By George, I Think You've Got It: The Social Influence of Interviewers on Eyewitness Confidence

by

Lynn Jennifer Garrioch
B.A., University of Victoria, 1994

A Thesis Submitted in Partial Fulfilment of the
Requirements for the Degree of

MASTER OF ARTS

in the Department of Psychology

We accept this thesis as conforming
to the required standard

[redacted]

Dr. C.A.E. Brimacombe, Supervisor
(Department of Psychology)

[redacted]

Dr. H. Kadlec, Department Member
(Department of Psychology)

[redacted]

Dr. B. McCarthy, Outside Member
(Department of Sociology)

[redacted]

Dr. P. Stephenson, External Examiner
(Department of Anthropology)

University of Victoria

Supervisor: Dr. C. A. Elizabeth Brimacombe

Abstract

Social interactions can cause increases and decreases in eyewitnesses' post-identification confidence (Luus & Wells, 1994). This thesis focuses on the social influence that interviewers have on eyewitnesses' confidence. Do interviewers influence witnesses' confidence when the officers believe they know who the alleged suspect is? What happens when the witness makes an identification that confirms a lineup administrators expectations; what happens when this expectation is not confirmed? In this study, introductory psychology participant-interviewers (n=91) administered photo lineups to introductory psychology participant-witnesses (n=91) who viewed a simulated theft. The interviewers incidentally learned about the thief, but they never viewed the simulated theft. By the time the participant-interviewer administered the lineup to the participant-witness, the interviewer should have had a strong suspicion about who the culprit was. Would this suspicion be transmitted to the witness and ultimately affect the witness's confidence? A one-way ANOVA and a subsequent Dunnett's post-hoc test revealed that witness's confidence lowered when the witness identified the wrong lineup member who looked similar to the alleged suspect than when the witness confirmed the interviewer's belief by choosing the alleged suspect.

Examiners: [redacted]

Dr. C.A.E. Brimacombe, Supervisor
(Department of Psychology)

[redacted]

Dr. H. Kadlec, Department Member
(Department of Psychology)

[redacted]

Dr. B. McCarthy, Outside Member
(Department of Sociology)

[redacted]

Dr. P. Stephenson, External Examiner
(Department of Anthropology)

Table of Contents

Page

List of Tables

Page

List of Figures

List of Appendices

Acknowledgement

According to the African proverb, "**It takes a village to raise a child**". It took the patience, wisdom, and talent of many people to get this baby written. Thank you, first and foremost, Dr. C. A. Elizabeth Brimacombe, for your never ending patience. I acknowledge with affection and gratitude your instrumental help with making this thesis a presentable manuscript.

I would also want to express my thanks to Dr. Brimacombe's research team: Sandy Jung, Iona Wright, Kevena Johnson, and Liisa Gibson. All of you have put many long, frustrating hours being experimenters and/or confederates.

Thanks to my committee members, Dr. Bill McCarthy and Dr. Helena Kadlec, who provided constructive feedback to improve the thesis. Thank you very much Dr. McCarthy for filling in as my outside member on short notice. Thank you, Dr. Kadlec, for allowing me to plop myself down in her office and ask her statistics questions without making an appointment.

I am also grateful to Garry Hunt for rescuing me off the island on weekends. How can I thank you for the endless trips to Tsawwassen, dinners, cappuccinos and talks? You will always be dear to me.

Finally, I would like to extend a special thank you to my enthusiastic family: Mom, Dad, Peter, Helen, and Stephen. I appreciate your financial support, and more importantly, your moral support and love.

Chapter One: Introduction

> What if there had been an eyewitness to the killing of Nicole Brown and Ronald Goldman? If a confident eyewitness stood up in court and identified O.J. Simpson as Nicole Brown and Ronald Goldman's murderer, would Mr. Simpson have been found guilty? **Probably.**

Confident eyewitness testimony is extremely powerful courtroom evidence. University students, police officers, lawyers, and jurors generally believe that eyewitness identification accuracy and confidence are correlated (Brigham & Wolfskiel, 1983; Deffenbacher & Loftus, 1982; Yarmey & Jones, 1983). Brigham and Wolfskeil (1983) conducted a survey of 89 public defenders, 69 state prosecutors and 77 private defense lawyers in Florida all of whom dealt with eyewitnesses and identifications; 75% of the prosecutors and 40% of the defense attorneys believed that witnesses who are confident are more likely to be accurate than witnesses who lack confidence. Also, 73% of law enforcement personnel believed that there was a positive relationship between certainty (confidence) and accuracy in eyewitness identification (Brigham, 1981).

Jurors, also, apparently regard an eyewitness's identification as one of the most convincing kinds of evidence that can be presented in court (Lindsay, Wells, & O'Connor, 1989; Lindsay, Wells & Rumpel, 1981; Brigham & Bothwell, 1983). Empirical studies of jurors' judgments of eyewitness credibility, generally find jurors more likely to

believe confident eyewitnesses, but the confident eyewitnesses were generally no more likely to be accurate than less confident eyewitnesses (Wells & Lindsay, 1985). Jury members appear to rely on their "common sense" in evaluating eyewitness evidence (Cutler & Penrod, 1996). "Common sense", however, does not always reflect the true state of affairs.

Relationship of Eyewitness Accuracy and Confidence

Although it may seem reasonable that eyewitnesses who are confident about their identifications would be likely to be accurate, research suggests that the confidence-accuracy relationship is weak at best (Deffenbacher, 1980; Leippe, 1980). Bothwell, Deffenbacher, and Brigham (1987) conducted a meta-analysis of 35 studies in which participants' recognition accuracy and confidence were assessed after viewing a staged incident. The mean confidence-accuracy correlation was .25 with the 95% confidence interval ranging from .08 to .42. Such a wide interval suggests that the true correlation between eyewitness accuracy and confidence could be as high as .42 with confidence accounting for as much as 18% of the variance in witness accuracy, or the correlation between accuracy and confidence could be close to zero. It appears reasonable to regard the accuracy-confidence relationship as unreliable.

Why is the Eyewitness Confidence-Accuracy Relationship Unreliable?

The eyewitness confidence-accuracy relationship is perplexing. It stands in contrast to the cognitive literature wherein there is a moderate, robust positive correlation between participants' confidence evaluations and their memory performance (Perfect, Watson, & Wagstaff, 1993). Nelson (1988) reviewed the cognitive literature and concluded that there is a positive correlation between accuracy and confidence across different populations, and cognitive tasks. Many cognitive tasks have been modelled after Thomsom and Tulving's (1970) experiment where their participants were asked to learn a list of words for later recall. Their participants' confidence in how many words they recalled accurately was calibrated with how many words they actually recalled. This type of cognitive task does not appear to be much different from an eyewitness task. Both tasks present a target event and ask participants to recall the target event (e.g., a crime or a list of words). And so, why is the eyewitness confidence-accuracy relationship poor and the cognitive confidence-accuracy relationship strong?

Perfect et al. (1993) suggest that an eyewitness memory test is quite different from a typical cognitive/word lexicon memory task. Eyewitness memory is typically based on an event that the witness saw only once, under nonoptimal

conditions, and with incidental learning, such that the witness was unprepared for the encoding task and subsequent recall test. Eyewitnesses are forced to recall details from episodic memory. All these factors of eyewitness memory and recall are different from the typical cognitive memory tasks where the memory conditions require general knowledge and recall of fairly familiar material such as a word list consisting of common words (Perfect et al., 1993).

Perfect et al. (1993) investigated whether participants who perform a regular cognitive memory task differ from participants who perform an eyewitness memory test in confidence and accuracy. These researchers randomly assigned participants to a general knowledge condition or an eyewitness memory condition. Participants assigned to the general knowledge condition answered general knowledge questions. Participants assigned to the eyewitness memory condition watched a clip of a feature film; they were not warned that a memory test would follow. Afterward they answered questions about their memory for the film. For each question, the participants were asked to rate their confidence in their response on a scale of 1 (very confident) to 5 (no idea).

Perfect et al. (1993) found that there was a positive correlation between confidence and memory performance in the general knowledge memory conditions, but not for the eyewitness memory condition. Perfect et al. (1993)

suggested that the general knowledge memory test and the eyewitness memory test are different because general knowledge tests occur everyday and eyewitness memory tests do not. We receive feedback everyday about our general knowledge accuracy such that we learn to calibrate our confidence with performance. Eyewitness memory tests are not an everyday occurrence and thus, we have not learned how to calibrate our confidence with performance (Perfect et al. 1993).

Moderators of the Confidence-Accuracy Relationship

Perfect et al. (1993) have suggested that the eyewitness confidence-accuracy relationship is poor due to the inherent nature of this particular memory task. Other eyewitness testimony researchers have adopted an altenative explanation for the confidence-accuracy relationship. This latter approach focuses on moderator variables that influence the eyewitness confidence-accuracy relationship (Baron & Kenny, 1986). A moderator variable is a variable that distinguishes subgroups within which the strength of a relationship between a predictor (e.g., witness confidence) and a criterion (e.g., identification accuracy) differs (Baron & Kenny, 1986). Much of the moderator variable literature has considered moderator variables which affect eyewitness memory but not witness's confidence. Several factors about an event affect how the event is encoded into

the witness's memory which the witness may be unaware of (e.g., length of observation time, lighting conditions, and amount of stress).

