry L. Roediger, “Imagination Inflation for Action Events: Repeated Imaginations Lead to Illusory Recollections,” *Memory and Cognition* 26, no. 1 (1998): 20–23.

negatively impact epistemic functioning. Is memory malfunctioning in these cases? Or is memory performing one of its proper functions—an autobiographical function that ranks the value and importance of experiences in relation to how events occur, even at the cost of accuracy?

The traditional theoretical diagnosis of the type of memory distortions and infelicities reported in these findings, which is partly based on the analogy with perception mentioned above, is that the memory system has indeed misfired and gone badly in these cases. Accordingly, any kind of false memories are illusory or fully confabulated, and they are only a kind of “seeming to remember.”<sup>13</sup> Recent alternative approaches try to avoid this skeptical interpretation.<sup>14</sup> Although these alternative approaches avoid the problem of making narrative effects fully confabulatory, they end up emphasizing epistemic aspects of memory, such as counterfactually based prediction, decision-making, and overall coherence. These epistemic functions of “seeming to remember,” however, are weakly auto-noetic because they involve attitudes toward contents assessed in terms of introspective judgments, which do not fully account for either the phenomenology of memory or the value attributed to how we experience certain memories.

Mirroring the distinction between weak and strongly auto-noetic memory, the notion of “coherence” may also have external and internal aspects. What is coherent in an overall episode of events that I share and communicate reliably with others (e.g., what happened yesterday, who was at the meeting two weeks ago) may be entirely irrelevant to what I find valuable or significant about those events. We go together to a concert. You and I can remember the events from meeting before the concert to saying good-bye afterward. We can place the events in a similar, coherent set of times that we could both write down as an accurate report of the evening—we can serve as witnesses of the events that transpired. But I may remember this evening as one of the most important memories in my life while you may forget it soon. Nothing in the accuracy of our reports predicts anything about how much value we give to these memories. To me, the external justification for beliefs about what happened that evening, which we both share, says nothing about the internal justification I have to value these memories as a

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<sup>13</sup> Robert Audi, *Epistemology: A Contemporary Introduction to the Theory of Knowledge* (London: Routledge, 1998); Sven Bernecker, *Memory* (Oxford: Oxford University Press, 2010).

<sup>14</sup> See the approaches, for example, of Felipe De Brigard, who emphasizes counterfactual reasoning, and Richard D. Lane et al., “Memory Reconsolidation, Emotional Arousal, and the Process of Change in Psychotherapy: New Insights from Brain Science,” *Behavioral and Brain Sciences* 38 (2015): e1, doi: 10.1017/S0140525X14000041, who emphasizes the cognitive processes of memory integration and reconsolidation.

crucial part of my personal narrative.

Evidence shows that healthy patients systematically distort memories, significantly more than impaired patients with amnesia.<sup>15</sup> These findings suggest that memory distortions are likely beneficial. But how could this be, if the monistic view is true? This is the empirical version of the narrative challenge: the scientific evidence suggest that memory distortions are pervasive and contextually based, and that healthy patients distort more than impaired patients. But how can this be the case if distortion is analogous to illusion and hallucination?

There is also a theoretical version of the narrative challenge, which is based on Goodman's distinction between reports and stories: in principle, the accuracy of some events tells me nothing about what I may find personally significant about them. Memories can be personally significant in at least two ways, moral and aesthetic. A kind of moral and aesthetic coherence must be vital for strongly auto-noetic autobiographical memory; it is a kind of coherence that affects us on a personal level. Otherwise, we would experience our lives as if they were reports we can share with others. The empirical and theoretical versions of the narrative challenge to the monistic view support an alternative view—the transactional approach.

