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Understanding rapport-building in investigative interviews: Does rapport's effect on witness memory and suggestibility depend on the interviewer?

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FLORIDA INTERNATIONAL UNIVERSITY

Miami, Florida

UNDERSTANDING RAPPORT-BUILDING IN INVESTIGATIVE INTERVIEWS:
DOES RAPPORT'S EFFECT ON WITNESS MEMORY AND SUGGESTIBILITY
DEPEND ON THE INTERVIEWER?

A dissertation submitted in partial fulfillment of

the requirements for the degree of

DOCTOR OF PHILOSOPHY

in

PSYCHOLOGY

by

Jenna M. Kieckhaefer

2014

To: Dean Kenneth G. Furton
College of Arts and Sciences

This dissertation, written by Jenna M. Kieckhaefer, and entitled *Understanding Rapport-Building in Investigative Interviews: Does Rapport's Effect on Witness Memory and Suggestibility Depend on the Interviewer?*, having been approved in respect to style and intellectual content, is referred to you for judgment.

We have read this dissertation and recommend that it be approved.

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Date of Defense: March 3, 2014

The dissertation of Jenna M. Kieckhaefer is approved.

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Florida International University, 2014

DEDICATION

I dedicate this dissertation to my parents, William and Patricia Kieckhaefer.

Without their love, encouragement, nurturing and regular support, I would not have made it this far.

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ABSTRACT OF THE DISSERTATION

UNDERSTANDING RAPPORT-BUILDING IN INVESTIGATIVE INTERVIEWS:
DOES RAPPORT'S EFFECT ON WITNESS MEMORY AND SUGGESTIBILITY
DEPEND ON THE INTERVIEWER?

by

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Most investigative interviewing protocols, including the National Institute of Justice's 1999 guidelines on collecting eyewitness evidence, recommend building rapport with cooperative witnesses to increase the quality and quantity of details obtained at recall. To date, only three published articles have empirically addressed the effects of rapport-building on adult witness memory, and all suggest an increase in witness accuracy under certain conditions. However, to our knowledge no research has addressed the importance of the investigator when building rapport and whether rapport can increase witness susceptibility to suggestive-leading questions – the aim of the current research. Specifically, this project examined the effects of change in interviewer between rapport and retrieval, and the effects of interviewer suggestion after rapport eyewitness memory accuracy.

Participant witnesses (N=198) viewed a videotaped mock convenience store robbery followed by rapport-building or a standard police interview about non-crime related details (rapport manipulation). One week later all participants were interviewed

about the mock crime they witnessed either by the same or a different interviewer (interviewer manipulation). All witnesses were interviewed about the mock crime using open-ended questions about the event, witnesses, suspect, and location followed by a series of specific suggestive questions containing both correct- and incorrect-leading information about the crime. Videotaped and transcribed witness reports were scored for accurate and false information by two independent raters.

Findings indicated that, contrary to all hypotheses, neither rapport-building on day 1 nor change in interviewer on day 2 (one week later) manipulations resulted in significant effects on the primary accuracy dependent measures on day 2, including open-ended and suggestive-leading questions. The present study was the first to investigate the effect of rapport-building on eyewitness recall after a delay, whether changing interviewers across the investigation impacts recall, and whether rapport can act as a safeguard by inoculating witnesses against investigator-provided misinformation. These null findings further suggest that future research should disentangle the specific conditions under which rapport-building facilitates witness recall need to be disentangled in future research.

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I. INTRODUCTION

Imagine that you are on your way home from work and make a quick stop at the local convenience store. While in the store a man yells that he has a gun and demands the cashier to hand him all of the money in the register. You immediately stop what you are doing and freeze, your heart pounding out of your chest. The gunman looks around the store and makes eye contact with you, pointing his gun in your direction for a moment. After what felt like an eternity, the cashier gives the gunman the money and he ran out of the store. Shortly after the cashier calls the police, two patrolmen arrived at the store. After securing the scene, one of the officers walks over to you. Before asking about the robbery, the officer asks you a series of mundane questions in a cold, business-like manner (e.g., what's your name, address, etc.). Your heart is still racing, your life was just in jeopardy, and this stranger is asking you about unrelated information without considering what you just experienced. Would you subsequently feel comfortable enough to open up to an investigator about this emotional event? Rewind back in time, and now imagine that the officer approached you and immediately asked how you were doing and expressed concern for your well-being. He or she introduced himself or herself, empathized with what you just had to go through, asks if you are from the area and about your family before asking to tell him what happened during the robbery. How would either scenario affect your memory for the event?

This question is likely to occur at many crime-scene investigations each day all over the world. Importantly, despite the fact that rapport is an integral part of virtually all major interviewing guidelines and the fact that police officers view rapport as one of the most effective interviewing techniques with cooperative witnesses (Dando, Wilcock, &

Miline, 2008), analyses of real-world police interviews reveal that many investigators fail to build rapport with adult witnesses during investigative interviews (Fisher, Geiselman, & Raymond, 1987; Schreiber Compo, Hyman Gregory, & Fisher, 2012). This is probably because of the fact that police trainers spend little to no time addressing communication skills (St-Yves, 2006). Although rapport is not built in investigations nearly as often as it is recommended, rapport-building is still one of the most frequently used positive witness interviewing techniques in the United States and the United Kingdom (Schreiber Compo et al., 2012; Dando et al., 2008).

Despite the importance of rapport when interviewing witnesses, there are only three published empirical studies examining the effect of rapport on adult witness' memory (Collins, Lincoln & Frank, 2002; Vallano & Schreiber Compo, 2011; Kieckhafer, Vallano & Schreiber Compo, 2013). Although all three studies suggest beneficial effects of rapport on witness memory, very little is understood about the specific conditions under which rapport may or may not be beneficial to eyewitness memory and the theoretical underpinnings of rapport's possible effect on memory. The goals of the proposed study are therefore (1) to test and extend prior findings of rapport-building's benefits on witness recall after a recall delay, (2) examine whether rapport-building's beneficial effects are contingent upon the bond or context built between the witness and a specific interviewer, and (3) assess whether rapport-building can act as a safeguard against or renders a witness more vulnerable to subsequent investigator-suggested information.

Definitions of rapport

Although there is no consensus definition for rapport-building across all settings (i.e., therapeutic, sales, medical and interviewing; Hall, Roter, Blanch & Frankel, 2009), rapport has been generally defined as a “harmonious, sympathetic connection to another” (Newberry & Stubbs, 1990, p. 14). Rapport does not characterize an individual or personality trait, but rather only has meaning as a description of the interactions of a group or dyad (Abbe & Brandon, 2013; Tickle-Degnen & Rosenthal, 1990). Rapport does not require one specific technique, and there is also no clear consensus on how rapport can and should be developed within an interviewing context (Minichiello, Aroni, Timewell & Alexander, 1990). Generally, building rapport has been described to include both verbal and nonverbal behaviors (St-Yves, 2006).

Tickle-Degnen and Rosenthal (1990) proposed one of the only theoretical models of rapport in the literature, and identified three components: mutual attention, positivity, and coordination. The first component, mutual attention, is described as attention and involvement with one another, along with “intense mutual interest” in what the person is doing and saying (Tickle-Degnen & Rosenthal, 1990, p. 286). The attention is often signaled by direct body orientation, each person’s body leaning forward, nodding, and active listening statements. The second component is the positivity present in the interaction, and is described as caring and mutual friendliness. The final component of rapport is coordination, which is described as harmony, equilibrium, and being ‘in sync,’ and is analogous to synchronization of the members of a world-renowned orchestra (1990). Although all three components are part of rapport, Tickle-Degnan and Rosenthal explain that they are not all equivalent and that their importance can change over time

spent together (e.g., across multiple meetings/interviews). Positivity is most important in initial interactions, when making a first impression, and as such is more important in witness interviews, whereas coordination becomes important across multiple encounters. Mutual attention is important throughout all interactions, with signaling interest in initial interactions and signifying the unity of all interactional members at a later point in time (Tickle-Degnen & Rosenthal, 1990).

In the context of witness interviews, the Cognitive Interview specifically recommends two guiding principles when developing rapport, the first of which is to personalize the interview (Fisher & Geiselman, 1992). To personalize the interview, the authors suggest that the interviewer uses the witness's name often in their conversation. Interviewers should also present themselves as a "unique individual" so that the interviewee can perceive him/her as a genuine person as opposed to a government official. In their initial interaction, the interviewer may also disclose some personal information to which the witness can relate (e.g., if the interviewer sees that the witness has a photograph of children, the interviewer could disclose that he/she also has children). The interviewer should also personalize the interview by actively listening to the witness, which can involve not only listening but also occasionally repeating back what the witness just said and posing a comment or question. The interviewer should also avoid forming any preconceived notions about the witness, neither from documents reviewed before the meeting nor initial impressions.

The second guiding principle of building rapport identified in the Cognitive Interview is developing and communicating empathy (Fisher & Geiselman, 1992). Here, the interviewer must use his/her empathetic skills and try to take the witness's

perspective. The authors suggest that the interviewer provides verbal feedback to show understanding of the witness's feelings (e.g., "I understand that you are feeling helpless after witnessing that robbery"). It is also important that the interviewer establishes trust with the witness, and conveys a sense of closeness and concern over the witness's welfare (e.g., ask how the witness is doing or feeling). The authors also suggest that a minimal amount of physical contact may be helpful when establishing rapport (e.g., a handshake), but note that contact between opposite sex individuals should not include behavior that could be perceived as inappropriate or overly familiar by the witness. It is also important that the interviewer treats the witness's statement as truthful, and avoids making judgmental comments and asking confrontational questions. Eye contact between the interviewer and witness is also important, and should be maintained throughout the rapport-building session. The authors further suggest that facing the witness is helpful when developing and communicating empathy during rapport-building, and advise that the interviewer may slightly lean in towards the witness to indicate interest in what the witness is saying.

Another vital aspect of establishing rapport involves the interviewer actively listening to the witness while he or she is talking. This is important because "many investigators do not know how to listen," often as a consequence of preoccupation with investigative strategy, focusing on the crime and not the individual, and feeling uncomfortable with silences (St-Yves, 2006, p. 94). St-Yves (2006) highlights the importance of active listening, and lists several of its major ingredients. One such ingredient is the use of minimal encouragement, which indicates to the witness that the interviewer is listening. Signs of minimal encouragement can be visual (e.g., head

nodding and facial expressions) and verbal (e.g., Okay, uh hum, etc.). The use of such minimal encouragements can increase the quantity of words spoken by to three to four times (Wainwright, 1993). Another ingredient of active listening is paraphrasing, or reformation and/or reflection of what the witness just said. Paraphrasing reassures the witness that he or she was heard and understood. An additional ingredient of active listening is identifying witness emotions, which demonstrates the interviewer's empathy. Asking open questions is also an element of active listening, and is important to elicit witness information as well as reducing the risk of perceptual biases (e.g., 'yes, but'). Using 'I' and 'me' is another ingredient of active listening, which shows the witness that the interviewer is concerned with the witness' responses. A final ingredient of active listening, listed by St-Yves (2006), is silence. It is important that interviewers are comfortable with silences, especially when they cannot think of anything reassuring to say or need to think of the next thing to ask the witness.

Arguably, building rapport with witnesses is one of the central elements of any witness interview (guideline) throughout the world. Rapport is part of the 'Engage and explain' phase of the PEACE model used in the United Kingdom (Home Office, 2002), of Scotland's PRICE model (Memon, 2009), and the Cognitive Interview (Fisher & Geiselman, 1992). In the United States, building rapport is included within both military (Department of the Army, 2006) and law enforcement's interviewing guidelines (National Institute of Justice, hereafter called the NIJ guidelines; Technical Working Group on Eyewitness Evidence, 1999). The NIJ guidelines suggest that both first responding officers and the officer conducting a detailed investigative interview build rapport prior to obtaining any other information from a witness. Although very few of the

guidelines provide the interviewer with detailed instructions on how to actually build rapport (with the exception of the Cognitive Interview), all guidelines do acknowledge the importance of witness comfort as well as establishing a cooperative relationship between the witness and interviewer, and imply that these two factors will likely result in obtaining more accurate information (Technical Working Group on Eyewitness Evidence, 1999).

