
UNIT 9 EYE WITNESS AND WITNESS PROTECTION¹

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9.0 OBJECTIVES

After reading this unit, you will be able to:

- explain the meaning of eyewitness and eyewitness assessment;
- children as eyewitness;
- describe eyewitness evidence; and
- explain witness protection.

9.1 INTRODUCTION

When a murder or some event takes place, there may be some people who would have witnessed it. Some on the insistence of the police, may say what they have witnessed or may come over voluntarily and state about what they saw and describe about the same in detail. These are people whom we call as eye witnesses. The testimony of these eyewitnesses is very important and this term 'eye witness' is a legal term. The testimony given by these eye witnesses help to identify and trace the perpetrators of the crime. It also provides details of the crime scene as stated and described by the eye witnesses. As a student of forensic psychology, it is important to understand the meaning of eyewitness and how assessment of eyewitness is carried out.

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In order to test and maintain the credibility of eyewitness, it is important to assess the statements and information scientifically. Two very important premises that a scientific approach aims to assess is reliability and accuracy, that is, how reliable and accurate are the eyewitness statements?

With regard to reliability and validity, the investigators focus on information related to the actions, words, and characteristics of the perpetrator as well as to the details of the context and the roles played by other people. Eyewitness account facilitates the investigator in unwinding the truth. Thus, to gain maximum from an eyewitness account the investigator has to keep questioning the reliability and accuracy of the same.

In a lot of cases the witnesses may also be victims. In such cases the investigators have to be appropriately inclined to investigate. Although assuming bystander to a crime scene as an unaffected witness could be questioned, but when the victim gets into the role of an eyewitness it becomes more complex. As a victim, the degree of threat leveled at them increases. As a result, one focus of their research has been the level of arousal and stress experienced by witnesses and victims of crime.

Children as eyewitness in criminal and civil legal proceedings has long been a controversial issue. Children are generally assumed to be less accurate and more suggestible than adults in recalling memories. From laboratory studies it seems reasonable to conclude that the problem with young witnesses is not their ability to accurately perceive but rather in their ability to accurately and meaningfully report their recollection of these events. The younger witness can have difficulty in reporting the event unless he/she receives some external prompts or cues. Thus, many questions related to issues like the age limit of witness, kind of questions to be asked to child witness, reliability of child's account as compared to an adult, etc. are crucial to investigators.

In the present unit thus, we will thus focus on eyewitness and witness protection. The main focus will be on the meaning of eyewitness and eyewitness assessment. The unit will also discuss about children as eyewitness, eyewitness evidence and witness protection.

9.2 MEANING OF EYEWITNESS AND EYEWITNESS ASSESSMENT²

Simply put an eyewitness is someone who has been a spectator of a dramatic event or a crime scene first hand, the one who can give an account of the event. For example if a person is walking down the street and he/ she notice a brawl happening between two individuals. There is crowd gathered and this person joins the crowd. Suddenly it gets ugly and police has to be called. Now even though this person may not know any of these individuals but he/ she is an eyewitness to the event along with others gathered around.

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In a Democracy like India the role of the judiciary is significant. Judiciary administers justice according to law. Thus, when a crime takes place justice is sought by examining the truth regarding the crime and handing penalty accordingly. Eyewitness account or testimony has a strong impact on criminal investigations and courtroom verdicts. Although sorting out credibility and making judgments about the truth of witness statements by the opposing counsel follows.

By now we know how crucial eyewitness account is during a case trial. But what about the fact that an eyewitness is a human and thus is subject to all sorts of human errors? Or what if the eyewitness deliberately tries to mislead the case? So to minimise or control these loopholes experts in memory, forensic psychology, neuroscience and the law aim to come up with a versatile toolkit that will help police officers and judges evaluate the likely reliability of individual witnesses. Thus, assessment of eyewitness and their statements has become an entire body of research.

As was discussed by us earlier, forensic psychology is the intersection between psychology and the criminal justice system. An important aspect of forensic psychology is the ability to testify in court, reformulating psychological findings into the legal language of the courtroom, providing information to legal personnel in a way that can be understood and evaluation of witness credibility. So assessment of eyewitness and their statement becomes an important task for a forensic psychologist.

9.2.1 Nature of Eyewitness Assessment

The unpredictable nature of human perception, memory, and decision-making were well known to philosophers, scientists, police, and judges. However, psychologists did make a unique contribution to this knowledge base by means of systematic data collection that allowed measurement of the magnitude and frequency of human errors in the recollections of brief events.

Two categories of eyewitness information of special interest to researchers are the details of the crime and of the perpetrator. It is recognised that the measurement of accuracy of recalled details is highly dependent upon the types of questions used to elicit responses. For example, police investigators regularly interviewed witnesses and victims, yet their interviews were usually not based upon techniques known to enhance recall in cognitive and social psychology. As of 1983 this situation began to change as researchers applied cognitive principles to police interviewing. One result was a specific interview protocol known as the cognitive interview (Fisher and Geiselman 1992) that has well demonstrated its superiority in gathering more correct information from both adults and children without increasing the numbers of errors.

The misidentification of an innocent person is a particularly serious kind of eyewitness error because of its serious consequences for a person's freedom. Indeed, legal opinion in most countries has emphasised the dangers of convictions based upon eyewitness testimony evidence alone (Cutler and Penrod 1995). As increasing numbers of demonstrably faulty convictions were studied, it became readily apparent that simple manipulations of photos

and test instructions could have large effects upon the identification decisions of eyewitnesses. For example, Loftus (1979) showed that presenting a photo with a unique quality or different alignment in a photospread significantly raised the number of misidentifications of the person depicted in the photo. Analyses of both live and photo lineups in real cases have shown many to be poorly constructed and when so constructed, heavily biased against the police suspect (Wells and Bradfield 1998). Further, minor wording changes in the instructions given witnesses before they view a lineup dramatically raise the rate of false positive errors or selections of an innocent person. Indeed, false positive rates of 50 percent or more are not uncommon and Wells and Bradfield (1998) recently reported that when instructions encouraged witnesses to believe falsely that the perpetrator was in the photospread, all witnesses selected someone.