Instead of a monistic, epistemic approach, I propose an irreducibly narrative approach to conscious autobiographical memory, based on internal rather than external auto-noetic justification. On this approach, autobiographical memory is irreducible to the epistemic functions of episodic memory. The external accuracy conditions concerning past events provide the basis for epistemic authority in our attitudes toward simulations of the past, which in turn justify beliefs about such events, including introspective beliefs. As mentioned, this is indeed a critical epistemic function of episodic memory. But there is an internal function that memory must have in order for it to make memories personally vivid, insightful, and valuable, or *strongly auto-noetic* (i.e., strongly self-relevant, rather than merely based on epistemic authority with respect to knowledge of past events). It is this strongly auto-noetic function of memory that provides moral and aesthetic, rather than merely epistemic, value to memories.

There is evidence suggesting that epistemic and moral responses to the same stimulus can be dissociated in terms of internal (or empathic) and external information.<sup>16</sup> A criti-

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<sup>15</sup> Daniel L. Schacter, Mieke Verfaillie, and Dan Pradere. “The Neuropsychology of Memory Illusions: False Recall and Recognition in Amnesic Patients,” *Journal of Memory and Language* 35, no. 2 (1996): 319–34.

<sup>16</sup> Yoni K. Ashar et al., “Empathic Care and Distress: Predictive Brain Markers and Dissociable Brain Systems,” *Neuron* 94, no. 6: 1263–73; Carlos Montemayor and Harry Haroutioun Haladjian, *Consciousness*,



cal piece of evidence in favor of the strongly auto-noetic function of memory shows that judgments about the self, based on autobiographical memory, are determined by moral significance.<sup>17</sup> This function does not necessarily depend on epistemic aspects of memory, and it may include basic forms of empathy that do not depend on epistemic functions concerning mind reading.<sup>18</sup> The weakly auto-noetic expressions “this happened to me” or “I witnessed this firsthand” need to be asserted with epistemic authority in order to successfully communicate with others. But they do not suffice to provide memories with emotional and personal vividness or insightfulness. The empathic and emotional aspects of memory must foreground information in order for this to happen. The evocative power of a set of memories cannot be captured by accuracy conditions alone, even if they are introspective ones.

How exactly should the epistemic role of introspection be distinguished from the value-producing function of autobiographical memory? As mentioned previously, the unique personal value of memories is experienced as such, independently of the knowledge of oneself as the thinker of the contents of memories. This is an intricate issue, but here is the key idea. Influential accounts of introspection appeal to accuracy conditions and contents in order to justify introspective beliefs. According to one influential account, the contents are externally determined and introspecting them is simply a matter of being in a mental state with those contents—this is the so-called “transparency” view.<sup>19</sup> A central feature of all accounts of introspection is that they aim at providing an explanation of the authority of the first person in terms of epistemic justification. But such an epistemic attitude is not needed to experience memories as particularly valuable. In principle, there is no need for any external relation to accuracy conditions, inferential relations to contents, or judgments of what I personally experienced in order to be able to experience the moral or personal significance of a memory. These seem to be very different cognitive capacities, and the transactional view does justice to this difference.

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*Attention, and Conscious Attention* (Cambridge, MA: MIT Press, 2015).

<sup>17</sup> Nina Strohminger, Joshua Knobe, and George Newman, “The True Self: A Psychological Concept Distinct from the Self,” *Perspectives on Psychological Science* 12, no. 4 (2017): 551–60.

<sup>18</sup> Susana Monsó, “Morality without Mindreading,” *Mind and Language* 32, no. 3 (2017): 338–57.

<sup>19</sup> The classic account of transparency is Gareth Evans, *The Varieties of Reference*, edited by John McDowell (New York: Oxford University Press, 1982). Alex Byrne (2005, 2011) provides an inferentialist account of introspective beliefs from mental contents; see Byrne, “Introspection,” *Philosophical Topics* 33, no. 1 (2005): 79–104; and “Transparency, Belief, Intention,” *Proceedings of the Aristotelian Society* LXXXV (2011): 201–21. For skepticism about knowledge of the self, based on contents, including the contents of memory, see Fred Dretske, “Awareness and Authority: Skeptical Doubts about Self-Knowledge,” in *Introspection and Consciousness*, edited by Declan Smithies and Daniel Stoljar (New York: Oxford University Press, 2012).



