

# [To what extent are our memories accurate reconstructions](https://assignbuster.com/to-what-extent-are-our-memories-accurate-reconstructions/)

The memory used to store information and events experienced in life, either trivia or important is called autobiographical or episodic memory (Eysenck & Keane, 1998; Hampson & Morris, 1997; Mayes, Gooding & Van Eijk, 1997; Payne, Klin, Lampinen, Neuschatz & Lindsay, 1999; Smyth, Collins, Morris & Levy, 1996). Conway and Bekerian(1987) stated that the structure of episodic memory has three distinct levels:

a. lifetime periods : substantial time periods defined by major ongoing situations and more effective cues than most other cues when it comes to memory retrieval, b. eneral events : repeated and/or extended events that occurred for a period of days to months, c. event-specific knowledge : refers to images, emotions and details concerning general events covering time periods of seconds to hours. It is some psychologist's belief that autobiographical and episodic memory should not be regarded as the same and that autobiographical may exist without episodic memory and vice-versa (Eysenck & Keane, 1998). The research into autobiographical memory is being held " in the field" and without the use of lists of words or nonsense syllables, (Hampson & Morris, 1997).

Our ability to recall events and information that are gathered in our memory throughout our lives depends on several factors, such as the time that passed since the event occurred, the type of the event (pleasant, unpleasant or neutral) and if the event concerns oneself or another person. In addition, factors such as search strategy, the position of an event in a longer sequence and the cues used to trigger recall are investigated (Payne et al. , 1999).

In a study conducted by Thompson (1982, 1985, 1987), were the first three and most important factors were tested, the results showed that accuracy in dating events decreased by more than a day for each week that passed. For example, after two weeks people were inaccurate about two days, while after ten weeks this inaccuracy had increased to twelve days. Other findings were that pleasant events were recalled more accurately than unpleasant ones and that individuals remembered dates of events that have happened to them more accurately than if they occurred to someone else (Eysenck & Keane, 1998).

The ability to remember easier and more accurately events that happened to one compared to events that happened to other people is known as the self-reference effect. The findings in an experiment that was conducted by Bower and Gilligan (1979) and tested recall following a self-reference task with recall following other-person reference tasks, showed that other-person reference tasks generally produced rather poor levels of recall, although when a very well-known other person was used as a referent a good memory performance was obtained.

Yet there is not a clear view of the processes involved in the self-reference effect remain (Eysenck & Keane, 1998; Hampson & Morris, 1997). The term flashbulb is used to describe the memories that people have concerning major and unexpected world memories and was introduced by Roger Brown (Eysenck & Keane, 1998). These memories refer to a significant event and they are recalled in great detail and in order to form such memories, high levels of surprise and emotional arousal must be present (Eysenck & Keane, 1998). 79 people were asked to remember how they heard of the death of Abraham Lincoln 30 years earlier by Colegrove (1899) in one of the first studies that were conducted regarding flashbulb memory. 127 of them could recall in great detail what they were doing and who were with when they heard the news (Smyth et al. , 1996). In a later study of flashbulb memory, Brown and Kulik (1977) interviewed people to see whether they remembered certain national events.

They listed six kinds of information that were likely to be listed in flashbulb memories for national events: the place they were, the event that was interrupted by the news, the person who gave them the news, their feelings, the feelings of others and the aftermath. The findings showed that the factors that determine accurate flashbulb memories were the high level of surprise, the perception of the importance of the event and the high level of emotional arousal which accompanied it (Eysenck & Keane, 1998;).

Neisser (1982) and McCloskey, Wible and Cohen (1988) argued that despite the great detail of such memories, the actual memories could be incorrect. In order to support his argument Neisser used as an example that when he heard of the bombing of Pearl Harbor he was listening to a baseball game although baseball is not played at that time of year, so his memory must have been an error (Smyth et al. 1996). In support of their argument, McCloskey, Wible and Cohen (1988) investigated their subjects' memory of the explosion of the space shuttle Challenger. The results proposed that there were several inaccuracies between how the memory was recalled a few days after the accident and after nine months and therefore flashbulb memories are like other memories rather than being inherently more memorable.

However, it still remains unclear whether there is a differentiation between flashbulb memories and ordinary memories (Eysenck & Keane, 1998; Smyth et al. , 1996). Autobiographical memory is schematized that is schemata, generalizations that are abstracted from a large number of particular events are used in order to enable us summarize significant attributes in the events (Hampson & Morris, 1997; Mayes et al. , 1997; Neisser, 1994; Schacter, 1996; Shanks, 1998; Smyth et al. , 1996).

The expectations people have about the sequence of events that are likely to occur during a meal at a restaurant were tested by Bower, Black and Turner (1979) tested. The participants were asked to list the 20 most important events related with having a meal at a restaurant and the results showed that the restaurant script appeared to be common (Eysenck, 1995; Eysenck & Keane, 1998; Smyth et al. , 1996). Schema-based theories were supported by several types of omissions and distortions in recalling.

Three major types, which are selection, interpretation and integration, were identified by Alba and Hashler (1983). Many schema theories propose that during the encoding a schema is activated and the only aspects of the event that will be represented are those that are relevant to that schema. Therefore, if the appropriate schema is not activated or there are schema-irrelevant details the stored representation of an event may not be complete. Interpretation is also responsible for distortions in recalling.

When schematic knowledge is activated it is allowed to form a basis for making suppositions about the meaning of an event and such interpretations may become part of an event's representation. Integration concerns the combination of several ideas and pieces of information into a schematic whole and therefore a specific event or information becomes integrated into a larger schema and will no longer be accessible as an individual entity and thus memory for it will be distorted (Eysenck, 1995; Schacter, 1996).

Although schema-based theories of memory provide useful explanations why memory is inaccurate and distorted, they fail to incorporate with phenomena like the self-reference effect in memory (Hampson & Morris, 1997; Eysenck, 1995; Shanks, 1998; Schacter, 1996). The psychologists that study the accuracy of recall are also concerned with the subject of eyewitness testimonies because they can be distorted by several sources of post-event information (Eysenck & Keane, 1998; Loftus, 1994; Neisser, 1994; Payne et al. 1999). A study conducted by Loftus and Palmer (1974) involved screening a film of a traffic accident involving two cars to the subjects. At the end of the film subjects were asked to describe the accident in their own words and then answer a number of questions concerning the accident. The researchers used different verbs that implied different speed and thus a less or a more violent accident in the question concerning the speed of the two cars. The findings showed differentiation in the recall of the event.

Also, one week later, and although there was no broken glass in the film, subjects were asked whether they have seen any broken glass. The subjects who were asked about the speed of the cars, one week earlier, using verbs that implied a violent accident agreed that there was indeed broken glass. Therefore, people's memory for events is relatively fragile and susceptible to distortion (Eysenck & Keane, 1998; Loftus, 1994). The recall of an event in such way to correspond to the observer's expectations rather to what really happened indicates confirmation bias that plays an important role in memory distortion of eyewitnesses.

The memory that was formed can be destroyed and recovered in the desired form by the misleading questions (Eysenck & Keane, 1998; Loftus, 1994). To answer safely whether our memories of past experiences are accurate is difficult. What we recall as a past event is not necessarily what actually happened. What we recall with certainty could be very different from the actual event. But our memories, accurate or not, are true being the recollections of our characteristics and reactions in events occurred in our lives.