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Commentary title: Auto-noesis and reconstruction in episodic memory: Is remembering systematically misleading?

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Abstract:

Mahr and Csibra view auto-noesis as being essential to episodic memories and construction as being essential to the process of episodic remembering. These views imply that episodic memory is systematically misleading, not because it often misinforms us about the past, but rather because it often misinforms us about how it informs us about the past.

Main text:

Mahr and Csibra argue that the function of episodic memory is to enable the subject to persuade others to endorse his descriptions of past events. While the authors build an impressive case for this communicative account, it turns out to be committed to a counterintuitive claim, namely, that episodic memory is systematically misleading. Other accounts, including the future-oriented account (e.g., Schacter & Addis, 2007), likewise turn out to be committed to this *misleadingness claim*. The future-oriented account sees episodic memory, along with episodic future thought (Szpunar, 2010), as a form of mental time travel (MTT) (Suddendorf & Corballis, 1997), with future-oriented MTT or episodic future thought being primary, in the sense that the function of the MTT system is to enable the subject to imagine future events, while the ability to engage in forms of past-oriented MTT, including episodic memory, emerges as a byproduct. Though they differ on the question of the function of the memory or MTT system, the future-oriented account and the communicative account agree on two claims that together imply the misleadingness claim: first, that episodic memories necessarily involve auto-noesis (the *auto-noesis claim*); second, that episodic remembering is necessarily a constructive process (the *construction claim*).

The auto-noesis claim: Mahr and Csibra understand auto-noesis in metarepresentational terms (cf. Dokic, 2014; Fernández, 2016), characterizing the content of a retrieved memory as having two components: a first-order component informing the subject about an event and a second-order component informing him that the information provided by the first-order component originates in his own experience of the event. If retrieved memories are indeed metarepresentational, then, when retrieval results in the formation of a belief, the subject believes not simply that such-and-such an event occurred but rather that he knows that such-and-such an event occurred because he experienced its occurrence. Crucially, the second-order component of a memory belief might be inaccurate—and hence the belief as a whole might be false—even if the first-order component is accurate, simply because there are sources of accurate information about an event other than one's own experience.

The auto-noesis claim is essential to the communicative account: when a subject makes a memory claim, he claims epistemic authority over the event in question, and auto-noesis is normally his only ground for doing so. The claim might not, strictly speaking, be essential to the future-oriented account: since auto-noesis may not play a role in episodic future thinking (Perrin, 2016), the future-oriented account might replace it with a weaker claim, namely, that, while auto-noesis typically plays a role in episodic remembering, it is not a necessary feature of retrieved memories (Michaelian, 2016). Even this weakened claim is, however, sufficient to commit the future-oriented account to the misleadingness claim.

The construction claim: Mahr and Csibra understand construction as occurring through bayesian prediction of features of past events based on evidence provided by both episodic traces and semantic information (De Brigard, 2014). Alternative understandings are available (Michaelian, 2016), but they concur that, at least in typical cases, not all of the content of a given retrieved memory originates in the subject's experience of the remembered event. This, in turn, implies that retrieved memories will often be to some degree inaccurate with respect to remembered events. But construction does not make inaccuracy inevitable: the incorporation of nonexperiential information into a retrieved memory representation, in particular, does not necessarily imply inaccuracy, simply because incorporated information may itself be accurate (Michaelian, 2013).

The construction claim is essential to the communicative account: if the point of making memory claims is not to convey accurate descriptions of past events but rather to convey descriptions that the subject wants his audience to endorse, a constructive memory process is needed to enable the subject to generate suitable representations of events. The claim is likewise essential to the future-oriented account: the MTT system must be able to constructively recombine and modify information from various sources in order to generate representations of possible events in episodic future thinking, and, if episodic remembering is carried out by the same system, it is bound to be constructive in the same sense.

The misleadingness claim: Together, the (weakened) auto-noesis claim and the construction claim imply the misleadingness claim. If the auto-noesis claim is right, a memory might be false even if the event that it represents occurred exactly as the belief represents it as having occurred. In particular, the belief will be false in cases in which its first-order content originates at least in part in a source other than the subject's own experience of the event. If the construction claim is right, such cases occur frequently. Indeed, since, as Mahr and Csibra acknowledge, episodic remembering is driven as much by current beliefs as by episodic traces, they are the rule rather than the exception. Thus, the second-order component of a memory belief—and the belief as a whole—will frequently be false. In short, both the communicative account and the future-oriented account are committed to the claim that episodic memory beliefs are frequently false, not because construction results in inaccurate representations of events, but rather because auto-noesis results in inaccurate

metarepresentations of the relationship between representations and the sources in which they originate, both where events are represented inaccurately and where they are represented accurately.

We might in principle attempt to avoid the misleadingness claim by rejecting either the construction claim or the autooiesis claim, but we have good reason to accept both of these claims. We might also attempt to avoid it by modifying the metarepresentational understanding of autooiesis so that the autooiesis claim says that the second-order component of a retrieved memory informs the subject only that part of the first-order component of the memory, as opposed to the first-order component as a whole, originates in his experience of the event, but it is unclear whether this is compatible with the roles assigned to autooiesis by the communicative and future-oriented accounts. We may thus be forced to accept the counterintuitive conclusion that episodic memory is indeed systematically misleading.

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