Effects of rapport-building on eyewitness recall

A considerable amount of research has examined the effects of rapport-building on *child* witness recall within an investigative interview (e.g., Almerigogna, Ost, Bull & Akehurst, 2007; Carter, Bottoms & Levine, 1996; Davis & Bottoms, 2002; Hershkowitz, 2011). This research generally supports the notion that a comfortable environment increases child witness recall accuracy and reduces susceptibility to misinformation. Specifically, a supportive interviewer can increase the overall accuracy of child witness reports and decrease the number of incorrect responses to leading questions compared to a non-supportive interviewer (e.g., Quas, Wallin, Papini, Lench & Scullin, 2005). Child witness research describes rapport-building as providing social support (analogous to rapport-building), calling the child by his or her first name multiple times throughout the interview, giving neutral reinforcements, expressing interest by asking the child to describe recent events in his/her life, speaking in a positive tone of voice with inflections, and facing the child during the interview (Hershkowitz, 2011; Quas et al., 2005).

Very little empirical research, however, exists on how rapport-building affects adult witness recall. A notable exception is Collins, Lincoln, and Frank (2002), who examined the effects of rapport-building on adult witness recall accuracy built after

witnessing a mock-crime video, and at the beginning of and throughout retrieval. In this study, rapport was manipulated both verbally and nonverbally via voice modulation, dialogue, personalization, body language, and placement of props. The authors tested three different modes of rapport: abrupt, neutral and rapport. In the abrupt condition the interviewer spoke in a harsh tone of voice, did not refer to the participant by name, was generally uninterested, had a rigid body posture and the interviewer noisily dropped a diary on the table that also acted as a barrier between the witness and interviewer. In the neutral condition, the interviewer was neutral in all behaviors, and the diary was quietly laid on the table as a barrier between the witness and interviewer. In the rapport condition, the interviewer referred to the witness by name, used a gentle tone of voice, had a relaxed body posture and was friendly. Also the rapport condition the diary was placed on the floor so that it was neither a distraction nor a barrier between the witness and interviewer. During the rapport manipulation, each participant was asked to provide a free written narrative of what they remembered of the crime video, followed by a structured cued recall questionnaire. Interviewers maintained their condition-specific behavior throughout the written recall.

Results of the Collins and colleagues (2002) study indicated that participants in the rapport condition recalled significantly more accurate information in the free recall portion of the interview than the neutral and abrupt interview conditions without a corresponding increase in the recall of inaccurate information. However, since the rapport manipulation was primarily nonverbal, and witnesses were asked to write down their memory for the event as opposed to recall verbally in an interview what they remembered, this study did not examine the type of rapport-building recommended by

major witness interviewing guidelines. Specifically, it remains unclear how verbal rapport-building before a witness interview affects different types of subsequent verbal recall elicited in an interview format. This study also did not examine rapport's impact on susceptibility to misinformation – a major point of interest in real-world investigations.

A recent study by Vallano and Schreiber Compo (2011) used a more ecologically valid experimental approach and similarly found that rapport-building benefits adult witness recall, extending Collins et al.'s findings (2002). That is, rapport-building was especially beneficial for participants who received post-event misinformation (PEI). Unlike Collins et al. (2002), this study examined rapport built primarily via verbal manipulations, as recommended by the Cognitive Interview (Fisher & Geiselman, 1992). After witnessing a videotaped mock crime of a theft, each witness was given a written police report containing either misinformation and correct information, or only correct information. Following the police report, the interviewer then built rapport with the witness (or conducted a standard police interview – rapport manipulation) about personal information not related to the crime. In the rapport condition the interviewer invited self-disclosure from the witness by asking them to provide personal information (e.g., “Tell me about your family”). In the standard police interview condition, modeled after real police interviews, the interviewer asked only for the witness's demographic information (e.g., “What's your address?”). Following the rapport-building portion of the experiment, the adult witnesses were interviewed about the crime with a set of four open-ended questions with follow-up probes after each, followed by a set of close-ended questions. Witnesses responded to all rapport and interview questions verbally. Witnesses who experienced verbal rapport before the investigative interview reported a higher

percentage of accurate information and a lower percentage of inaccurate information than witnesses who experienced no rapport. Witnesses with rapport were also less likely to report misinformation than witnesses without rapport (see below). Thus, the study demonstrated that building rapport before an investigative interview can improve adult witnesses' memory for a mock crime.

Kieckhaefer and colleagues (2013) used a similar methodology as Vallano and Schreiber Compo (2011) to examine the importance of timing of rapport-building in relation to post-event (mis)information: receiving the rapport/no rapport interview either before or after the post-event information. The study used the same guideline-recommended verbal rapport-building and no rapport scripts, used the same mock crime video and post-event (mis)information (i.e., written police report), but rapport was either built prior to or after exposure to misinformation. All adult witnesses were then interviewed about the crime with a set of four open-ended questions with follow-up probes after each, followed by a set of close-ended questions. Similar to Vallano and Schreiber Compo (2011) participants who received rapport reported more accurate and less inaccurate information. However, participants' accuracy was contingent upon rapport's placement and the type of post-event information: there was a benefit of rapport-building on accuracy only when rapport was built *prior to* receiving misinformation. Unlike the two previous studies, there was no main effect of rapport on accuracy, and interestingly this result is somewhat contrary to the results in Vallano and Schreiber Compo (2011), in which rapport was beneficial when built *after* viewing post-event information.

Rapport-building and suggestibility

There is evidence that investigators often introduce suggestive or outside information into a witness interview (e.g., Schreiber et al., 2012). As memory is a reconstructive process, such correct and incorrect post-event information (PEI) has been demonstrated to have powerful and detrimental effects on individuals' memory for an original event (e.g., Loftus & Palmer, 1974; Loftus, 1975; Loftus, Miller, & Burns, 1978; McCloskey & Zaragoza, 1985). With the exceptions of Vallano and Schreiber Compo (2011) and Kieckhafer, Vallano and Schreiber Compo (2013), little is known about the effects of rapport-building on adult witnesses' suggestibility to post-event information, despite the frequency with which real-world interviewers are known to introduce outside information.

Child witness research supports the notion that social support (analogous to rapport-building) can enhance children's resistance to suggestion (Carter et al., 1996; Goodman, Bottoms, Rudy & Schwartz-Kenney, 1991). Specifically, Goodman and colleagues (1991) demonstrated that when children were asked misleading questions, those with a socially supportive interviewer were better able to resist the interviewer's misleading suggestions than those interviewed by a socially unsupportive interviewer. The authors posited that social support decreased the child witness' feelings of intimidation, which in turn rendered them more comfortable with contradicting the interviewer's misleading suggestions, therefore decreasing their suggestibility (Goodman et al., 1991). Similarly, other researchers have noted that the decrease in suggestibility may be the result of a fostered sense of empowerment, improving the child's resistance to suggestibility (Carter et al., 1996; Davis & Bottoms, 2002).

Based on the child witness literature, Bottoms, Quas, and Davis (2007) have proposed a two-pronged effect that social support has on child witness reports. First, social support decreases child witness suggestibility, or social compliance. That is, after social support is built, the child witness feels empowered and less pressured to be compliant with the interviewer's request (e.g., acquiescing to a suggestive question), compared to no social support. The authors point out that this is likely mediated by constructs such as perceived resistance efficacy, in which older children are more likely to have increased confidence telling an adult he/she is wrong than younger children (Davis & Bottoms, 2002). The second prong of social support's effect on witness reports addresses the enhanced memory performance found in many child witness social support studies. The authors suggest that if memory for an event is weak, social support may have a beneficial effect in focusing the child's attention on memory retrieval, leading to enhanced recall. The authors also suggest that the effect may be mediated by psychological constructs, including anxiety reduction, in addition to attentional focus. Arguably, the second prong is likely to play a particularly important role in predicting an explaining rapport's effect on adult suggestibility.

Rapport's effect on adult witness suggestibility – Cognitive load. In line with Bottoms and colleague's second prong, rapport-building is likely to have an effect on cognitive strategies at time of adult witness retrieval. Specifically, it can be argued that building rapport with a witness prior to retrieval and suggestive questioning can reduce the cognitive load inherently present in any (official) interview situation. At the time the witness is trying to retrieve the memory of a crime, he or she is engaged in cognitive activity on several levels: for example, managing anxiety, generating retrieval cues,

accessing and choosing between pieces of information, monitoring output criteria/thresholds, monitoring the interviewer and one's own behavior for cues that one is helpful or accurate, and monitoring the interviewer for any incorrect information. The concept of cognitive load is based on the much-replicated finding that people have a limited amount of mental resources available to process information (e.g., Baddeley, 1986; Baldwin, 1894; Cherry, 1953; Craik, 1948; Kahneman, 1970; Kahneman, 1973). Performance on any task therefore suffers when more than one task is attempted at one time. In the first interactions in an interviewing situation a witness would be very aware of the official and evaluative climate of an investigative interview. This would translate into monitoring the other person closely for cues that might signal the other's perceptions to make sure their feelings are being reciprocated (Tickle-Degnen & Rosenthal, 1990). In addition, depending on how emotionally arousing the witnessed event was, the interviewee is also engaged in managing the arousal/anxiety evoked by the situation and/or the memory for the event. Thus, the two (or more) competing tasks for the interviewee would encompass monitoring the environment, managing arousal, and retrieving information from memory. With an increase in competing demands, that is, cognitive load, witness output likely declines in one or more tasks including retrieving information and comparing this information with the suggested information. However, any reduction in cognitive load can free up additional (available) mental resources resulting in an increased resistance to suggestive/misleading questions. That is, if rapport is built with the witness this may decrease managing arousal and anxiety related to the memory of crime and/or the interviewing situation. With fewer competing tasks, witnesses should then be in a better position to allocate all cognitive resources to memory

retrieval and source monitoring (see Bottoms et al., 2007 for similar processes suggested for child witnesses).

Past investigative interviewing studies have posited similar theories that competing mental tasks deplete the limited resources and can result in cognitive deficits (Vredeveldt, Hitch, & Baddeley, 2011; Vrij, Mann, Fisher, Leal, Milne, & Bull, 2008). Vredeveldt and colleagues (2011) tested this assumption through manipulating the participant's ability to monitor the environment via eye closure while retrieving memories during a witness interview, and found evidence that eye closure reduced cognitive load. Thus, if the person's need or ability to monitor the environment is decreased, by eye closure or through feeling more comfortable after building rapport, additional mental resources can be used for other tasks. In the rapport context, building rapport at the beginning of a witness interview may allow the witness to allocate more cognitive resources to retrieving the original event from memory, for example via trying additional retrieval strategies. Similarly, feeling comfortable in a witness interview may allow a witness to allocate additional cognitive resources to improved source-monitoring strategies that allow for a better distinction between the original memory and interviewer suggestion.

Two published studies to date support this cognitive load prediction, although not directly testing it, and have demonstrated positive effects of rapport-building on adult susceptibility to misinformation. Vallano and Schreiber Compo (2011) found that rapport-building decreased the total amount of inaccurate information (both misinformation and other false information) reported by adult witnesses in a subsequent witness interview. Kieckhaefer and colleagues (2013) found that rapport-building also

decreased the amount of inaccurate information reported, in particular when rapport was built *before* exposure to misinformation. Thus, both studies demonstrated that rapport can have positive effects on reducing susceptibility to misinformation, however, much remains unknown about the specific conditions under which rapport is and is not effective. It is also important to note that suggestibility in both studies was manipulated within a classic misinformation paradigm, that is, the misinformation was presented outside of and prior to the witness interview in the form of a written police report. The proposed study is therefore the first to examine if and how false information in the form of suggestive-leading questions, introduced by the interviewer who previously built rapport, influences adult witness recall.

Rapport's effect on adult witness suggestibility – Social Influence. The opposite may also be true – it is possible that building rapport with an adult witness may have a negative effect on accuracy, and result in *increasing* their suggestibility. That is, rapport may facilitate social influence, resulting in increased compliance with an interviewer's suggestive questions. Investigative interviews are, at a basic level, an attempt by the interviewer to exert social influence over the witness, that is, an interviewer's objective is typically to increase witness's participation, cooperation, and disclosure of crime-related information. Within this context, building rapport to gain social influence could result in increasing witness acquiescence and overall agreement with the interviewer. Along these same lines, researchers in the child witness literature have argued that building social support (rapport) could increase the witness's need to be agreeable to, comply with, or please the interviewer (Moston & Engelberg, 1992), thus rendering a witness more susceptible to suggestive questions. Furthermore, studies

examining rapport's effect on adult compliance in the workplace have found that when supervisors built rapport, their subordinates were more likely to comply with their requests than when no rapport was built (Heintzman, Leathers, Parrott, & Cairns, 1993). Therefore, it can be argued that if an interviewer, who previously built rapport with the witness, asks the comfortable witness suggestive-leading questions, the witness might feel compelled to act in line with the social demand characteristics of the interviewing situation. That is, the additional pressure to reciprocate the rapport built may render the witness more agreeable with the interviewer, including his/her suggestive-leading questions.

