

The Effect of Violent Human interaction in Eyewitness Memory.

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Abstract

Years of research in eyewitness reliability have proved that human memory can be fallible producing perpetrator misidentification thus leaving real criminals out on the streets. Many innocent suspects have been wrongfully identified and convicted to years of prison just because the jury and the judge put heavy emphasis on the eyewitness statement. New DNA technology has been able to prove the innocence of many convicted suspects, but it is still a small fraction of the possible unjust imprisonments in the United States. This study aims to explore witnesses fear and empathy as predictors of memory accuracy and correct perpetrator identification from a live lineup. In the first condition subjects will witness a staged violent attack from a person to another person. In the second condition subjects will witness a violent attack from a person towards a non-human target. It is expected that eyewitnesses will better recall the specifics of the event and more accurately identify the perpetrator in the human-object interaction than in the human-human interaction.

“The Effect of Violent Human interaction in Eyewitness Memory”

The justice system and the jury rely heavily on eyewitness evidence for the conviction of a suspect. However, human memory is not perfect and there is always space for errors in suspect identifications. Crimes against people and property are frequently flashed in the news, but the types of crimes that really get our attention are those committed against another fellow human being. Those are also the types of crime that the law most harshly punishes.

Other types of crimes like arson and vandalism also affect the community. Motivations like hate, racism, and disagreement are some of the causes for such crimes as well as insurance frauds. In 2008, a man set a church on fire after Barack Obama won the presidential elections. Most of the members who attended the Macedonia church were black. In a different case, the Tennessee Board of Parole and Probation office was also set on fire in 2010 and in 2007 a subsidized apartment building, Carnegie Towers, in Pittsburg, Massachusetts was also set on fire. There are many other cases where abandoned homes are set on fire and wildfires are started with malicious intention as well. Vandalism is another issue at hand. In February of this year a man was arrested in California for vandalizing businesses where the members of the LGBTQ community frequented. These types of crimes are difficult to solve when there are no witnesses, but crimes against actual people are harder to solve when the only evidence available is the statement of an eyewitness.

Because of such reliance on the statement of eyewitnesses as the sole evidence to convict a suspect, many innocent people have been unjustly sent to jail sometimes even sentenced to death. The Innocence Project created in 1992 has been able to prove the innocence of many inmates through DNA testing from the crime scene, but even though science has proved the unquestionable innocence of these mistakenly identified and unjustly imprisoned people, many justice system representatives remain skeptical. Such was the case of Kirk Bloodsworth whose innocence was proved by DNA testing, but not completely accepted until DNA technology as well proved the true murderer of the 9-year-old

female victim (Wells, Memon and Penrod, 2006).

Another contributor to wrongful convictions are unethical and ineffective interrogations techniques like the Reid technique that allow the police and detectives to manipulate and lie to suspects about the existence of evidence in order to achieve one goal: a confession. This technique has pushed many suspects to provide false confessions sending them straight to jail for crimes they did not actually commit. Nonetheless, the Reid technique still widely used in the United States to get suspects to confess one way or another even if they lie about it.

A better method of interrogation is the Cognitive Interview because instead of feeding evidence to the suspect, the interrogator asks open ended questions to allow suspects and witnesses to provide true statements they recall from past events. This type of interrogation technique does not use coercion like the Reid technique does nor provides false evidence to the suspect to elicit a confession. The present study will administer the cognitive interview to the participants.

During perpetrator identification procedures, it is important for witnesses to be warned that the perpetrator may or may not be in the lineup since suggestive directions and police behavioral cues may cause the witness to produce a mistaken identification. The simultaneous lineup strategy is more likely to allow eyewitnesses to make more errors during suspect identification than sequential lineups. There is enough evidence supporting the sequential lineup as the best at producing less identification errors (Gronlund, Carlson, Dailey and Goodsell, 2009). For this reason, the present study will use sequential lineup for participants to identify suspect.