Similarly, social pressure from an authority figure or from other witnesses can influence lineup decisions. In particular, information may be subtly conveyed from investigators to witnesses by the kinds of questions asked of the witnesses and the investigator's responses to answers given. Wells and Bradfield (1998) have shown that when research participants were informed falsely that their identification choices had been correct, their descriptions of the perceptual qualities of the event itself were dramatically altered, for example, how much time and attention they had directed to the perpetrator, the ease and confidence of their identification, and their willingness to testify in court.

There are a variety of procedures that researchers adopt to study eyewitness assessment. Some of them are:

- **Real life cases:** Some researchers take up real life cases to study eyewitness assessment. It helps the researcher study some important aspects like personal threat, stress, emotional arousal etc. which are not feasible in laboratory studies. As real life cases can also have their disadvantage as lack of control of extraneous variables a lot of researchers assess eyewitness by simulated studies in laboratory.
- **Videotape clip:** The researcher can make a video clip of a staged crime or can show video clip of a crime from some movie or so. The video clip is shown to the eyewitnesses and assessment is carried out.
- **Staged live demonstration:** The researcher can create a staged live demonstration in which an actor or a group of actors interrupt a class and perform an act. As the eyewitness witnesses the crime or event either in real life or laboratory setting, it is then decided how to assess the witness. Some of the procedures to assess certain variables of eyewitness like memory the researcher adopts a method like:
- **Live lineup:** A live lineup or identity parade is a process by which a crime victim or witness identifies the perpetrator. The perpetrator might or might not be present in the lineup.
- **Photo spread method:** It is simultaneous presentation of photographs out of which perpetrator has to be identified by the witness.

- **Sequential photo presentation:** It involves showing a witness a single photograph or a single suspect at a time rather than a traditional simultaneous presentation.

In the context of eyewitness assessment, there are certain variables that need to be focused on, these are estimator variables and system variables. In real world, the estimator variables are not under the control of either the criminal investigator or the criminal justice system and their effects upon eyewitness identification accuracy may only be estimated, for example, the age, sex, and race of the witnesses and the lighting conditions at the scene of the crime may be related to reliability of eyewitness testimony but they are inherent to the crime itself. Knowledge of the effects of these variables may assist us to better characterise the average performance levels that are obtained by specific types of people in particular environmental and viewing conditions. On the other hand, system variables are under the control of the criminal justice system, for example, the size, type, and quality of the lineup or photospread, the instructions given the witnesses, and the temporal interval between the crime and the identification task. Wells (1993) has argued vigorously that researchers should dedicate more effort understanding system variables because the accuracy and reliability of eyewitness testimony can be improved by manipulating features of the system itself.

A striking example of this kind of improvement may be seen in the recommendation (Lindsay and Wells 1985, Wells 1993) that lineup or photospread members be presented one at a time to an eyewitness rather than together. Although simultaneous presentation of lineup and photospread members has been normative in North America and the UK for many years, doing so is well known to encourage the use of a relative judgment strategy by which witnesses attempt to choose the person who best fits their memory of the perpetrator. The difficulty with relative judgments is that every lineup or photospread necessarily includes someone who looks most like the perpetrator and, therefore, someone will virtually always be chosen. Mistaken identifications will necessarily comprise a subset of these choices. Indeed, the high levels of false positives reported for identification tests are a likely consequence of just such a strategy.

In contrast, a sequential lineup presents each member one at a time and the goal is to force witnesses to rely upon an absolute judgment strategy. For each lineup member shown, the witness must indicate whether this person matches the representation of the perpetrator in memory. Once a person or photo has been presented, it may not be viewed again. To further reduce the opportunity to make relative judgments, witnesses are not informed of the number of people in the lineup. Thus, for the witness who attempts to use a relative judgment strategy, there remains the possibility that there may yet be someone who is even more like the perpetrator among the as yet unseen lineup members.

In research comparing sequential to simultaneous lineup performance the two presentation procedures yield identical hit rates (correct identifications of the target) for target-present lineups (when the guilty person is included).

However, in target-absent lineups (in which the perpetrator is not present), significantly fewer false positives are made with the sequential than the simultaneous lineup. Thus, when police investigators employ a sequential procedure, innocent persons are better protected from misidentifications than with the simultaneous presentation.

9.2.2 Tools and Methods in Eyewitness Assessment

Many a times, it is also possible that the physical evidence left on the crime scene is nil or negligible and thus it becomes relatively difficult for the investigating agencies to gather evidences which will lead them to the perpetrator of the particular crime. Further, although the investigating agency may reach a particular suspect in a crime, it has to be proved in the court of law by the prosecution that the suspect is involved in the crime. For this purpose, the legal system has placed emphasis on oral or documentary evidences, to convict an individual of a particular crime (Puranik, Joseph, Daundkar and Garad, 2009).

Recently, there has been a lot of emphasis on newer scientific techniques which are used as an aid to an investigation process. Some of the tools used in India are cognitive interview, polygraph test, Brain Electrical Oscillation Signature Profiling (BEOSP) and narcoanalysis.

Cognitive interview: We discussed about cognitive interview in the previous unit. Though when we talk about cognitive interview in the context of eyewitness assessment, the interviewers describe four general memory-retrieval techniques to the the eyewitness before the questioning begins. A four-item list of the techniques is placed in full view of the witness during the entire interview as a reference guide.

Otherwise, the format of this interview is same as that for the standard interview which starts with each witness being asked first to describe in their own words what they remembered (open-ended report). The following descriptions of the techniques are read by the interviewer to the eyewitnesses verbatim at the beginning of the interview:

- i) **Reinstate the context:** Try to reinstate in your mind the context surrounding the incident. Think about what the surrounding environment looked like at the scene, such as rooms, the weather, any nearby people or objects. Also think about how you were feeling at the time and think about your reactions to the incident.
- ii) **Report everything:** Some people hold back information because they are not quite sure that the information is important. Please do not edit anything out of your report, even things you think may not be important.
- iii) **Recall the events in different orders:** It is natural to go through the incident from beginning to end. However, you also should try to go through the events in reverse order. Or, try starting with the thing that impressed you the most in the incident and then go from there, working both forward in time and backward.

