Factors affecting EWT

**Factor: Weapon Effect**

Loftus et al (1987)

Loftus et al 1987 got participants to listen to a squabble between two people, in the room next door. There were two conditions; weapon and no weapon. In the no weapon condition a man with greasy hands emerges holding a pen.  In the weapon condition a man emerges with a blood drenched paper knife.  Participants could accurately recall the identity of the ‘pen-fiend’ on 49% of occasions but the knifeman on only 33%.  In a follow up Loftus recorded eye movements and found the focus of attention was the knife, diverting attention from the identity of the perpetrator. Of course, weapons may also exert their influence by raising the eyewitness’s anxiety level.

This study further develops Loftus and Palmers research and it shows that EWT can be affected by aspects of the crime such as the use of weapons. Jess

**Factor: Anxiety**

Christianson and Hubinette (1993)

The aim of the study was to discover the influence of anxiety on the eyewitness memory of real-life events. In the procedure, 110 witnesses of 22 real life bank robberies were interviewed. These witnesses included those who were onlookers, customers in the bank, and bank employees who were threatened. Findings revealed that compared to bystanders, those who were threatened (and experienced more anxiety) remembered more accurate details about the robbers’ clothing, weapons, and behaviour. When the participants were interviewed again 15 months later, the accuracy of details was still evident.

This study concludes that when individuals are under higher anxiety levels in real-life events, they can remember more and therefore produce more accurate eyewitness testimony about minor details than those who experienced less anxiety. However, the study has been criticized due to the lack of control. The witnesses may have already been interviewed many times prior to this interview or have read about the events in newspapers before, so their memories may not be entirely their own.

This study contradicts with the general hypothesis that higher anxiety would lower the level of accuracy of eyewitness memory but demonstrates that the relationship between stress and its affects on EWT is still unclear. Prinda

Deffenbacher et al. (2004)

Conducted a meta-analysis of 21 studies that have investigated the effect of anxiety on the reliability of identifications.

Average correct identifications for low anxiety conditions was 54%, for high anxiety conditions average correct identifications fell to only 42%. This suggests that anxiety prevents people from recalling crime details including information about the behavior and faces of the main characters.

Because this piece of research has used the data from several different studies it is very reliable. In a meta-analysis of studies Deffenbacher et al (2004) found that heightened emotion had led to less accurate recall by witnesses.

This study neither supports nor contradicts Loftus' study but rather adds new evidence. Isabelle

**Factor: Real life vs video**

Ihlebaek et al (2003).

Staged a live robbery involving two robbers armed with handguns. There were two conditions: a live condition in which participants were involved in the staged robbery and a video condition in which participants viewed a video of the robbery in the live condition. It was found that memory for the robbery tended to be better in the video condition. Watching a videotaped version of events yields more information e.g. better estimates of robber’s age, height, weight, and weapon used

**Conclusions:** Witnesses to real-life events are more inaccurate than those who observe the events under laboratory conditions. Memory distortions/inaccuracies in the laboratory provide an underestimate of real-life memory deficiencies. Thus, laboratory research can still be relevant. Ronaldo

Yuille and Cutshall (1986)

The aim of the study was to investigate the accuracy in recall of eyewitnesses to a real crime, in response to leading questions and a period of time. The real-life incident was a gun shooting that took place outside a gun shop in Vancouver. A thief went into the store and stole guns and money, but was shot six times and died. The incident was witnessed by 21 people that were interviewed by the police and of which 13 agreed to take part in the research study. 4 or 5 months after the incident, these witnesses were interviewed by researchers, first being asked to give an account of what had happened and then answering questions asked. Two misleading questions were asked to study their affect on memory recall. Half of the group were asked if they had seen a broken headlight while the other half were asked if they had seen the broken headlight, when there had been no broken headlight at the scene. Half of the participants were asked about a yellow car panel and the other half were asked about the yellow car panel, when the car panel had been blue. Witnesses were also asked to rate the level of stress they had felt at the time of the incident.

Results showed that the use of misleading questions had little effect on accurate recall by the witnesses, with most arguing that were was no broken headlight or that the car panel was not yellow. Stress also seemed to have no negative impact on memory. These results help to conclude the accuracy of eyewitnesses in a real-life situation. They also show that misleading questions do not always have the same effect as have been found in laboratory studies (Loftus & Palmer). It seems to be possible that cases of real-life recall for a stressful event can still be accurate months later. This study contradicts Loftus & Palmer’s in that it concludes the lack of effect that leading questions can have on memory recall and therefore, the reliability of eyewitnesses. Sofia

**Factor: Type of stimuli: speed (subjective) vs colour (objective)**

Loftus 1979 Wallet study:

Participants (50 students) were shown a series of pictures of a man stealing a red wallet from a woman’s bag. When filling out a questionnaire about the event, 98% were able to correctly identify the colour of the wallet. Later participants were shown two paragraphs about the event, allegedly written by a psychology professor, that contained errors, for example the wallet was described as being brown. All participants except for two persisted to describe the wallet as being red however some were mislead about the presence of other peripheral items. This study is a laboratory experiment with well-controlled variables that clearly shows that misleading post event information may not be able to alter the memory of major details. The experiment however lacks ecological validity as participants were shown photos rather than a real event.

This study contradicts Loftus and Palmer’s research as it shows that major and specific details are not easily affect by post event information. The results may also differ from Loftus and Palmer as speed estimates are more relative from person to person than colour of object. It is also easier for participants to be certain of their choice of colour, whereas establishing certainty of speed is quite difficult. When participating in a memory experiments participants would be more likely to focus on major details such as colour and the presence of objects rather than speed.

Could use in evaluation. Lara