Over the years, scientific research has proved that eyewitness memory about a crime is not to be taken as an absolute truth by the justice system. There are different contexts and factors that contribute to enhanced or diminished recall of past events. For example, different levels of stress during the witnessed event serve as predictors of correct and incorrect perpetrator identification. In some studies high levels of stress caused participants to remember the perpetrator less well and make

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an incorrect identification from a lineup (Valentine & Mesout, 2008). However, other studies indicate that eyewitnesses are able to remember the perpetrator better under low stress conditions (Morgan et al. 2004). High levels of arousal contributes to better recall of information about location of the crime, but it also contributes to lack of recall for specific details such as the objects in the scene of the crime (Price, Lee, and Read, 2009).

Police delay in arresting a suspect and bringing in an eyewitness for perpetrator identification from mug shots and/or live lineups also contribute to the unreliability. Studies have shown that the longer the period between eyewitness seeing the perpetrator committing a crime, the less accurate the judgment will be during identification from a lineup (Deffenbacher, Penrod, Bornstein and Mc Gorty, 2008).

Field studies are great ecological laboratories for researching eyewitness memory, but limitations exist when variables cannot be as well controlled as in a laboratory and witnesses confidence levels are higher since the police interview them right after the committed crime. However, it has been established that there is a low to modest correlation between eyewitness confidence and identification accuracy. Also eyewitnesses remember more details about people involved in the event than details about inanimate objects. Free recall also provides more accurate information from witnesses rather than questioning. Higher emotional involvement is also positively correlated with accuracy of details recalled (Odinot, Wolters and Koppen, 2009).

The proposed study aims to explore the accuracy of memory and suspect identification for participants witnessing a violent interaction between perpetrator and a human target in one condition versus a violent interaction between perpetrator and object in a second condition. It is hypothesized that participants in the first condition will feel more fear and empathy for the victim being attacked since it could be happened to them (participants) too. These feelings will cause participants to focus their attention on the victim neglecting the perpetrator thus serving as predictors (fear and empathy) for

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identification accuracy. Participants witnessing perpetrator attacking an object will experience less fear and empathy since the target is not a fellow human being. The lack of these feelings will allow participants to focus their attention on the perpetrator thus giving more accurate suspect identification from the lineup.

Method

Participants

The study will be conducted at the laboratories of the Psychology department at Barnard College. The students in the study will receive class credit for their participation in the experiment. There will be 20 female students from Barnard College participating in this study. Their ages range between 18-22 years. There will be no participants with mental retardation.

Materials

Students will be asked to bring their own personal laptops where they will be able to access a link through email allowing them to begin a virtual sentence verification task. Participants will be paired up with confederates and sent to a lab room to carry out the task. After the experiment is executed, participants will be asked to fill out a questionnaire with questions about fear and empathy during the dramatic event witnessed. Then they will be interrogated by the experimenter. The Cognitive Interview will be used in the study.

Procedure

In the first condition students will be paired up with a confederate to execute the computer task in the same room. After 3 minutes in the room the confederate will announce to the participant that she is going to the bathroom and will be right back. After 30 seconds of the confederate's absence, a second confederate (perpetrator) will suddenly enter the room and violently throw the unattended laptop against the wall and quickly run out of the room. The interaction will last approximately 7 seconds.

In the second condition students will be paired with a confederate and sent together to a lab

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room to complete the computer task as in the first condition. Differently from the first condition, the first confederate will not leave the room. Instead the second confederate (perpetrator) will unexpectedly burst into the lab room and violently attack confederate 1 by pushing her against the wall. Right after the violent interaction, confederate 2 will run out of the crime scene and escape. The violent interaction between both persons will last approximately 7 seconds as well.