- iv) **Change perspectives:** Try to recall the incident from different perspectives that you may have had, or adopt the perspectives of others that were present during the incident. For example, try to place yourself in the role of a prominent character in the incident and think about what he/ she must have seen.

Polygraph test: Polygraph test was discussed by us in detail in previous unit, let us discuss it further in the context of eyewitness assessment. Polygraph test is an instrument that measures and records several physiological indices such as blood pressure, pulse, respiration, and skin conductivity. It is based on the foundation that deceptive answers/information will produce physiological responses that can be differentiated from those associated with non-deceptive answers/information.

A polygraph examination consists of three separate and distinct phases. These are:

- 1) **Pre-test Phase:** In this phase the examiner does the necessary formalities and procedures which are required before starting the test. These are:

- Inform the examinee of the specific issue that is being investigated;
- Advise the examinee of his/her constitutional rights, of their right to an attorney and of the voluntary action of submitting to a polygraph examination;
- Complete the necessary documentation;
- Provide the examinee with a detailed explanation of the polygraph instrumentation with its components and how these work;
- Answer any questions that the examinee may have;
- Obtain the examinee's version of the facts regarding the specific issue under investigation;
- Formulate and review with the examinee all the questions that will be asked of him/ her during the polygraph examination.

Before moving on to the in-test phase, the examiner will fasten various painless components to and around the examinee's body, thereby connecting him/ her to the polygraph instrument. These components are equipped with sensors that serve to collect, measure and record, onto polygraph charts, the examinee's physiological data obtained from three major systems in the body, as he/ she answers the set of previously formulated and reviewed questions during the course of the polygraph examination.

- 2) **In-test Phase:** The polygraph examination takes place during this phase. Once the examination is underway, the examiner will administer a minimum number of three separate tests each lasting approximately 5 minutes — and a maximum number of six tests — wherein the examinee's physiological data will be continuously collected, measured and recorded, on to polygraph charts, as he/ she answers the set of questions that were formulated and reviewed during the pre-test phase.

The examinee will have a two-minute relaxation period between each test. Upon completion of the in-test phase, the examiner will analyse, interpret and evaluate the examinee's physiological data collected during the polygraph examination

- 3) Post-test Phase:** During this last phase, the examiner will give the examinee the result of the polygraph examination. If the physiological data recorded on the charts shows reactions on the part of the examinee to the relevant questions that were asked, he/ she will be given the opportunity to explain these reactions.

Once the post-test phase is finished, the examiner will provide the client with a verbal report of the polygraph examination and its result. This will be followed, in a timely manner, by a written report containing a factual account of all the information developed during the polygraph procedure, as well as the examiner's professional opinion of the examination results based on the analysis, interpretation and evaluation of the polygraph data.

Brain Electrical Oscillation Signature Profiling (BEOSP): Brain Electrical Oscillation Signature Profiling is a technique developed by Dr. C.R. Mukundan in the year 2003 after lot of research. It is a process of eliciting electro physiological evidence of a suspect's participation in the crime. It is non- invasive scientific technique with a great degree of sensitivity. It is a neuro- psychological method of interrogation and is also referred to as brain fingerprinting.

The human brain receives millions of arrays of signals in different modalities all through the waking periods. These signals are classified and stored in terms of their relationship perceived as function of experience and available knowledge base of an individual as well as new relationship produced through sequential processing. The process of encoding is primarily when the individual is directly participating in an activity or experiencing it.

It is considered secondary, when the information is obtained from a secondary source viz. books, conversations, hearsay, etc. in which there is no primary experiential component and the brain deals mainly with conceptual aspects.

Primary encoding is deep seated and has specific source memory in terms of time and space of occurrence of the experience, as the individual himself/herself has shared or participated in the experience/act/event at certain time in his life in a certain place.

It is found when the brain of an individual is activated by a piece of information of an event in which he/ she has taken part, the brain of the individual will respond differently from that of a person who has received the same information from secondary sources (non-experiential).

BEOSP is based on this principle, thereby intending to demonstrate that the suspects who have primary encoded information or those who have participated in the suspected events will show responses indicating first hand (personally acquired) knowledge of the event.

BEOSP procedure includes the following:

- i) Pretest interview with the suspect
- ii) The suspect is acquainted with BEOSP test procedure
- iii) Informed consent is obtained

There are no questions presented to the individual during the test, rather the individual is walked through a narration of the possible crime scenario, and analysis is done to see if the brain produces experiential knowledge. That is remembrance of the events narrated. There are no questions asked and no answers expected from the individual. Thus, the rights of the suspect remain well preserved and protected.

Narcoanalysis: It is psychotherapy conducted while the patient is in sleeplike state induced by barbiturates or other drugs, especially as a means of releasing repressed feelings, thoughts or memories. Its use is restricted to circumstances when there is a compelling immediate need for the individual 's response. This technique is also used in forensic cases and is also sometimes called the "truth serum". In forensic setup, narcoanalysis is conducted only when there is a jurisdictional court order for carrying out the test as it is an invasive procedure used for non medical purposes.

Various information is referred for conducting narcoanalysis on the individual . Records such as Post Mortem report, First Information Report (FIR), Inquest Panchanama, Crime scene photographs, brief summary of the case submitted by the Investigating Officer are gathered and read.

- i) Pre-test interview is conducted
- ii) Informed consent is obtained
- iii) After all pre-test formalities are completed the team comprising of anaesthetist, psychiatrist and forensic psychologist administer the narcoanalysis by injecting a drug (Pentothal Sodium) and conducting Narco Interview. In case the individual refuses to give the informed consent, no narcoanalysis is carried out and the same is informed to the jurisdictional court.
- iv) Post test interview is conducted.

