

Memory Conformity and Eyewitness Testimony

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ABSTRACT

False eyewitness testimonies are a problem that affects the lives of many defendants. One of the causes of false testimonies is memory conformity. When one witness discusses his or her memory for a past event with another, that information can distort the memories of other witnesses. The present study examined the effects of gender and group size on memory conformity using a videotaped crime scene. Men ($n=31$) and women ($n=30$) separately watched two different versions of the same crime scene. Participants were either in a pair consisting of a man and a woman or in a group of men and women. They discussed the scene and filled out a questionnaire detailing the crime scene. Men showed more memory conformity than women when discussion was in groups, but not in pairs. These results are contrary to findings that women conform more than men in traditional conformity studies.

INTRODUCTION

Experts have estimated that most of the time convicted suspects are found innocent it is due to errant eyewitness testimonies (Wright, Self, & Justice, 2000). False eyewitness testimony is often influenced by the fact that witnesses tend to discuss what they saw with each other. However, errors in perception are common. Discussions of errant information among witnesses can lead to distorted memories of the event (Gabbert, Memon, & Wright, 2006).

Memory distortions can occur during eyewitness testimonies, education, and most everyday reminiscing (Wright, Mathews, & Skagerberg, 2005). However, the impact of faulty or errant memories on defendants is particularly troubling in the U.S. judicial system, because it relies heavily on the prosecution's need to provide evidence. One well-known case of false eyewitness testimony is the Oklahoma City bombing of 1995 (Gabbert, Memon, & Allan, 2003). There were three key eyewitnesses who saw the defendant, Timothy McVeigh, on the day of the bombing at Elliott's Body Shop renting the truck that he used. The secretary and the owner of the truck rental both indicated that McVeigh was alone. However, one of the mechanics who observed McVeigh renting the truck stated that he saw an accomplice with McVeigh. When the primary witnesses conversed with the mechanic, they too came to believe that there was an accomplice. A nation-wide search for this accomplice, known as "John Doe 2" was launched. The FBI now believes that the mechanic was mixing his memory of McVeigh with a memory of another customer that day that had had somebody with him (Wright, Self, & Justice, 2000).

The distortion of memories of past events due to information from other witnesses is referred to as memory conformity (Gabbert, Memon, & Allan, 2003). Social psychologists posit two major motivations for conformity. An *informational* motivation to conform occurs when an individual simply has a desire to be correct. Therefore, that individual may believe that what another person tells them is correct, and "adopt" this information as his or her own. *Normative* motivations to conform occur when an individual wants to appear to be in agreement with others to increase his or her chances of being liked. Research suggests that informational motivations may occur more frequently; however, normative motivations may affect an individual's ability to encode the original information. In contrast to other conformity research, evidence suggests that in memory situations, the individual is largely unaware that he or she is conforming (Gabbert, Memon, & Wright, 2006). Ultimately, this lack of awareness could have more serious implications than situations where an individual is aware of the fact that he or she conformed in order to be correct or well liked.

The information being shared during memory conformity is referred to as post-event information (PEI) (Wright, Self, & Justice, 2000). In an empirical study of PEI, Wright, Self, and Justice (2000) examined the likelihood that one person's testimony regarding an event would change another's. Participants viewed a clip of a crime taking place. The clips were identical except for one half of the participants saw an accomplice with the thief and the other half did not. The researchers found that the first participant's testimony of what they saw influenced what the other

participant said that they saw. In approximately seventy percent of the pairings, participants changed their decision due to their discussion with their partner.

Gabbert, Memon, and Wright (2006) explored factors that influence memory conformity. Four complex scenes were used as the stimuli. Two versions of the four scenes were created that were the same except for two contradictory details. For example, in Version A of one scene, there were two cups and a *plate* near the sink, whereas in Version B, there were two cups and a *teapot* near the sink. All participants saw the pictures individually, did a filler task, discussed what they saw with their partner, and then were asked to write down as many details as they could remember. Both participants conformed to each other's perspectives; however, the participant who reported second conformed the most. Therefore, the one initiating the conversation was the least likely to conform.