In this context, the interviewer suggesting information to the witness can also be viewed as an attempt of persuasion. Persuasion consists of a source communicating a message via certain means (channel) to a receiver (Williamson, 2008). Hence, an interviewer communicating suggestive leading questions verbally to a witness can be thought of as persuasion. Research indicates that persuasion is more successful when the source has high credibility and is likeable (Williamson, 2008). People also tend to uncritically accept messages from trustworthy sources (Preister & Petty, 1995). Accordingly, building rapport with a witness could positively influence the witness's impressions of the interviewer's (source's) credibility, likeability, and trustworthiness. In the two recent adult rapport-building studies, rapport was found to influence impressions of friendliness and positivity, such that those who were built rapport with rated the interviewer as friendlier and more positive than those who received no rapport (Vallano & Schreiber Compo, 2011; Kieckhafer et al., 2013). In line with this finding, if a witness who received rapport perceives the interviewer as friendlier and positive, this

witness may also view the source as likeable, trustworthy and/or credible. Building rapport with a witness could therefore increase the likelihood that the witness will be persuaded to acquiesce to interviewer suggested information.

Same versus different interviewer

Despite its real-world importance, no known research has examined whether rapport's potentially beneficial effects on witness memory are contingent upon the interviewer who built rapport. That is, in the process of repeated witness interviews, does rapport's effect on memory depend on whether rapport is built by the same person eliciting the information? All prior studies have used the same interviewer both to build rapport and subsequently interview the witness about the event in question. Examining this question is important both from a theoretical and an applied perspective.

From an applied perspective, demonstrating that rapport's effect extends beyond the interviewer who built rapport will allow for more flexible interviewer/resource allocation during the investigative interviewing process, which oftentimes includes repeated interviews with the same witness by different interviewers. Furthermore, if the first responding officer builds rapport on the scene, and this initial rapport is found to have a positive effect on later memory for the event even if collected by a different interviewer, then this 'inoculation' effect has the potential to affect interviewing protocols. Conversely, if rapport's effect on memory is only contained within the interaction/informational exchange with the same interviewer, then agencies may have to ensure that the same interviewer is available for the same witness across multiple interviews.

From a theoretical perspective, there are at least two possible mechanisms that predict that witnesses will remember more accurate and plentiful information when recalling information with the same interviewer who initially built rapport than a different one. One mechanism is based on the motivational dynamic between witness and interviewer, the other is based on cognitive mechanisms regarding encoding and retrieval context.

Interviewer's effect on witness memory - Working alliance and motivation.

A witness may feel compelled to report more plentiful and accurate information when recalling with the same interviewer who initially built rapport to demonstrate a continuous positive relationship between him/her and the interviewer. In other words, one possible theoretical explanation of rapport's positive effects only in the same-interviewer condition lies in the development of an interviewer-witness relationship and may enhance the witness's motivation to be helpful. Although this interviewer-interviewee relationship may be unique to the criminal justice system, parallels can be drawn to the psychological therapy environment, which has emphasized the importance of a working alliance between the therapist and client to increase outcomes (Horvath & Greenberg, 1989). A meta-analysis examining studies of the therapeutic environment indicated that the working alliance can be predictive of client involvement and of a positive therapy outcome in the future (Horvath & Symonds, 1991).

Although, like rapport, the definition of a working alliance is not consistent across the literature, it often includes task, goal and bond components (Bordin, 1976). The task component of the working alliance refers to the therapy itself. The goal component signifies what the client hopes to achieve from the therapy. The bond component refers

to the relationship between the client and the therapist. Research has shown that the client-therapist bond can be thought of as an in-progress attachment (Obegi, 2008) as clients form attachments to their therapists (Amini, Lewis, Lannon, & Louie, 1996; Farber, Lippert, & Nevas, 1995; Mallinckrodt, Gantt, & Coble, 1995). Original attachment theorists Bowlby and Ainsworth argued that all people, from infants to the elderly, seek to establish an affective attachment with another to meet needs of psychological and physical security (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1988). This bond component of the working alliance is strongly correlated with rapport in a clinical context (Sharpley, Guidara & Rowley, 1994; Sharpley, Halat, Rabinowicz, Weiland & Stafford, 2001).

It can be argued that the same three components of the therapeutic working alliance are also present in the investigative interviewing environment. Specifically, the task is the interview, the goal is to retrieve information from the witness about an event, and the bond refers to the relationship between the interviewer and witness. Similarly, witnesses can be viewed as seeking psychological and physical security from a law enforcement interviewer, in particular because the event they witnessed was likely stressful and dangerous. If an attachment or bond does develop between the witness and interviewer as a result of rapport-building, then the same interviewer's presence at a subsequent interview should result in a greater motivation to cooperate and a better interview outcome resulting in a higher quantity and quality of information attained. Researchers both within and outside the witness context have thus posited that rapport's positive effects on witness accuracy may be a result of increased motivation (Collins et al., 2002; Hershkowitz, 2011) and that rapport, "creates trust and builds a psychological

bridge between the interviewer and the interviewee” (St-Yves, 2006, p. 93, Collins & Miller, 1994; Lieberman, 2000; Schafer & Navarro, 2003). Also beyond the initial interaction, interviewer and interviewee should feel more at ease with one another, resulting in an increase in efficiency of communication and fewer misunderstandings (Tickle-Degnen & Rosenthal, 1990).

Interviewer’s effect on witness memory - Context reinstatement. Another possible cognitive explanation for why the same interviewer at the rapport/no rapport interview and retrieval may improve witness performance lies in reinstating the same context at retrieval as during the encoding phase. It is important to point out however, that in an investigative interviewing context it is very unlikely that the interviewer will be present during the crime (at encoding). Arguably, the earliest time at which rapport could be built is during the consolidation phase by the first arriving officer. Therefore, in the process of repeated interviewing, this initial rapport would then be associated closely with the encoding/consolidation phase (i.e., learning phase) of witness’ memory process. When asked to recall an event at a later time, speaking to the same interviewer who initially built rapport, will thus assist a witness in recreating the original context of learning (encoding and consolidation) at retrieval, thus facilitating memory.

The positive effect of mentally reinstating the learning context on memory at retrieval, as a result of encoding specificity, has been well documented in the literature (Davies & Milne, 1985; Eich, Weingartner, Stillman, & Gillin, 1975; Fernandez & Alonso, 2001; Godden & Baddeley, 1975; Smith, 1979; Tulving & Osler, 1968; Tulving & Pearlstone, 1966; Tulving & Thompson, 1973). That is, research has demonstrated that retrieving information from memory is most accurate and plentiful when the original

learning context is recreated at retrieval, via increasing the number of available retrieval cues (e.g., Tulving & Thompson, 1973). Any stimulus present during the original experience may be encoded when the event is stored in memory (become a memory cue), and hence can potentially serve as a retrieval cue and increase the accessibility of the target memory when remembering the event at a later time (Lieberman, 2004). For example, in one study participants memorized a list of 80 words, and were tested a week later in either the same room they learned the words in or a different room (Smith, 1979). Participants who recalled the words in the same room recalled about 50% more words than those who recalled the list in a different room. Thus, room cues were likely encoded along with the list of during the learning phase, so the presence of those same room cues at retrieval helped to activate and access that particular memory. The same effect has been found in a variety of other contexts. For example, in a famous experiment scuba divers who memorized a list of words either on land or under water were most accurate, recalling 40% more information when tested in the same environment they originally learned the information (Godden & Baddeley, 1975). Many subsequent studies have confirmed that the addition of similar contextual cues at retrieval increases the quantity of accurate information recalled without an accompanying increase in inaccurate information (e.g., Davis, McMahon, & Greenwood, 2005; Emmett, Clifford, & Gwyer, 2003; Milne & Bull, 2002).

More relevant to the present study, similar emotional states (i.e., internal environment) at learning and retrieval can also have advantageous effects on memory accuracy, otherwise known as mood state-dependent memory (e.g., Bower, Monteiro, & Gilligan, 1978; Schare, Lisman, & Spear, 1984). In other words, material learned in a

particular mood will be recalled more easily when that mood is reinstated at retrieval, regardless of the pleasantness or unpleasantness of the material itself (Baddeley, 1990). These studies typically involve participants learning a list of words in either a happy or sad mood, and later being tested in the same or different mood in which they originally learned the words. Results generally indicate that memory is most accurate when the moods at learning and retrieval are congruent (Bower, 1981; Eich, Macauley, & Ryan, 1994; Eich & Metcalfe, 1989; Weingartner, Miller, & Murphy, 1977). Thus, for both contextual and emotional states, memory quality and quantity depends on the extent to which the information available at retrieval matches the information stored in memory. When applying this principle to an eyewitness scenario, context reinstatement can often be accomplished by taking the witness back to the scene of the crime, or by asking the witness to visualize being there. In the context of the current study, presenting the same interviewer again at retrieval may act as an important memorial cue (contextual and/or emotional) that can facilitate witness memory by recreating the original learning or consolidation context, and thus making more cues available at retrieval.

The concept of context reinstatement via re-interviewing a witness with the same or different interviewer has received some research support in the area of investigative interviewing. Bjorklund and colleagues (2000) examined same versus different interviewer effects on accuracy and compliance for 5- and 7-year-old children and adults after a 2-day delay. Participants viewed a short mock-crime theft video on the first day of the study and were then asked open-ended prompts about the video. Next, depending on condition membership, participants were either asked a series of 20 unbiased (e.g., “Can you tell me who owned the bike?”) or misleading questions (e.g., “The mother owned the

bike, didn't she?"). Two days later either the same or different interviewer interviewed the participant, starting with open-ended free recall questions, followed by 20 three-choice recognition items (e.g., "Did the bicycle belong to: (a) the mother, (b) the boy or (c) the girl?"). In contrast to the authors' predictions that the same interviewer would increase compliance with the interviewer and be more inaccurate, results indicated that those interviewed by a different person had greater recognition errors compared to those interviewed by the same person. The authors posited that the results reflected an effect of context reinstatement on memory performance – the presence of the same interviewer on day 2 acted as a reinstatement cue that lead to fewer incorrect recognition responses.

From an applied perspective, examining the relative importance of rapport-building in the investigational process including repeated witness interviews and possibly different investigators will shed light on whether its beneficial effects are tied to the specific person building rapport. That is, should rapport-building be an integral part of each witness interview or does it have a noticeable effect on witness accuracy throughout the investigation independent of the specific interviewer? The proposed project will therefore address the importance of investigator-witness relationships and pairings throughout the investigative process.

The Present Study

Mock witnesses were asked to watch a mock crime video. Immediately afterwards, in the rapport condition, an interviewer built rapport. In the no rapport condition witnesses were instead asked a series of mundane demographic questions (modeled after actual police interviews). One week later all participants were interviewed about the mock crime either by the same interviewer or a different,

previously unseen interviewer. Testing after a one-week delay is a novel addition to the adult rapport-building literature, and will examine if rapport has lasting effects (rapport will not be built directly prior to the interview about the crime). The interview consisted of asking the witness a series of open-ended questions about the mock crime, followed by suggestive accurate and inaccurate leading questions. A detailed set of questionnaires was also administered to participants after the interview. These questionnaires informed theoretical underpinnings of rapport's and (change of) interviewer's possible effects on witness memory, including cognitive load, social influence, bond, motivation, and context reinstatement.

