

The Impact of Photographs/Videos and Narratives on the Creation of False Memories

Louise L. Pedersen

Memorial University of Newfoundland, Grenfell Campus

## Abstract

What a person remembers from a young age is greatly influenced by many factors. Being able to revisit memories through photographs, videos, and narratives is seen to enhance what one remembers, and how much one remembers. However, people do not usually realize that because of this we become more susceptible to the creation of false memories. False memories are memories for events that did not actually occur. Another less obvious but more common type of false memory is a memory for an event that did occur but the memory is not our own. Photographs and videos instill the images in our minds and the narratives that accompany them give an explanation to the event exhibited. False memories are for the most part harmless and by being able to share memories with loved ones they can create a feeling of belongingness. Unfortunately, false memories can also be purposefully instilled in order to create false eyewitness testimonies.

Childhood memories are some of the most precious memories a person has. These memories are often of significant events in one's life; for example: birthdays, holidays, vacations, family excursions, etc. The list goes on and is unique to everyone's personal experiences. Unfortunately, childhood memories can be easily forgotten as time passes. This is why people feel so compelled to take pictures of special events so that they can keep their memories safe. Many studies such as the fake photo study by Strange, Hayne, & Garry (2008) use interviews to see how much of an event is remembered when looking at a photograph, real or doctored. Repeatedly looking at photos and hearing about the event can easily lead to the creation of a false memory. Along with all of these pictures are narratives. Narratives or stories are usually but not only told by older relatives to revisit these special memories. Family stories used to be the most common way to recall special events and are still very popular today.

However, it seems that nowadays taking pictures and recording videos are more and more accessible to everyone. As technology advances, our memory seems to become less important to the recollection of special childhood moments. Most cell phones are able to both take pictures and record videos. With this being said I think it is important to ask the question: do photographs, videos and narratives have an impact on our memory? And more importantly do they create false memories? Each recollection aid (photosgraphs, videos, and narratives) have their own unique impact on the creation of false memories. Through research, I will explore how the both separately and cumulatively impact our memory.

### **What are false memories?**

In order to answer the above questions it is crucial to know exactly what a false memory is. False memories are defined by the oxford dictionary as “An apparent recollection of an event that did not actually occur,” (oxforddictionaries.com, false memory). However, false memories are not limited to non-occurring events but can also affect events that have in fact occurred but can only be recalled through photos, videos and/or narratives. Thus, there are two types of false memories: false memories of non-existent events and false memories for existing events. This is where the assessment of false memories becomes difficult. One of the more simple ways to test if a memory is false is to think of a memory and then to tell if the memory is from the first person point of view or the third person point of view. If it is from the third person point of view the memory is false. Although this condition is very common for childhood memories because of the ongoing memory development at this period in our lives, it is also common for the newer memories that we acquire as we age. Both memories of personal events and memories of historical events can become subject to the creation of false memories. Photographs, videos and narratives each have an influence on both types of memories. This can be problematic not only

for personal reasons but also for legal reasons such as false eyewitness testimonies. Therefore, regardless of the significance of the memory it is essential to know whether the memory is true or false in order to think critically of all past events.

The quality of our recollection of an event greatly depends on the type of memory. Memories for historical events are very different from those of personal events. Historical events can be national or even international matters that are usually broadcasted by the media. It is obvious that historical memories pose more difficulty for accurate recollection because they often must be memorized rather than remembered. However, personal events can still become subject to false memories. This could be caused by the age of the person at the time of the event compared to his/her age at the time of recall. The earliest true childhood memories tend to be of approximately 4.5 years of age (Hyman & Billings, 1998). In comparison, the average age of first memory is between 3 and 4.5 years of age (Peterson & Wang, 2014). Family photographs and narratives can have a significant impact on each person's susceptibility to the creation of false memories. However, although the memory may be false, the event may still be true. Regardless if the memory is personal or historical there is a small attribute to a true memory: visual information. Even if a false memory is thought to be true, one key identifier is the amount of perceptual detail given for the memory (Gonsalves & Paller, 2000). Recognizing that all memories have the possibility of becoming false memories is a necessary in order to avoid them. Combatting false memories is ideal, therefore, we must be critical of them and question the information recalled.