Deffenbacher's Optimality Hypothesis

Deffenbacher (1980) argued that the magnitude of the eyewitness accuracy-confidence correlation may vary as a function of the quality of the information processing conditions that exist during encoding, storage and retrieval of the witness' memory. Thus, the factors that influence optimality (i.e., quality) of information processing also influence the reliability of the confidence estimate.

Deffenbacher's (1980) optimality hypothesis suggests that factors that influence the conditions for encoding the perpetrator's face, for example, also affect the reliability of eyewitness confidence as a predictor of recognition accuracy. Under conditions that promote optimal information processing (e.g., good lighting conditions), face recognition should be accurate, and confidence should be a good predictor of recognition accuracy. Under conditions that reduce the optimality of information processing, such as if the face of the perpetrator is disguised or the witness has an obstructed view, face recognition should be less accurate, and confidence should be a weaker predictor of recognition accuracy.

This idea has received support in two integrative

reviews of the eyewitness literature (Bothwell et al., 1987; Deffenbacher, 1980). More recently, Cutler and Penrod (1989), showed empirical support for this optimality hypothesis with a study wherein the confidence-accuracy correlation was stronger if the target's face was not disguised. Also, Brigham (1990) and Cutler and Penrod (1989) found that the confidence-accuracy correlation was stronger if the to-be-remembered targets were distinctive in appearance and weaker if the targets did not have distinctive characteristics.

If accuracy can be easily affected by nonoptimal viewing conditions with no effect on confidence, are there any conditions that could alter confidence but not accuracy? Leippe (1980) outlined conditions wherein confidence might be affected independently of accuracy. This is also the focus of the current research.

Malleability of Eyewitness Confidence

Leippe (1980) used social psychological theory to explain potential changes in eyewitness confidence independent of eyewitness accuracy. According to Leippe, the act of making an identification is a social behaviour that may have cognitive consequences. For example, social influence processes, such as committing oneself to a decision may influence confidence judgments while having little or no effect on the accuracy of the identification.

Many social conditions can alter confidence independently of memory (Leippe, 1980). As social influences increase, the relationship of accuracy and confidence should decrease. That is, if a witness becomes more or less confident because of a social interaction (e.g., an interview with a police officer or learning information from a co-witness) after making an identification, the correlation between accuracy and confidence should decrease. In short, Leippe argued that eyewitness identification confidence is readily influenced by social factors that can operate independently of perceptual and memorial processes.

According to Wells et al. (1981), Leippe made a theoretical argument, without empirical support, for a class of events that may alter confidence in memory without affecting accuracy in memory. Wells et al. (1981) endeavoured to provide that empirical support. Wells et al.'s (1981) participants individually witnessed a staged theft. The participants were asked to attempt to identify the thief from either a target-present or target-absent photo lineup. After the identification task, the witnesses who made an identification were told that they would be cross-examined.

To see if confidence was malleable after making an identification, Wells et al. (1981) divided the group of witnesses who were to be crossed-examined in half. Half of

the witnesses were briefed by a "prosecutor" who asked these witnesses to rehearse their answers to questions that may be asked under cross-examination. The other half of the participants waited 25 minutes and then were cross-examined, but they were not given any instructions on how to prepare for the cross-examination.

Participants who were briefed by the prosecutor rated themselves as more confident about their identification choice than participants who were not briefed before the interview. The briefing, however, obviously had no effect on the accuracy of the eyewitnesses (it occurred after the identification was made). Briefed inaccurate witnesses, witnesses who identified the perpetrator in the target-absent lineup, showed the largest inflation of confidence as a function of the briefing manipulation. The briefing manipulation appeared to eliminate the confidence-accuracy relationship.

There is growing evidence that post-identification events can significantly distort eyewitness confidence while accuracy remains static or unaffected (Luus & Wells, 1994; Wells et al. 1981). Confidence malleability refers to this tendency for eyewitnesses to become more or less confident in their identifications as a function of events that occur after the identification (Wells & Seelau, 1995).

Social Influence on Eyewitness Confidence: Co-witnesses

Luus and Wells (1994) showed that eyewitness confidence can be influenced by information learned after both the crime and the identification test. Specifically, these researchers studied the effect of co-witness information on eyewitnesses' confidence in their identification choices. Luus and Wells define co-witness information as information that one eyewitness passes to another witness regarding an event that both observed. Such information may be passed in direct conversation between witnesses or through a third party such as a police officer.

Luus and Wells (1994) staged a theft for pairs of unsuspecting participants. The participants individually attempted to identify the perpetrator from a photo-lineup. Afterwards, the witnesses were provided with information regarding the alleged identification decision of their co-witness. Luus and Wells' (1994) results show that eyewitnesses' confidence in their identifications is malleable as a function of what witnesses are led to believe about the identification decision of a co-witness. Witnesses who were informed that their co-witness identified the same person they did showed an increase in the confidence they expressed to a confederate police officer. Confidence deflation occurred when witnesses who were led to believed that the co-witness either identified different lineup member or rejected the lineup, believing that the

perpetrator was not present.

Co-witness information is almost undoubtedly shared in some criminal cases and not in others (Luus & Wells, 1994). For example, when there is only one witness, there is no opportunity for co-witness discussion. There are other cases, however, where there are multiple witnesses but the police make a concerted effort not to forward co-witness information to other witnesses. Witnesses, may have the opportunity to exchange information if they are related or live together and happen to witness the same event. Thus, co-witness information may be a major source of influence in some cases and noninfluential in other cases.

Social Influences of Eyewitness Confidence: Police Interviewers

Co-witnesses may not be the only source of social influence affecting eyewitnesses' confidence. Police personnel are a major source of social interaction and potential influence on eyewitnesses. To build a photo lineup, the police have some ideas about who the suspect is. Does this knowledge that the police possess affect an eyewitness' confidence in his/her identification choice? The current research is the first investigation of this possibility.

The emphasis in the current research is on the effects of police feedback on eyewitnesses' confidence in their identifications. Wells and Seelau (1995) suggest that

police officers are like researchers who have a hypothesis (i.e., that a particular suspect is the culprit). Police officers who administer photo lineups to witnesses will probably not provide overt feedback or reactions to witnesses about their lineup decisions; however, they may communicate subtle messages about the witness's identification decision through nonverbal communication and paralanguage (intonation). It is possible that a police officer may show his/her disappointment or approval through his/her body language. What effect will this have on a witness's confidence? It is possible that police officer's post-identification communication could make a witness more or less confident.

Mechanisms By Which Lineup Administrators Might Convey Information About Accuracy of Choice

How can a police officer convey his/her disappointment or approval through nonverbal communication? Is this nonverbal communication likely to affect an eyewitness?

A speaker's explicit words are not the only potential influence on a listener. An individual can unwittingly communicate his/her wishes to another person and bias the listener's responses such that the communicator's wishes are fulfilled through nonverbal mediation of self-fulfilling prophecy (Rosenthal, 1966). For example, individuals may convey their beliefs through nonverbal behaviours and directive intonations, thus influencing a listener's

behaviour. The listener's behaviour often reflects the beliefs of the message giver. Duncan and Rosenthal's (1968) classic study investigated the sources of experimenter bias (e.g., the persuasive and powerful influence of an experimenter's hypotheses or expectations on subjects' responses). The experiementer bias literature may provide insight on nonverbal communication in other situations (e.g., police interview).

Duncan and Rosenthal (1968) looked at nonverbal and paralinguistic correlates of the instructions given to participants by experimenters. Paralanguage refers to the "how" of speaking, the non-verbal aspects of speech; it includes such factors as volume, stress, pitch, speed, tone of voice, pauses and even non-linguistic sounds such as throat-clearing, grunts, and sighs. Pitch, timing, and loudness are critically important in oral communication because they can confer different meanings on the same set of words.

The experimenters were provided with divergent hypotheses about the experiment. All the experimenters read a standardized description of the instructions with response alternatives for the participants to choose from. Each experimenter emphasized the response alternative that was consistent with his/her expectations. The participants chose the response alternative that their experimenter emphasized. Thus, participants reacted to nonverbal cues

and intonations in the experimenter's voice and confirmed the experimenter's expectations.

Duncan, Rosenberg and Finkelstein (1969) replicated these results. These researchers investigated the relationship between elements of experimenters' paralanguage and intonation during the instruction reading and participants' subsequent ratings on a picture-perception task. Three male experimenters recorded instructions for a picture rating task. Each experimenter provided three taped versions of the instructions. All nine versions were identical in wording. The three recordings for each of the experimenters differed, however, in the intonation used in conveying the instructions. The experimenters read the instructions in: (1) a neutral manner, (2) a manner that was positive sounding, and (3) in a manner that was negative sounding. Duncan et al. investigated the relationship between elements of experimenters' paralanguage and intonation during the instruction reading and participants' subsequent ratings on a facial perception task. The participants were also given a self-rated apprehension questionnaire.