After the participants witness the violent interactions, the experimenter will walk into the room and ask participant to fill out a questionnaire about their emotions during the violent attack. The questionnaire will have questions about fear and empathy experienced during the dramatic event witnessed. Participants will answer in a scale from 1-5 where 1 is definitely not true and 5 is definitely true. Examples of such questions will be “I felt afraid when the other student was attacked”, “I felt empathetic towards the other student at the time of the crime”, “That attack could have easily happened to me as well so I sympathized with the other student”, “I felt afraid when the perpetrator threw the laptop against the wall.”, “That same attack on the student’s personal property could have been done to my own laptop too.” These questions seek to assess how emotionally involved the participant is in the crime scene thus a correlation is expected between significant emotional involvement through feelings of empathy and fear for the target (human or non-human) and the perpetrator identification inaccuracy. The more fear and empathy the participant feels for the target of the attack the more focus will be directed towards the abused target thus participants will pay less attention to perpetrator and make less accurate identifications from a lineup.

After participants fill out the questionnaire, they will be asked to proceed to a room where they will be interviewed about the specifics of the event witnessed. The cognitive interview will be used and the questioning session will last 20 minutes. Participants will be asked open ended questions as to avoid leading them into giving the desired information.

After the interview, participants will be asked to participate in a live lineup to identify the

perpetrator. Participants will be warned that the perpetrator may or may not be present in the lineup. The lineup will be conducted in a double blind manner so that the interviewer will not know either if the perpetrator is present in the lineup. This precaution will control for and avoid any aspects of his behavior or facial expressions to give away any cues to the participant trying to identify the suspect.

Results

It is hypothesized that greater feelings of fear and empathy towards the victim during the time of the witnessed violent event will inhibit participants from providing accurate event descriptions and correct perpetrator identifications during the live lineup because most of the attention at the time of the crime will be towards the human target and not the perpetrator.

In the human-object interaction, it is hypothesized that participants will show lower levels of fear and empathy towards the laptop and will focus their attention more on the perpetrator. This concentrated focus on the perpetrator will allow participants to better recall more accurate details about the dramatic event during the cognitive interview and better identify the perpetrator in a live double blind lineup.

Discussion

This study hypothesizes that higher feelings of empathy and fear towards a victim during a witnessed violent event will correlate with less accurate event descriptions and less accurate perpetrator identification from a live lineup. It is expected that people witnessing traumatic events where another fellow human being is attacked or violated in any way will focus their attention on the helpless victim and not on the perpetrator. In the contrary, when witnessing a violent event in which the target is non-human, then it is expected that people will focus their attention more on the perpetrator of the crime.

Exploring the difference between human target and non-human target in crimes is important for the justice system procedures because many crimes occur every day where witnesses do not accurately remember specifics about the events and/or correctly recognize the perpetrator. This fallible memory

errors lead participants to identify the wrong suspect and the justice system, putting strong emphasis on an eyewitness statement, convicts innocent people to close a case.

Specific types of crimes like arson and vandalism are not targeted towards people specifically even though sometimes what or who they represent may be motivators for committing the crime. Witnesses' emotions at the time of the crime will direct their attention thus the different levels of these emotions will serve as predictors of witness reliability. Rates of emotions will vary depending on the target thus the directed attention and focus will be distributed on whatever or whoever attracts the most feelings from the witness.

More interestingly, crimes committed against human targets will direct the witnesses' attention towards the victim and produce emotional reactions like fear and empathy for the abused person. Other feelings that can be explored in a future study could be powerlessness over the inflicted abuse on the human target and assess if there is a correlation with memory accuracy and perpetrator identification. It could be interesting to explore whether feeling incapable of helping the victim will make the witness focus their undivided attention even more on the person attacked because they feel guilty they are not helping to stop the crime.

More research is needed to understand human emotions during human-target and non-human target crimes in order to better assess if these emotions can serve as predictors of accuracy in recall of events and perpetrator identification. One possible study could explore if there are differences in emotions in crimes involving human targets and animal targets. It would be interesting to see if there is a difference in emotions drawn from fellow humans and emotions drawn from animals. This study would have been done differently by replacing the object-target (laptop) with a domestic animal target (a hamster). If differences do arise and the emotions do serve as predictors of recall and identification accuracy, then the justice system should be more careful at determining the culpability of suspects of crimes committed against non-human targets since eyewitnesses' side of the story could have memory

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