**Personal memories**

**Photographs.** Childhood experiences are an excellent example of a personal memory. They are often accompanied by many photographs and/or videos which are available to see upon demand. Because of the ease of accessibility, people are never really concerned that these memories will be forgotten. However, these memories can be just as easily forgotten as those without photos or videos. The recollection of these events will not always but can become nothing more than an illusion of a memory rather than a memory itself. This is because every time people look at the pictures they replace their point of view of the event with the point of view of the photographer, whoever it may be. Pairing a photograph with a narrative, even if the photograph is not of the event itself, can greatly increase the likelihood of the false event being recalled (Lindsay et al., 2014). When trying to recall events by looking at photographs Strange, Hayne, & Garry (2008), found that people tend to recall more during the second interview than the first. Often what they recall during the second interview is a false memory. This is because people tend to ruminate over the event which then creates a false memory. Also, having a photograph to mentally return to is likely to increase the amount of information recalled, which is in turn likely to be false information. Evidence shows that seeing photographs while trying recall details of events leads to the creation of false memories.

**Videos.** Videos, of course, are even more powerful in creating false memories than photographs. A study by Gonsalves et al. (2004), using MRI shows that vivid images have a significant effect on what is falsely recalled. Videos, which are usually more vivid than photographs, are therefore, more likely to create a false memory. Although our memories may fade, the videos last; this in turn can lead us to mark the video as our own memory. The realness of the video makes this process much easier and more likely. Many studies have shown that

when pairing some type of image with a false narrative, children are more likely to recall the false event than without any type of image (Lindsay et al., 2004), (Strange, Hayne, & Garry, 2008). A doctored video is often more influential than a photograph because it gives more information to the subject of the event (Otgaar, Smeets, & Peters, 2012). When comparing televised news reports with newspapers, we often see less accuracy in the information recalled for televised news reports. This is thought to be caused by the distractions and faster pace of television. (Austin & Strange, 2012). Videos are powerful in the sense that they are easily embedded into our memory.

**Narratives** All families have their stories of significant and usually humorous events. And although many of them are very old, they are well remembered by most of the family. As lovely as this sounds it is not always completely true. If one family member cannot recall the event, due to feelings of conformity or wanting to belong to the group, this family member may engage in what is known as hypermnesia (Hyman & Billings, 1998). This is where the family member tries very hard to recover the memory by repeatedly thinking about the event. If the memory is recovered, often times it is due to the creation of a false memory. As the repetition of these narratives continue, even a non-remembering person is likely to begin to recall certain aspects of the event. This can happen even if the event is completely false (Hyman & Billings, 1998). Although these memories are false, the information provided remains consistent showing how engraved the false memory can become.

There are usually few different versions of the stories regardless of the number of people present at the time of the event. However, in order for everyone to truly recall the event they ought to have their own version of the story, in their own point of view. As stories are told and retold it is very likely that other people present at the event will add in their point of view to the

story whether it be true or false. This eventually becomes part of the ongoing narrative. A study by French, Sutherland, & Garry (2006), showed that when siblings discuss their memories of events together they begin to recall more information about the event than when recalling the events separately. This indicates that they take in what the other sibling says and make it part of their own memory. Narratives are a more flexible memory aid because our imaginations are usually capable of creating images that reinforce the narrative. Analyzing the information presented rather than absorbing it directly can have a large impact on the avoidance of false memories.

**Eyewitness testimonies.** Considering that these events have still occurred in one way or another, the creation of a false memory does not pose much threat. However, when the false memories are of events that have not actually occurred, it can become very problematic. Now that pictures and videos have become so simplified that anyone is capable of taking a picture, doctoring photos has also become much easier to do. It is now possible to make a photograph so realistic that if given the right story to go with it, it can create a false memory for the fictional event. This seems relatively harmless as is, but if used maliciously, these doctored photographs can create legal complications such as false eyewitness testimonies. Of course the false eyewitness testimony itself would be unintentional. These testimonies are often of high stress events with usually more than one stimulus making it difficult for the observer to grasp a clear objective view of the entire situation. This is why the memory becomes susceptible to suggestion. If the witness is presented a doctored photograph or video of the event shortly after it occurs, because of the stressful event surrounding the witness, he/she may absorb the photograph/video as his/her own memory (Sacchi, Agnoli, & Loftus, 2007), (Kaasa, Cauffman, Clarke-Stewart, & Loftus, 2013). Fortunately, being more educated about technology, older

children are more likely to reject doctored photographs (Strange, Sutherland, & Garry, 2006).

