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Eyewitness Testimony

This Factsheet summarises memory research into eyewitness testimony. It covers the topics of reconstructive memory (by Bartlett) and research into the effect of language on eyewitness testimony (e.g., role of leading questions by Loftus). It also covers the effect of emotion on recall and ways of improving eyewitness testimony.

The main focus of this Factsheet is on what;

- research into reconstructive memory tells us about the accuracy of memory;
- psychological research tells us about the accuracy of eyewitness testimony.

What is eyewitness testimony?

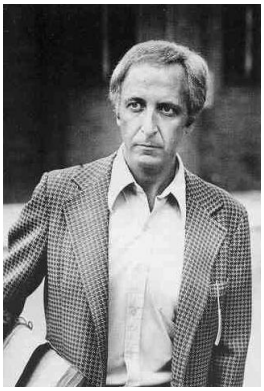
An eyewitness is a person who has seen a crime or event. Their testimony is their spoken or written statement or evidence. Basically it is their recall or memory of a crime/event. From now on, we will call eyewitness testimony EWT.

Why is EWT a critical issue?

It is a critical issue because an eyewitness' recall tends to be unreliable (inaccurate). However, the people in the jury believe that the eyewitness' testimony is accurate and reliable and will convict a person based on this. The problem is that people's memory of an event is very often inaccurate. EWT is an example of where memory research applies to everyday life.

An example of unreliable eyewitness testimony:

In 1979, in the USA, the police arrested a Catholic priest for a series of armed robberies. Seven eyewitnesses identified the priest. He would have been convicted if the real robber had not confessed to the crimes. The priest was shorter, bald and 14 years older than the robber (who had a full head of hair).



The robber (Ronald Clouser)

The priest (Father Pagano)

Psychological research shows that people's memory of events is worse than they think. One research study showed that people were bad at identifying a 'thief' they had been in a room with yet the jury believed them! Wells, Liepe and Ostrom (1979) asked participants to wait in a room before a study began. A confederate (the thief) of the experimenters entered the room, picked up a calculator and put it in her purse. The participants then had to identify the 'thief' from six photographs. Only 58% were correct even though they had been in the room with them. The experimenters then set up a mock trial where participants gave their evidence. 80% of the jury believed them.

This shows that EWT is unreliable but many jurors are confident that it is accurate. Why might it be unreliable? We can explain the unreliability of EWT by;

- **1. The reconstructive nature of memory (Bartlett's research);**
- **2. The effects of language on memory (leading questions used by Loftus).**

We will look at each of these in turn.

Exam Hint: *In the sections to follow 'What is it?' describes the research. This is material for an AO1 question. The 'strengths and weaknesses' part evaluates the research. This is material for an AO2 question.*

1. Reconstructive memory

➢ What is it?

- Bartlett (1932) argued that people do not just record memories and passively play them back like a tape recorder. Instead they actively try to make sense of information by fitting it in with what they already know (he called this '**effort after meaning**').

- He suggested that we interpret and recall what we see according to what we expect to see and what we assume is normal. (e.g., we may recall seeing a stapler in an office because it is something we expect to be in an office).

- That is, we rebuild or 'reconstruct' our memory by using our existing knowledge (called **schemata**). However, this makes our memory inaccurate because we 'distort' what really happened. If we see something that does not fit in with our expectations, then we may alter our memory.
  - For example, if given the testimony "I ran up to the burglar alarm", many people assume that the burglar alarm had been rung (Harris, 1978).

- Bartlett tested the idea of reconstructive memory by asking participants to listen to stories and then recall them later. He did this by testing the participants on a number of occasions, from 15 minutes to 10 years later. This is a 'serial reproduction' method of testing recall.

- He tested English participants by using an unfamiliar story from North America, called 'The War of the Ghosts'.

- The story produced conflict between its contents and the participant's own knowledge. He examined whether the participant would impose their own schema on the story.

- Bartlett found when participants recalled the story, they made it more like an English one and over time they continued to distort it. In general, he found that;
  - recall became shorter
  - recall was distorted by the participant's culture (they left out unfamiliar details and 'rationalised' the story to make it more 'normal' to their own culture).
  - the participants changed phrases to be more similar to their own language (e.g., canoe was changed to boat).

