

# FACT SHEET: EYEWITNESS MEMORY

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## What is Eyewitness Memory?

Research on the memory of eyewitnesses is typically divided into two categories: the identification of the offender (e.g., "What did he look like?") and recall of the event itself (e.g., "What time of day was it?"). This fact sheet will describe some of the factors that influence eyewitness identification, memory for events, and the importance of using good police interviewing methods.

## Eyewitness identification

After witnessing a crime, eyewitnesses are often asked to identify the offender in a police line-up. Whether a witness makes an accurate identification depends on many factors, which have been categorised into *estimator variables* and *system variables*<sup>1</sup>

**Estimator variables** refer to factors that are not under the control of the criminal justice system, such as the characteristics of the witness and the suspect, or the presence of a weapon at the crime scene. For instance, witnesses tend to be better at identifying someone of their own race than someone of a different race<sup>2</sup>. Furthermore, witnesses are less likely to make a correct identification when a weapon is present during the event, probably because their attention is focused on the weapon instead of the offender's face<sup>3</sup>.

**System variables** refer to factors that are under the control of the criminal justice system, such as the presentation of the line-up and the instructions given prior to viewing the line-up. For instance, eyewitnesses are more accurate in their identifications when the line-up members are

presented sequentially (one by one) rather than simultaneously (all next to each other)<sup>4</sup>. Furthermore, if the line-up administrator mentions that the suspect *may or may not* be in the line-up, eyewitnesses are much less likely to make an incorrect identification<sup>5</sup>.

## Eyewitness recall

After witnessing a crime, eyewitnesses are also asked to tell the police what they witnessed. Just like identifications, what a witness remembers about a witnessed event depends on both estimator and system variables.

**Estimator variables** relevant to eyewitness recall are, for instance, whether a witness was drunk or stressed during the witnessed event. It is not uncommon for witnesses to be under the influence of alcohol when they witness a crime<sup>6</sup>, and witnesses generally recall substantially fewer event details if they were intoxicated at the time of the crime<sup>7</sup>. The effects of stress on eyewitness memory are a little more complicated: even though moderate levels of stress during the witnessed event may enhance memory for central (most important) aspects of the event<sup>8</sup>; severe levels of stress generally impair memory for the event<sup>9</sup>.

**System variables** relevant to eyewitness recall are, for instance, the length of time between the crime and the police interview, or the type of questions asked by the interviewer. Because a lot of relevant information is forgotten over time<sup>10</sup>, it is important that eyewitnesses are interviewed as soon as possible after witnessing the crime. In addition, to ensure that witness

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testimony is as accurate as possible, the investigative interviewer should ask open-ended rather than closed questions, and altogether avoid leading or suggestive questions<sup>11</sup>.

## Interviewing methods

There are a number of interviewing techniques to help witnesses remember as much accurate information as possible. The most empirically supported guide to obtaining information from eyewitnesses is the **cognitive interview**<sup>11</sup>. The cognitive interview is an unbiased approach that gathers information in line with how memory actually works. It informs interviewers about the system and estimator variables mentioned in the previous sections, and provides them with practical tools to establish rapport (a good relationship) with the witness and enhance memory retrieval. The cognitive interview is used internationally, including in the United Kingdom<sup>12</sup>.

Another technique that has been proposed to improve eyewitness memory is hypnosis. Even though hypnosis has been found to increase the recall of correct information,

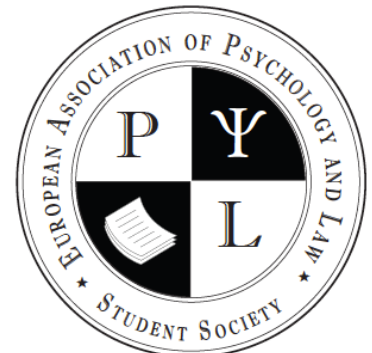
unfortunately, it also increases the amount of incorrect information reported by witnesses<sup>13</sup>. Nevertheless, **certain components of hypnosis** – such as focused meditation, reinstatement of the context of the witnessed event<sup>14</sup>, and closing the eyes during the investigative interview<sup>15</sup> – have been shown to increase the amount of correct information recalled, without increasing the recall of false information. Many of these components have been incorporated in the cognitive interview<sup>11</sup>.

## Conclusion

Eyewitness memory may be impaired by many factors, both in- and outside of the control of the criminal justice system. Because eyewitnesses are often considered to provide important evidence in the courtroom, we need to ensure that eyewitness testimony is as close to the truth as possible. Extensive research on eyewitness memory has led to the development of interviewing methods that may help eyewitnesses remember more and can improve the overall functioning of the legal system.

### Quick summary:

- “Estimator variables” are *not* under the control of the criminal justice system (such as ethnicity or stress)
- “System variables” are under the control of the criminal justice system (such as lineups and interrogations)
- Police should use the cognitive interview and techniques that maximize correct information given by eyewitnesses



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