Duncan et al. (1969) found that participants were influenced by the paralinguistic cuing conveyed by the intonations on the tapes. The participants who had an experimenter who presented the instructions in a neutral manner showed a moderate level of apprehension about their

performance on the perception task. Participants who had an experimenter who presented the instructions in a positive manner were less apprehensive than participants who had an experimenter who presented the instructions in a negative manner. Experimenter voice cues alone, without nonverbal gestures, were available to the participants. Their findings showed that auditory cues alone are sufficient to exhibit the expectancy effect.

Experimenters are not the only people who display the nonverbal/paralinguistic expectancy effect. Troffer and Tart (1964) conducted a study with experienced hypnotists. The hypnotists were instructed to read a standardized passage to their participants. The hypnotists were told that the participants had varying levels of suggestibility. When hypnotists were led to believe that their participant had low suggestibility, they were significantly less convincing in their reading of the instructions than they were when addressing the "high-suggestibility" participants. This result occurred even though the hypnotists were (1) asked to treat all the participants equally; (2) told that their technique was being monitored; (3) told that there was a problem of experimenter expectancy effects. Apparently, due to a speaker's voice quality and nonverbal gestures, attitudinal attributions made by the listener about the speaker may have an effect on the social exchange (Rosenthal, 1968).

There is evidence that physician expectancies can also be communicated by means of vocal and nonverbal cues (Milmoe, Rosenthal, Blane, Chafetz, Wolf, 1967). Milcoe et al. (1967) found that physicians who believed that alcohol treatment centres could not help alcoholics communicated this as they referred, out of duty, their alcoholic patients to treatment centre. These patients often were unable to succeed in the treatment centre programme. When physicians believed that the treatment centres that they were recommending would help their patients, more often their patients were successful in the treatment centres. These results suggest that the patient is aware of the physician's expectations for his/her success in the treatment programme and the patient fulfills the physician's prophecy.

Although, researchers have not studied the effect of a police officer's expectations on eyewitnesses' confidence in their identification decisions, researchers in other areas have shown that a person administering a task in the experimental laboratory and in the real world can elicit expectancy effects. Might police officers exhibit expectancy effects when interacting with witnesses? What effects would this have on the confidence-accuracy relationship? The current research addresses these questions.

Chapter Two: Overview

The focus of the present study is on the influence that interviewers have on eyewitnesses. Do inteviewers influence witnesses' confidence in their identification decisions when the interviewer know who the suspects are? What happens when the witness makes an identification that confirms a police officer's expectations and what happens when this expectation is not confirmed?

In this study, participant-interviewers administered photo lineups to participant-witnesses who had viewed a simulated theft. The interviewers incidentally learned about the thief, but they never had the opportunity to actually view the simulated theft. The interviewer learned information about the thief in three different ways: (1) a brief alleged physical description of the thief was provided by the experimenter; (2) identification information about previous witnesses' alleged lineup identification decisions was provided by the experimenter; and (3) identification information was obtained by the participant-interviewer from a confederate posing as introductory psychology student and who had witnessed the crime video with the authentic introductory psychology student.

By the time the participant-interviewer administered the lineup to the target witness (a real introductory psychology student) the interviewer should have developed a strong suspicion about who the culprit was. We were

interested in whether this suspicion would lead the interviewer to provide any feedback to the witness about his/her identification from a photo lineup. And if so, would this feedback affect the witness' confidence?

Hypotheses

The social psychological phenomenon, informational social influence, may explain potential effects post-identification feedback has on witness confidence. Informational social influence occurs when an individual conforms because she/he holds the assumption that other people have knowledge that he/she lacks (Deutsh & Gerrard, 1955). People who are uncertain look to others to help them decide if they are correct. Often informational social influence results in private acceptance. Thus, when this person conforms, there is no discrepancy between his/her beliefs and behaviours and another person whom they believe possess more information about the situation. If an interviewer provides post-identification feedback to a witness, the witness' confidence estimate may be congruent with the interviewers' feedback.

Thus, I expect that (a) the participant-interviewers will provide post-identification information (i.e., nonverbal feedback) based on their beliefs about who the suspect is, (b) participant-witnesses will be able to perceive the feedback, and (c) eyewitness confidence is

malleable as a function of interviewer's beliefs.

Specifically, if the participant-interviewer believes that the witness has chosen a correct suspect, the interviewer will provide positive feedback and the witness's confidence would increase (**Confirm**) relative to the **Control** condition where the interviewer had no information to provide to the witness about the suspect. If the witness believes that he/she is correct, his/her confidence should be quite high.

On the other hand, if the interviewer believes that the witness has chosen a foil, and the foil looks similar in appearance to the alleged suspect, the interviewer would provide some sort of feedback indicating that the witness has chosen the wrong person (**Plausible**). I expect that, under these circumstances, the witness's confidence would decrease slightly relative to the **Control** condidion.

Finally, if the interviewer believes that the witness has chosen a foil and the foil looks outrageously dissimilar in appearance to the alleged suspect (**Implausible**), the interviewer would provide negative feedback which would decrease the witness's confidence relative to the **Control** condition and the **Plausible** condition. I surmise that the witness's confidence will be quite low in this condition.

Chapter Three: Method

Participants

A total of 182 introductory psychology students from the University of Victoria participated in this study. All participants received one introductory psychology course bonus point. The participants were randomly assigned to the role of either participant-witness or participant-interviewer.

At each session a confederate played the role of a second participant-witness. None of the authentic participants (i.e., introductory psychology students) were told that the confederate was masquerading as an introductory psychology student. All participants received separate consent forms that highlighted their roles in the study (refer to Appendix A for a copy the two consent forms).

Equipment

The participant-witnesses viewed the stimulus materials (i.e., 1 min. 20s. distractor video and 50 s. target crime video) on a Panasonic VHS Combination Omnivision PV-M1321-K.

All experimental sessions were videotaped in the Human Interaction Lab at the University of Victoria using two remotely controlled Panasonic WD-D5000 colour cameras and two special effects generators. The experimenters videotaped each interviewer/witness dyad using a two-way

split that filmed the head and shoulders of the participant-witnesses on the left-hand side of the screen and the front upper body of the participant-interviewers on the top right quadrant of the screen.

Procedure

There were two experimenters, E1 and E2 (both women). The main experimenter (E1) greeted all the participants (two introductory psychology students, and a confederate masquerading as such) and stated that the study was about social interactions. E1 explained that the study involved two different roles for the participants. The role assignments would be determined by giving a card to the two introductory psychology students and the confederate. Each card was marked with a number "1", "2", or "3". The participant with the number "3" card was the participant-interviewer. The cards were subtly marked so that the confederate was always cast in the role of participant-witness. The introductory psychology student who received the number "3" card was taken to a separate room by E1 and was told that he/she was to be a participant-interviewer. E1 worked throughout the session with the participant-interviewer. The confederate and the other introductory psychology student stayed in the initial meeting room with E2 who guided them through their role as participant-witnesses.

Witnesses

The participant-witnesses viewed two videotaped events: a distractor video and the simulated crime video. The purpose of the distractor event was to ensure that the witnesses did not anticipate a memory test for our target event, the crime video. The witnesses should have been attending to the crime event without anticipation of a memory test and heightened awareness. When witnesses view a crime in the real world, they are not prepared for the event. It was essential that we mimic the real life surprise of a crime for the participant-witnesses in this experiment. The distractor videotape depicted an interaction between two people planning a vacation.

After viewing the distractor event, E2 asked the witnesses questions about their impressions of the interaction, but did not ask the witnesses to recall any events from the distractor event (refer to Appendix B for questions from the distractor video). When the witnesses viewed the crime video that followed, they should have expected the same type of questions that were asked for the distractor video. They should not have been expecting to recall any events.

Following the questions concerning the distractor video, the witnesses viewed the target event, a nonviolent theft. The witnesses were not informed that their memory for this event was to be tested before watching the video.

Only after the witnesses had watched this video, were they told that we were studying eyewitness memory. Though no formal data were collected about whether participants were surpised that we were studying eyewitness memory, most participants volunteered that they had been deceived and were not expecting to be tested for their memory for the event.

When the participant-witnesses were told the true nature of this study, they were also told that the other introductory psychology student would interview them about the crime video. The participant-witnesses were made aware that the participant-interviewer had knowledge about the crime and had a brief description of the suspect. They were also told that the interviewer never had the opportunity to view the crime video.

Interviewer

Meanwhile in a different room, the introductory psychology student playing the participant-interviewer role was told immediately that he/she was to be an interviewer for an eyewitness testimony study. The interviewer was also told that he/she was to administer a photo-lineup to the two witnesses. He/she was not told that one of the witnesses was a confederate. The interviewer was shown all the materials needed to conduct the interview (the lineup stimuli, the data record forms, and the interview questions)

and was taught how to administer the lineup to each witness individually (refer to Appendix C to view the materials the interviewer used to conduct the interview).

The interviewer was asked to show a six-person target-absent lineup to the witnesses. A target-absent lineup is a lineup where the perpetrator in the crime video is not present in the lineup. Thus, all the participant-witnesses who made a choice from the lineup were inaccurate. This study was not interested in identification accuracy, but rather, it was concerned with identification confidence. A target-absent lineup allowed us to ignore the issue of accuracy (all the eyewitnesses assigned to experimental conditions were inaccurate because they chose a lineup member) and concentrate on the effects of the experimental conditions on confidence. Thus, identification accuracy was held constant. The analyzable data includes only those witnesses who were inaccurate. Witnesses who said that the perpetrator was not present in the lineup would continue with the study, but their data were not used in the analysis (only one participant-witness correctly stated that the perpetrator was not present in the lineup). Thus, her data were not used in analysis. The interviewers were <u>not</u> told that the lineup they were showing to the witnesses was a target-absent lineup. Instead, the interviewers were led to believe that the suspect was present in the lineup.