Another way of making this point is that the phenomenology of conscious memory is not merely determined by introspective judgments, even though introspective judgments certainly provide the epistemic basis for self-knowledge. We never experience memories as episodes one witnessed and to which one has unique access. This type of privileged access is involved in autobiographical memory, but much more is required to explain the personal value of memories. A property of conscious memory is to provide this type of value to memories as its proper function—to present us with vivid experiences that we care about, and that we immediately appreciate as valuable without needing to have an assertive or epistemic attitude toward them. We are confronted with such experientially rich memories as such, rather than as a relation between an epistemic attitude and a propositional content. We are not merely epistemically related to them through memory contents or through inferential introspections about beliefs concerning self-knowledge. If we were so dependent on introspective judgments, the phenomenology of conscious memory would not have the hold it has on us.

But in what sense is the proper function of autobiographical memory to “provide” memories with a moral and aesthetic dimension? The following cases illustrate how accuracy and narrative significance need to be balanced, and how one cannot reduce one to the other. These cases illustrate the moral and aesthetic significance of memory, which seems to be a fundamental structural aspect of *phenomenally conscious memory*. Although they involve two conversations, and thus are not descriptions of memories per se, they illustrate the tension between accuracy and personal value.

**Insult.** Flo asks Nix: “Why did you say that about me yesterday? That was embarrassing.” Nix responds: “It was accurate information; the people involved were curious about that event in the past, so it was relevant for the conversational context. And in addition, I don’t find anything embarrassing in answering questions accurately and sincerely. Such information is important to plan for the future.”

**Enjoyment.** Joy says to Nix: “I had so much fun last weekend. Remember what an amazing time we had at the amusement park?” Nix responds: “What I remember is that we arrived at 2.30. The day was not cloudy. There were big lines but we didn’t wait for long. We were together and had good food. We left after around four hours of being there and I remember you texted me on my way back home.”

The first case is one of lack of empathic engagement with a shared memory. Strictly speaking, there is nothing epistemically wrong with Nix’s recollections. In fact, Nix is epistemically collaborative with the questioner; she is speaking with epistemic authority and her testimony can be relied upon. She might even be epistemically virtuous in an-

swering the question truthfully. In fact, in some contexts, such as providing testimonial evidence before a court of law, Nix would certainly count as an epistemically responsible agent. The disagreement between Flo and Nix is not about accuracy. Rather, it is about the personal significance of this specific memory for Flo. Nix's epistemically responsible assertions about this event in the past lead to the violation of a moral norm based on empathic engagement, because a friend should not reveal personal information in public, in a way that is insulting to them. The phenomenology of the memory Flo has of this event is morally, rather than epistemically, relevant to her—what matters to her is how she feels about it, not whether her recollections accurately match Nix's.

The second case has moral implications, but it is best described as a case in which there is a lack of engagement with the aesthetic aspects of memory. Joy remembers this evening as a particularly beautiful one. The pleasure she feels in remembering this evening cannot be reduced to the accurate descriptions provided by Nix. In fact, Nix's accurate descriptions, which cannot be challenged by Joy, show that Nix attributes no personal significance to this memory. The situation is analogous to other cases in which there is a lack of aesthetic engagement or understanding on the part of the observer. If someone says "how beautiful the sky looks today" and someone else says in response "the sky has a purple and black and orange color, I can see very few stars, the moon is just starting to come out. I can see a few planes," there is a sense in which this epistemically obsessed interlocutor has completely missed the point of the original statement.

In both cases, there is a clear sense in which providing accurate episodic memories instead of empathically engaging with them reveals a lack of understanding of the other person as such. This is no accident. Episodic memory provides epistemic authority to introspective beliefs that can be qualified with the statement "this happened to me." This is the weakly auto-noetic function of episodic memory. In order to understand the personal relevance of a memory (or set of memories), one needs the phenomenology of autobiographical memory. This engagement with vivid memories is the strongly auto-noetic function of autobiographical memory. It is this strongly auto-noetic function that helps us understand others *personally* and also understand ourselves *as persons*, rather than as repertoires of accurate episodic memories.