Many factors influence a person's recall of a brief event and because human memory is assumed to involve both constructive and reconstructive processes, information considered or received by the witness following the event may also contribute to the specifics of what is ultimately recalled. For example, in postevent misinformation studies, participants view a video event, then hear a narrative about it that contains incorrect information about details in the film (e.g., the get away car was blue rather than green).

Later, they are asked to recall details from the original video they viewed. The typical finding is that participants often incorporate information from the narrative by recalling (or recognising) details that are consistent with the misleading information.

Going well beyond distortion of minor details, research participants have also constructed complete but false autobiographical events as a result of similar suggestive misinformation techniques.

The ease with which such memories may be manipulated or constructed has contributed to the development of an entire new field of false memory research, a field whose topics often overlap with those of eyewitness testimony research.

Social scientists and legal practitioners have long recognised that suggestive forensic (or therapeutic) interview practices are a major cause of inaccuracies in eyewitness memory. Indeed, there is an extensive scientific literature demonstrating that exposure to misinformation can lead to false memories for details and even entire events that were never actually experienced.

Loftus's (1979) misinformation paradigm, in particular, has translated traditional verbal-learning research findings (e.g., Keppel & Underwood, 1962) into an ecologically relevant setting, showing that eyewitnesses' memories are malleable and can be influenced by exposure to misinformation.

Loftus's paradigm (e.g., Lindsay, Allen, Chan, & Dahl, 2004; Loftus, Miller, & Burns, 1978) includes three phases:

- i) First, participants witness an event (e.g., by watching a video).
- ii) Second, they are exposed to a narrative description of the witnessed event that contains misinformation.
- iii) Third, eyewitnesses are tested on their memory for the event.

The typical finding is that participants who have been exposed to misinformation in this way are less likely to recall the correct details than are those who have received no misinformation.

Other post-event mental activities such as rehearsal, verbal coding, and image generation can similarly contribute to altered recollections of the event or person. The Wells and Bradfield (1998) research dramatically demonstrated these kinds of changes as do the detrimental effects of both postevent verbal (Schooler and Engstler-Schooler 1990) and conceptual rehearsal of events and people. These kinds of retrospective reconstructions or reframing of events are likely to form the basis of much additional research in the field.

Check Your Progress I

- 1) What is BEOSP?

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9.3 CHILDREN AS EYEWITNESSES

In quite a few cases, children are eyewitnesses to a crime. It can be the child witnessing his own parents getting killed or it can be his/ her own kith and kin getting abducted or assaulted or killed. When something happens just in front of his eye, he/ she becomes the real eye witness to the crime.

However, historically it has been noted that evidence from children were routinely excluded on the premise that children are too immature to understand and report on a crime or give testimony on a crime they have witnessed, mainly because the line between fantasy and real is blurred in children's case and their testimony cannot be valid. Between 1970s to 1990s, the legal barriers to child witness got removed and the number of cases of child sexual abuse and assault came to be reported and the children themselves were giving their testimony as witnesses. However, experiments and researches by many scientists have led to the conclusion that while pronouncing judgements, the baseline has to be kept in mind by the judges who must also be aware that children's memories are less reliable than those of adolescents and adults, mainly because false memories in children are higher and true memories are relatively lower. The core implication for children's testimony is that other things being equal children trying to remember issues from memory are more likely to be erroneous. This is clearly brought out in the research on developmental reversals.

As per the legal requirement, children fail considerably in recall and recognition. They easily get influenced by suggestions as compared to adults and grown ups. Because of the high suggestibility in children, they are viewed as inferior witnesses as compared to adults and considerable care is devoted while interviewing them.(Bruer and Pozzulo, 2014).

Apart from the above, research studies have shown unambiguously that children are more suggestible than adults.

Ceci, Ross, and Toglia (1987) conducted a study on children between the age of 3 to 12 years. They were narrated a story of a young girl and her first day at school. The story said that the girl had stomach ache on the first day of the school. From the same group of children, some were taken up again on the next day, and were given a misinformation that the girl had a headache. When these children who were given the misinformation were interviewed and asked if they could remember the girl with the headache. Two days later all children in the group were subjected to a recognition test. The study showed that children of 3 to 4 years of age, that is the youngest children accepted the misinformation and thereby indicating that they were influenced by the suggestion that the girl had a headache.

Research on developmental aspects, using suggestive manipulation showed that suggestion is more likely to influence younger children than older ones. While one could understand in terms of common sense that the brain and nervous system in children have yet to fully develop and hence one cannot expect children to have fully dependable memories, it has also been noted in some studies as for example by psychological scientist Henry Otgaar et. al. (2018) that, under certain circumstances, adults may be at greater risk for false memories compared with children.

From all the above it appears that children do have false memory and their testimony cannot be relied upon in the courts, for one, their brain and nervous system are still developing and secondly, many types of suggestions from different persons as well as the many ongoing events and other statements from various persons would influence them and affect their testimony.

However as children grow up, they do learn more and more about the world and associate many independent entities with each other. These associations become stronger and stable as children's brain and nervous system mature and they gain more and more experience as they interact with different types of people and things as well as materials.

As experiments on false memory in children continued to be studied, some used false-memory-implantation paradigm, in order to find out if children can create what we call as 'rich false memories'. In this perimeter the participants are immediately exposed to suggestive false narratives, implying that they experienced a fictitious event. Such paradigms help to find out if children accept false or external suggestions. Two groups of children, one group 7-8 years of age and the second group 11 to 12 years of age. They were told that when they were very young, they got their fingers caught in a mouse trap and another that they had rectal enema. When recall was taken, younger age children (7-8) stated that they had enema or that their finger got into a mouse trap. On the other hand children who were 11-12 years did not believe in this and did not go by the suggestion. Thus, false memory was found more among younger age group children than among older ones. In yet another experiment, false suggestions were given to 7- to 8- and 11- to 12-year-olds that they were abducted by a Unidentified Flying Objects (UFO) or that they almost choked on a candy when they were 4 years old (Otgaar, Candel, Merckelbach, & Wade, 2009). False-memory rates for both events were statistically higher in younger (7- to 8-year-old) than older (11- to 12-year-old) children. A similar pattern emerged in a study (Otgaar, Candel, Scoboria, & Merckelbach, 2010) in which children were fed false stories such as that they received a rectal enema or got their fingers stuck in a mousetrap. False events were more likely to be implanted in younger (7- to 8-year-old) than older (11- to 12-year-old) children's memory.