Hypotheses

In line with the previous adult witness rapport studies (Collins et al., 2002; Vallano & Schreiber Compo, 2011; Kieckhafer et al., 2013) and the underlying theoretical mechanisms discussed, several results are predicted (Appendix A). (1) A main effect of rapport is expected, such that witnesses who experience receive rapport will recall more information overall and more accurate information about the mock crime than those who do not receive rapport-building (Collins et al., 2002; Vallano & Schreiber Compo, 2011). This finding is based on prior research and on the basis of the cognitive load approach (building rapport frees up mental resources to allocate to memory retrieval) and working alliance (the positive effect of the bond built between interviewer and witness). (2) A main effect of interviewer is also predicted, such that those witnesses with the same interviewer present at both sessions will be more accurate than those who have different interviewers, as predicted by the encoding-specificity and/or mood dependent memory principle. (3) An interaction between rapport and interviewer is also

hypothesized, such that rapport will have a particularly beneficial effect on witness memory if the same interviewer is building rapport and asking the witness to recall, compared to a different interviewer at retrieval. This result is predicted as a combined effect of rapport's impact on bond and witness motivation to be helpful, reinstating the context of rapport and interviewer across the two sessions (increasing the amount of retrieval cues), and lower cognitive load (more cognitive resources available to search memory). (4) A main effect of rapport on suggestive questions is also expected, such that witnesses who experienced rapport will be more accurate in responding to interviewer suggestive questions (accurate acquiesces to correct leading and accurate disagreements with incorrect leading questions) than witnesses without rapport. This finding is predicted by cognitive load, as rapport should allow for more mental resources to be available and an improved memory search (5) Lastly, an interaction between rapport, interviewer on suggestive questions is predicted such that witnesses who receive rapport at time 1 and the same interviewer at time 2 are expected to be the least likely to inaccurately acquiesce to interviewer suggestion and the most accurate overall. This finding is predicted based on the combined effects of cognitive load, context reinstatement, and as a result of the bond between the interviewer and witness.

Implications

The study will advance the scientific understanding of rapport-building and its effects on eyewitness suggestibility in investigative interviewing settings. For example, the present study will contribute to the theoretical understanding of rapport's effects on adult witnesses. Through examining participant responses we will be able to determine if

rapport's effect is the result of (at least in part) to a decrease in cognitive load, an increase in motivation and/or an increase in trust. The results of this study also have the potential to expand our understanding of state-dependent learning to include mood/emotion in the context of witness memory and rapport. Thus, if the learning context is recreated at retrieval, and participants who received rapport and had the same interviewer were the most accurate, than this would indicate that mood reinstatement in particular could be an important aspect of rapport's effect on memory. Similarly, if the same interviewer present at both times elicited a similar response, regardless of rapport condition, this would indicate that both context (same person) and mood/emotion (rapport) are similarly important.

The current study also has several real-world implications. For instance, as the specific effect of the rapport interviewer on witness retrieval has never been empirically tested, the study will fill the gap between interviewing guideline recommendations and real-world investigative interviewing practices. As such, the current research has the potential to link scientific knowledge and practice via implementing ecologically valid witness interviewing conditions in a well-controlled experimental design. One such new and major advancement will be an understanding of the delayed effects of initial rapport-building on eyewitness accuracy and an understanding of interviewer-interviewee relationship on eyewitness suggestibility, specifically examining if rapport renders witnesses more or less likely to (falsely) acquiesce to interviewer suggestion.

Another advancement will be an understanding of the nature of the relationship between the eyewitness and the interviewer, and if this relationship is necessary to elicit rapport's positive effects on accuracy. This finding has the potential to improve the

quality of the investigative process for any eyewitness in contact with the legal system, create a more effective and fair investigative interviewing environment and to improve public safety by increasing eyewitness accuracy and quantity of information and thus investigative leads. Specifically, rapport-building meets the real-world needs of witnesses by decreasing stress and anxiety after experiencing what was likely one of the most stressful times in their life. Examining the effects of rapport-building also meets the needs of the criminal justice system by improving evidence-based investigative interviewing techniques likely to elicit fast, accurate and plentiful information with little cost or time to implement. This in turn can directly assist in the timely arrest of the perpetrator.

II. STIMULUS VIDEO

Four actors were recruited to film a mock crime, and received no compensation, to play a store cashier, a customer, a witness and a robber. The video was filmed at Provisions on Demand, a convenience store on the Modesto Maidique campus of Florida International University, with permission from store management and University officials. The location was chosen to mimic a convenience store armed robbery – a real-life, anxiety producing crime scenario. The video was filmed using two Hi-Definition cameras, each with two microphones: one internal (i.e., attached to the camera) and one wireless. The mock crime included a total of 20 critical details for which participants would eventually be tested, all in relation to the four actors, their actions during the film, and the location.

The final, edited version of the mock crime film is 2 minutes and 26 seconds in duration. The film starts with a woman behind the counter in the store (cashier). Next a female customer carrying a small dog enters the store and begins shopping. The camera follows her to the refrigerated drinks section, where she pulled out a cold beverage in a large aluminum can, and then proceeds to walk to the counter. Next the film cuts to the front doors again, and a male witness then enters the store and walks to the back. Immediately following, the film then shows the female customer interacting with the female cashier, paying for the beverage and leaving the store. Next, the male witness is shown perusing the snack bars. After that, the film cuts to show a man wearing a hood in sunglasses walk into the store and take off his sunglasses (the robber). The man then walks to the refrigerated beverage and food section and grabs a bottled drink. The film then cuts to show the cashier holding and touching the screen of her smartphone. After

that the robber walks over to the back corners of the store all while looking around and seemingly assessing the store. Next, the robber approaches the female cashier and asks if she has any cigarettes, to which she replies, “no sorry.” The robber then pulls out a black gun from behind his back, points it at the cashier and yells, “Give me all your money!” The robber then turned his attention to the male witness and said, “Hey you, get over there,” indicating with his hand for the male witness to move where he can be seen. The cashier then gets a bag from under the counter, opens the register and places all the money into the bag. After that she hands the bag of money to the robber, and the robber says, “I don’t want no funny business!” and runs out of the store. The last view of the film is of the robber running outside and turning to the right. In total, the robber was shown on camera for 58 seconds, the male witness was shown for 47 seconds, the female customer was shown for 55 seconds, the cashier was shown for one minute and three seconds, and the robbery lasted 11 seconds.

The cashier was a Hispanic female, 20 years of age with brown eyes and long straight black hair worn down with a bow on the left side of her head. She was 5’3” and weighed approximately 125 pounds. She was wearing a peach/pink button down shirt over a white t-shirt, high-waisted multi-colored skirt (mainly navy blue in color), and eyeglasses. During the video she was seen holding and presumably texting on her cellphone, as well as swaying back and forth, and never moved out from behind the store counter.

The female customer was a Caucasian female, 19 years of age with green eyes and long wavy dirty blonde hair worn back in a ponytail. She was 5’8” and weighed approximately 170 pounds. She was wearing cut-off shorts, blue/teal t-shirt, a small plaid

leather purse, sandals, and eyeglasses. During the video she was seen holding a young dog that was mostly black and white.

The male witness was a Hispanic male, 23 years of age with dark brown eyes and short black hair. He was 6'0" and weighed approximately 215 pounds. He also had a beard and mustache. He was wearing a brown Express polo shirt, black wrist watch (right wrist), black belt, black prescription type eyeglasses, yellow Live Strong bracelet, dark blue jeans, and black boots. During the video he was seen viewing snack bars, holding a red Gatorade, and holding his hands up during the robbery.

The robber was a Hispanic male, 23 years of age with dark brown eyes and short black hair about an inch long. He was 5'9" and weighed approximately 185 pounds. He also had a very light beard and mustache. He was wearing a black hooded sweatshirt over a green t-shirt, dark/grey jeans, white and blue running shoes, and mirrored aviator sunglasses (only at the beginning of the film for a few seconds). During the video he was seen holding a Naked juice bottle, holding a black handheld gun in his right hand, and he pulled the gun from his jean waistband, under his sweatshirt behind his back.

The convenience store, actually named Provisions on Demand (POD) or often referred to as "Breezeway," was renamed Wink's Quick Shop via many signs seen in the video that were posted throughout the store. The store contained four aisles with assorted food goods, had wooden floors, and one entrance with double glass doors. There was also a sign that said store hours of operation Monday - Friday 7am – 10pm; Saturday & Sunday 8am – 11pm. During the video there was also a Pepsi brand wall clock in view hanging above the doors that read 2:35. Throughout the video there was a total of four people shown, including two people (other than the robber) present during the robbery.

III. STUDY 1: MOCK CRIME VIDEO MEMORY

Purpose

The goal of Study 1 was to assess participant memory for aspects of the mock crime video both when tested immediately after viewing and after a week delay. This pre-test was important in deciding which questions to use for Study 2's correct and incorrect leading suggestive questions.

Participants

Eighty-nine participants ($M_{\text{age}} = 21$, $SD_{\text{age}} = 4$; 62% female; 52% Hispanic, 37% White, 6% Black, 1% Asian, 4% "Other") participated in exchange for no compensation. Fifty-one participants were tested immediately after viewing the video, and 38 after a one-week delay.

Materials and Procedure

Participants were members of undergraduate classes at Florida International University who volunteered their participation. Upon agreeing to take part in the study, participants were told to remove all items from their desk. Next, the experimenter stated the following instructions out loud: "You will now watch a video. Please, pay attention to the entire video." The experimenter then played the video at full screen. After viewing the two and a half minute crime video the participants were either thanked for their time (week delay condition) or handed a 45-question questionnaire to answer questions about the video they just watched (immediate condition). In the delay condition the participants were tested with the same 45-question questionnaire exactly one week later. After participants filled out the questionnaire they were debriefed to the purpose of the study and thanked for their time.

Questionnaire. Each participant filled out a study questionnaire that contained 45 multiple-choice questions, each with three response options, regarding different aspects of the mock crime video. The questionnaire was divided into five parts, each addressing one of the four actors and the store (i.e., female customer, male witness, cashier, robber and store). Before beginning, participants were asked to read the instructions on the first page of the response packet quietly, which stated, “(Last week) you witnessed a crime. To aid the investigation, please answer the following questions to the best of your ability. Please provide/circle one response for each question, even if you’re not sure of the correct answer.” Upon completion of the questionnaire, participants provided their demographic information and were then debriefed.

Results

The purpose of Study 1 was to examine which aspects of the mock crime video were more and less memorable both when tested immediately and after a week delay. First examining questions regarding the female customer, although all items had above 50% accuracy when tested immediately, seven of the ten questions after a week delay had less than 50% accuracy (see Table 1 for mean accuracy percentages). The female customer’s shirt color was selected as the correct option 57% of the time when tested immediately and only 32% of the time when tested after a week delay. Similarly, participants answered accurately about what accessory she was wearing 59% of the time when tested immediately, however after a week delay that number dropped to 28%. Memory accuracy for what color the purchased item was dropped from 84% when tested immediately, to 42% when tested with a week delay. The type of animal the female

customer was holding remained memorable across testing conditions, with 94% accurate responses when tested immediately and 83% accurate when tested a week later.

Memory accuracy for items related for the male witness was moderate, with the highest memory accuracy in the immediate condition at 65% and the lowest at 22%. The male witness's shirt color was selected correctly 53% of the time in the immediate condition, and 28% of the time when tested a week later. Interestingly, although his facial hair was dark and thick, memory accuracy was low both when tested immediately (22%) and after a week delay (11%).

Seven items were tested with regards to the cashier and what she was wearing, her actions, and what she was holding. Six of those seven items were selected accurately less than 50% of the time when tested after a week delay. One item that remained fairly accurate across both testing sessions was the participants' memory for the item she was holding; participants correctly answered that the cashier was holding a cell phone 100% of the time in the immediate condition and 70% of the time when tested after a week delay.

The questionnaire contained the most questions (14) about the robber, his appearance, his actions and the weapon because he was the perpetrator of the crime and thus of primary interest in an investigation. When tested a week later, 10 of the 14 were still memorable, with over 50% accuracy. Memory accuracy improved across testing periods for the color of his jacket (immediate: 78%; delayed: 84%) and which hand held the gun (immediate: 78%; delayed: 84%). Memory accuracy was poor overall for his shirt color (immediate: 35%; delayed: 11%) and facial hair (immediate: 37%; delayed: 32%). Memory accuracy remained above 50% for several items, including what type of

bottoms he was wearing (immediate: 96%; delayed: 82%), the type of footwear he had on (immediate: 94%; delayed: 84%), the item he picked up while shopping (immediate: 92%; delayed: 58%), and the color of the gun (immediate: 98%; delayed: 95%). Memory accuracy for where he grabbed the gun decreased from 67% accurate when tested immediately to 46% accuracy when tested after a week delay.