Are the above cases simply about emotional reactions to the contents of experience? This is one way of understanding autobiographical memory, as dependent on attitudes toward contents. According to the transactional view, this is the wrong way to analyze these cases. It is not true that Flo and Joy are simply evaluating how they feel about an accurate memory. Rather, it is *how* they remember those events that matters to them. They are not simply reacting emotionally through a series of introspective judgments concerning contents; how they remember those events is the source of their emotional

reactions. So the content account, according to the transactional view, gets things backwards. Autobiographical memory presents us with an already valuable content, independently of judgments and explicit assessments.

The nonepistemic trade-off that must be balanced between episodic and autobiographical memory is that the more one stays within an accurate linear, episodic description, the more one ignores the phenomenological vivacity and value of memories as one experienced them. The more one departs from an accurate episodic description, the higher the risks of confabulation.

#### 4. The Transactional View

Although there is no extant defense of the transactional view, at least not in the way presented here, based on trade-offs and the distinction between phenomenally conscious memory and what one can call, invoking Ned Block's distinction, "access memory,"<sup>20</sup> there are important precedents.<sup>21</sup> None of these authors, however, defends a transactional view that aims at reconciling reliability with narrative plausibility in terms of trade-offs. An advantage of the transactional view is that it allows for dramatic transitions between personalities within a single episodic timeline *independently of accuracy*. Two equally accurate episodic memories may lead to intense regret or intense satisfaction, depending on the overall autobiographical narrative. This explains why remembering the same event with a new phenomenological and empathic filter can transform ourselves, surprise us, and even change us in profound ways.<sup>22</sup>

As explained in the introduction, Goodman distinguishes between an exposition or report and a story. One may keep a meticulous daily record of events without considering this document a personal journal. The record may be accurate in chronology and provide evidence of our past activities, and to that extent be autonotic. But it may not

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<sup>20</sup> Ned Block, "On a Confusion about a Function of Consciousness," *Behavioral and Brain Sciences* 18, no. 2 (1995): 227–47; "On a Confusion about a Function of Consciousness," in *The Nature of Consciousness: Philosophical Debates*, edited by Ned Block, Owen Flanagan, and Güven Güzeldere (Cambridge MA: MIT Press), 375–415.

<sup>21</sup> Two prominent examples in the recent literature are Martin A. Conway and Christopher Pleydell-Pearce, "The Construction of Autobiographical Memories in the Self-Memory System," *Psychological Review* 107, no. 2 (2000): 261–88; and Mark Rowlands, *Memory and the Self: Phenomenology, Science and Autobiography* (New York: Oxford University Press, 2016). As mentioned, another precedent is Goodman, "Twisted Tales." There are interesting analogies between the transactional view and some views about collective memory, but I shall not develop this topic in this paper.

<sup>22</sup> The work of Laurie Paul on transformative experiences is very relevant here; see Paul, *Transformative Experience* (New York: Oxford University Press, 2014).

have any personal significance. In fact, it is surprising to see how something one wrote about an event that in the past was extremely relevant to our self-esteem has completely lost personal significance, in spite of its accuracy and coherence with other events at the time. Goodman's point concerns personal meaning, not reportlike or logical coherence. In a confession, for instance, report-coherence and mere epistemic accuracy are signs of dishonesty. The trade-off here is between a report and a valuable and meaningful narrative of our past.

The balance of the epistemic trade-offs must guarantee that memory is *reliable enough* for the purposes of communication and testimony. The balance of the narrative trade-off is that memories should be *insightful enough* for me to value them as something that really matters to me. These are the external and internal justificatory roles of episodic and autobiographical memory. Making sense of our past in an insightful and morally relevant way differs from communicatively asserting the authority of beliefs about the past from the perspective of "what happened to me." The trade-off, restated, is that the more one stays within an episodic structure, the more difficult it is to account for the personal value of memories, and the more one departs from an episodic structure, the higher the risks of confabulation.