According to the theory of associative activation, false memories arise mainly because of associative action. For instance, a person is lying in blood. He/ she sees a gun at some distance. The associative activation connects the gun to the person lying in blood though gun may not be have been used in this crime. Associative activation theory is a model of memory in which concepts are interconnected with themes, and it successfully predicts false memories from childhood to adulthood years. It also tells about the changes in false memory based on the emotional state of the person. Thus, eye witness memory in children is well explained by this theory. Furthermore associative activation produces spontaneous false memories. For instance, if the individual is given a few stimulus words like baker, knife, flour, dough etc. they would immediately associate them with bread. This is all the more so with adults because of their experience. They are used to having bread and have also seen how bread is made and perhaps they may have baked bread at home. These experiences lead to their associating the different words mentioned above with bread. This is also called as developmental reversal. (Brainerd, Reyna, & Ceci, 2008).

It is generally found that adults more often generate relatively, with greater ease, spontaneous false memories due to developmental reversals, whereas in the case of children, suggestion produce false memories. Another interesting

finding is that when visual scenes are used, children produce more of spontaneous false memories as compared to the adults. This may be perhaps due to the fact that visual scenes help children relate to the underlying theme. Thus, it may be stated that by and large in their study Otgaar et al (2013) found that visual scenes through videos made children identify the themes readily and thus they gave more of spontaneous false memories.

It must be kept in mind that even young children of 4 years of age if they have experienced a theme or scripture or an event or phenomena, they could also have spontaneous false memories when a concerned stimulus is provided or when associatively related details given. Thus, even though by and large false memories in children are linked to suggestions, spontaneous false memories are also present in young children as much as it is in older adults. Almost all research results clearly show that when misinformation is presented directly related to one's knowledge base, even young children appear to be having false memories and they need not be given suggestion to get such false memories. At the same time, under certain conditions, adults too are susceptible to suggestions and thus display false memories perhaps relatively more than children.

When we take the false memory issue to the court, it is seen that when the suggestions are linked to associatively related events, young children are less susceptible to false memories, as compared to the adults.

As has been well established by research, many accounts related by the eye witnesses involve highly inter-related accounts which raise an important question as to how children's susceptibility to false memory affect the many decisions in the legal arena. For instance, in child sexual abuse cases, the child is the only witness and who alone identifies the perpetrator. Here the court entirely depends on the memory of the child who has been assaulted. In the context of forensic investigation for the purpose of the court, as pointed out but Holliday et al (2008).

One may contend that in many cases, it is not certain what details of an event are associated with each other. However, we argue that many—if not all—of the events (for example, having dinner) that we encounter contain interrelated details (for example, cooking, washing the dishes). For forensically relevant events, such associations might exist as well.

More specifically Holliday et al(2008), argued that false memories induced by meaning related information present many forensically relevant information. For instance, a child who witnesses domestic violence at home, the particular instance is not just one event but are repeated events day after day. In these repeated events, it is observed that associative activation plays an important role and thus children develop a familiarity with that event and are able to recall fairly accurately and there is not much of false memories except what the children have experienced and remembered like in the case of sexual abuse. Thus, the conclusion is that in situations involving scripts, children may not make spontaneous memory errors based on the suggestions they get, but appear to guard themselves from making memory errors.

To conclude, we may state that children do not necessarily show heightened susceptibility to suggestion. On the other hand, it may be stated that while young children are not always suggestible, in situations that rely on activation strips, schemes etc of connected meaning, their lack of knowledge protects them from suggestions and false memories thereof. Hence it is not correct to say that children are not reliable eye witnesses , but if taken up in the right perspective, children as eye witnesses do help in a big way the legal system to pronounce fair justice and correct judgement.

Check Your Progress II

- 1) What is associative activation theory?

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9.4 EYEWITNESS EVIDENCE

While eyewitness testimony is invaluable, it may at times contain exaggerated version or even contain imaginative contents thereby confounding the evidence. Some eyewitnesses do not record their own experiences accurately, as their memories are susceptible to many biases and errors. Thus, the accuracy and reliability of the eyewitness evidence is of utmost importance.

Though the eyewitness testimony is the most persuasive form of evidence presented in a court of law, it is perhaps not very accurate too. In many cases its accuracy is considered dubious. Research has also shown that there had been quite a few wrong convictions of even sending an innocent person to the death row, based on the eyewitness testimony. Many of these errors are avoidable if proper precautions are taken at the time of judicial as well as the investigative processes. Some research studies have shown that the memory of a witness regarding an event, may get changed or modified from the time the person witnessed to the time he/ she reports it to the police or the court. (Frienda et al., 2011). This happens to an extent due to false information that they get during questioning or talking to someone who puts across a question quite contrary to what he/ she had witnessed. For instance, a car standing at the crossing due to red signal gets into an accident. If the police asks the witness the question, whether the traffic signal was green or red at the time the accident occurred, the witness may start wondering what the signal was even though at the time of the event the car was at the stop signal. Such misinformation can be introduced into the memory of the witness and eventually lead to wrong evidence and conviction.

In this context reconstructive memory can also be discussed. Reconstructive memory can be explained as the effect of cultural norms, expectations and values etc, that denote how an individual interprets his/ her personal experience, on the individual's memory. Thus, any event that is witnessed by

an individual will be interpreted, meaning is assigned to it and then it becomes a part of the memory.