Extract from 'The War of the Ghosts' (Bartlett, 1932):

One night two young men from Egulac went down to the river to hunt seals, and while they were there it became foggy and calm.

They heard war cries and thought, 'Maybe this is a war-party'. They escaped to the shore and hid behind a log. Now canoes came up and they heard the noise of paddles and saw one canoe coming up to them.

➢ Strengths and weaknesses of Bartlett's research

- Bartlett's schema theory demonstrates the active retrieval of memories.

- This research is **ecologically valid** as it uses stories instead of artificial nonsense syllables.

- More recent studies which show the reconstructive effect of schemata on memory support Bartlett's research. For example, evidence by Brewer and Treyens (1981) supports Bartlett's research. They asked participants to wait in an office for 35 seconds. After, they found that recall for objects expected to be in an office (e.g., a desk) was good whereas recall for objects not expected to be in an office (e.g., a pair of pliers) was not good. So their 'office schema' affected their recall.

- Bartlett's research is criticised for going too far in claiming that memory is usually inaccurate. Some memories are very accurate.

- His research is criticised for lack of experimental **control**.

So, Bartlett showed that one reason why recall might be inaccurate is because we 'reconstruct' memory, fitting it in with our expectations.

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Exam Hint: *Some exam questions ask you what psychological research tells us about EWT. Be careful when talking about Bartlett's research. Bartlett did not directly research EWT – he examined the reconstructive nature of memory. His research does tell us about why memory of an event might be inaccurate.*

2. Language on memory

Elizabeth Loftus' research

➢ What is it?

· Loftus and colleagues have directly examined EWT. They have examined how language can affect the recall of eyewitnesses, especially leading questions. Leading questions are ones which imply something that may not have happened/been there (e.g., "Did you see the man?" suggests that a man was present although there may not have been).

Research by Loftus and Palmer (1974)

Aims: To examine the effect of leading questions on the accuracy of the estimate of car speed in an accident.

Procedure: Participants saw a film of a traffic accident. The film lasted from 5 to 30 seconds. The participants then had to recall what they had seen and then answer specific questions. Importantly, there was one critical question in which the words were changed.

The question was "About how fast were the cars going when they hit each other?" Different sets of participants heard different words. They heard 'hit', 'smashed', 'collided', 'bumped' or 'contacted'.

The estimated speed was used as a measure of the effect of the different words.

One week later the participants were asked "Did you see any broken glass?"

Findings: The wording of the question did affect the participants' judgement of speed. Participants guessed that the cars were going fastest for the word 'smashed', then second fastest for 'collided', then 'bumped', 'hit' and 'contacted'. For example, they estimated a speed of 40.8 mph for 'smashed' but 34.0 mph for 'hit'.

Also, 32% of the participants who heard 'smashed' said that they had seen broken glass whereas only 14% of the participants who heard 'hit' said that they had seen broken glass.

Conclusion: The change of one word had a large effect on the participants' recall. The language used did affect the recall of eyewitnesses.

Research by Loftus and Zanni (1975)

Participants saw a short film of a car accident. Some participants were asked "Did you see a broken headlight?", others were asked "Did you see the broken headlight?". There was no broken headlight in the film (although the question implies that there was). They found that, for the wording 'the broken headlight' 17% of participants said that they had seen it compared to 7% for the wording 'a broken headlight'. So, one word can lead people to add information to their recall that they had not witnessed.

So, Loftus and colleagues show that EWT can be inaccurate as people can add information to their recall (e.g., broken headlight) or distort their recall (speed estimates).

➢ Strengths and weaknesses of Bartlett's research

- Loftus and colleagues' research supports the idea that language easily distorts memory and has implications for EWT in court.
- A strength of this research is that they have controlled the studies well (to stop other irrelevant factors affecting the results).
- The research can be criticised for lacking ecological validity as the participants only saw a video clip whereas real-life accidents are likely to be more emotional. EWT of a real-life event can be very accurate (Yuille and Cutshall, 1986).
- This type of research tends to focus on minor details (e.g., headlights) in the event, not major ones (e.g., car colour), and it may be easier to distort these minor ones.

[By the way, this effect of wording on recall is an example of interference (see the Theories of Forgetting Factsheet).]

***Exam Hint:** You should know the experiment by Loftus and Palmer (1974) very well!*

Emotion and recall

EWT could also be unreliable due to high emotion experienced by the eyewitness at the time of the crime. There are two ways that emotion can affect recall – by repression or as flashbulb memories.