Not only was the interviewer led to believe that the

suspect was present, but also, that the suspect was a particular lineup member. E1 communicated the identity of the suspect in three different ways. First, in order to give the interviewer a mental picture of the suspect, E1 gave the interviewer a brief written physical description of the perpetrator (refer to Appendix D for 2 different descriptions provided). This description was not very specific, but it did describe the gender, hair and eye colour of the suspect. Second, E1 led the interviewer to believe that most witnesses who had previously been interviewed had chosen one particular lineup member whose appearance was consistent with the physical description that the interviewer had just read about. Each interviewer was shown a data sheet. This data sheet showed what lineup choices previous "witnesses" had made. The data on this sheet were false (refer to Appendix E for data sheets). The "data" showed that one lineup member had repeatedly been chosen over other lineup members. This lineup member varied accordingly for each experimental condition.

Finally, E1 had the interviewer administer the lineup first to the confederate and then to the authentic introductory psychology student. The authentic introductory psychology was asked to wait in a separate room while the interviewer administered to the lineup to the confederate. The confederate's lineup decision was intended to help create a suspicion in the interviewer's mind as to which

lineup member was the culprit from the video. The confederate chose a prearranged lineup member who was most commonly chosen by "previous" participant-witnesses according to the alleged data sheet that E1 showed the participant-interviewer. Also, the confederate's lineup choice could easily fit the physical description that E1 provided to the participant-interviewer.

We offered each interviewer a reward if she/he successfully completed the lineup administration correctly. The most critical element of successful completion of the task was to make sure that each witness (the confederate and the authentic introductory psychology student) made an identification. The purpose of the reward was to give the interviewers a vested interest in the outcome of the interview. Outside the lab, police officers understand the importance of a witness identifying a suspect. They have a vested interest in seeing criminals convicted and recognize that a confident eyewitness identification is an important step toward ensuring such a conviction. The reward was intended to give the interviewers a goal to carry out the task correctly and lead their witnesses to choose a lineup member. The experimenter showed the interviewer a checklist before he/she administered the lineups. This list outlined the requirements for receiving the reward (refer to Appendix F for checklist). Before the interviewer received his/her reward, E1 checked that the interviewer administered the

lineup correctly. All the interviewers received a handful of sweets for their reward.

The Interview

After the interviewer had been trained and the witnesses had viewed the crime video, the interviewer was taken into the room where the witnesses had watched the distractor and crime videos. The experimenters asked permission to videotape all the participants during the lineup administration and the interview. The interviewer individually administered the lineup to the confederate and the psychology 100 student. Administration of the lineup included: (a) showing the photo array to the witness; (b) recording the witness's identification decision; and (c) obtaining the witness's self-rated confidence about his/her identification decision.

The interviewer was instructed to administer the lineup to both witnesses individually. We wanted the interviewer to administer the lineup to the confederate first so that the interviewer would gain a stronger suspicion about the identity of the culprit.

The confederate chose the pre-arranged lineup member and expressed moderate confidence (i.e., 8 on a scale of 1-10, where 1 is not confident at all and 10 is extremely confident) in their identification decision. The confederate's identification choice was intended to prime

the interviewer to anticipate a similar identification decision from the introductory psychology student. The goal of this manipulation was to create a situation where the psychology 100 student either: (1) agreed with the confederate's choice (**Confirms**); (2) disagreed with the confederate's choices, but the lineup member was similar looking to the lineup member whom they chose (**Plausible**); (3) disagreed with the confederate's choice and the lineup was extremely different looking from the lineup member whom they chose (**Implausible**). The **Control** condition (no information given to the participant-interviewer about the suspect) varied slightly from the above procedure. The witnesses (the confederate and the introductory psychology student) viewed the distractor video and the crime video, but the interviewer did not administer the lineup to the confederate. Also, the interviewer was not given a description of the suspect or a data sheet which showed "previous" witnesses lineup decisions. The interviewer simply administered the lineup to the introductory psychology student without interviewing the confederate.

Debriefing

After the interviewer conducted the interview with the introductory psychology student, E1 and E2 came back into the interview room. The experimenters gave different questionnaires to the participant-interviewer and the

participant-witness (refer to Appendix G for two post-interview questionnaires). Both the questionnaires asked about feedback that the interviewer might have given after the identification decision and before the interviewer received the witness's self-rated confidence. The purpose of these questionnaires was to assess if the interviewer was aware of providing feedback and if his/her witness was aware of any feedback being given by the interviewer.

E1 took the interviewer to a different room and verbally debriefed the interviewer. E2 debriefed the other psychology 100 student who played the role of participant-witness (refer to Appendix H for debriefing script). E1 who explained the interviewer's role in the study, also went over the checklist with the interviewer, to see if the interviewer successfully completed his/her task to receive his/her reward.

At that time, the participants were not told that one of the witnesses was a confederate. Also, the participants were not told that our lineup was a target-absent lineup. It was imperative that the participants did not know about the confederate or the lineup; if we immediately told participants who had completed the study, they might have told other potential witnesses which would have ruined the study. We would have no way of knowing which incoming participants knew about our deception and which did not. Thus, it was important that none of our participants knew

about our deception until the study was completed. We did, however, fully disclose all aspects of the study after all the participants have been tested in all phases of the study.

An explanation of the study was placed on the Psychology 100 Study Sign-up Board. We told our participants to look for this complete explanation in April. For participants who would be off-campus, we offered to take their addresses and mail them a complete explanation at the completion of the study. No participants requested a mailed explanation.

Chapter 4: Results

Procedural Checks

A pilot study was conducted before the data were collected for this study. The pilot study provided the researchers with insight on which lineup member was the popular choice. It revealed that most participants (n=17) chose lineup member #5. The rest of the participants (n=3) chose lineup member #2. All the participants from the pilot group made an identification. Essentially, this pilot study revealed: (1) that participant-witnesses were willing to identify a lineup member; and (2) there was a lineup member who looked similar to the perpetrator in the video (Reminder: this was a target-absent lineup). Thus, there was the potential for particiant-witnesses' lineup decisions to interact with an interviewer who (a) had no information about the culprit (**Control**), (b) believed the witness has identified the culprit (**Confirm**), (c) believed the witness has identified a foil, and this lineup member looked like the culprit (**Plausible**), or (d) believed the witness has identified a foil but this lineup member was extremely different in appearance than the culprit (**Implausible**).

The precise number of participants required was not ascertained a priori because assignment to conditions depended on participant-witnesses' identification decisions. Given that these decisions were not known in advance, assignment to conditions was not predetermined.

Of the 102 participants, in the current study, the usable N for analysis was 21 in the **Control** condition, 21 in the **Confirm** condition, 20 in the **Plausible** condition, and 23 in the **Implausible** condition. Six participants' data could not be used: 1 participant-witness did not make an identification; 1 participant-interviewer did not follow directions; and 4 participant-witnesses spoke English as a second language and it was apparent to the experimenters that the witnesses did not understand the interviewers' questions. All these participants completed the study and were given their reward.

Because there were two experimenters, a confederate and two introductory psychology students at each experimental session, we practised this complicated procedure for several weeks to ensure that all the experimenters and confederates could easily and consistently carry out their roles. Finally, there were three women who played the role of the confederate. All three women were videotaped as they played their role. The three confederates were not found to differ in their performance of the key aspects of viewing the photo-lineup, making their identification and stating their confidence level of 8 on a scale of 1 to 10 (where 1 was not confident at all and 10 was extremely confident). A one-way ANOVA was conducted on the participant witness's self-rated confidence revealed there were no significant differences across confederates.

Experimental Effects

A one-way between-subjects analysis of variance (ANOVA) on self-rated confidence was conducted to determine whether an interviewer's beliefs influenced his/her witness's confidence after he/she had made an identification decision which raises or lowers the witnesses' confidence. The between-subjects analysis of variance is based on three assumptions: (1) independence of observations; (2) homogeneity of variance across groups; and (3) normality. The assumption of independence of observations was satisfied through the random assignment of my participants to the treatment group. The assumption of homogeneity of variance was not violated, since the largest variance in the **Plausible** (6.648) is not more than four times the smallest variance found in the **Control** condition (3.99). The probability of this assumption being violated was further reduced because the large, and fairly equal sample sizes which subsequently decreased variance in each of the experimental conditions. Finally, the assumption of normality was probably violated, however, the analysis of variance is a robust statistical procedure and the violation of normality will have relatively minor effects (Box, 1953).

The one-way between-subjects ANOVA yielded a significant between-group effect, F (3, 81)=3.1989, $p<.05$. The estimated omega squared was .09 which suggests the estimate of treatment magnitude was a medium effect. Nine percent of the total variance is accounted for by the experimental treatment. The

statistical power was .844.

