Applied Social Psychology: Psychological Issues

EYEWITNESS TESTIMONY

Eyewitness testimony carries a great deal of weight. In 1976 the Devlin Committee analysed all the identification parades held in England & Wales during 1973 and found that when a suspect had been picked out 82% were subsequently convicted (Baddeley, 1993). This acceptance of eyewitness testimony is despite the many cases where it has proved to be very unreliable (from a review by Loftus, 1979).

Psychologists have been interested in the accuracy of eyewitness testimony for many years, one of the first investigations into this area being carried out by Cattell (1895). He recorded the accuracy with which his students recalled everyday events and found that they were very unreliable. He asked them questions such as:

> *Do chestnut trees or oak trees lose their leaves earlier in winter?*
> *Do horses in fields stand with their head or tail to the wind?*
> *In what direction do the seeds of an apple point?*

Finding that their accuracy of observation was little better than guesswork.

Nickerson & Adams (1975) also found that people are very poor at recalling the appearance of objects seen every day. They asked subjects to draw what was represented on each issue of a US penny. They found that on average people could only remember around three out of eight critical features and even those features recalled were often placed wrongly.

Observational accuracy seems to be generally quite poor, so just how reliable is the testimony of eyewitnesses and how much can you trust their identifications?

THE RELIABILITY OF WITNESSES

It could be argued that an eyewitness who has observed an unusual event such as a crime would notice more and would be in a better position to remember it than when trying to recall some familiar object that they might not have paid much attention to. If the event is more salient then we will pay more attention to it (Strack et al, 1982) and may recall more. However, many factors might work against the eyewitness that means their memory might be obscured or distorted. For example, the event is unexpected (so the witness is unprepared); it is observed only once (so the memory might not have time to consolidate); it may not last very long (so might be over before the event has time to be fully processed); the criminals involved will probably have been very careful to minimise the chances of their being recognised (dark glasses, stocking mask, false moustache). These are obvious factors; there are other factors that could be just as disruptive and distorting but that are less obvious:-

- ***Attentional Focus***

  To investigate the problems, researchers have looked at memory for emotionally charged events in the laboratory. Rather than exposing subjects to attacks and robberies however, the researchers have tended to expose them to a film or staged incident in which some crucial event occurs, an event that may be associated with violence. Overall the evidence suggests that memory of a violent event is stronger than that for a neutral event (Baddeley, 1993). For example, Loftus (1975) found that subjects tend to focus on the weapon rather than on the appearance of the assailant.

- ***Relapse-Prevention Training***

  (i) Another problem with eyewitness testimony is that eyewitnesses are often asked leading questions. They are being asked to recall

details of incident that happened rapidly and unexpectedly and the way in which the questions about the incidents are worded could certainly affect recall. Loftus has carried out a number of experiments to investigate this. For example, in one study people watched a film of a car crash and one group were then asked, "About how fast were the cars going when they ***hit*** each other?" Other groups were asked the same question, but the word ***hit*** was replaced with either ***smashed, collided, bumped*** or ***contacted.*** She found that speed estimates were highest (40.8 mph) when the word smashed was used, lower with collided (39.3 mph) and lower still with bumped (38.1 mph). The lowest estimates were from hit (34 mph) and contacted (31.8 mph). Added to this, when the same subjects were contacted a week later and asked about whether there had been any broken glass, those who had been presented with the word smashed were consistently more likely to report (incorrectly) that glass had been broken.

(ii) In another study, again using a film of a car accident, subjects were asked either "Did you see *the broken headlight?"* or "Did you see *a broken* headlight?". Subjects were shown to be biased by the wording of the question & would respond "Yes" more often when no broken headlight was shown on the film.

¬ ***Changing recollection***

Another series of experiments by Loftus showed that it is possible to change a witness's recollection by subtly introducing new information during questioning. Subjects were shown a series of slides representing a traffic accident in which a pedestrian was knocked down at a pelican crossing. A green car drove past the accident without stopping, a police car arrived, and a passenger from one of the cars in the accident ran for help. Subjects were asked 12 questions about the incident. Question 10 made reference to the ***blue*** car that drove past the accident. When asked 20 minutes later to recall the colour of the car that drove by without stopping who have been given the false information tended to choose blue or bluish-green rather than green!

- ***Theoretical Interpretation***

  Loftus managed to demonstrate that these "false memories" were not due to social pressure, lack of confidence or failure to notice important information in the first place. She argues that it is the actual memory trace itself that is changed by subsequent information. It appears that what we remember is a combination of what we see and what we subsequently think.

  However, this explanation of inaccuracy is not accepted by everyone, Bekerian & Bowers argue tat the original trace survives and can be retrieved given the correct retrieval cues. This argument is taken further by Morton (1995) who makes a distinction between primary memory records and secondary memory records. He suggests that primary records are the way in which particular events are represented in the brain and are laid down at the time of the event itself (like episodic memory). When you then try to recall an event you create a secondary record. The secondary record results from the retrieval of primary records. Therefore, there will be two records: the event itself and the recall of the event subsequently. The secondary record may well be distorted by leading questions and by information from semantic memory, but the primary record will not be altered at all: given the correct retrieval cue, therefore, it could be recalled intact.

  To support this, Bekerian & Bowers suggested that Loftus in her experiments distorted the sequencing of events by asking questions in random order, not in the order in which events happened. When they questioned subjects in a systematic way, beginning with earlier incidents and working chronologically to later incidents, the biasing effect disappeared and subjects became more accurate.

Whatever the theoretical interpretation of this effect, however, it remains that the testimony of eyewitnesses can be distorted by material introduced during cross-examination. It is clearly essential to bear this in mind the next time you are questioning suspects!

