


In the DNA Exoneration Cases, Eyewitness Memory Was Not the Problem: A Reply to Berkowitz and Frenda (2018) and Wade, Nash, and Lindsay (2018)

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Abstract

The available real-world evidence suggests that, on an initial test, eyewitness memory is often reliable. Ironically, even the DNA exoneration cases—which generally involved nonpristine testing conditions and which are usually construed as an indictment of eyewitness memory—show how reliable an initial test of eyewitness memory can be in the real world. We endorse the use of pristine testing procedures, but their absence does not automatically imply that eyewitness memory is unreliable.

Keywords

eyewitness identification, confidence and accuracy, cognitive interview

We claim that in the lab and in the real world, when eyewitness memory is uncontaminated and properly tested, it is reliable (Wixted, Mickes & Fisher, 2018). This is true of both recall (police interviews) and recognition (eyewitness identifications from police line-ups). In both cases, eyewitness memory is reliable in the sense that, on an initial test, low confidence implies low accuracy, whereas high confidence implies high accuracy.

Reservations About Eyewitness Memory in the Real World

In their commentaries, both Berkowitz and Frenda (2018; this issue, p. 336) and Wade, Nash, and Lindsay (2018; this issue, p. 339) accept our claim in principle, but they worry that, in the real world, eyewitness memory is unreliable, either because it is often contaminated before the first official test or because the police often use improper testing procedures.

Being concerned that eyewitness memory might be unreliable in the real world seems perfectly reasonable to us, but police-department field studies suggest that eyewitness memory for real crimes is often reliable. A notable feature of those studies is that, in one way or

another, they actually measured the reliability of eyewitness memory on an initial test (e.g., Fisher, Geiselman & Amador, 1989). Berkowitz and Frenda (2018) and Wade et al. (2018) remain unconvinced by the available evidence, which is every scientist's right, but they offer no direct evidence that, on the initial test of an actual police investigation, eyewitness memory is in fact unreliable. Instead, they point to evidence that uncontaminated eyewitness memories and pristine testing conditions might be rare. As Wade et al. (2018) put it, "Wixted et al.'s reasoning implies that near-pristine conditions or uncontaminated memories are normative, but we doubt this" (p. 339).

"Nonpristine" Is Not Synonymous With "Unreliable"

In truth, our reasoning does not imply that near-pristine conditions or uncontaminated memories are normative (Mickes, Clark & Gronlund, 2017). It is tempting to view this issue in the following dichotomous terms:

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1. Under pristine (or near-pristine) conditions, eyewitness memory on an initial test is reliable.
2. Under nonpristine conditions, eyewitness memory is unreliable.

It is true that under *certain* nonpristine conditions that have been carefully investigated (e.g., unfair lineups), eyewitness memory is known to be unreliable. However, there is a third category to consider:

3. Under other nonpristine conditions that have not yet been carefully investigated, eyewitness memory on an initial test might still be reliable.

We fully endorse the use of pristine testing procedures, but Point 3 precludes the claim that the use of a nonpristine procedure automatically implies that eyewitness memory is unreliable. In this regard, Garrett (2011) documented how the eyewitness identification practices associated with DNA exoneration cases often deviated wildly from what we would today regard as pristine. Even so, in every case in which initial eyewitness confidence could be determined (91 of 161 cases), the eyewitnesses appropriately expressed low confidence (if they identified the suspect at all). This is true even though, as Berkowitz and Frenda (2018) and Wade et al. (2018) contend, the memories of these eyewitnesses might very well have been contaminated before the first official test. Critically, *despite possible contamination and despite the nonpristine testing conditions*, these witnesses unmistakably signaled the error-prone nature of their initial identifications. Other actors in the legal system unwittingly made the mistake of ignoring those inconclusive test results (i.e., the low-confidence identifications) and then compounded that mistake by relying on the results of later tests (i.e., high-confidence identifications made at trial).

We agree that initial misidentifications made with high confidence, if they were the norm, would be an indictment of the reliability of eyewitness memory in the real world. But so far, those errors appear to be *rare*. Indeed, even though studies suggesting that collaboration among witnesses before a first police interview can reduce accuracy (e.g., Granhag, Ask, Rebelius, Ohman, & Giolla, 2013), it is not yet clear that the contaminated memories were recalled with high confidence. Except under conditions specifically designed to implant false memories (e.g., *repeatedly* exposing participants to information *known to be false*), eyewitness memory may be sufficiently calibrated so that, on an initial test, contaminated memories are usually recalled with low confidence. Analogously, eyewitness identification is robust to a variety of other forces ordinarily thought to reduce its reliability (Semmler, Dunn,

Mickes & Wixted, 2018). Thus, before rethinking the confident eyewitness in the real world, as Berkowitz and Frenda (2018) would like us to do, we should wait for data showing that high-confidence eyewitness memory on an initial test in the real world actually is unreliable.

Is Eyewitness Memory Reliable Enough?

Wade et al. (2018) ask “how reliable is reliable enough?” and then quote a sentence from Roediger, Wixted, and DeSoto (2012) stating that high-confidence eyewitness memory is “simply not a reliable enough indicator of truth to unilaterally adjudicate guilt or innocence” (p. 113). In retrospect, Roediger et al. (2012) should not have addressed this question because it confuses value judgments with scientific judgments (see Clark, 2012). It is the job of judges and juries, not scientists, to make the difficult value judgment of deciding how reliable is reliable enough.

With regard to our analogy between eyewitness confidence and the DNA random match probability (RMP), Berkowitz and Frenda (2018) point out that “leading forensic DNA researchers have long cautioned that analyzing DNA using random-match probabilities alone is potentially misleading” (p. 338). We are acutely aware that the RMP, *alone*, can be misleading. Consider, for example, the case of Gary Leiterman (Wixted, Christenfeld & Rouder, 2018). The RMP in that case was an extraordinarily low 170.1 trillion to 1 (i.e., it was an extraordinarily high-confidence match), yet a consideration of other issues in that case points strongly in the direction of contamination arising from human error. Our point is that the RMP informs accuracy, not that it precisely quantifies the level of accuracy.

Just as a compelling DNA match will sometimes turn out to be wrong because of human error, it will surely sometimes happen that high-confidence eyewitness memory on an initial test will turn out to be wrong as well. Errors like that do not change the fact that, as a general rule, on an initial test, low confidence implies low accuracy, and high confidence implies high accuracy. Obviously, future work may change that verdict, and we agree with Berkowitz and Frenda (2018) and Wade et al. (2018) that the available evidence pointing to the real-world reliability of eyewitness memory is too sparse to be taken as definitive. Thus, going forward, research investigating the reliability of high-confidence IDs under realistic conditions should be a high priority.

Declaration of Conflicting Interests

The author(s) declared that there were no conflicts of interest with respect to the authorship or the publication of this article.

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