Doctored photographs and videos, of course, are illegal evidence in a court room and may result in false accusations and even sentencing.

Children often become victim to this type of deception because of their innocent nature and their ability to imaginatively create fictional events (Strange, Sutherland, & Garry, 2006). Although, court room coaching is often intentional, some can be unintentional. Narratives also play a significant role. Parents are often guilty of this type of coaching (Otgaar, Smeets, & Peters, 2012). This usually happens because of the parent's protective nature. They want to shield their children from the stress of the situation so they go over the event with the child in order to ensure that the child knows what to say in the court room. Although this is done with good intentions, it interferes with the memory of the child and has a large possibility of creating a false memory. Parents often tell their children what they have heard in the news and incorporate it into the child's practiced speech until it eventually becomes part of their memory. Although children often fall victim to doctored evidence, adults can be convinced of the false evidence as well (Wade, Green, & Nash, 2010). This shows that everyone is at risk of being misled by doctored evidence. Therefore it is important to provide statements only for that of which we are certain.

### **Historical memories**

Events that become headline news are what are known as historical events. Regardless of where these events take place there will usually be some type of media coverage. Historical events are often accompanied by news broadcasts which include pictures, videos, eyewitnesses, stories told by knowledgeable, and unfortunately, also not so knowledgeable bystanders. All of

this makes it much easier for the news viewers at home to feel more a part of the action. This is where false memories become very prominent when recounting past historical events. In the media there is rarely one fixed story. There are often many different possible scandals and lies within every story. And, of course, deciding which story to believe can often be very difficult when we are not sure of the source of the information presented.

As for news related events, people tend to recall events more accurately when the information is read (newspaper) rather than seen (photographs), (Austin & Strange, 2012). When natural disasters are televised the story is usually accompanied by the most heart breaking picture possible. And although the news program may be stating nothing more than the facts, this picture will influence what the public will remember from the event. This was shown in a study by Garry, Strange, Bernstein, & Kinzett (2007). When the public is shown pictures of a town after a major wreckage rather than before the wreckage, they will falsely remember that there were serious injuries even when no injuries were actually reported. This demonstrates that depending on what one is exposed to, one's version of the event may change based on the photos and videos seen. Even when the critical information of the past event is well known, a doctored photograph can change what is remembered from the event (Sacchi, Agnoli, & Loftus, 2007). This makes it very difficult to keep a consistent memory of any historical event. Although historical events seem to be fixed seeing as they are in the past, the individual memories created are often very susceptible to change eventually making them false memories. Even when photos for historical events are true, they are still able to add to the creation of false memories. This is because although the photograph is true many of the stories that may accompany it are not. The true photograph finally becomes a support for the false story. (Garry & Gerrie, 2005).

## Conclusion

It is evident that as time passes, memories fade. Noticing that a memory is false can be quite difficult because in our minds the memory itself is true. Because of this we tend to believe them as our own memories. Our false memories inhibit us from seeing the real event. The pictures and videos that accompany everyday events have a great impact on what is remembered, what is forgotten, and what is changed within the memory itself. The narratives that often go along with these pictures and videos have a significant effect on the memories as well. Alone, narratives create a story in our minds and often add to our original memory. Along with the pictures and videos they give action to what is seen. It is important to note that false memories are for the most part harmless, especially when they increase feelings of togetherness with family members and friends. However, when used mischievously in serious situations they can cause extreme harm to innocent people. It is important to keep this in mind when asked to recall particular situations and events in order not to create a false memory for oneself and also for others. Why we have false memories is an ongoing field of study which gives rise to even more questions about first memories. In continuing with false childhood memories, a possible future study could be how often people's first memories are false. Although one's susceptibility to false memories brings forth feelings of self-doubt it also brings forth the sort of comradery that accompanies memorable events.

