

How accurate are people's beliefs about memory?

By Daniel H. Swerdlow-Freed, Ph.D. on January 11, 2021

Research shows that the general public harbors misconceptions about how memory operates. One study (Simons and Chabris, 2011) polled 1,500 people about six memory facts and compared their answers to a group of memory experts. Answers to three of the questions in this survey are discussed here.

First, 37.1% of the sample incorrectly believed there is a positive relationship between the confidence a witness expresses in their testimony and its accuracy; that higher expressed confidence indicates greater accuracy. While this may be true in limited instances, expressions of confidence are unrelated to the accuracy of memory details.



Second, 63.0% of the sample believed that “human memory works like a video camera” (Simons and Chabris, 2011, p. 5), accurately recording events so they can be reviewed (i.e., recalled) over-and-over again for years to come. This belief is unsupported by contemporary research in memory encoding, storage and retrieval and at-odds with research showing memories are prone to fade and weaken over time.

Third, 47.6% of the sample believed that once a person experiences an event and forms a memory of it, the memory never changes. This belief is also inconsistent with contemporary research on how memories are stored and retrieved, and demonstrates no understanding that memory is a reconstructive process that is prone to error.

Overall, only 1.5% of the sample respondents' answers matched the expert group on all six items, revealing a striking contrast between expert consensus and lay person beliefs.

In a discussion of beliefs about autobiographical memory, Martin Conway and colleagues (2014) identified three common but mistaken beliefs among the general population.



The Memory-Accuracy-Detail belief is based on the idea that the more details an eyewitness reports, the more accurate is their testimony. A companion belief is that the more *vivid* a memory is, the more accurate it must be. Citing research on flash bulb memories, Conway et al (2014) stated, “the scientific evidence is that the more detailed and vivid memories are, the greater is the likelihood of error” (p. 503).

The Burnt-In-Memory belief reflects the idea that strong emotional reactions create highly accurate memories of an event. Memory researchers have discovered, however, that the relationship between emotional intensity and memory accuracy is not so predictable or straightforward. In some instances, strong emotional reactions may enhance memory of central details, while in other instances strong emotion may disrupt attention and lead to incomplete encoding of memories or difficulty retrieving memories (Howe, 2011; McNally, 2005).

The Age-of-First Memory involves beliefs about "... the age that first memories are formed (age at encoding, AaE) and can later be retrieved" (Conway et al, 2014, p. 504). In their survey, Conway, and colleagues (2014) asked respondents to estimate the age of their first memory and the age of others' earliest memory. While 6.4% of respondents dated their earliest memory to two years of age, as a group they estimated that 2.6% of other people had memories at an even earlier age. Neither of these estimates are supported by scientific research on early memory (Howe, 2011).

The findings from these studies reveal important discrepancies between scientific facts and lay persons understanding of basic memory characteristics. These discrepancies indicate that in trials where memory testimony is a critical part of the evidence, if the trier of fact relies solely on personal beliefs about how memory operates, accurate decision-making is likely to be impeded and may result in a flawed verdict.

For more information about this topic or to schedule a consultation appointment, please call Swerdlow-Freed Psychology at 248.539.7777. Our office is conveniently located at 30600 Northwestern Highway, Suite 210, Farmington Hills, Michigan 48334-3171.

References

Conway, M.A., Justice, L.V., & Morrison, C.M. (2014). Beliefs about autobiographical memory and why they matter. *Psychologist*, 27, 7, 502-505.

Howe, M.L. (2011). *The nature of early memory: An adaptive theory of the genesis and development of memory*. New York: Oxford University Press.

McNally, R.J. (2005). *Remembering trauma*. Cambridge, MA: Harvard University Press.

Simons, D.J. & Chabris, C.F. (2011). What people believe about how memory works: A representative survey of the U.S. population. *PLoS ONE* 6(8): e22757.
Doi:10.1371/journal.pone.0022757