Seven items were tested related to the store and video overall, and six of the seven items remained at or above 50% accurate when tested after a week delay. The number of people present in the store during the robbery was answered correctly 98% of the time when tested immediately, and 58% of the time when tested after a delay. Similarly, the number of doors at the entrance of the store was remembered accurately across both testing sessions (immediate: 80%; delayed: 71%). There was a decrease in accuracy for participant memory of the store name across testing sessions (immediate: 76%; delayed: 43%).

Ultimately, items were chosen so that each of the five aspects of the video was tested during the suggestive questioning portion of the experiment. Elements were also chosen so that half (10) were memorable, or above 50% accuracy with a week delay, and half (10) were not as memorable, with below 50% accuracy after a week delay (see Appendix G). The week delay component was specifically important because it mimicked the actual testing conditions for the study 2 participants.

Table 1

Mean percentage (rounded) of correct responses to video memory test questions when tested immediately after viewing the video and after a one-week delay

		Immediate (N=51)	Delay (N=38)	Chosen for suggestive questionnaire
Female Customer	Shirt color	57	32	X
	Footwear	71	57	
	Accessory	60	42	X
	Hair color	86	69	
	Hair style	59	28	X
	Type of animal	94	83	X
	Color of animal	84	22	
	Glasses	75	25	
	Color of item purchased	84	42	X
	Item purchased	61	44	
Male Witness	Shirt color	53	28	X
	Glasses	65	31	
	Color of beverage	53	31	
	Bottoms	65	51	
	Facial hair	22	11	X
Cashier	Robber provoked action	60	54	
	Glasses	73	35	
	Kind of top	33	19	
	Tank top color	70	46	
	Hair color	78	38	
	Item held	100	70	X
	Item in hair	35	14	
Robber	Money bag	94	46	
	Glasses	61	70	
	Jacket color	78	84	X
	Undershirt color	35	11	X
	Bottoms	96	82	X
	Footwear	94	84	X
	Facial hair	37	32	X
	Item picked up	92	58	X
	Item color	30	24	
	Item asked cashier for	84	61	
	Where grab gun	67	46	X
	Hand holding gun	78	84	X
	Gun color	98	95	X

	Said after robbery	73	53	
	Direction ran out of store	73	50	
Store & Video	# people in store during robbery	98	58	X
	# people in store overall	94	50	
	# people who bought items	80	65	
	Soda name and logo	43	50	
	Store name	76	43	X
	# doors at entrance	80	71	X
	# benches outside store	70	62	

IV. STUDY 2: UNDERSTANDING RAPPORT-BUILDING IN INVESTIGATIVE INTERVIEWS: DOES RAPPORT'S EFFECT ON WITNESS MEMORY AND SUGGESTIBILITY DEPEND ON THE INTERVIEWER?

Purpose and Design

Recall that the overarching objective of the present research was to investigate the effect of building rapport a week prior to an investigative interview, and change in interviewer one week later at recall, on eyewitness memory accuracy and susceptibility to interviewer suggestion. The present study was a 2 (Rapport-building: rapport vs. no rapport) by 2 (Interviewer one week later: same vs. different) between-participants design. On the first day of the experiment participants watched a two and a half minute mock crime video depicting a realistic convenience store robbery (see Stimulus Video section). Following the video, participants either received a rapport or no rapport interview lasting approximately five minutes in length (rapport manipulation). Upon returning to the laboratory one week later, participants were interviewed about the mock crime by either the same rapport/no rapport interviewer from the week before, or a new, previously unseen interviewer (change in interviewer manipulation). Participants were first asked a series of open-ended prompts about the crime (i.e., "Tell me everything you remember about the event"). Next, the interviewer asked the participant a series of 20 correct and incorrect leading suggestive questions, selected on the basis of memory accuracy results from Study 1. Lastly, participants answered a series of questionnaires designed to assess recall accuracy and memory source-monitoring ability as well as possible theoretical rationales for rapport's potential effects on memory accuracy and suggestibility.

Participants

Two hundred and nine students from the psychology participant pool at a large southeastern university received course credit in exchange for their participation. Based on a power analysis using G*Power (Faul, Erdfelder, Lang & Buchner, 2007) this sample size is sufficient to detect small to medium differences and two- and three-way interactions at $p < .05$ and an experimental power of .95. Of these participants, one was excluded because of an equipment malfunction, one was excluded because part two was more than eight days after part one, one participant was colorblind and one had self-proclaimed memory disabilities. An additional seven participants were excluded because one specific interviewer's lack of counterbalancing across all conditions. The final sample of 198 participants was mostly female (76.3%) and Hispanic (68.2%), followed by African-American (12.6%), Caucasian (11.1%), Other (4%), and Asian (4%). Mean participant age was 22 years, and ranged from 18 to 49 years. The true nature of the experiment was not disclosed until after debriefing to better approximate the incidental nature of real-life crime witnessing conditions. All participants were able to read and write in English.

Design

Participants were randomly assigned to a 2 (Rapport-building: rapport vs. no rapport) by 2 (Interviewer one week later: same vs. different) between-participants design. The primary outcome variable was participants' memory for the mock crime video (as measured by the amount of correct, incorrect, correctly suggested and incorrectly suggested, don't know, and subjective responses given during the witness interview). Secondary dependent variables include measures of anxiety, interviewer-

interviewee interaction, cognitive load, social influence, bond, motivation, and context reinstatement (see Appendices B, E, H, and I).

Materials and Procedure

For the first experimental session two research assistants played either the role of experimenter or interviewer. The experimenter greeted and consented each participant, and handed each a short anxiety questionnaire.

Anxiety Questionnaire. The anxiety questionnaire was administered five times throughout the study, and is a modified version of the state anxiety portion of the State and Trait Anxiety Index (STAI; Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983; see Appendix B). The modified STAI consists of 10 items on participants' current feelings of anxiety (e.g., "I feel upset", "I feel at ease"). Participants rated each item using a four point rating scale (0 = *not at all*, 3 = *very much so*), with a score of 0 indicating not at all anxious and a maximum possible score of 30 indicating very anxious.

Mock crime. Next, participants viewed a mock crime recording approximately two and a half minutes in length depicting a realistic convenience store robbery. In this video, four people are shown, including a female customer, a male witness, a female cashier and a male perpetrator. The perpetrator is shown entering and walking around the store, pulling out a gun, and yelling at the female store attendant to give him all of the money in the cash register. Finally, the perpetrator is shown running out of the store with the money handed to him by the female attendant.

Following the mock crime video, participants completed a second anxiety questionnaire. Next, the experimenter left and the interviewer entered the room.

Depending on condition membership (rapport manipulation), the interviewer either built rapport or no rapport with the participant.

Rapport conditions. Two different scripts served as the rapport-building manipulation. Consistent with Kieckhaefer et al. (2013) and Vallano and Schreiber Compo (2011), in the rapport condition the interviewer elicited personal information from the witness. Information about the mock crime was elicited during the subsequent interviewing stage. As such, rapport was built with participants by employing mostly verbal and some non-verbal rapport-building techniques as recommended by the Cognitive Interview (Fisher & Geiselman, 1992; Appendix C). These techniques included active listening (e.g., head nodding and answering affirmatively to indicate the interviewer is listening), using the interviewee's name, displaying interest in the disclosure of personal yet unofficial information, eye contact, facing the person during the interview, and minimal physical contact (e.g., handshake). Examples of requests for information used in the rapport script include, "Tell me what your experience has been like as a student here," and "Tell me about your family." In the no rapport script, modeled after the opening portion of an actual police interview (Schreiber Compo et al., 2012), the interviewer asked participants a series of specific questions about personal yet official information without employing the verbal rapport-building techniques used in the rapport script (Appendix D). Examples of the types of questions the interviewer asked include, "What is your first name?", "What is your phone number?," and "Where do you live?". There was also minimal eye contact provided by the interviewer, no signs of active listening displayed, and the interviewer did neither directly face the witness during the interview nor shake the witness's hand. After the rapport/no rapport manipulations

and the interviewer's departure, the experimenter re-entered the room and asked each participant to fill out the anxiety questionnaire for a third time.

Interaction Questionnaire. Following the third administration of the anxiety questionnaire, the experimenter handed each participant an interaction questionnaire to rate the interviewer and his/her interaction with the interviewer on 30 dimensions (12 interviewer dimensions and 18 interaction dimensions), which served as a rapport manipulation check (modified from Vallano & Schreiber Compo, 2011; Appendix E). That is, all participants privately rated the level of rapport they experienced as a result of the interviewer (the interviewer subscale), and permeating the interaction between themselves and the interviewer (the interaction subscale). For example, the interviewer subscale includes ratings of interviewer smoothness, friendliness, and positivity, while the interaction subscale includes ratings of cooperation and harmony within the interview. Participants rated each rapport-related characteristic on a seven-point Likert-type scale (1 = *low amount of the characteristic*, 7 = *high amount of characteristic*). The participants then were excused for the day and reminded of their next appointment in one week's time.

Day two (1 week later): Investigative interview about the mock crime. Upon arrival at the lab (one week later) each participant was asked to fill out an anxiety questionnaire by the same experimenter from day one to assess his or her anxiety baseline for that day. After the experimenter left the room, either the same interviewer the participant conversed with from day one then greeted him/her, or a different interviewer not previously seen by the participant (same vs. different interviewer manipulation). Next, the interviewer verbally asked the participant a series of questions about the mock

crime viewed one week prior. The interview script consisted of six open-ended questions with one follow-up prompt each for the event, cashier, female customer, male witness, perpetrator, and store (e.g., “Tell me everything you can remember about the cashier. What else do you remember?”; Appendix F). One final open-ended question was posed to see if there were any other details the participant wanted to add that were not mentioned by the interviewer (e.g., “Is there anything else that you remember that I haven’t asked you about?”).

The open-ended questions were followed by a series of 10 accurate (e.g., “Was the gun black?”) and 10 inaccurate (e.g., “Was the suspect’s sweatshirt grey?”) leading suggestive questions about the mock crime video counterbalanced across participants to safeguard against material effects (Appendix G). Pilot tests were conducted to determine how memorable each piece of information is after a one-week delay (see Study 1). The list of suggestive questions was designed such that an equal number of memorable and non-memorable items are included. All participants were required to give an answer to each suggestive leading question. For example, if the participant indicated that he/she doesn’t know an answer, the interviewer asked him/her to still give a response (“Please provide an answer to the best of your ability”).

Lastly, the interviewer left the room and the experimenter entered and handed the participant a series of questionnaires to complete, including a second interaction questionnaire, an anxiety measure, and a source-monitoring questionnaire (Appendix H). The purpose of the second interaction questionnaire was to assess the witness’ opinion about the interviewer at time 2 (who is either the same or a different experimenter than at time 1). The source monitoring questionnaire asked the participant to freely recall the

correct answers for 20 (previously correctly and incorrectly suggested) crime details followed by a multiple choice question about each of the 20 items' source (the video, the interview, both, or don't know). Following the source-monitoring questionnaire, each participant was handed a questionnaire that contains measures assessing theoretical explanations for rapport's effects on witness memory and suggestibility (Appendix I). Questions address witness motivation to be helpful, the bond felt between the witness and interviewer, the cognitive load felt by the witness, pressure felt to comply with the interviewer (social influence), and feelings about or desires for the same interviewer's presence across both days of the study. Finally, participants were debriefed and given credit for their participation (see Figure 1 for a flowchart of Study 2's general procedure).

