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Episodic memory must be grounded in reality in order to be useful in communication --Manuscript Draft--

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Commentary on Mahr & Csibra (2017)

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Abstract

The primary function of episodic memory is to provide reliable information about reality that is essential for surviving and navigating in an environment. The communicative function of episodic memory ‘sits on top of’ this basic function but does not, in itself, explain it in its totality (but may explain particular aspects such as its sensitivity to source credibility).

Full commentary text

Mahr and Csibra (2017) propose that auto-noesis (being aware that one remembers a past event) as a core feature of episodic memory developed in order to equip people with epistemic authority in communication (i.e. being able to use that fact that one remembers as a claim to veridicality). While I emphatically agree that social context is important for understanding episodic memory (and Mahr and Csibra provide a convincing analysis of episodic memory *function* in communicative contexts), I do not think that this communicative context has *produced* the crucial features of episodic memory (auto-noesis and epistemic generativity, in Mahr and Csibra's analysis).

My main argument is that auto-noesis can only grant epistemic authority (in one's own eyes and those of other people) if it reliably signals veridicality. There would be no point of having auto-noetic awareness, and of using it within a communicative context, if "I remember" didn't mean a thing (for instance, I might 'remember' then that I met the Queen yesterday, or went cross-country skiing in Finland, when I was actually working in my office). That is, communication crucially relies on auto-noesis as a cue for veridicality – but is it plausible to suggest that communication led to the development of this signal in the first place (as Mahr and Csibra seem to do)? In my view, auto-noesis and episodic memory as a whole have fundamental benefits outside any communicative context, mainly in terms of surviving and navigating in the environment. For example, accurately remembering places where food has been found or predators have been sighted previously will help an organism to survive, and remembering where exactly one has parked the car will save time on the way home. Of course these things may be communicated to other people as well, but that doesn't affect the benefits. Also, while some of these benefits might be attained on the basis of mere factual knowledge (i.e., without auto-noesis), this would be mainly restricted to situations where the environment is predictable and therefore an episodic record is not needed. As soon as contingencies vary or are unknown,

an episodic record of the environment including auto-noesis (“I’m sure I came past this building”) is helpful.

The idea that (correspondence to) reality is ‘primary’ and communication ‘secondary’ (as far as these terms make sense in a context where communication constitutes a large part of reality) is also reflected in a classical social psychological theory, Festinger’s (1954) social comparison theory. Applied to memory, this theory would emphasise a relation between auto-noesis/veridicality and the social/communicative context that complements the justification relation highlighted by Mahr and Csibra. Specifically, rather than using auto-noesis to claim epistemic authority in a communicative context, this context (i.e. other people) would be consulted as a source of evidence about reality whenever epistemic vigilance does not provide strong enough evidence to trust one’s own episodic recollection (i.e. under conditions of uncertainty; see Blank, Walther & Isemann, 2017, for a review).

That is, communication can inform beliefs about past events as much as auto-noetic remembering can, each under respective circumstances. I have developed this view more systematically in Blank (in press). Essentially, and relating to the veridicality theme above, people need veridical beliefs about the past, and these depend on both the output of their individual memory systems and (perceived) reality constraints that can be inferred from general knowledge or communicated through other people. Note in this respect that the emphasis here is different from Mahr and Csibra (2017). While I agree that there is a reciprocal relation between recollective experiences and beliefs about past events, I take the latter to be an integral part of remembering (i.e. arriving at – and often further communicating – a believed memory of a past event in a process of conversion; Tulving, 1983; Blank, 2009), not a mere inference from it. In fact, even the auto-noetic experience itself is subject to external influence, as cases of induced false memories clearly illustrate (e.g. repeated

visualisation leading to ultimately ‘remembering’ a suggested event; Hyman, Husband & Billings, 1995). Simple world knowledge can also provide constraints (e.g. making a mental simulation of floating in outer space unlikely to be interpreted as a memory for most people), but on the other hand the existence of non-believed memories (Mazzoni, Scoboria & Harvey, 2010) also demonstrates that auto-noesis can occur independently from and sometimes in the face of external influence.

In any case, the foregoing illustrates that the reality monitoring involved in auto-noesis is often an inferential process in which attributes of the recollective experience and external knowledge are combined (Johnson, 1988; Johnson, Hashtroudi & Lindsay, 1993; Lindsay, 2008), which leads me to my final point. While communication may not have shaped episodic memory as much in terms of *reality* monitoring and auto-noesis (i.e. in terms of basic attributions to past reality), it may have played a more decisive role in *source* monitoring, that is, in attributions to particular social sources of information (mostly people but also media etc.). Inasmuch as input from other people is used to inform beliefs about the past, being able to reliably identify the sources of this information is crucial for epistemic vigilance, such that greater (delegated) epistemic authority can be claimed for memories of past events that are informed by the testimony of credible others. As such testimony will mostly be obtained through communication, it seems very plausible that this function will have contributed to the development of such source monitoring processes.

References

- Blank, H. (2009). Remembering: A theoretical interface between memory and social psychology. *Social Psychology, 40*, 164-175.
- Blank, H. (in press). Recollection, belief and metacognition: A reality check. *Memory*.
- Blank, H., Walther, E., & Isemann, S. D. (2017). The past is a social construction: Susceptibility to social influence in (mis)remembering. In R. A. Nash & J. Ost (Eds.), *False and distorted memories* (pp. 55-71). Hove, UK: Psychology Press.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations, 7*, 117-140.
- Hyman, I. E., Jr., Husband, T. H. & Billings, F. J. (1995). False memories of childhood experiences. *Applied Cognitive Psychology, 9*, 181-197.
- Johnson, M. K. (1988). Reality monitoring: An experimental phenomenological approach. *Journal of Experimental Psychology: General, 117*, 390-394.
- Johnson, M. K., Hashtroudi, S. & Lindsay, D. S. (1993). Source monitoring. *Psychological Bulletin, 114*, 3-28.
- Lindsay, D. S. (2008). Source monitoring. In H. L. Roediger, III (Ed.), *Cognitive psychology of memory* (pp. 325-348). Oxford: Elsevier.
- Mahr, J. & Csibra, G. (in press). Why do we remember? The communicative function of episodic memory. *Behavioural and Brain Sciences*.
- Mazzoni, G., Scoboria, A., & Harvey, L. (2010). Nonbelieved memories. *Psychological Science, 21*, 1334-1340.
- Tulving, E. (1983). *Elements of episodic memory*. Oxford: Clarendon Press.