- **Repression**
  - Freud (1915) suggested that repression is where we purposefully forget memories which cause us anxiety by 'repressing' them (pushing them into unconsciousness). So we may repress the memory of, for example, a car accident. This makes it harder to recall.
  - Some research supports repression. People who are 'repressors' (based on personality tests) take longer to recall negative childhood memories than other personality types (Myers and Brewin, 1994).
  - It is difficult to get experimental evidence for repression because the experiments would need to create anxiety-producing situations. This is not ethical.
  - Evidence for repression comes from case studies of individuals and so the results may not generalise to the whole population.

- **Flashbulb memories**
  - Flashbulb memories are vivid, long-lasting memories of highly emotional events (Brown and Kulik, 1977). Flashbulb memories are most likely to occur when the event is surprising and has consequences for the person's own life. They improve recall for an event.
  - Flashbulb memories may not be as accurate as first thought. They are subject to forgetting just like other memories.

Improving the reliability of EWT

Psychological research can improve the reliability of EWT:

Expert witness

Psychologists can be an 'expert witness'. An expert witness is someone who goes into court to explain to the jury that EWT may be unreliable and inaccurate. This should prevent them wrongly convicting someone on the basis of a EWT.

Cognitive Interview

- Psychologists have used research into memory and EWT to develop a way of interviewing eyewitnesses that helps them to recall more information and more accurately. It is a 'cognitive interview' (Geiselman and colleagues, 1985). The police in the UK use cognitive interviews.
- A cognitive interview reduces the number of interruptions and stops the use of leading questions when an eyewitness recalls the event to the police.
- A cognitive interview has different stages that follow a set order, for example;
  - 'Free recall' occurs first. It is where the person recalls what they saw.
  - 'Change order' is where the person recalls the event starting from the thing that happened last and working backwards to the beginning.
  - Questions are asked last. Each time the person answers a question they use 'context reinstatement' where they imagine themselves back in the situation at the time of the crime. This uses context-dependent recall (see the Theories of Forgetting Factsheet) and improves recall.
- Geiselman and colleagues found that recall was better and more accurate with the cognitive interview compared to the standard police interview. Cognitive interview eyewitnesses recalled 41.1% correct facts about an event compared to 29.4% for a standard police interview.

Exam Hint: *If an exam question asks what psychological research tells us about the unreliability of EWT, you should focus on the work of Elizabeth Loftus who did directly research EWT.*

Glossary

Confederate: a person who is 'in' on the experiment but is acting as another participant in the experiment.

Control: stopping factors that are irrelevant to the experiment affecting the results.

Ecologically valid: the extent to which the findings of the research apply to everyday life.

Schemata: Schemata are the plural of schema. A schema is a framework of knowledge that we have. Schemata represent all kinds of knowledge (e.g., you will have a schema for what happens in restaurants).

Example exam question

Describe a study of reconstructive memory and give one criticism of the study. (6 marks)

To answer this you could talk about Bartlett's study of reconstructive memory. Explain that he used a serial reproduction method to test recall of a story called 'The War of the Ghosts'. The story did not fit the English participants' cultural expectations. He found that when they reproduced the story, their recall became shorter and more conventional. It was also rationalised. He found evidence for people reconstructing stories using their schemata.

A criticism of Bartlett's research is that it goes too far in claiming that memory is usually inaccurate. Some memories are very accurate. (You can also use a positive criticism – such as the research being ecologically valid).

Alternatively you could answer this question by talking about the study by Brewer and Treyens (1981).

Acknowledgements: *This Psychology Factsheet was researched and written by* ***Amanda Albon.*** *The Curriculum Press, Bank House, 105 King Street, Wellington, Shropshire, TF1 1NU.*

Worksheet: Eyewitness Testimony

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1. Why is eyewitness testimony an important issue in Psychology?

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2. What did Bartlett (1932) examine in his research?

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3. In Bartlett's study, people recalled a story on a number of occasions. In what ways did they change the story?

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4. What did Loftus examine in her research?

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5. What did Loftus discover about the effect of language on recall?

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6. In which ways can emotion affect recall?

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7. Describe one way in which the reliability of eyewitness testimony can be improved.

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