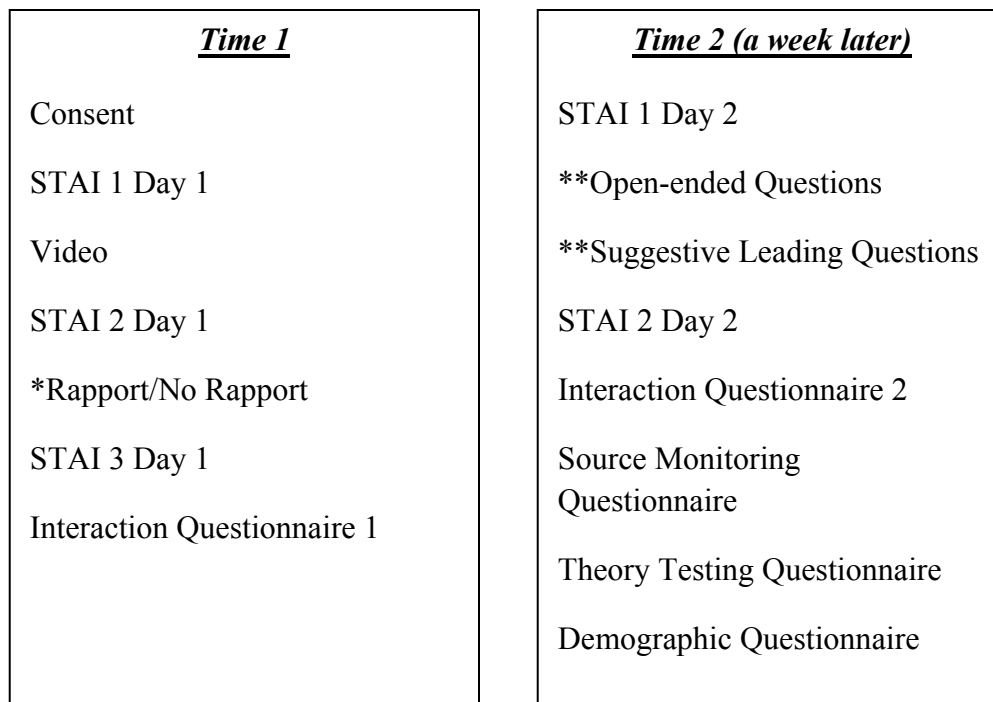


Figure 1. Study 2 procedures, with no asterisks indicating experimenter role, one indicating interviewer role on Day 1 and two asterisks indicating day 2 interviewer role.

Interviewers. There were 12 research assistants who served as rapport/no rapport interviewers on the first day of the study, including 11 females and 1 male. Three of the females were bi-racial, with two being Hispanic and white and the other being African American and white. The nine remaining interviewers were Hispanic. Additionally, there were 15 research assistants who served as interviewers during week two of the study. These include the 12 interviewers previously described, with three additional interviewers. Total there were 13 females and 2 males. Four of the interviewers classified themselves as biracial, three being Hispanic and white and one being African American and white. The remaining nine interviewers classified themselves as Hispanic.

Scoring

Interviews. All witness interviews were recorded and later transcribed. Two research assistants, blind to participant condition membership, served as scorers of participants' responses to the open-ended interview questions – one as a primary scorer and the other served as a co-scorer. Both scorers received intensive training according to a detailed set of scoring rules. The primary scorer scored all 198 transcripts. For the purpose of computing inter-rater reliability, the second scorer independently scored 44 of the transcripts (22% of the sample). Intra-class correlations indicated high levels of reliability for all dependent variables, from .92 (lowest) to .99 (highest).

Regarding scoring, each transcript was divided into units of information. A unit of information was defined as the smallest possible part of a witness statement that could potentially contribute to solving the crime (e.g., “then he pulled out a gun”). Then each unit of information in the witness transcript was scored for the presence of the primary outcome measures, including accuracy, inaccuracy (including whether it was a

modification error or addition error), don't know and subjective information based upon the mock crime DVD. A unit was scored as accurate if all information was correct according to the video (e.g., "he held a gun"). A unit was classified as inaccurate if any element was incorrect (e.g., "He was wearing a red shirt"). An inaccurate unit was further classified as either an addition or modification. Additions were errors in which the participant added in information that was not presented. For example, if the participant stated the robber wore a hat that would have been scored as an addition because a hat was added (the robber was not wearing a hat). A unit was scored as a modification if the participant incorrectly modified an existing element of the mock crime video. For example, if the participant stated the robber's shirt was red this was scored as a modification because the robber was wearing a shirt, however the shirt was green. A unit was classified as 'don't know' if the participant indicated uncertainly through saying phrases such as "don't know," "I'm uncertain" or "I'm not entirely sure." Thus the "don't know" measure served as a confidence measure in the participant's statement. Lastly, a unit was scored as subjective if the unit could not be scored for accuracy. For example, participants sometimes reported how actors in the video felt or what they were thinking. These types of units were scored as subjective because they cannot be scored for accuracy, as participants do not know what the actors were thinking or feeling.

STAI. Because each STAI contained 5 anxiety-present items and 5 anxiety-absent items, each anxiety-absent item was reverse scored (e.g., on a scale of zero to three, a score of three on an anxiety-absent item became a 0). The reversed anxiety-absent item scores were then combined with the scores on the 5 anxiety-present items to

compute an overall anxiety score for each of the three administrations, with higher numbers indicating higher levels of anxiety (Spielberg et al., 1983).

V. RESULTS

Manipulation Checks

Interviewer Effects. Two analyses of variance (ANOVAs) were conducted on the interaction questionnaire ratings collected after the rapport/no rapport interview on day 1 and after the open-ended and suggestive leading questions on day 2 to examine whether participants' ratings of rapport were affected by the specific interviewers. All 32 interviewer and interaction ratings were combined, resulting in one overall interaction rating for each day. There were no significant differences among interviewers for the overall interaction rating for day 1, $F(11,182) = 1.45, p = .15$. Similarly, there were no significant differences among interviewers for the overall interaction rating for day 2, $F(14,183) = 1.22, p = .27$. These non-significant results suggest that any subsequent findings are not a result of idiosyncratic differences between interviewers.

Interaction questionnaire. Analyses were conducted to examine whether participants experienced different levels of rapport depending on rapport condition (rapport vs. no rapport) by comparing ratings on the interaction questionnaire (the rapport manipulation check). Two multivariate analyses of variance (MANOVAs) were conducted to separately analyze the interviewer and interaction subscales for the day 1 interaction questionnaire. A MANOVA assessing whether rapport condition influenced participants' interviewer ratings across both subscales indicated that participants rated rapport interviewers higher overall (e.g., "How friendly was the interviewer?") than no rapport interviewers, $F(14, 181) = 64.04, p < .001, \eta^2 = .83$. Further analyses comparing each of the fourteen interviewer subscale measures separately revealed significant differences between rapport and no rapport condition for all ratings in the expected

directions ($p < .001$; see Table 2). A second MANOVA then examined participants' perceptions of how much rapport permeated the interaction (the interaction subscale). The initial comparison of the combined interaction score between the rapport and no rapport condition similarly revealed higher overall interaction ratings (e.g. "How awkward was the interaction between you and the investigator?") in the rapport than the no rapport condition, $F(18, 176) = 28.83, p < .01, \eta^2 = .75$. The same pattern of results persisted when comparing rapport's and no rapport's individual interaction ratings, that is 16 of the 18 interaction measures were significantly higher in the rapport than the no rapport condition (all $ps < .01$; see Table 3). These results confirmed a successful rapport manipulation.

Table 2
Rapport Manipulation Check – Interviewer Subscales

	Rapport (N=97)		No Rapport (N=99)		<i>p</i>	Partial η^2
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Smooth	5.33	1.54	3.47	1.81	<.001	.24
Bored	1.86	1.17	4.51	2.10	<.001	.38
Engaging	5.64	1.17	1.95	1.45	<.001	.63
Rude	1.11	0.69	3.18	1.93	<.001	.34
Awkward	1.80	1.29	3.27	2.00	<.001	.16
Kind	6.06	1.14	2.22	1.50	<.001	.68
Attentive	6.15	0.95	3.03	1.98	<.001	.51
Friendly	6.42	0.90	1.83	1.38	<.001	.80
Active	5.47	1.47	2.63	1.84	<.001	.43
Positive	6.20	0.99	2.31	1.63	<.001	.68
Likeable	6.31	0.92	2.44	1.54	<.001	.70
Trustworthy	5.32	1.48	3.10	2.10	<.001	.27
Credible	5.36	1.32	3.36	1.97	<.001	.26
Respectful	6.51	0.68	3.71	1.85	<.001	.50

Table 3
Rapport Manipulation Check – Interaction Subscales

	Rapport (N=97)		No Rapport (N=98)		<i>p</i>	Partial η^2
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Well coordinated	5.55	1.20	4.11	1.87	<.001	.17
Boring	1.69	1.16	3.60	2.18	<.001	.23
Cooperative	5.66	1.14	3.73	1.83	<.001	.29
Harmonious	5.25	1.51	2.78	1.78	<.001	.36
Satisfying	4.03	2.17	3.01	1.88	.001	.06
Comfortably paced	4.27	2.22	3.24	1.94	.001	.06
Cold	1.43	1.07	4.62	2.18	<.001	.47
Awkward	1.69	1.15	3.62	2.11	<.001	.25
Engaging	5.46	1.48	2.28	1.75	<.001	.50
Focused	4.71	2.27	4.72	1.87	.965	.00
Involving	5.57	1.38	2.70	1.69	<.001	.47
Intense	1.67	1.13	3.60	2.07	<.001	.25
Friendly	4.79	2.34	2.62	1.82	<.001	.21
Active	5.31	1.40	2.94	1.86	<.001	.34
Positive	5.97	1.07	2.31	1.50	<.001	.67
Dull	1.84	1.44	4.94	2.12	<.001	.42
Worthwhile	4.67	1.43	2.59	1.62	<.001	.32
Slow	1.65	1.14	1.85	1.20	.251	.01

Versions of Suggestive Questions. Analyses were conducted on both sets of accuracy measures, including open-ended and suggestive questions, to examine whether the specific version of the suggestive questionnaire influenced any primary dependent variable accuracy measures. One ANOVA was conducted with the suggestive questionnaire version (V1 or V2) as the fixed factor on the main open-ended accuracy dependent variables: accuracy, addition, modification, don't know and subjective interpretation percentages. There were no significant differences (*ps* all > .05). An additional ANOVA was conducted with the suggestive questionnaire version (V1 or V2) as the fixed factor on the suggestive question accuracy measures: correct acquiescences,

correct rejections, incorrect acquiescences and incorrect rejections. There was a significant effect of suggestive question version on the number of correct rejections, $F(1,197) = 23.59, p < .001$, such that version 1 had more correct rejections ($M = 6.94, SD = 1.65$) than version 2 ($M = 5.90, SD = 1.35$). There was also a significant difference on the number of incorrect acquiescences $F(1,197) = 12.35, p = .001$, such that version 2 had more incorrect acquiescences ($M = 3.85, SD = 1.38$) than version 1 ($M = 3.08, SD = 1.67$). Because of version effects on two of the four suggestive question dependent variables, a multivariate analysis of covariance (MANCOVA) was conducted with rapport and day 2 interviewer as the independent variables, the four suggestive questions measures as the dependent variables (correct acquiescences, correct rejections, incorrect acquiescences and incorrect rejections) and the suggestive question version as the covariate. Analyses did not differ from the MANOVA conducted without version as a covariate, indicating that suggestive questions version did not significantly affect participant accuracy and suggestibility (see Suggestive Questions section in Primary Analyses below).

Same vs. Different Interviewer Week 2. The day 2 theory questionnaire was checked to verify whether or not participants correctly identified the same or a different interviewer during the week 2 interview. Three participants answered incorrectly, indicating they did not accurately answer whether or not they received the same or different interviewer week 2. One participant indicated he or she didn't know whether or not it was the same person during the week 2 interview. Lastly, five participants did not provide information. Primary analyses were run without these nine participants and resulted in no changes to the findings.

Primary Analyses

Open-Ended Interview. The next set of analyses addressed the three main hypotheses regarding rapport, changing interviewers, and memory for free recall data. Specifically, analyses addressed: (1) Is there a main effect of rapport on witness recall, (2) Is there a main effect of day 2 interviewer (same vs. different) on witness quantity and quality of information, and (3) Is there an interaction effect between rapport and day 2 interviewer such that the same rapport interviewer on day 2 elicits the most accurate witness free narrative than a different rapport interviewer?

To address these three questions, a 2 (rapport building: rapport vs. no rapport) X 2 (interviewer day 2: same vs. different) MANOVA was conducted on percentage accuracy, inaccuracy-additions, inaccuracy-modifications, don't know and subjective information to examine the respective and combined effects of rapport and day 2 interviewer/change on free narrative quality. All dependent variables (free narrative quality), that is accurate information, addition errors, modification errors, don't know and subjective interpretation units, were calculated as percentages (see Table 4; total units also provided in table for reference). For example, the "percentage accurate" variable was computed as the number of accurate units reported divided by the number of accurate plus inaccurate units. There was a marginally significant effect of rapport on addition errors, $F(1, 194) = 3.60, p < .06, \eta^2 = .02$, revealing that participants who received rapport reported significantly more errors of addition ($M = 9.3\%, SD = 7.2\%$) than those who received the no rapport interview ($M = 7.5\%, SD = 6.0\%$; see Table 4 for means and standard deviations). There were no other main effects of rapport or day 2 interviewer on any other open-ended interview dependent measures.