THE RELIABILITY OF WITNESSES

- ***Theoretical Interpretation***

  Are you likely to claim "I never forget a face"? How justifiable is such a claim? Woodhead & Baddeley (1981) carried out a study in which 100 Cambridge housewives were shown a series of unfamiliar faces and then asked to recognise them when they were re-presented together with a series of similar, but new faces. These housewives were also asked how good they thought their memory of faces was. There were huge differences between how well they performed in the recognition test and how good they though their memory was!

  Special face recognition system?

  It has been suggested that memory for faces depends on a particular system located in a special part of the brain. Evidence for this claim comes from a disorder called prosopagnosia, a rare neurological condition where a person is unable to recognise the faces of previously familiar people, whilst still being able to recognise objects etc. A second argument in favour of a special face recognition system comes from the observation that the angle from which a face is reviewed is particularly important. An inverted face is harder to recognise than an inverted building and it is also very difficult to perceive the emotional expression on a face that is inverted.

- ***Accuracy of face recognition***

  Because there are a number of cases where people have been wrongly identified, it is possible that memory for faces is very fallible (Baddeley, 1993). Penry invented the Photo-fit, which comprises a box containing sets of features (chins, noses, eyes etc.) which can be put together to form a face. Penry believed that in order to perceive and remember a human face one has to abstract the various features and categorise them systematically. He talks of 'reading' a face, for example, noting the nose and categorising it in terms of size and shape then going on to use the same categorisation system for all other

features. This is an approach that suggests we analyse a face into its component features but it could be that the perception of a face depends on processing the pattern of features, paying attention to the way in which each feature is related to another, rather than isolating individual features. This could be why Photo-fit pictures are usually so inaccurate! Patterson & Baddeley (1977) carried out an experiment that supported this view. This should mean that we are better at recognising a person "in the flesh" than we are when being asked to describe them in detail or when being asked to recognise them from a Photo-fit picture. This reasoning is one of the reasons that identify parades are used: how accurate are they?

¬ ***Identity Parades***

In an identity parade the suspect is presented together with a number of non-suspects who look broadly like the suspect. The witness is asked if he or she recognises a member of the line-up as the criminal. It is essential that the suspect is not obviously different from other members of the line-up (the "distractors") if the evidence is to be valid. For example, if the suspect was a blonde and all the distractors had black hair then the identification would be hardly likely to be accepted! This kind of consideration is obvious, but there are more subtle influences:

(a) If a witness describes a criminal as good-looking it would be important to find out what was meant by "good-looking" and to make sure that the distracters were not all as ugly as sin!
(b) One very powerful source of bias in recognition in an identity parade is clothing. This issue was studied by Thomson (1983) who showed that the clothing worn by a criminal could cause someone else wearing similar clothes to be identified as the perpetrator of the crime.
(c) Thomson (1983) also reported a case that actually happened to him. He was arrested and placed in a line-up, identified and charged with rape. He said that at the time the rape had taken place he was taking part in a television discussion (on, strangely enough, the unreliability of eyewitness testimony!) and could not have committed the rape. It turned out that the woman had been

raped while watching the programme and had correctly recognised his face but had incorrectly assigned his face to the crime. This is called ***unconscious transference.***

(d) One obvious source of bias in a line-up is the assumption that the identity parade includes the criminal. Since this may not be the case, then there is clearly a danger that that false identifications will be encourage. Witnesses will assume the criminal is in the line-up and may feel pressured to come up with a positive identification. One way of avoiding this is to present the people in the line-up one at a time, without telling the witness how many people will be presented to them. Lindsey et al (1991) tried this and found that this kind of sequential presentation reduced the occasions on which subjects identified an innocent person.

Person memory

What is the memory process underlying all this identification? It has to be something to do with our memory for people. Memory for people and events is thought to be of two types: episodic and semantic.

- **Episodic memory** consists of specific, concrete events and this is the kind of thing that you are asked to recall as an eyewitness.
- **Semantic memory** is more abstract and is concerned with general properties and meanings.

  This can cause problems where eyewitness testimony is concerned because your memory is not perfect and you will not have attended to everything that happened. This means that you will have the tendency to "fill in" the gaps in your memory with information from your semantic memory. For example, you might have witnessed an assault and are asked to recall every detail. You might not quire recall what the assailant was wearing, but it was a cold day and you would assume that they were wearing a coat: you might, therefore, recall that the assailant was wearing a coat because you have filled in that information from your semantic memory. In fact, they might not have been wearing a coat at all.

Memory for people seems to fall into three categories (Fiske & Cox, 1979)

(i) memory for appearance: what the person looked like and was wearing. This is the first thing that people tend to recall and is directly retrievable from episodic memory because it can actually be observed.

(ii) memory for behaviour: what the person was doing. This is the second thing that people tend to recall and can also be retrieved directly from episodic memory.

(iii) memory for traits: what kind of person they were. This is the last think that people recall and, because it involves inference, is usually the least reliable. It is not directly observable and may involve information from semantic memory. Memory for personality traits tends to be of two types (Rosenberg & Sedlak, 1972)

(a) social desirability
(b) competence characteristics

This suggests that if you are remembering the assailant in an attack then you will tend to be swayed by your assumptions about their social desirability and competence. So, you are hardly likely to say that the assailant seemed like a very kind, intelligent man!

The context that you try to remember in is also important and that is why police will sometimes try to reconstruct the crime in order to job people's memory: it seems to improve person memory. Another thing that seems to improve person memory is encouraging someone to imagine themselves in the other person's shoes (Havey et al, 1980); doing this helps them recall more about the other person.