

How authentic are photographic memories?

February 14 2017, by Robert Nash



Credit: Julia Volk from Pexels

Since the invention of photography itself, people have used photograph-themed metaphors when thinking and talking about memories and remembering. When we want to retain memories of everyday events for example, we take "mental snapshots", and when we think back to momentous events, we regard them as "flashbulb moments". But are

memories ever truly like photographs?

A large number of people certainly believe so. In fact, in [one recent survey](#) of the general public from the US and UK, 87% agreed — at least to some degree — that "some people have 'true' photographic memories". Yet, when the same statement was put to members of an esteemed scientific society for [memory](#) research, only a third of the participants agreed.

The many scientists who are sceptical about the existence of photographic memories know, of course, that plenty of memories do seem highly photographic to people. However, for these sceptics, none of the available evidence so far is enough to fully convince them.

Momentous events

Many of us have experienced momentous personal or world events for which even years later, our memories seem just as vivid and detailed as a photograph taken on the day. Yet studies show that these so-called "flashbulb memories" are far from photographic.

In one study, American students were surveyed [the day after the 9/11 terrorist attacks](#) in New York in 2001 and asked to document the circumstances in which they first heard the news of these attacks, plus details of an everyday event they had recently experienced. Then either one, six, or 32 weeks later, the students were surveyed about the same two events again.

The results showed that participants judged their everyday memories as less and less vivid over time. Their reports of these memories also became less detailed over time, and less consistent with their initial reports. In contrast, participants reported their 9/11 memories to be equally as vivid after 32 weeks as on the day after the attacks. But

importantly, the memory reports showed that these "flashbulb memories" had in fact lost just as much detail over time as the everyday memories, and gained just as many inconsistencies.

Exceptional memories

If our flashbulb memories aren't photographic, then what about other highly compelling kinds of memories? For example, there are many historical and contemporary cases of people with astounding memory capabilities, who can visually absorb seemingly impossible amounts of information with very little effort, as if snapping mental photographs for later review in the mind's eye. But by and large, these so-called "memory athletes" appear to hone their skills through [intense practice and age-old memorising techniques](#), rather than mental photography. Only very rarely have apparent [exceptions to this rule been identified](#), and these cases can serve as particular conundrums for sceptics.

Setting memory athletes aside, we might instead consider another exceptional group of people: those with so-called "[highly superior autobiographical memory](#)" (HSAM), who appear capable of remembering each day of their lives since childhood in incredible, often verifiable detail.

As more and more of these people have been discovered, many [have been the subjects of scientific studies](#), which suggest that their memory abilities are not a result of practice but are largely unintentional. This ability is indeed amazing, but sceptics might argue that even these people's memories cannot be called photographic. Indeed, [one study of 20 people with HSAM](#) found they were just as susceptible to [false memories](#) as a group of control participants of a similar age.

Photographs fade

So we might be willing to concede to sceptics, then, that although memories sometimes seem incredibly detailed, accurate, and consistent, few if any of them are truly like photographic records frozen in time.

But on second thoughts, don't all these findings tell us that our memories, in fact, are very much like photographs? After all, even long before the terms "post-truth" and "fake news" gained currency, photographs were never wholly reliable sources.

Like our memories, vividly detailed photographs can turn out to be doctored and distorted; they can misrepresent the events that occurred. Like our memories, we don't always view photographs with an objective eye, but through the lens of our personal agendas and biases. And like our memories, a printed photograph will fade over time, even though we might continue to value it just the same.

In all of these respects at least, it's easy to see that every single one of us has photographic memory, just maybe not in the way we first thought.

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