If the eyewitness is exposed to misinformation after the event, it contaminates the memory regarding what actually he/ she witnessed. Many studies on this aspect have demonstrated that erroneous information presented to the individual especially after the the event had occurred, contaminates the individual 's memory for that event. This is also termed as the "misinformation effect". Harmening and Gamez (2016, page 269) define misinformation effect as “a phenomenon in which misinformation presented to an eyewitness immediately following an event can alter the accuracy of their memory of that event”. It has been also shown through research even slight variation in question can lead to contamination in memory. Also studies show that the memory may be contaminated much more in social situations as compared to one on one interaction, where more than one person witnesses the event (Gabbert et al., 2004).

Generally in cases where more than one person had witnessed the event, each will be describing the same event in his or her own way. The witnesses while waiting for the police to arrive do tend to talk and share their ideas about the crime or the event. Each individual is unique in his/her observation, perception and interpreting of what happened in the crime scene. As they express their own opinion, they also tend to influence each other. A person who had missed some aspect, will now admit to his memory of the scene, and another would do the same and thus by the time the police arrive, each one would have memory of the event quite different from what they originally had before talking to anyone. Each one's version varies from their own and that of the other mainly because of the changes and modifications added to one another's memory as to what they witnessed. Thus, they reinforce common memories and contaminate each other's memory for the event.

In addition to contamination, there are also many memory biases and errors. People may forget some of the events that had happened to them or to some people whom they knew. Secondly, there is a clear possibility of people mixing up details of one event with that of another. Thirdly, they may narrate a whole lot of complex events which would have never happened.

All these errors once made cannot be rectified. Whether correct or incorrect, right or wrong, the memory remains as it is and cannot be erased.

There are also many other memory errors of very paltry and very commonplace. For instance, placing car keys in a place and searching for it all over as one forgets where he/ she kept the keys. Similarly one tries to recall the name of a famous singer but cannot get the name and in some cases the particular word or name is right in your tongue cannot recall it all. This is also termed as the Tip of the Tongue phenomenon.

Apart from these biases, there are also false memories. To take an example, in psychotherapy sessions, the therapist helps the patient recall a whole lot of incidents and events that had happened in his/her childhood and interpret as to how these have affected his/her behaviours in the present day. These memories are unique to each individual and some critics are of the view that such memories recalled during therapy are also false memories, as they are in

response to the many suggestions and questions asked by the therapist of the patient. There have been many experiments wherein the experimenter using false feedback manipulation, has been able to make participants falsely remember a variety of childhood experiences. Once these false memories are implanted, it is difficult to differentiate them from true memories (Bernstein and Loftus, 2009).

The eyewitnesses perception can be affected by extreme stress experienced by them. Experiencing extreme stress could lead to perceptual distortion, that occurs when there is no correspondence between the perception of a stimulus in a normal manner and when the stimulus is perceived in certain conditions, such as when stress is experienced.

Thus, it may be stated that while eyewitness testimony is very powerful and convincing, in quite a few cases these are not reliable. Due to identification errors etc, wrong convictions can take place and people can be falsely accused. The problems with memory in the legal system are actually happening and considerable caution needs to be taken to prevent wrong convictions based on false memory or identification error. Many recommendations have been made to prevent false convictions based on erroneous identification and memory. These include specific legal procedures, such as when and how witnesses should be interviewed, how lineups have to be constructed and conducted etc. It is also recommended that appropriate knowledge and education must be imparted to the jurors and other relevant members in the court, when they are asked to assess eye witness memory and testimony.

Further, many false and wrong identifications that lead to wrong convictions clearly demonstrate that memory reports are malleable. In other words, they can be changed by suggestive questioning. This in turn would lead the witness to express their inaccurate memories with complete confidence. So also when the police lines up person's for identification, unless a careful protocol is ensured, there could result high rates of mistaken identification. To overcome this to some extent, psychologists create events that people witness, and then collect their reports about what they saw. Since events are created by the researchers, the results can be scored for accuracy and completeness.

In this context, we also need to discuss about memory construction and reconstruction. When we create new memories, it is called memory construction, whereas when we bring up old memories, it is called memory reconstruction. At the same time it must be remembered when we reconstruct old memories, or retrieve our memories, there is a tendency in all of us to alter or modify them. Not that anyone intends to distort or change facts, but when the old memories are retrieved, people tend to mix them up with new information and new memories, thereby bringing about considerable modification in the old memories.

In addition to such distortions, memories get also affected by suggestibility. To give an example, in a particular series of shootings that took place in a city the police, put in all their best efforts to find out the perpetrator. Many tips were available, and each tip led to a dead end. From a large number of

possible accused, the police narrowed down to about three hundred and odd accused. At this time the police during investigation came across a white car stranded in a beach which led them to investigate if a white car was involved in the crime. The information about the white car was given to the public and many of them started, saying that they had seen a person driving away in a car after committing the crime. This high suggestibility leading to modification of the witnesses' memory is an important factor to be kept in mind while dealing with eye witness' deposition. In fact the memory is so fragile that the witnesses can be easily influenced due to high level of suggestibility, which is an outside source leading to the creation of false memories. It is the suggestion that is the cause of false memory.

In addition to suggestibility that creates false memory, the possibility of misidentification by the eyewitnesses is another major problem that is faced by the legal system. In fact, eyewitness misidentification and wrong testimony can lead to wrong conviction.

Various other aspects that can also have an impact on accuracy of the eyewitness include the length of exposure to the event, face covering or disguise that may be worn by the individual who committed the crime, The duration between the actual witnessing of the event and its recalling and witness intoxication. A weapon focus effect could also occur that denotes a hypothesis that if a weapon was present when the crime was committed then that can have an effect on the ability of the eyewitness to identify the suspect later on (Harmening and Gamez, 2016).

Check Your Progress III

1) What is reconstructive memory?