The balance between the epistemic and moral needs of an individual is a transaction between accuracy and internal value, as illustrated by the distinction between a report and a story. Autobiographical (phenomenally conscious) memory plays a morally valuable role. Other forms of memory that give us access to accurate information, chiefly episodic memory, play an epistemic role. Both types of memory interact constantly and they may seem indistinguishable to some. But if the transactional view is correct, the point can be clearly stated in terms of two types of justification—an epistemically normative one and a morally (and perhaps even aesthetically) normative one. The internal and external justificatory roles of memory can be articulated in terms of "anti-luck" conditions:

**Veridicality.** Episodic memory capacities provide weakly auto-noetic memories that are not luckily accurate, thereby providing an external kind of justification for beliefs about memories. This kind of memory may be implicit or explicit (unconscious or "access" conscious).

**Narrative integrity.** The moral and aesthetic value of autobiographical memory provides an internal kind of justification, such that my narrative is not artificially or luckily related to what I value as an individual (this is, essentially, a phenomenally conscious kind of memory, which is strongly auto-noetic).

Memory informs vast regions of our epistemic lives. We use episodic memory, in par-

ticular, to ground forms of epistemic vigilance regarding the reliability of information concerning past events, epistemic authority with respect to assertions based on beliefs justified by episodic memory, and social epistemic exchanges that depend on testimony and shared memories. Reliable communication, counterfactual reasoning, and decision-making depend on these critical epistemic skills.

Memory, however, also enriches our lives by making them engaging, vividly relevant, and meaningful. The phenomenology of autobiographical memory deserves more attention in memory studies, because the moral and aesthetic experiences afforded by these memories are not analyzable in strictly epistemic terms. What makes autobiographical memory engaging is the strongly auto-noetic insights we gain through particularly valuable memories. Here memory transcends epistemic vigilance and authority. Memory becomes a source of moral and aesthetic engagement with the world and with the emotions and sensations of others.

Much more work needs to be done in this area of philosophical and psychological inquiry. The transactional view provides a fresh perspective on the complexities of why episodic memory may not be our only way to know about the world and ourselves through memory. There is also the vital contribution of autobiographical memory to our mental lives—the enormous importance we give to certain memories that are a fundamental part of who we are.

## Conclusion

Our basic intuitions tell us that memory plays a fundamentally epistemic role. What would be the value of memory if it gave us confabulation rather than accurate access to the past? Even if some memories are pleasant or morally valuable, what *real* value could they possibly have if they are false? Whatever value memory has as a mental capacity, it must fully depend on its epistemic value. Whatever knowledge we gain about ourselves through memory must also depend on or be reducible to epistemic notions and criteria. This form of value monism, applied to memory, is very plausible. This is the prevailing, monistic view, of memory.

The uneasy relation between report and narrative described by Goodman complicates this picture. It certainly is true that remembering a confabulated life, even an interesting and vivid one, is a particularly sad kind of delusion. But this does not mean that the sole purpose of memory is necessarily epistemic. In particular, our autobiographical memories need to be meaningful to us, and not just be accurate. But the relation between personal value and accuracy is not straightforward. The value of autobiographical memory is unique because it cannot be reduced to the reportlike deliverances of episodic memory. Thus, some balance is needed between epistemic and autobiographical

value. Besides this tension between accuracy and personal value, the scientific evidence shows that our memory capacities systematically relax and even ignore epistemic standards for accuracy when confronted with contextually important, personally significant, or narratively plausible information.

Memory, according to the transactional view, plays two different roles that give rise to two distinctive values and justification bases. The episodic memory system satisfies epistemic needs, and is valuable because it is a source of justification for beliefs about the past. This is the system we use in order to perform tasks concerning epistemic vigilance, epistemic authority with respect to events in the past, counterfactual reasoning, and planning. Autobiographical memory, by contrast, satisfies moral and strongly auto-noetic needs, and is valuable because it is a source of meaningful and insightful experiences about our past. Unlike autobiographical memory, episodic memory is only weakly auto-noetic.

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