# Deconstructing Accuracy in Episodic Memory

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**Abstract**
The topic of accuracy in memory is the core issue that Jaša Černe and Urban Kordeš tackle in the target article. In this commentary, we focus on a theoretically important issue that they raise and explore how their view of accuracy relates to existing views in the philosophy and sciences of memory.

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1. Accuracy is typically considered a necessary condition for successful remembering. But what exactly is accuracy in episodic memory? What is (or are) the accuracy condition(s) of episodic recall? The topic of accuracy in memory is the core issue that Jaša Černe and Urban Kordeš (Č&K) tackle in the target article. In this commentary, we want to pick up on a theoretically important issue that they raise and explore how their view of accuracy relates to existing views in the philosophy and sciences of memory.

2. Č&K (§1) raise the issue of accuracy in connection with the concept of false memories. The term "false memories" is, according to them, problematic because it leads to a binary understanding of accuracy in memory, when accuracy is, in fact, a graded notion. Memories, on this view, are not simply true or false, but rather vary along a continuum from

less accurate to more accurate. We agree that accuracy in memory is a graded notion, and we applaud Č&K's insistence on getting precise about the notion of accuracy. We think, however, that their definition is, in a certain sense, problematic, and we suggest that arriving at an accurate understanding of mnemic accuracy is something that requires more theoretical work. Some of this theoretical work is being conducted in the philosophy of memory. Indeed, there is a menu of options on offer in this field regarding the accuracy conditions of episodic recall.

3. There would seem to be two possible components to the content of episodic memory. On the one hand, episodic memories seem to be about *events* in the personal past (Michaelian 2016). On the other hand, episodic memories also seem to be about our *experiences* of past events (Hoerl, 2018; Rowlands 2018). This duality of content gives us two conditions on the accuracy of episodic memory: truth and authenticity (Bernecker 2010). A memory is true when it accurately represents the event that occurred in the past. A memory is authentic when it accurately represents one's original experience or perception of that event (Bernecker 2015). Truth is an external or third-personal condition, which tracks reality. Authenticity is an internal condition, tracking how an event was represented by a subject in the past (Dings et al. 2023).

4. What we take the content of episodic memory to be thus influences our view of accuracy, and different philosophical theories of memory have embraced distinct accuracy conditions.[1] If we consider episodic memories to be only about past events, then we can say that episodic memory aims at truth (Michaelian 2020; Michaelian & Sant'Anna 2022). If we think that episodic memories are only about experiences that one had in the past, then we can say that memory aims at authenticity—a match between one's present and past representations (Newby & Ross 1996; von Leyden 1961). Finally, if we think that both kinds of content are important, i.e., that episodic memories are about both past events and our experiences of those events, then we can say that genuine episodic memories must satisfy both the truth and authenticity conditions (Bernecker 2010; McCarroll 2018). In short, how we understand accuracy in episodic memory will depend on exactly what we think episodic memory attempts to track or represent.

5. How does Č&K's view of accuracy relate to these options? Part of Č&K's worry about the notion of "false memory" is that, when discussing a psychological construct such as memory, one simply cannot adopt an objective "God's eye view". Instead, according to them (§1), 'one always has to adopt a certain point of view that may or may not be shared with the view of other individuals'. Objective accuracy is not possible, and so it seems that the truth condition, as understood in philosophy of memory, is misplaced. But Č&K may arrive at this conclusion too quickly. Take, for example, the DRM paradigm that is the object of their neurophenomenological study of the accuracy of memory. In this particular case, it seems that objective accuracy is in fact easy to measure and is potentially free from the perspective of any observer (including that of the researcher). There is a simple fact of the matter as to whether one's representation at recall is accurate or not if accuracy is considered to be a matter of whether recall matches the material presented at encoding. Measuring objective accuracy in memory (adopting a "God's eye view") is indeed difficult (if not impossible) to do in the wild. Nonetheless, in the context of the DRM paradigm (and similar experimental paradigms), where the content is much more circumscribed, it does seem possible. We might say then that the subject's memory in this paradigm can be assessed for truth or falsity. Our first question (Q1)

[1] Another accuracy condition that has recently been proposed is 'faithfulness', according to which a memory representation is accurate when it matches the intentional object of one's past experience, where the intentional object is understood as the object of thought (Michaelian, forthcoming). For reasons of space, we set this condition aside here, but we note that it adds another view to the menu of available options.

for the authors is thus: is it possible to measure objective accuracy in the context of the DRM paradigm? In their view, should we consider differences between ways of thinking about the accuracy of memory in experimental settings versus in in the wild?

6. The foregoing might suggest that Č&K favour or ought to favour the authenticity condition, which focusses on the subjective perspective of the rememberer. Before looking at whether this is the case, it is worthwhile to pause to consider whether Č&K's neurophenomenological method might help to respond to a worry regarding authenticity, namely, that authenticity is simply impossible to measure. Newby and Ross share Č&K's worry about objective measures of accuracy. For Newby and Ross (as for Č&K), because each individual may experience the same event quite differently, and because one's interpretation of the event will partly depend on one's background knowledge etc., any measure of the accuracy of memory that focuses solely on a correspondence between a memory representation and an objective event is bound to be problematic. But Newby and Ross also note that '[r]esearchers of everyday memory typically examine people's recollections of their past experiences and lack access to people's original representation of an episode' (1996: 206). In other words, because one lacks access to one's original representation, there is nothing against which to compare one's current memory representation, making it difficult (or impossible) to gauge the accuracy of the recall. Č&K's neurophenomenological approach might enable us to respond to this worry. Č&K use their neurophenomenological method to assess what is happening during the encoding phase and report that this is actually one of the most coherent indicators of accurate recall, for example, when a critical lure emerges during encoding and is understood by the subject as one that should be avoided during recall. This suggests that, while authenticity is difficult to measure, Č&K's neurophenomenological method might be applicable in at least some circumstances. Our second question (Q2) for the authors is thus: what do they think about the authenticity condition in episodic memory and about how their neurophenomenological approach may (or may not) be used to shed light on it?

7. Returning to the question whether Č&K favour or ought to favour the authenticity condition, a closer look at their view reveals that authenticity is probably not the accuracy condition that they have in mind. One's memory representation (at recall) is inauthentic when it deviates from one's original representation (at encoding). The accuracy condition that Č&K advocate is distinct: one's memory representation is inaccurate when it deviates from the observer's perspective. In effect, they provide us with another way of thinking about mnemic accuracy, adding an item to the menu of options regarding the accuracy conditions of episodic recall. This definition of accuracy, however, runs into a problem: it seems to be unable to account for cases in which, intuitively, the rememberer's (participant's) perspective is accurate but the observer's (researcher's) perspective is inaccurate. In such case, there is a deviation between the two perspectives, but it is presumably the *rememberer's* perspective that is to be preferred. Because their approach in effect assumes that the observer is always correct, Č&K seem to be forced to treat this as a case of inaccurate memory. Our third and final question (Q3) for the authors, then, is: how do they propose to deal with cases in which the rememberer's perspective and the observer's perspective deviate from each other, but it is the former that is accurate?

8. Understanding accuracy in memory in notoriously difficult. Č&K's neurophenomenological approach might be one way to help deconstruct accuracy. Yet, regarding the best way to understand mnemic accuracy, there are choices to be made from a variety of different proposals. Carefully deconstructing accurate and inaccurate recall requires choosing the appropriate condition(s) for accuracy in memory.

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## Competing Interests

The authors declare that they have no competing interests.