There was a significant two-way interaction between rapport and day 2 interviewer on the combined dependent variables, $F(5,190) = 2.44, p = .04, \eta^2 = .06$. When results for the dependent variables were considered separately, the only difference that reached statistical significance was percentage of subjective interpretation units, $F(1,194) = 4.50, p = .04, \eta^2 = .02$. Post-hoc comparisons revealed that, among participants who experienced no rapport, those in the different interviewer on day 2 condition reported a significantly greater percentage of subjective information ($M = 25\%$, $SD = 14.5\%$) than those in the same interviewer day 2 condition ($M = 20\%$, $SD = 10.8\%$), $p < .05$ (see Figure 2 for graph of interaction). Interestingly, a trend in the opposite

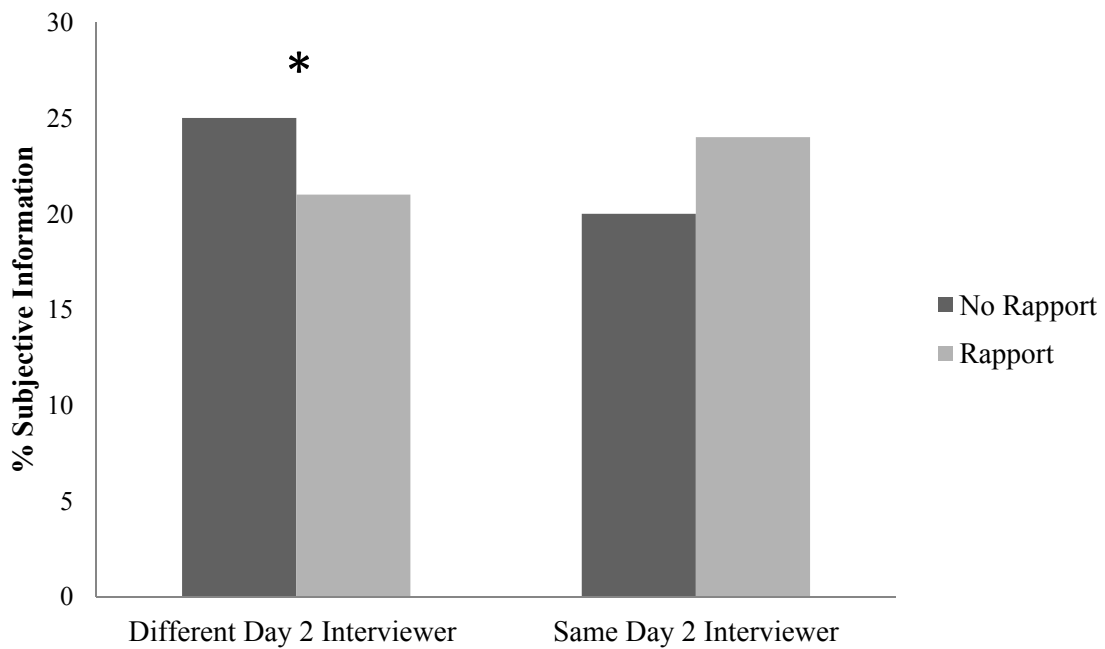


Figure 2. Rapport by day 2 interviewer interaction on the percentage of subjective information provided by the witness during open-ended questions. The asterisk represents a significant difference ($p < .05$)

direction was also present, such that of those participants who experienced rapport, those in the same interviewer on day 2 condition reported a higher percentage of subjective information ($M = 24\%$, $SD = 13.6\%$) than those in the different interviewer day 2 condition ($M = 21\%$, $SD = 12.1\%$), $p > .10$.

Table 4
Total number of units and mean percentage and number of units of accurate, inaccurate, don't know and subjective information reported in the rapport and day 2 interviewer conditions (standard deviations in parentheses)

Type of Unit	Rapport		p	Partial η^2	Day 2 Interviewer		p	Partial η^2
	Rapport ($n=98$)	No Rapport ($n=100$)			Same ($n=100$)	Different ($n=98$)		
Accurate %	83 (1)	85 (1)	.20	.01	84 (1)	85 (1)	.35	.01
Accurate #	33 (14)	32 (15)			29 (13)	33 (16)		
Inaccurate %	17 (1)	15 (1)			16 (1)	15 (1)		
Inaccurate #	6 (4)	6 (4)			6 (4)	6 (4)		
Addition %	9 (1)	8 (1)	.06	.02	9 (1)	8 (1)	.26	.00
Addition #	3 (3)	3 (3)			3 (3)	3 (3)		
Modification %	7 (1)	7 (0)	.66	.00	7 (1)	7 (0)	.69	.01
Modification #	3 (2)	3 (2)			3 (2)	3 (2)		
Don't know %	10 (10)	8 (9)	.16	.01	9 (9)	8 (9)	.30	.01
Don't know #	3 (3)	3 (2)			3 (3)	3 (3)		
Subjective %	23 (13)	23 (13)	.97	.00	22 (12)	23 (14)	.69	.00
Subjective #	8 (6)	9 (8)			8 (5)	9 (8)		
Total Units #	48 (22)	49 (24)	.83	.00	46 (19)	51 (25)	.07	.02

Quantity. To assess if there were any differences in quantity of information reported between rapport and interviewer conditions, I conducted a 2 (rapport building: rapport vs. no rapport) X 2 (interviewer on day 2: same vs. different) ANOVA on the total amount of units reported by each participant. There was a marginally significant effect of day 2 interviewer on amount of units recalled during the open-ended recall, $F(1, 194) = 3.33$, $p = .07$, $\eta^2 = .02$, revealing that participants who had a different interviewer

on day 2 recalled more units ($M = 51.34$, $SD = 25.35$) than participants who had the same interviewer on day 2 ($M = 45.50$, $SD = 19.41$), (see Table 4).

Suggestive Questions. The next set of analyses addressed the final two main hypotheses about rapport, changing interviewers on day 2, and memory with regards to the susceptibility to interviewer provided correct and incorrect information. Specifically, the next set of analyses addressed the following two hypotheses: (4) Is there a main effect of rapport on accuracy to suggestive questions, and (5) Is there an interaction effect between rapport and day 2 interviewer such that rapport and the same interviewer on day 2 result in the most accurate and least susceptible to interviewer's incorrect suggestions? To test these hypotheses, a 2 (rapport building: rapport vs. no rapport) X 2 (interviewer day 2: same vs. different) MANOVA was conducted on the number of correct acquiescences, correct rejections, incorrect acquiescences, and incorrect rejections provided in response to a series of correct-leading and incorrect-leading questions. There were no significant effects or interactions for any of the dependent variables (see Table 5 for means and standard deviations).

Table 5

Mean number of correct and incorrect acquiescences, and correct and incorrect rejections reported in the rapport and day 2 interviewer conditions

	Rapport Condition	Day 2 Interviewer Condition	Mean	Std. Deviation
Correct Acquiescence	Rapport	Same	6.06	1.39
		Different	6.11	1.42
	No Rapport	Same	6.31	1.52
		Different	6.20	1.54
Correct Rejection	Rapport	Same	6.59	1.49
		Different	6.36	1.67
	No Rapport	Same	6.41	1.66
		Different	6.33	1.60
Incorrect Acquiescence	Rapport	Same	3.33	1.48
		Different	3.53	1.69
	No Rapport	Same	3.45	1.63
		Different	3.53	1.55
Incorrect Rejection	Rapport	Same	4.02	1.24
		Different	3.96	1.43
	No Rapport	Same	3.80	1.44
		Different	3.94	1.68

Secondary Analyses

The next section of analyses examined measures that were not directly related to the study hypotheses.

Source-monitoring, part I - written recall. Recall that participants were then asked to write down answers to 20 cued questions about items previously included in the suggestive questionnaire (i.e., What color was the gun?). These responses were elicited after the open-ended and suggestive questions asked aloud by the day 2 interviewer. To examine whether the information recalled was affected by change in interviewer or rapport, a 2 (rapport building: rapport vs. no rapport) X 2 (interviewer day 2: same vs.

different) MANOVA was conducted on the number of correct responses, total incorrect responses, incorrect responses that contained information provided by the interviewer, incorrect responses that were novel (not mentioned by interviewer), and don't know responses reported during this third recall attempt. There were no significant effects or interactions for any of the dependent variables (see Table 6 for means and standard deviations).

Source-monitoring, part 2. To examine whether or not rapport and/or interviewer at time 2 affected subsequent source-monitoring performance, a 2 (rapport building: rapport vs. no rapport) X 2 (interviewer day 2: same vs. different) MANOVA was conducted. The dependent variables were: the number of correct source-monitoring decisions after correct interviewer suggestion, correct source-monitoring decisions after false interviewer suggestion (correct written response), correct source-monitoring decisions after false interviewer suggestion (inaccurate recall suggested by interviewer but correct source-monitoring response of interviewer), incorrect source-monitoring decisions after correct suggestion, incorrect source-monitoring decisions after false suggestion (with correct written recall), incorrect source-monitoring decisions after false suggestion (answered with interviewer's false suggestion), incorrect source-monitoring decisions after false suggestion (answered with incorrect other false, thus no correct source-monitoring possible), and don't know responses. There was a marginally significant effect of day 2 interviewer on correct source-monitoring after false suggestion (correct written response), $F(1, 194) = 3.70, p < .06, \eta^2 = .02$, revealing that participants who correctly answered the written recall and received a different interviewer on day 2 made significantly more correct source-monitoring decisions after false interviewer

Table 6

Mean number of correct, incorrect and don't know answers reported in the rapport and day 2 interviewer conditions of the source-monitoring written recall

	Rapport Condition	Day 2 Interviewer Condition	Mean	Std. Deviation
Correct	Rapport	Same	9.86	2.66
		Different	10.13	2.10
	No Rapport	Same	9.78	2.45
		Different	10.08	2.58
Incorrect total	Rapport	Same	8.24	2.59
		Different	8.43	2.33
	No Rapport	Same	8.22	2.60
		Different	8.24	2.26
Incorrect, provided by interviewer	Rapport	Same	3.24	1.88
		Different	3.68	1.91
	No Rapport	Same	3.63	1.93
		Different	3.37	1.94
Incorrect novel	Rapport	Same	5.00	2.62
		Different	4.75	2.09
	No Rapport	Same	4.59	1.95
		Different	4.86	1.87
Don't know	Rapport	Same	1.90	2.81
		Different	1.43	2.59
	No Rapport	Same	1.59	2.13
		Different	1.69	2.20

suggestion ($M = 3.34$, $SD = 1.44$) than those who received the same interviewer on day 2 ($M = 2.94$, $SD = 1.63$). There were no other main effects of rapport or interviewer on any other source-monitoring dependent measures (see Table 7 for means and standard deviations).

There was a significant two-way interaction between rapport and day 2 interviewer. Specifically, there was an interaction of rapport and day 2 interviewer on

incorrect source-monitoring decisions after false suggestion from the interviewer (where the participant answered with the interviewer's false suggestion), $F(1,194) = 5.95, p = .02, \eta^2 = .03$. Post-hoc comparisons revealed that, among participants who experienced rapport, those in the different interviewer on day 2 condition made a significantly greater number of incorrect source-monitoring decisions after false suggestion from the interviewer (where the participant answered with the interviewer's false suggestion) ($M = 2.53, SD = 1.79$) than those in the same interviewer day 2 condition ($M = 1.71, SD = 1.57$), $p < .05$. Post-hoc comparisons also revealed that, among participants who experienced a different interviewer on day 2, those in the no rapport condition made a significantly greater number of incorrect source-monitoring decisions after false suggestion from the interviewer (where the participant answered with the interviewer's false suggestion) ($M = 2.10, SD = 1.67$) than those in the rapport condition ($M = 1.71, SD = 1.57$), $p < .05$.

Results also revealed an interaction between rapport and day 2 interviewer on don't know source-monitoring decisions, $F(1,194) = 4.69, p = .03, \eta^2 = .02$. Post-hoc comparisons revealed that, among participants who experienced rapport, those in the same interviewer on day 2 condition made a significantly greater number of don't know source-monitoring responses ($M = 3.96, SD = 2.97$) than those in the different interviewer day 2 condition ($M = 2.91, SD = 2.83$), $p < .05$. Similarly, among participants who experienced the same interviewer on day 2, those in the rapport condition made a significantly greater number of don't know source-monitoring decisions ($M = 3.96, SD = 2.97$) than those in the no rapport condition ($M = 2.96, SD = 2.75$), $p < .05$.