The subsequent post-hoc analysis was the Dunnett's test. The Dunnett's test (Dunnett, 1955) examines pairwise differences between one mean (usually a control or baseline condition) and each of the experimental conditions. This is a powerful test because the correction for familywise type I error is less severe than other post-hoc tests (i.e., Scheffe that tests all possible comparisons).

The Dunnett's indicated that none of the experimental conditions differed from the control condition. It did reveal, however, that something in the interviewers' technique and subtle post-identification information based on his/her expectations produced a departure from the **Confirm** condition. As depicted in Figure 1 there was a significant difference between the **Confirm** condition and **Plausible** Conditions. The **Confirm** condition occured when the participant-witnesses interacted with an interviewer who believed that the witness had identified the culprit. The **Plausible** condition occured when the participant-witness interacted with an interviewer who believed that the witness had identified a foil, but this lineup member looked a lot like the culprit.

I expected departures from the **Control** condition, but they did not occur. These effects may not have reached significance because the standard deviations were quite large. There was considerable variance in witness confidence across the conditions. Refer to Figure 1 for the error bars and cell

Figure 1.

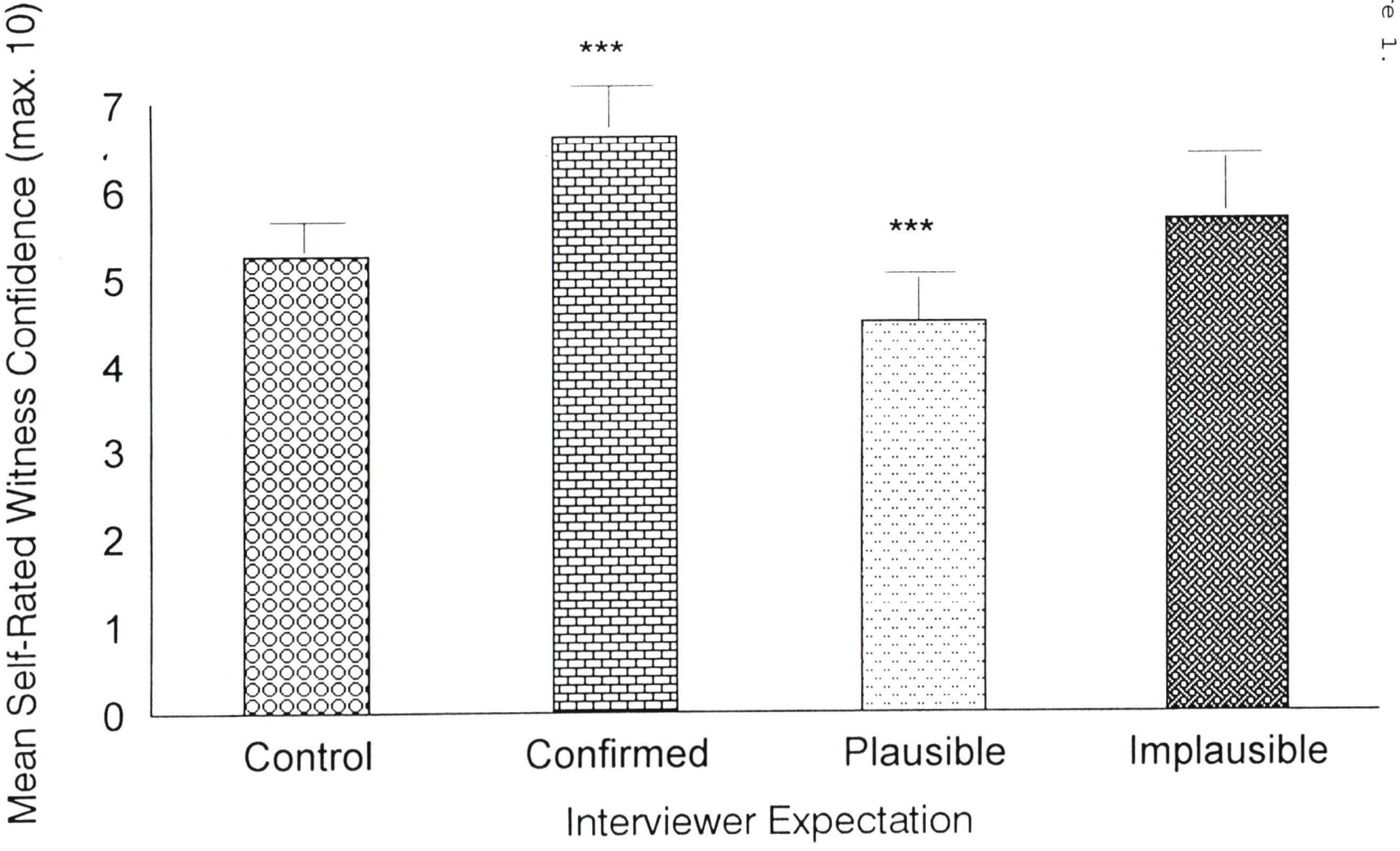


Figure 1. Mean self-rated confidence (+SE) for Control (n = 21), Confirm (n = 21), Plausible (n = 20), and Implausible (n = 23). *** $p < .05$.

means of the participant-witnesses' self-rated confidence about their identification decision across the experimental conditions.

Follow-up Analysis

Each member of the interviewer-witness dyad was given a separate follow-up questionnaire to assess whether they believed that the interviewer provided feedback or a reaction to his/her witness's identification decision. On the interviewer's questionnaire, the target question, question #2a, asks the interviewer "Did you feel that you gave any indication to **WITNESS # 2** as to whether he/she chose the correct person from the lineup?" The responses to this question were matched with the response to this question on the follow-up questionnaire for each interviewer's witness: "Did you feel that the interviewer gave you any indication as to whether you chose the correct person from the lineup?" A frequency count of the interviewers' and witness's responses appear in Table 1.

The purpose of pairing the inteviewer/witness responses was to determine if the interviewer's perception of the feedback that (s)he provided after the witness made an identification was correlated with the witness's perception of the feedback that the interviewer provided. A paired t-test revealed that there was no significant difference between the responses that the interviewers and the witnesses provided.

Table 2

Frequency Counts on the Type of Feedback Provided by Interviewers and Witnesses

Type of Feedback	Participants	
	Interviewers	Witnesses
Negative	10 (13.2%)	6 (8.0%)
None	58 (76.3%)	62 (82.7%)
Positive	8 (10.5%)	7 (9.4%)

Note: Some participant witnesses and interviewers failed to complete the questionnaire and, thus, there are missing data.

Chapter 5: Discussion

Though there was a main effect of the interviewer's belief's about the witness's identification decision, the results did not confirm most of my specific hypotheses. I expected that if the interviewer believed that the witness had chosen a correct suspect, the interviewer would provide positive feedback and the witness's confidence would increase (**Confirm**) relative to the witnesses in the **Control** condition. I also hypothesized that if the interviewer felt that the witness had chosen a foil, but the foil looked similar in appearance to the alleged suspect, the interviewer would provide feedback that witness had chosen the wrong lineup member (**Plausible**). Subsequently, the witness's confidence would decrease slightly relative to a **Control** witness. Finally, I expected that if the participant-interviewer believed that the witness had chosen a foil and the foil looked dissimilar in appearance to the alleged suspect (**Implausible**), the interviewer would provide negative feedback which would decrease the witness's confidence relative to a **Control** witnesses. The results did not support any of these hypotheses.

The witnesses who were assigned to the **Plausible** condition, however, were significantly less confident than the witnesses in the **Confirm** condition. Though I did not explicitly state this hypothesis, my first two hypotheses imply that the **Confirm** group's mean self-rated confidence

would be significantly higher than the **Plausible** group's.

The well documented experimenter bias literature suggests that experimenters, through paralinguistic (voice quality) cues and various nonverbal behaviours, can unwittingly communicate and bias their participants' responses (i.e., Duncan et al., 1969; & Rosenthal, 1966). Troffer and Tart (1964) showed "experimenter bias" outside the laboratory with hypnotists and their clients. It seems reasonable to expect that interviewers could also wield the same power with their interviewees. The results in the present study do not strongly indicate this.

There are a numerous factors in this design which may not have been conducive in exhibiting the experimenter bias effect: (1) the lack of power inbalance between the interviewer and the witness; (2) the interviewer's lack of true invested interest in the outcome of the witness's identification decision; and (3) each of my interviewers were different which lead to an increase in variability. One possible explanation for the weak interviewer effect in this study is that both the participant-interviewers and the participant-witnesses were introductory psychology students who were randomly assigned to their role. Thus, the participant-interviewers were not given the role because they are a powerful figure of authority, but rather, because of the luck of the draw. Did the participant-interviewers have enough "clout" to strongly influence the participant-

witnesses? The participant-witnesses may have not perceived the interviewers as authority figures because they were aware that each participant had been randomly assigned the role. Obviously, the participant-interviewers did not win the role because they were older, more clever, or more experienced than the participant-witnesses.