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9.5 WITNESS PROTECTION

Criminal jurisprudence aims always for fair trial, and to render justice to the individual whether accused or victim concerned. Fair trial and rendering justice are at the heart of criminal jurisprudence. Fair trial is also one of the fundamental rights according to Article 21 of the Constitution of India. Denial of fair trial is also denial of Human Rights. Fair trial involves fair prosecution, independent and impartial judiciary and judicial calm etc. In any criminal trial, witness testimony is considered important and in quite a few cases these eye witness testimonies establishes the guilt of the accused.

However, these eye witnesses face a large number of problems. Since they can identify the perpetrator, the latter threatens the witness, at times even to the extent of exterminating the witness so that the accused is not identified. In certain cases, the family of the eye witness too are threatened. To continue

with deposing before the court, the eye witness has to be safe and alive. Where there is threat to his life, it becomes the duty of the police to give the witness the needed protection. This protection could be asked for by the witnesses themselves.

Witness protection is the security provided to the witness providing testimonial from video ever to the court. When a witness agrees to enter witness protection, the police sends their officers to the home of the witness and take the witness away and where needed the family is also given protection by shifting them, to some other locale where the perpetrator or his/her accomplices cannot find them.

It has also been has categorically observed by the court that if the witness is threatened or is forced to give false evidence, the court will not take the testimony of that witness, as a fair evidence and reject the same as it will not lead to a fair trial or help in rendering fair judgement.

When a witness is threatened with dire consequences, if he/she identifies and makes statements against the perpetrator, he/ she may decide not to continue with the testimony but may also state the exact opposite of what he/ she had witnessed and in quite a few cases may become in favour of the perpetrator. In other words, the witness could decide to turn hostile. They retract their statements before the court. One of the reasons mentioned for such contradicting behaviour of the witness is that they are not given appropriate protection by the state. When their life is threatened, they are are coerced and compelled , and violence is leashed against the witness and his/her whole family, the witness decides to retract his/her statements and his/her testimony, so that he/she as well as his/her family is completely protected.

Witness protection can be categorised in to the following:

- 1) Category A is where the threat is to the life of the witness or the victim or their family members. Where their normal way of living is affected for a long period of time due to investigation, trial and thereafter.
- 2) Category B is where the threat extends to the safety, reputation and property of the witness or his/her family members and their normal life affected only during the investigation process or trial.
- 3) Category C is where the threat is moderate and extends to harassment and intimidation of the witness, his/her family members, their property etc. during the investigation process.

Thus, the witness protection is provided to the person concerned based on the category in which the witness is. The state is supposed to provide such protection.

9.5.1 Procedure Related to Witness Protection

There are typical procedures followed in providing protection to witnesses. On receiving request from the witness for protection, the competent authority determines whether her the witness requires police protection and if so to what extent, and the duration for which the protection is to be given. While deciding this, the competent authority takes into consideration the following:

- Identification of various risks if the witness is not given protection?
- The nature of the criminal investigation or the very crime itself.
- The importance of the witness for the case. How indispensable is his/her testimony to apprehend and convict the perpetrator?
- The cost of providing police protection to the witness.

After the witness or the victim applies for witness protection, a threat analysis is carried out. Threat analysis report is obtained from the investigating team and the police officer in charge of the concerned police station in the jurisdiction. If the threat is imminent and there is risk of danger to the life of the witness or the victim the competent authority will immediately issue orders for witness protection. The Additional Commissioner of Police who prepares the threat analysis report also presents suggestion regarding the type of protection to be given to the witness or the victim and their family members, based on the threat being faced by the person concerned. The competent authority who sanctions the witness protection also meets the victim or witness concerned and their family so as to assess the typical protection that they require. The competent authority passes the order for protection within a week of the request received. The implementation of the witness protection order passed has to be carried out by the chief of police within a week of the orders passed by the competent authority.

9.5.2 Types of Witness Protection

There are a variety of witness protection considered depending on the degree of threat to the individual. Following are a few of the types of protection:

- Ensuring that the witness and the accused do not come face to face during investigation or trial.
- Monitoring the witness's telephone calls or arranging to provide another phone number or unlisted number to the witness so that the perpetrator does not harass them or even come to know where they are. Providing security to the home of the witness, such as security doors, CCTV cameras, alarm bell, fencing etc.
- Concealing the identity of the witness by changing name and providing emergency contact for the witnessed call if he/ she perceives or faces danger.
- Change of residence to the witness.
- Patrolling the witness's house on all sides 24x7.
- Providing an escort vehicle to get the witness from his/her home to the court and back, including at times providing government vehicle with adequate protection.
- Holding in-camera trials and providing funds as and when required by the witness or the victim.

Through out the investigation and trial, complete confidentiality is ensured. The victim or the witness is given complete protection so that the witness is not harassed in any way.

At the international level also, witness protection has been given considerable importance, in addition to providing assistance to the victims who have subjected to the vagaries of crime. The United Nations has discussed and presented various measures for the protection of the witness and the victim. While the victim suffers physical, mental, emotional and financial damage from which the person cannot get back to normalcy. Also the witnesses and victims also continuously receive threats from the perpetrator and their associates, sometimes physical injury, some even threat to kill etc. These are highly traumatic experiences and both witnesses and victims do face untold problems. Hence they need protection of many types. In all these services, there is a need for considerable cooperation from the victims and witnesses, so as to render fair justice. However quite often due to excessive fear and apprehension and constant threats from the criminals and perpetrator, the witness as well as the victims do not extend their cooperation.

However where such cooperation is ensured, the witnesses and the victims do help in identifying as well as bring to book the perpetrators of crime and the criminals. Normally it has been seen that those witnesses and victims who get adequate protection and care, do come forward to help in apprehending the criminals by deposing before the court. Thus, they cooperate with the Criminal Justice System and help the court render fair justice.

