What factors influence the accuracy of memory?

This factor is the way that we are asked about an event and how the information we receive after the event might affect our memory.

Links to other studies
The study by McGuire et al. considers memory from a very different perspective.

Pause for thought
- Have you got a good memory?
- What sorts of things do you find easy to remember and what sorts of things do you find difficult to remember?
- Do you think you would make a good witness?

What is this study about?
Elizabeth Loftus and John Palmer have conducted research into eye witness testimony. This is our memory for real life events and this research has obvious practical applications for police interviews, courtroom practices and so on. Psychologists have identified many factors that influence the accuracy of our memory and this study considers just one of these factors.

What factors influence the accuracy of memory?

Try this …
Find a video clip showing an event such as a robbery or an accident. Show this clip to two groups of people. Ask the first group to simply write down everything they can remember. Ask the other group some specific questions about the event.
1. Which group remembered the most information?
2. Which group remembered the most accurate information?
3. Did anyone remember anything that wasn’t there or something that didn’t happen?
4. Do you think that people might have been influenced by the questions that you asked?
You could repeat this the next day or a week later. How have people’s memories changed?

Now think about the kind of factors that may have influenced their answers.
- Time of day
- Hunger
- Background noise
- Leading questions

What other factors can you think of?
This activity might demonstrate a difference between the two groups and may suggest that the way that people are questioned about an event can significantly affect their responses. Even if you did not find a difference between the groups you may have found that people’s memories for events like these are not very accurate.

Finally, this exercise should have demonstrated the importance of control in psychological experiments – ensuring that as many factors as possible are kept constant.

How does information received ‘after the event’ affect memory?
Although the memory of an event is stored at the time of the event, research suggests that what has been stored can still change. The types of ‘after the event’ information that have been studied include the way witnesses are asked questions. Loftus and Zanni (1975) showed that people were more likely to recall seeing a broken headlight if the question was ‘Did you see the broken headlight?’ rather than ‘Did you see a broken headlight?’ However, it is possible that this simply reflects participants giving the answers they think they should give rather than supporting the notion that their memory has actually changed. This has obvious applications for eye witness testimony.

Why are psychologists interested in eye witness testimony?
Juries are very convinced by eye witness accounts and will tend to return guilty verdicts when there has been an eye witness account presented by the prosecution. Even when the eye witness has been discredited in some way, juries will still tend to be convinced by this information. Psychological research into memory strongly suggests that there are many factors which would make eye witnesses unreliable and the Devlin Committee (1973) recommended that juries should be instructed that it is not safe to convict on the basis of eye witness testimony alone. The Devlin Committee was established in 1973 to investigate the use of eye witness testimony in court. The committee studied a number of cases where the only evidence against the defendant was an eye witness account and discovered that the defendant was found guilty in 74% of these cases, despite there being no corroborating evidence.

Try this …
Imagine that someone tells you that they saw two cars ‘smash’ into each other.
1. What sort of mental image might this information conjure up?
2. How fast do you think that the cars might have been going?
Now imagine that someone tells you that they saw two cars ‘bump’ each other and do the same thing again.
1. What sort of mental image does this information conjure up?
2. How fast do you think the cars might have going?
You could try this exercise out on a few other people, perhaps other students who do not do psychology or people in your family. What problems might you encounter if you used other psychology students for a study?

Practical investigation idea
You could carry out an experiment based on Loftus and Palmer’s work on eye-witness testimony. Perhaps you could investigate individual differences such as driving experience, age or gender to see if they influence the extent to which leading questions about speed have an effect.

Elizabeth Loftus
Elizabeth Loftus is Professor of Psychology and Adjunct Professor of Law at the University of Washington in Seattle. She is considered to be an authority on eye witness testimony and false memories and is often called as an expert witness in trials.

Web link
For more information about Elizabeth Loftus and her work, have a look at her web site (Hotlinks, page i).