Experimenter bias may be most effective when there is a significant power differential between the experimenter (interviewer) and the participant (interviewee). Past experimenter bias studies have looked at the effect of researchers, hypnotists, and physicians on their clients. These types of people are powerful due to the nature of their position and expertise. According to Yukl and Falbe (1990), legimate power occurs when the power that an individual holds is due to the formal position or role that person occupies. A person who holds legitimate power does not have to rely on articulate arguments to convince people of their right to power (i.e., teachers, physicians, police); people comply with the demands of such people because they accept their authority. The power flows inherently from the individual's position or role (Yukl & Falbe).

There is often an extreme power imbalance between researchers and their participants, and doctors and their clients. It is possible in randomly assigning participants to the roles of witness and interviewer, I did not create a

sufficient power imbalance between the interviewers and the witnesss to yield significant results. The interviewers may have been able to influence the witnesses if the role assignments were based on the interviewers having more seniority than the witnesses. For example, if the participant-interviewers were senior Law students and the participant-witnesses were introductory psychology students, the witnesses may perceive the interviewers as authority figures. This perception may lead the witnesses to be strongly influenced by the interviewers' intonations and nonverbal behaviour.

In real life, police officers would have power and perceived authority. I suspect an eyewitness may even be intimidated by a police officer. If a police officer sighed at a witness's identification decision, that may have more effect on a witness's confidence than a fellow introductory psychology student sighing.

A police officer may sigh or express disappointment if a witness chooses the wrong lineup member because the officer knows that a confident eyewitness will help secure an conviction. The officer would have an vested interest in the lineup decision. I made a concerted effort to give the participant-interviewer a vested interest in the outcome of the lineup administration by offering the psychology student a reward of a handful of candies.

Did the reward give the participant-interviewers have a

vested interest in the outcome of the witnesses' lineup decisions? The participant-interviewers may have been focussing on following directions and administering the lineup correctly. All the interviewers, except for one, completed the task correctly. The reward, however, may not have given the participant-interviewers enough vested interest in which lineup member is chosen.

A police officer builds a case against a suspect before putting the suspect in a lineup. The officer may have a fairly strong case with physical evidence such as fingerprints or DNA samples, but needs a confident witness who chooses his/her suspect from the lineup. The physical evidence would really make the police officer believe that the culprit is in the lineup and that the witness just needs to confirm so that this suspect can be convicted in court. The outcome of the lineup identification is extremely critical. This type of vested interest cannot be mimicked in a laboratory.

I had a research design in which each interviewer was different. Though, each interviewer was given a script to follow, there was individual differences in how they carried out their interviewer role. This would increase the variability and error. When I reported my results, I mentioned that the variance in each condition was quite large (refer to Figure 1). The variance may be due to having 91 different interviewers.

In the present study, there are also a number of factors affecting the witness, inherent in this eyewitness research design, which could have also nullify significant results: (1) the uninvolved role of the witness in the crime event; (2) the artificial, videotaped crime event; (3) the lack of consequences for either the witness and the "criminal"; and (4) the immediate memory test. Like many empirical studies, my participant witnesses were introductory psychology students who were uninvolved bystanders to a simulated crime. The target event was videotaped. These witnesses did not participate in the event. In real life, more than 70 percent of witnesses of crimes are victims of the crime (Yuille & Cutshall, 1986). The lineup administration and memory task may not be consequential to the witnesses because the witnesses were not involved in an actual crime. There is no vested interest for the witness.

Also, I did not make any attempt to make this crime look like an actual crime (i.e., crime caught on a security film). Once the participant-witnesses had watched the crime event, they were told immediately that they were taking part in an eyewitness study. At no time were the witnesses led to believe that an actual crime had occured. Such that, the witness did not feel that there were any repercussions for either the witness or the supposed criminal due to the witnesses lineup decision.

The witness's lack of involvement in the crime, and the lack of consequences for the witness and the "suspect" may have led the witnesses complete the identification task without much pondering. Also, the participant-interviewer asked for the witness's lineup decision and confidence approximately three minutes after the witness viewed the crime video. The interviewers obtained the witnesses' confidence immediately after the identification. There was not a lot of time for consideration, and if the witnesses were not motivated to really assess their confidence they may have looked toward the interviewer as a informational social influence. The witnesses may not have paid heed to nonverbal feedback from the interviewers when contemplating their confidence.

Even though the specific hypotheses were not supported, the results do suggest that eyewitness confidence is malleable as a function of interviewers' beliefs. The witness's confidence in the **Plausible** condition was deflated relative to the witness's confidence in the **Confirm**. Specifically, the witness's confidence was higher when the witness confirmed the interviewer's belief about which lineup member was the suspect than when the witness identified a similar-looking lineup member who did not validate the interviewer's belief. This suggests that the interviewers may have been providing feedback to the witnesses about their identification decisions.

Previous studies have shown that post-identification co-witness information affects eyewitnesses' confidence in their identification choices (Luus & Wells, 1994). This post-identification information may be passed in direct conversation between witnesses or through a third party such as a police officer. This post-identification information was presented to the witnesses overtly and explicitly, and the witnesses were actually told what other witnesses' lineup decisions were. This current study looked at more subtle post-identification information.

The current study reveals that co-witnesses are definitely not the only source of social influence on eyewitnesses' confidence. The emphasis in the current research was on the effects of interviewer feedback on eyewitnesses' confidence in their identifications.

Future analysis must be conducted on the videotaped interviews to assertain what type of post-identification information was provided by the photo lineup administrator. It is plausible that the interviewers in this study displayed their disappointment through their body language, verbal intonation, pauses, head movements and/or sighs. The subtle reaction to the witnesses' identification decisions deflated the witnesses' confidence when the witnesses chose a lineup member who looked similar to the alleged suspect rather than the alleged suspect.

Police officers may argue that they have more training

than our participant-witnesses. The Rand Corporation (1975), however, sent out a survey to numerous police forces across the United States; the completed surveys revealed that many police officers are not formally trained on how to interview eyewitnesses. Over twenty years later, Fisher (1995) suggests that most police science textbooks either completely omit the issue of effective interviewing techniques or provide only a superficial coverage. He states that "because formal training is often lacking, many police are guided by intuition or they learn on the job, by trial and error or by observing more senior partners conduct interviews" (Fisher, p. 734). Also, more recently, the author of the current paper learned through a late 1995 conversation with a RCMP detective, Bruce Brown, the RCMP does not have any specific, formal training in police interview techniques, including the lineup administration.

There is, also, no evidence that police officers would be trained to control nonverbal behaviour. Arguably, that may not be something that can be trained. According to Argle (1975), nonverbal signals are less easily controlled than verbal language and, thus, are more to convey genuine information. An individual can choose his/her words carefully to project a certain emotional state, but the accompanying nonverbal behaviour can betray those words (Argle). The results from the current study suggest that most interviewers (approximately 76%) believed that they

were not providing any feedback. Interviewers who believed that their witness had identified the alleged suspect or a lineup member who looked similar were providing feedback after the identification. If the officer conducting the lineup administration knows who the suspect is, there is a danger that he or she may unknowingly transmit this information to the witness after the witness has made an identification and before the witness provides a confidence estimate. Thus, the officer who administers the lineup should not know who the suspect is.

With this research, I sought to fill a void in the confidence malleability literature by exploring the effect of interviewers on eyewitness confidence. This is a first step in investigating the interviewer effect. I hope that other researchers use this as starting point to study the social influence of interviewers on witnesses.

References

Argle, M. (1975). Bodily Commuication. London: Methuen & Co.

Box, G. E. P. (1953). Non-normality and tests on variance. Biometrika, 40, 318-335.

Baron, R. M. & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations. Journal of Personality and Social Psychology, 31, 1173-1182.

Bem, D. J. (1972). Self-perception theory. In L. Berkowitz (Ed.), Advances in experimental social psychology, Vol. 6. New York: Academic Press.

Bothwell, R. K., Deffenbacher, K. A., & Brigham, J. C. (1987). Correlation of eyewitness accuracy and confidence: Optimality hypothesis revisted. Journal of Applied Psychology, 72, 691-695.

Brigham, J. C., & Bothwell, R. K. (1983). The ability of prospective jurors to estimate the accuracy of eyewitness Identifications. Law and Human Behavior, 7(1), 19-30.

Brigham, J. C., Maass, A., Snyder, L. D., & Spaulding, K. (1982). Accuracy of eyewitness identifications in a field setting. Journal of Personality and Social Psychology, 42, 673-681.

Brigham, J. C., & Wolfskiel, M. P. (1983). Opinions of attorneys and law enforcement personnel on the accuracy of eyewitness identifications. Law and Human Behavior, 7, 337-349.

Cutler, B. L., & Penrod, S. D. (1996). Witness confidence and witness accuracy: Assessing their forensic relationship.

Cutler, B. L., & Penrod, S. D. (1989). Moderators of the confidence-accuracy correlation in face recognition: the role of information processing and base-rates. Applied Cognitive Psychology, 3, 95-107.

Cutler, B. L., & Penrod, S. D. (1987). Improving the reliability of eyewitness identification: lineup construction and presentation. Journal of Applied Psychology, 72, 629-637.

Cutler, B. L., Penrod, S. D., & Dexter, H. R. (1990). Juror sensitivity to eyewitness identification evidence. Law and Human Behavior, 14, 185-191.