Researchers have speculated about the role of gender in the accuracy of remembering details during an eyewitness testimony. Empirical results have been mixed. Casiere and Ashton (1996) found that women were more accurate than men at remembering information by examining their recall of a four-minute video of a passersby in front of a grocery store. Shaw and Skolnick (1999) found gender differences but only under specific conditions such that men recalled other male behavior better and women recalled other female behavior better when the behavior was stereotypic. Other studies found no differences between men and women (Butts, Mixon, Madhuri, & Bringmann (1995). Eagly and Carli (1981) also found that in group settings, women tend to conform more than men. In addition, because men have more perceived social power than women (Powers & Reiser, 2005), women tend to be more likely to conform to men than are men to women.

Another factor of interest to conformity research is group size. Asch (1955) studies suggest that group conformity increases as the group increases; however, he also found that conformity reaches its peak at three to four people. Asch's studies utilized confederates who acted the part of a group unanimous in their opinion regarding the correct answer.

The current study explores the role of gender and group size on memory conformity in regard to eyewitness testimony. Our first hypothesis was that women would conform more than men. Our second hypothesis was that participants would conform more in groups than in pairs. Our final hypothesis was that the group that will show the highest conformity is when women are in groups with men.

METHOD

Men (n=31) and women (n=30) were solicited from the introductory psychology course in the undergraduate psychology program at the University of Wisconsin-La Crosse in order to receive course credit. Participants separately watched two different versions of the same video depicting a crime taking place (Version A or Version B). In Version A, a female student taking money out of a backpack was visible (from the front) and in Version B the actual crime cannot be seen. Participants completed a questionnaire immediately after viewing the video asking them to recall as many details as they could remember. The questionnaire was a modification of the items used by Gabbert, Memon, and Allan (2003) that asks questions about the crime scene. They then completed a three-minute word search filler task. After completing the filler task, participants discussed the crime with one other person of the opposite sex (who saw the different version) or they discussed the crime in a group with four other same-sex participants who then combined with a group of five opposite-sex participants (who saw the different version) to discuss the crime. Table 1 shows the possible combinations of conditions. After discussing as many details as they could remember with either their partner or group, participants completed a second questionnaire. The second questionnaire was similar to the first one and included the following question in order to measure conformity, "The person was accused of stealing money. From what you have witnessed, would you decide that this person was ___guilty ___not guilty? What evidence could you provide?" (Gabbert, Memon, & Allan, 2003).

Table 1. Possible Combinations of Conditions Associated

	MATCHED WITH
MALE (Dyad) Version A	FEMALE (Dyad) Version B
MALE (Dyad) Version B	FEMALE (Dyad) Version A
MALES (Groups) Version A	FEMALE S (Groups) Version B
MALES (Groups) Version B	FEMALE (Groups) Version A

RESULTS

We tested the relationship between gender, group size (in either a group or a pair) and memory conformity via chi-square (see Table 2). The result of the chi square test for individuals in a group was significant, $X^2(1, N = 39) = 6.11, p = .01$, suggesting that when in groups, men conform more often than women. The result of the chi square test was not significant for pairs, $X^2(1, N = 26) = .17$, suggesting there is no difference in memory conformity between men and women when discussion was in pairs.

Table 2. Crosstabs Observed Values for Group Size and Gender

Group Size			Gender		Total
			Woman	Man	
Group	Conformity	Conform	4	12	16
		No conformity	15	8	23
	Total		19	20	39
Pair	Conformity	Conform	4	5	9
		No conformity	9	8	17
	Total		13	13	26

CONCLUSIONS

Interestingly, our results were in the opposite direction than predicted in that men showed more memory conformity than women. Possibly, participants who remember more information are less likely to show memory conformity. Prior research has shown that women remembered more information in a video than men did (Casire & Ashton, 1996). Therefore, women may have been less likely to conform because they remembered the events in the video better. Further research could measure memory for the event to see if better memory correlated with lower memory conformity.

In addition, according to the study done by Gabbert, Memon, and Wright (2006), participants conformed less when they were the first person to speak. Although we did not specifically measure this phenomenon, it was apparent that women were more likely to initiate conversation. Therefore, future research could examine this trend further.

Our findings suggest that proper precautions should be taken so that witnesses do not discuss their memories with other witnesses. By studying various factors such as the effects of gender and group size on memory conformity, it can further the knowledge needed in our U.S. judicial system so that fewer innocent victims are convicted. Eyewitness testimonies are a very important factor in determining a verdict. Therefore, when information given by such influential sources is incorrect, it could have vast implications. Juries must be informed of the fallibility of witnesses' memories.

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