## References

- Austin, J. L., & Strange, D. M. (2012). Television produces more false recognition for news than newspapers. *Psychology of Popular Media Culture, 1*, 167-175. doi:10.1037/a0028322
- False memory syndrome. (n.d.). oxforddictionaries.com Unabridged. Retrieved March 31, 2015, from Oxforddictionaries.com website:  
<http://www.oxforddictionaries.com/definition/english/false-memory>
- French, L. M., Sutherland, R., & Garry, M. (2006). Discussion affects memory for true and false childhood events. *Applied Cognitive Psychology, 20*, 671-680. doi:  
<http://dx.doi.org/10.1002/acp.1219>
- Garry, M. P., & Gerrie, M. P. (2005). When photographs create false memories. *Current Directions in Psychological Science (Wiley-Blackwell), 14*, 321-325. doi:  
<http://dx.doi.org/10.1111/j.0963-7214.2005.00390.x>
- Garry, M. T., Strange, D., Bernstein, D. M., & Kinzett, T. (2007). Photographs can distort memory for the news. *Applied Cognitive Psychology, 21*, 995-1004. doi:  
<http://dx.doi.org/10.1002/acp.1362>
- Gonsalves, B. A., & Paller, K. A. (2000). Neural events that underlie remembering something that never happened. *Nature Neuroscience, 3*, 1316. doi: <http://dx.doi.org/10.1038/8151>
- Gonsalves, B. A., Reber, P. J., Gitelman, D. R., Parrish, T. B., Mesulam, M. M., & Paller, K. A. (2004). Neural evidence that vivid imagining can lead to false remembering. *Psychological Science (Wiley-Blackwell), 15*, 655-660. doi:  
<http://dx.doi.org/10.1111/j.0956-7976.2004.00736.x>

- Hyman, J. J., & Billings, F. J. (1998). Individual differences and the creation of false childhood memories. *Memory*, *6*, 1-20. doi: <http://dx.doi.org/10.1080/741941598>
- Kaasa, S. O., Cauffman, E., Clarke-Stewart, K. A., & Loftus, E. F. (2013). False accusations in an investigative context: Differences between suggestible and non-suggestible witnesses. *Behavioral Sciences & the Law*, *31*, 574-592. doi: 10.1002/bsl.2075
- Lindsay, D. M., Hagen, L., Read, J. D., Wade, K. A., & Garry, M. (2004). True photographs and false memories. *Psychological Science (Wiley-Blackwell)*, *15*, 149-154. doi: <http://dx.doi.org/10.1111/j.0956-7976.2004.01503002.x>
- Otgaar, H. M., Smeets, T., & Peters, M. H. (2012). Children's implanted false memories and additional script knowledge. *Applied Cognitive Psychology*, *26*, 709-715. doi: <http://dx.doi.org/10.1002/acp.2849>
- Sacchi, D. M., Agnoli, F., & Loftus, E. F. (2007). Changing history: Doctored photographs affect memory for past public events. *Applied Cognitive Psychology*, *21*, 1005-1022. doi: 10.1002/acp.1394
- Strange, D. M., Hayne, H., & Garry, M. (2008). A photo, a suggestion, a false memory. *Applied Cognitive Psychology*, *22*, 587-603. doi: <http://dx.doi.org/10.1002/acp.1390>
- Strange, D., Sutherland, R., & Garry, M. (2006). Event plausibility does not determine children's false memories. *Memory*, *14*, 937-951. doi: 10.1080/09658210600896105
- Wade, K. A., Green, S. L., & Nash, R. A. (2010). Can fabricated evidence induce false eyewitness testimony? *Applied Cognitive Psychology*, *24*, 899-908. doi: <http://dx.doi.org/10.1002/acp.1607>

Wang, Q., & Peterson, C. (2014). Your earliest memory may be earlier than you think:

Prospective studies of children's dating of earliest childhood memories. *Developmental*

*Psychology, 50*, 1680-1686. doi: 10.1037/a0036001