Deffenbacher, K. A. (1980). Eyewitness accuracy and confidence: can we infer anything about their relationship? Law and Human Behavior, 12, 41-55.

Deffenbacher, K. A., & Loftus, E. F. (1982). Do jurors share a common understanding con cerning eyewitness behavior? Law and Human Behavior, 6, 15-30.

Deutsch, M., & Gerard, H. B. (1955). A study of normative and informational influence upon individual judgement. Journal of Abnormal and Social Psychology, 51, 629-636.

Duncan, S. Jr., Rosenberg, N. J., & Finkelstein, J. (1969). The paralanguage of experimenter bias. Sociometry, 32, 207-219.

Duncan, S. Jr., Rosenthal, R. (1968). Vocal emphasis in experimenters' instruction reading as unintended determinant of subjects' responses. Language and Speech, 11, 20-26.

Dunnett, C. W. (1955). A multiple comparison procedure for comparing several treatments with a control. Journal of the American Statistical Association, 50, 1096-1121.

Fisher, R. P. (1995). Interviewing victims and witnesses of crime. Psychology, Public, Policy and Law, 1 (4), 732-764.

Fleet, M. L., Brigham, J. C., & Bothwell, R. K. (1987). The confidence-accuracy relationship: The effects of confidence-assessment and choosing. Journal of Applied Social Psychology, 17(2), 171-187.

Leippe, M. R. (1980). Effects of integrative memorial and cognitive processes on the correspondence of eyewitness accuracy and confidence. Law and Human Behavior, 4, 261-274.

Leippe, M. R., Wells, G. L., Ostrom, T. M. (1978). Crime seriousness as a determinant of accuracy in eyewitness identification. Journal of Applied Psychology, 63, 345-351.

Lindsay, R. C. L., Wells, G. L., & O'Connor, F. J. (1989). Mock juror belief of accurate and inaccurate eyewitnesses: A replication and extension. Law and Human Behavior, 13, 333-339.

Lindsay, R. C. L., Wells, G. L., & Rumpel, C. M. (1981). Can people detect eyewitness identification accuracy within and across situations? Journal of Applied Psychology, 66, 79-89.

Loftus, G. R. (1972). Eye fixations and recognition memory. Cognitive Psyschology, 3, 525-557.

Luus, C. A. E., & Wells, G. L. (1994). The malleability of eyewitness confidence: Co-witness and perservance effects. Journal of Applied Psychology, 79(5), 714-723.

Milmoe, S. Rosenthal, R., Blane, H. T., Chafetz, M. E., & Wolf, I. (1967). The doctor's voice: Postdictor of successful referral of alcoholic patients. Journal of Abnormal Psychology, 72, 78-84.

Murdock, B. B., Jr. (1974). Human Memory: Theory and data. Hillsdale, New Jersey: Erlbaum, 1974.

Nelson, T. O. (1988). Predictive accuracy of feelling of knowing across different criterion tasks and across different subject populations and individuals. In M. M. Gruneberg, P. E. Morris, & R. N. Sykes (Eds.), Practical aspects of memory: Current research and issues (Vol. 1, pp. 190-196). Chichester, England: Wiley.

Perfect, T. J., Watson, E. L., Wagstaff, G. F. (1993). Accracy of confidence ratings associated with general knowledge and eyewitness memory. Journal of Applied, Psychology, 78, 144-147.

Rosenthal, R. (1966). Experimenter effects in behavioral research. New York: Appleton- Century- Crofts.

Thompson, D. M., & Tulving, E. (1970). Associative encoding and retreival: Weak and strong cues. Journal of Experimental Psychology, 86, 255-262.

Troffer, S. A., & Tart, C. T. (1964). Experimenter bias in hypnotist performance. Science, 145, 1330-1331.

Wells, G. L., & Lindsay, R. C. (1985). Methodological notes on the accuracy-confidence relation in eyewitness identification. Journal of Applied Psychology, 70 (2), 413-419.

Wells, G. L., Ferguson, T. J., & Lindsay, R. C. (1981). The tractability of eyewitness confidence and its implications for triers of fact. Journal of Applied Psychology, 66(6), 688-696.

Wells, G. L., Lindsay, R. C. L., & Ferguson, T. J. (1979). Accuracy, confidence, and juror perceptions in eyewitness identification. Journal of Applied Psychology, 64(4), 440-448.

Wells, G. L., Luus, C. A., & Windschitl, P. D. (1994). Maximizing the utility of eyewitness identification evidence. Current Directions in Psychological Science, 3(6), 194-197.

Wells, G. L., & Seelau, E. P. (1995). Eyewitness identification: Psychological research and legal policy on lineups. Psychology Public Policy and Law, 1(4), 1-27.

Yarmey, A. D., & Jones, H. P. T. (1983). Is the psychology of eyewitness identification a matter of common sense? In S. Lloyd-Bostock and B. R. Clifford (Eds.), Evaluating witness evidence: Recent psychological research and new perspectives. Chichester, England: John Wiley and Sons.

Yuille, J. C., & Cutshall, J. L. (1986). Analysis of the statements of victims, witnesses and suspects. In J. C. Yuille (Ed.), Credibility Assessment (pp. 175-191). Dordrecht, The Netherlands: Kluwer Academic.

Yukl, G., & Falbe, C. M. (1991). Importance of different power sources in downward and lateral relations. Journal of Applied Psychology, 76, 416-423.

Appendix A

CONSENT FORM - Role #1

PERSONALITIES

This social psychology research is concerned with people's impressions of videotaped material. Your participation in this study will involve viewing a few short videoclips and answering a short questionnaire about the characters in the videoclips. This study will not be physically or psychologically harmful to you.

This experiment will require approximately 30 minutes of your time. You are, however, free to withdraw from the study at any time without penalty. If you choose to participate or not participate it will have no effect upon your grades or academic standing.

Your name will not appear on any data sheets. Your anonymity will be protected by using codes rather than your name to identify your data. All data will be kept in a locked filing cabinet and will only be viewed by the experimenters (Lynn Garrioch, Kevena Johnson, Melanie Morrison, Lisa Wilcox, and Dr. Brimacombe) in this study. After we have completed this study all raw data will be shredded.

The experimenter will answer any questions you may have. This research is for Lynn Garrioch's Masters thesis. This research is under the supervision of Dr. Brimacombe (phone 721-7547).

I have read the above statement and I agree to participate.

CONSENT FORM - Role #2

EYEWITNESS TESTIMONY

This social psychology research is concerned with eyewitness testimony. Your participation in this study will involve administering a photo lineup and interviewing psychology 100 students about a crime video they viewed. This study will not be physically or psychologically harmful to you.

This experiment will require approximately 30 minutes of your time. You are, however, free to withdraw from the study at any time without penalty. If you choose to participate or not participate it will have no effect upon your grades or academic standing.

Your name will not appear on any data sheets. Your anonymity will be protected by using codes rather than your name to identify your data. All data will be kept in a locked filing cabinet and will only be viewed by the experimenters (Lynn Garrioch, Kevena Johnson, Melanie Morrison, Lisa Wilcox, and Dr. Brimacombe) in this study. After we have completed this study all raw data will be shredded.

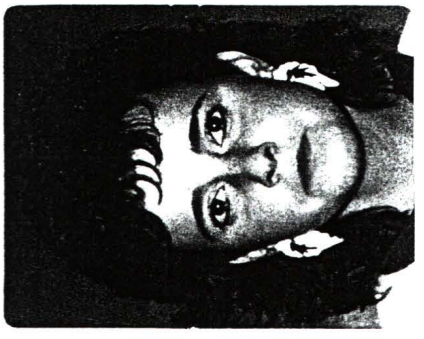
The experimenter will answer any questions you may have. This research is for Lynn Garrioch's Masters thesis. This research is under the supervision of Dr. Brimacombe (phone 721-7547).

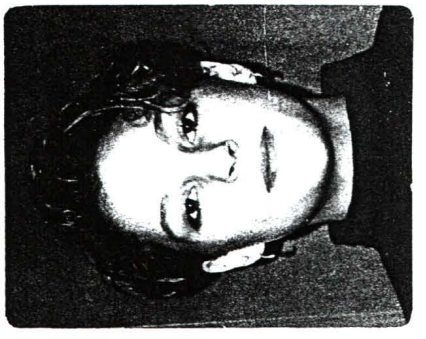
I have read the above statement and I agree to participate.

Appendix B

1) Did the woman who decided that she and her friend should take separate trip act appropriately? Yes or No?
2) Briefly, what would you have done in that situation?

Appendix C





USE THIS FORM TO RECORD WITNESS #1's IDENTIFICATION DECISION

_____ the person is present in position #1	_____ the person is present in position #2	_____ the person is present in position #3
_____ the person is present in position #4	_____ the person is present in position #5	_____ the person is present in position #6

How **confident** was the witness about his/her identification decision? Use the scale below to indicate his/her response. **Circle one number only.**

1	2	3	4	5	6	7	8	9	10
not at all confident									extremely confident

USE THIS FORM TO RECORD WITNESS #2's IDENTIFICATION DECISION

_____ the person is present in position #1	_____ the person is present in position #2	_____ the person is present in position #3
_____ the person is present in position #4	_____ the person is present in position #5	_____ the person is present in position #6

How **confident** was the witness about his/her identification decision? Use the scale below to indicate his/her response. **Circle one number only.**

1	2	3	4	5	6	7	8	9	10
not at all confident									extremely confident

FOR EXPERIMENTER'S USE ONLY

Interview # _____ Date _____ Time _____

Eyewitness Interview

1) I'd like you to think back to the video you just viewed and describe what you saw and heard. Include as many details as you can recall.