The United Nations considers that protection to witnesses and victims as a fundamental right, and that they should be protected from any harm coming to them. In this context they point out that it is the responsibility of the State to respect the victim and witness's fundamental rights and assist them with their special needs. Since they are assisting the court and the prosecution, every effort should be put in to provide such measures of assistance to them that could not only protect them from any harm but make them comfortable to depose before the court without fear or favour. In addition the following measures need to be taken:

- Assistance before and during the trial to cope with their trauma, emotional problems and mental health issues.
- Also, where the witness is at high risk of being harmed, every measure is to be taken to protect him/ her before, during and after the trial.
- The safety of the witnesses must be ensured and secured while they testify.

There are also covert witness protection programme. This involves providing assistance and protection to victims and witnesses of crime in the transnational arena. While in one country there may be adequate protection available, it may not be so in certain other countries. This problem can be overcome if there is international cooperation.

In accordance with Articles 24 and 25 of Organized Crime Convention, State parties shall take appropriate measures within their means to provide

effective protection as well as assistance to victims and witnesses of crime. Such measures may include inter alia establishing procedures to safeguard the physical integrity of people who give testimony in criminal proceedings from threats against their life and intimidation. Witnesses must be protected from threats, intimidation, corruption, or bodily injury and States are obliged to strengthen international cooperation in this regard.

United Nations Office on Drugs and Crime (UNODC) focusses on early identification of intimidated witnesses and those witnesses who are vulnerable, and manage them efficiently by specially trained police officers or the law enforcement officers. In certain cases, witness protection may involve permanent relocation and re identification.

Since witness protection and subsequent testimony by the witnesses are very important for the Criminal Justice System, the UNODC provides assistance to the countries and states which do not have witness protection programme. The support from UNODC comes in the following forms:

- Legal and institutional assessments.
- Legislative assistance.
- Programmes for creating awareness for witness protection.
- Training programmes for prosecutors, police, and witness protection authorities.
- Specialised support and advice to establish witness protection units.
- Advice on developing standard operating procedures.
- Appropriate structures and staffing arrangements.
- Strengthen international cooperation to provide witness protection in all the countries.

Check Your Progress IV

1) What are the categories of witness protection?

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9.6 LET US SUM UP

To summarise, in the present unit we discussed about eyewitness and witness protection. An eyewitness is someone who has been a spectator of a dramatic event or a crime scene first hand, the one who can give an account of the event. In this context, the nature of eyewitness assessment, procedure to assess eyewitness and tools and methods in eyewitness assessment were explained. the unit also focused on children as eyewitness. Further,

eyewitness evidence was discussed with a focus on factors that can have an impact of the reliability and accuracy of the eyewitness evidence. Lastly, the unit discussed about witness protection. Witness protection is the security provided to the witness providing testimonial from video ever to the court. In this section of the unit, the procedure related to witness protection and types of witness protection were also discussed.

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9.8 KEY WORDS

Brain Electrical Oscillation Signature Profiling (BEOSP): Brain Electrical Oscillation Signature profiling is a technique developed by Dr. C.R. Mukundan in the year 2003 after lot of research. It is a process of eliciting electro physiological evidence of a suspect's participation in the crime. It is non- invasive scientific technique with a great degree of sensitivity. It is a neuro- psychological method of interrogation and is also referred to as 'brain fingerprinting'.

Eyewitness: Eyewitness is someone who has been a spectator of a dramatic event or a crime scene first hand, the one who can give an account of the event.

Reconstructive memory: Reconstructive memory can be explained as the effect of cultural norms, expectations and values etc, that denote how an individual interprets his/ her personal experience, on the individual's memory. Thus, any event that is witnessed by an individual will be interpreted, meaning is assigned to it and then it becomes a part of the memory.

Misinformation effect: Harmening and Gamez (2016, page 269) define misinformation effect as “a phenomenon in which misinformation presented to an eyewitness immediately following an event can alter the accuracy of their memory of that event”.

Narcoanalysis: Narcoanalysis psychotherapy conducted while the patient is in sleeplike state induced by barbiturates or other drugs, especially as a means of releasing repressed feelings, thoughts or memories.

Polygraph test: Polygraph test is an instrument that measures and records several physiological indices such as blood pressure, pulse, respiration, and skin conductivity. It is based on the foundation that deceptive answers/information will produce physiological responses that can be differentiated from those associated with non-deceptive answers/information.

Witness protection: Witness protection is the security provided to the witness providing testimonial from video ever to the court.

9.9 ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress I

- 1) What is BEOSP

Brain Electrical Oscillation Signature Profiling is a technique developed by Dr. C.R. Mukundan in the year 2003 after lot of research. It is a process of eliciting electro physiological evidence of a suspect's participation in the crime. It is non- invasive scientific technique with a great degree of sensitivity. It is a neuro-psychological method of interrogation and is also referred to as brain fingerprintin.

Check Your Progress II

- 1) What is associative activation theory?

Associative activation theory is a model of memory in which concepts are interconnected with themes, and it successfully predicts false memories from childhood to adulthood years. It also tells about the changes in false memory based on the emotional state of the person.

Check Your Progress III

- 1) What is reconstructive memory?

Reconstructive memory can be explained as the effect of cultural norms, expectations and values etc, that denote how an individual interprets his/ her personal experience, on the individual's memory. Thus, any event that is witnessed by an individual will be interpreted, meaning is assigned to it and then it becomes a part of the memory.

Check Your Progress IV

1) What are the categories of witness protection?

Witness protection can be categorised in to the following:

- Category A is where the threat is to the life of the witness or the victim or their family members. Where their normal way of living is affected for a long period of time due to investigation, trial and thereafter.
- Category B is where the threat extends to the safety, reputation and property of the witness or his/her family members and their normal life affected only during the investigation process or trial.
- Category C is where the threat is moderate and extends to harassment and intimidation of the witness, his/her family members, their property etc. during the investigation process.

9.10 UNIT END QUESTIONS

- 1) Explain the meaning of eyewitness and discuss the nature of eyewitness assessment.
- 2) Describe the procedures to assess eyewitness.
- 3) Explain various tools and methods in eyewitness assessment.
- 4) Describe children as eyewitnesses.
- 5) Explain eyewitness evidence
- 6) Discuss witness protection.

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