Now I want you to confirm some specific information:

2) First of all, what was the crime that you witnessed?

3) What was stolen?

4) From where?

5) What did the thief do with the stolen goods?

6) Can you describe the thief?

Let me confirm some details concerning the thief's appearance:

7) It was a woman you saw?

8) How tall was she?

9) What was she wearing?

10) How old would you say she was (***be specific**)

11) How long was her hair?

12) What colour was it?

13) Was she wearing glasses?

14) Did she have any distinguishing features?

15) Did you see another person in the video?

16) Describe that person.

17) Was there any violence involved in the theft?

Let's review some of your testimony:

18) First of all, you saw a book stolen?

19) Can you remember the name of it?

20) Did the thief put the stolen goods in her back pack or in her shopping bag?

Let's focus on the thief, you have described her clothing

21) What about her jewellery?

22) Could you describe her earrings?

23) What colour was her back pack?

24) How long did you get to see the thief? (***be specific**)

25) Do you think you had enough opportunity to observe her?

26) Are you generally good at recognizing people and remembering faces?

27) You previously viewed a set of photographs to try to identify the thief, is that correct?

28) Did you make an identification from that set of photos?

29) How confident do you feel about the accuracy of your identification decision? On a scale from 1 to 10 where 1 is not at all confident and 10 is extremely confident, how would you rate your confidence?

Appendix D

DESCRIPTION OF SUSPECT (Confirm and Similar Conditions)

Gender -- Female

Age -- early twenties

Height -- 5'8

Weight -- 125-135

Hair -- Light Brown

Eyes -- Brown

DESCRIPTION OF SUSPECT (Implausible Conditions)

Gender -- Female

Age -- early twenties

Height -- 5'8

Weight -- 125-135

Hair -- Red

Eyes -- Blue

Appendix E

FOR RESEARCHER'S USE ONLY

Statistics on Witness Identification Decisions

Lineup Member #1

Lineup Member #2 𝍸

Lineup Member #3

Lineup Member #4 |

Lineup Member #5 𝍸 𝍸 |||

Lineup Member #6

FOR RESEARCHER'S USE ONLY

Statistics on Witness Identification Decisions

Lineup Member #1

Lineup Member #2

Lineup Member #3

Lineup Member #4

Lineup Member #5

Lineup Member #6

FOR RESEARCHER'S USE ONLY

Statistics on Witness Identification Decisions

Lineup Member #1

Lineup Member #2 |||

Lineup Member #3 |||| |||| |

Lineup Member #4

Lineup Member #5 ||

Lineup Member #6

APPENDIX F

Checklist

1) Showed the lineup: witness #1 _____
witness #2 _____

2) witness #1 identified a lineup member _____
witness #2 identified a lineup member _____

3) Recorded the identification decision of witness #1 _____
witness #2 _____

4) Recorded the confidence rating of witness #1 _____
witness #2 _____

5) Conducted the interview with your assigned witness _____

APPENDIX G

Questionnaire for the Witness

1) Did you feel that the interviewer gave you any indication as to whether you chose the correct person from the lineup?

```
 I-----I-----I-----I-----I-----I-----I-----I-----I
-4    -3    -2    -1     0     1     2     3    +4
```

clear indication that I was wrong no indication at all clear indication that I was correct

2) If you felt the interviewer provided feedback about your identification decision please describe that feedback (i.e., what did (s)he say or do?)

_____

_____

_____

Questionnaire for the Interviewer

1) Did you feel that you gave any indication to **WITNESS # 1** as to whether (s)he chose the correct person from the lineup?

```
 I-----I-----I-----I-----I-----I-----I-----I-----I
-4     -3     -2     -1      0      1      2      3     +4
```

clear indication that (s)he wrong no indication at all clear indication that (s)he was correct

(2) Did you feel that you may have given any indication to the witness of whether you thought (s)he was accurate or inaccurate. If so, please describe

_____

_____

_____

3) Did you feel that you gave any indication to **WITNESS # 2** as to whether he/she chose the correct person from the lineup?

```
 I-----I-----I-----I-----I-----I-----I-----I-----I
-4     -3     -2     -1      0      1      2      3     +4
```

clear indication that (s)he was wrong no indication at all clear indication that (s)he was correct

4) Did you feel that you may have given any indication to the witness of whether you thought (s)he was accurate or inaccurate. If so, please describe

_____

_____

_____

Appendix H

Explanation for the Participant-witness

Thank you for participating in this study. As we told you earlier, we are interested in eyewitness testimony. In this experiment we have tried to give you an experience that parallels a real life eyewitness event.

In actual eyewitness situations, witnesses typically do not know beforehand that a crime is going to be committed. So, the event catches them by surprise. In order to parallel a real live situation, we did not forewarn you of the memory test. We hope that by waiting until after you saw the crime video to tell you that we were interested in your memory for it, we would help you process the event in the same manner that real eyewitnesses do. We wanted you to be attentive to the event, to have the same memory for it, as you would have if you had witnessed an actual aftermath of a crime.

We are, also, interested in how a person who administers a lineup can unconsciously influence your identification decision and your confidence in your identification decision. In this study, you either watched a crime video or you administered a photo lineup to another participant. We surmise that people who administer lineups and who are aware of which lineup member is the suspect affects how confident a participant feels about their identification decision.

In analyzing our data we will look at how confident people were about their identification decisions and how their

confidence might have been influenced by the line-up administrator.

We are, also, interested in how witnesses are perceived by others (i.e, jurors) In order to study this, we would like to show the videotaped interviews we have collected in this study to another group of research participants. We will ask these participants to pretend that they are jurors, watch one of the videotaped interviews, and then give us their impressions of the accuracy and believability of the person interviewed.

In short, we hope to discover how experimenters influence witnesses and how jurors evaluate a witnesses's credibility. Do you have any questions? Thanks for you participation.

Explanation for the Participant-interviewer

Thank you for participating in this study. As we told you earlier, we are interested in eyewitness testimony. In this experiment we have tried to give you an experience that parallels a real life eyewitness event.

In this study, you either watched a crime video or you administered a photo lineup to another participant. We surmise that people who administer lineups and who are aware of which lineup member is the suspect affects how confident a participant feels about their identification decision.

We asked you to administer a lineup to a witness and question the witness. Before you administered the lineup, we informed you about who the suspect and lineup member was in the crime video that the witness saw.

In actual eyewitness situations, the police know which lineup member is the suspect. They know which lineup members are distractors who have been hired by the police to appear in the lineup. Do police officers unwittingly betray this knowledge to the witness which then influences the witness's confidence about their identification choice?

In analyzing our data we will look at how confident witnesses were about their identification decisions and how their confidence might have been influenced by the lineup administrator who has been given lineup knowledge.

We are, also, interested in how witnesses are perceived by others (i.e, jurors) In order to study this, we would like

to show the videotaped interviews we have collected in this study to another group of research participants. We will ask these participants to pretend that they are jurors, watch one of the videotaped interviews, and then give us their impressions of the accuracy and believability of the person interviewed.

In short, we hope to discover how experimenters influence witnesses and how jurors evaluate witnesses's credibility. Do you have any questions? Thanks for your participation.

VITA

Surname: Garrioch Given: Lynn Jennifer

Place of Birth: East York, Ontario, Canada

Date of Birth: 1970 10 14

Educational Institutions Attended:

Wilfrid Laurier University	1988-1994
University of Victoria	1994-1997

Degrees Awarded:

B.A. (Honours) Wilfrid Laurier University 1994

Publications:

Brimacombe, C. A. E., Quinton, N., Nance, N., & Garrioch, L. (in press). Is Age Irrelevant: Perceptions of Young and Old Eyewitnesses. Law and Human Behaviour.

Brimacombe, C. A. E., & Garrioch, L. (1996). Is Age Irrelevant: Senior Eyewitness Credibility. Poster presented at the American Psychology and Law Society, Hilton Head, South Carolina.

Luus, C. A. E., & Garrioch, L. (1995). Eyewitness confidence malleability. Poster presented at the Canadian Psychological Association, Charlottetown, P. E. I.

Garrioch, L. (1995). Perceptions of Dating Advice. Paper presented at the American Association for the Advancement of Science: Pacific Division, Vancouver, B. C.

PARTIAL COPYRIGHT LICENSE

I hereby grant the right to lend my thesis to users of the University of Victoria Library, and to make single copies only for such users or in response to a request from the Library of any other university, or similar institution, on its behalf or for one of its users. I further agree that permission for extensive copying of this thesis for scholarly purposes may be granted by me or a member of the University designated by me. It is understood that copying or publication of this thesis for financial gain shall not be allowed without my written permission.

Title of Thesis:

By George I Think You've Got It: The Social Influence of Interviewers on Eyewitness Confidence

Author [redacted]
Lynn Jennifer Garrioch
May 30, 1997