Table 7
Mean number of each source-monitoring (SM) response reported in the rapport and day 2 interviewer conditions

	Rapport Condition	Interviewer Day 2 Condition	Mean	Std. Deviation
Correct SM after correct suggestion	Rapport	Same	5.68	1.71
		Different	5.81	1.58
	No Rapport	Same	5.90	1.75
		Different	5.82	1.83
Correct SM after false suggestion	Rapport	Same	3.14	1.52
		Different	3.34	1.32
	No Rapport	Same	2.74	1.72
		Different	3.37	1.55
Correct SM after false suggestion (answered w/ interviewer's false suggestion)	Rapport	Same	1.22	1.72
		Different	.85	1.32
	No Rapport	Same	1.43	1.48
		Different	1.22	1.33
Incorrect SM after correct suggestion	Rapport	Same	2.41	1.53
		Different	2.60	1.39
	No Rapport	Same	2.57	1.32
		Different	2.47	1.36
Incorrect SM after false suggestion (correct written recall)	Rapport	Same	.41	.83
		Different	.38	.64
	No Rapport	Same	.65	1.22
		Different	.33	.62
Incorrect SM after false suggestion (answered w/ interviewer's false suggestion)	Rapport	Same	1.71	1.57
		Different	2.53	1.79
	No Rapport	Same	2.10	1.67
		Different	1.77	1.68
Incorrect SM after false suggestion (answered w/ other false)	Rapport	Same	1.41	1.36
		Different	1.43	1.12
	No Rapport	Same	1.20	1.08
		Different	1.30	1.06
Don't know	Rapport	Same	3.96	2.97
		Different	2.92	2.83
	No Rapport	Same	2.96	2.75
		Different	3.71	3.07

Amount of time. To examine how rapport and day 2 interviewer conditions affected amounts of time spent with participants, I conducted a 2 (rapport building: rapport vs. no rapport) X 2 (interviewer day 2: same vs. different) MANOVA on time of rapport interview, total time of day 1 experimental session, time of open-ended interview, time of suggestive questioning, and total time of day 2 experimental (all in minutes rounded). There was a significant main effect of rapport on the amount of time spent in the rapport/no rapport interview, $F(1, 166) = 17.43, p < .001, \eta^2 = .10$, revealing that participants who received rapport spent significantly more time with the interviewer ($M = 5.11, SD = 1.63$) than those who received the no rapport interview ($M = 4.29, SD = 0.79$). There is also a significant main effect of rapport on the amount of time spent in the suggestive questions section on day 2, $F(1, 166) = 4.41, p < .05, \eta^2 = .03$, revealing that participants who received rapport on day 1 spent significantly more time with the interviewer answering suggestive leading questions ($M = 2.50, SD = 0.72$) than those who received the no rapport interview on day 1 ($M = 2.30, SD = 0.49$).

There were also two main effects of day 2 interviewer on time dependent variables. There was a significant main effect of day 2 interviewer on amount of time spent in the open-ended interview portion, $F(1, 166) = 3.95, p < .05, \eta^2 = .02$, revealing that participants who received a different day 2 interviewer spent significantly more time answering open-ended questions ($M = 4.59, SD = 2.22$) than those who received the same interviewer ($M = 4.01, SD = 1.51$). There was also a significant main effect of day 2 interviewer on total time spent in the experiment during day 2, $F(1, 166) = 6.48, p < .05, \eta^2 = .04$, similarly revealing that participants who received a different day 2 interviewer spent significantly more time during the day 2 experiment ($M = 34.24, SD = 7.33$) than

those who received the same day 2 interviewer ($M = 31.55$, $SD = 6.32$) (see Table 8 for means and standard deviations).

Table 8

Mean number of minutes rounded to the nearest minute spent in day 1 rapport interview, day 1 experiment, day 2 open-ended interview, suggestive questions interview, and mean number of total minutes spent in experiment on day 2

	Rapport Condition	Day 2 Interviewer Condition	Mean	Std. Deviation
Rapport/no rapport interview (Day 1)	Rapport	Same	5.14	1.64
		Different	5.08	1.65
	No Rapport	Same	4.23	.72
		Different	4.34	.86
Total time spent in experiment (Day 1)	Rapport	Same	24.23	4.39
		Different	25.23	5.83
	No Rapport	Same	23.44	2.90
		Different	25.89	5.13
Open-ended questions (Day 2)	Rapport	Same	4.05	1.43
		Different	4.59	2.14
	No Rapport	Same	3.98	1.61
		Different	4.59	2.32
Suggestive questions (Day 2)	Rapport	Same	2.46	.59
		Different	2.54	.85
	No Rapport	Same	2.26	.49
		Different	2.34	.48
Total time spent in experiment (Day 2)	Rapport	Same	31.34	6.67
		Different	33.80	8.19
	No Rapport	Same	31.77	6.02
		Different	34.68	6.53

Table 9
Mean number of words spoken by the participant during the open-ended interview portion in the rapport and day 2 interviewer conditions

Rapport Condition	Day 2 Interviewer Condition	Mean	Std. Deviation
Rapport	Same	350.10	148.37
	Different	385.13	193.21
	Total	366.90	171.34
No Rapport	Same	321.10	136.26
	Different	375.22	285.96
	Total	348.70	225.92
Total	Same	335.89	142.59
	Different	379.97	244.70
	Total	357.71	200.47

Open-ended Interview Word Count. To examine whether rapport or day 2 interviewer influenced the number of words spoken during the open-ended interview, a 2 (rapport building: rapport vs. no rapport) X 2 (interviewer day 2: same vs. different) MANOVA was conducted on the number of words uttered during the open-ended portion of the interview. There were no main effects or interactions (see Table 9 for means and standard deviations).

Ancillary theoretical measures. Recall the intention behind these measures of motivation, bond, social influence and cognitive load, was to further explore theoretical reasons for rapport and change in day 2 interviewer’s effect on accuracy and suggestibility. To examine whether or not theoretical explanations of rapport or change in day 2 interviewer affected witness accuracy, I conducted mediation analyses. However, the first step for mediation was not met – bivariate regressions indicated that rapport or change in interviewer alone did not significantly predict any of the recall accuracy

variables (percentage accuracy, additions, modifications, don't know or subjective units reported). Next, without taking accuracy into account, I conducted MANOVAs on each separate theoretical area to examine whether results differed across rapport and day 2 interviewer conditions.

Motivation. First examining motivation to help the interviewer, I conducted a 2 (rapport building: rapport vs. no rapport) X 2 (day 2 interviewer: same vs. different) MANOVA on the participant's rating of motivation to provide plentiful accurate information and likeliness to help the interviewer in the future. There was a marginally significant effect of rapport on motivation, $F(1,194) = 3.28, p = .07, \eta^2 = .02$ (see Table 10 for all means and standard deviations). Post hoc analyses revealed that no rapport participants were slightly more motivated ($M = 6.86, SD = 2.02$) than rapport participants ($M = 6.32, SD = 2.16$). There was also a marginally significant effect of day 2 interviewer on motivation, $F(1,194) = 3.40, p = .07, \eta^2 = .02$. Post hoc analyses revealed that participants who had a different day 2 interviewer were slightly more motivated ($M = 6.86, SD = 1.98$) than participants who had the same interviewer on day 2 ($M = 6.32, SD = 2.19$).

Table 10

Mean number of ratings for participant motivation to help interviewer and likeliness to give interviewer future help

	Rapport Condition	Interviewer Day 2 Condition	Mean	Std. Deviation
Motivated	Rapport	Same	5.90	2.16
		Different	6.74	2.10
		Total	6.31	2.16
	No Rapport	Same	6.73	2.16
		Different	6.98	1.88
		Total	6.86	2.02
	Total	Same	6.31	2.19
		Different	6.87	1.98
		Total	6.59	2.10
	Future Help	Rapport	Same	5.96
Different			6.06	2.41
Total			6.01	2.34
No Rapport		Same	6.35	2.42
		Different	6.25	2.51
		Total	6.30	2.45
Total		Same	6.15	2.35
		Different	6.16	2.49
		Total	6.16	2.39

Bond. Next, examining the bond between the participant and interviewer, a 2 (rapport building: rapport vs. no rapport) X 2 (day 2 interviewer: same vs. different) MANOVA was conducted comparing how connected participants felt to the interviewer, how much the participant felt the interviewer cared for him/her, how interested the interviewer was in the information the participant provided, and whether the participant shared the interviewer's goal of providing as much information as possible. There was a significant main effect of rapport on the combined dependent measures, $F(4,191) = 5.43$, $p < .001$, $\eta^2 = .10$ (see Table 11 for means and standard deviations). When results for the

dependent measures were considered separately, three of the four measures were significantly different between conditions, revealing that participants who received no rapport one week before rated these bond questions on day 2 more positively than rapport participants. There was a significant effect of rapport on connection felt to the interviewer, $F(1,194) = 21.32, p < .001, \eta^2 = .10$, such that no rapport participants reported feeling a stronger connection to the interviewer ($M = 4.96, SD = 1.87$) than rapport participants ($M = 3.68, SD = 2.08$). There was a also significant effect of rapport on perceived interviewer care, $F(1,194) = 15.49, p < .001, \eta^2 = .07$, such that no rapport participants reported feeling the interviewer cared more ($M = 4.44, SD = 2.02$) than rapport participants ($M = 3.31, SD = 2.12$). Lastly, there was a significant effect of rapport on perceived interviewer interest, $F(1,194) = 9.43, p < .01, \eta^2 = .05$, such that no rapport participants felt the interviewer was more interested in the interview ($M = 6.36, SD = 2.12$) than rapport participants ($M = 5.37, SD = 2.44$).

These main effects were qualified by a significant two-way interaction between rapport and day 2 interviewer on the combined dependent variables, $F(4,191) = 2.92, p = .02, \eta^2 = .06$. When results for the dependent measures were considered separately, comparisons for the same three measures reached significance. There was a significant interaction between rapport and day 2 interviewer for connection felt with the interviewer, $F(1,194) = 6.17, p = .01, \eta^2 = .03$. Post-hoc comparisons revealed that, among participants who experienced a different interviewer on day 2, those in the no rapport condition reported feeling a significantly greater connection to the interviewer ($M = 5.29, SD = 1.94$) than those in the rapport condition ($M = 3.32, SD = 2.03$).

There was also a significant interaction of rapport and day 2 interviewer on perceived interviewer care, $F(1,194) = 11.43, p = .001, \eta^2 = .06$. Post-hoc comparisons revealed that, among participants who experienced rapport, those in the same interviewer on day 2 condition reported perceiving a significantly greater amount of care ($M = 3.90, SD = 2.22$) than those in the different interviewer condition ($M = 2.72, SD = 1.83$). Post-hoc comparisons also revealed that, among participants who experienced a different interviewer on day 2, those in the no rapport condition reported perceiving significantly more care from the interviewer ($M = 4.82, SD = 2.03$) than those in the rapport condition ($M = 2.72, SD = 1.83$).

Lastly, there was also a significant interaction of rapport and day 2 interviewer on perceived interviewer interest, $F(1,194) = 3.98, p = .048, \eta^2 = .00$. Post-hoc comparisons revealed that, among participants who experienced rapport, those in the same interviewer on day 2 condition reported perceiving a significantly greater amount of interviewer interest in what he/she was reporting ($M = 5.96, SD = 2.52$) than those in the different interviewer condition ($M = 4.79, SD = 2.21$). Post-hoc comparisons again revealed that, among participants who experienced a different interviewer on day 2, those in the no rapport condition reported perceiving significantly more interviewer interest in what he/she was reporting ($M = 6.41, SD = 1.91$) than those in the rapport condition ($M = 4.79, SD = 2.21$).

Table 11

Mean number of participant ratings of interviewer connectedness, care, interest, and goal-sharing and for rapport and day 2 interviewer conditions

	Rapport Condition	Interviewer Day 2 Condition	Mean	Std. Deviation
Connected to Interviewer		Same	4.04	2.08
	Rapport	Different	3.32	2.03
		Total	3.69	2.08
	No Rapport	Same	4.63	1.75
		Different	5.29	1.94
		Total	4.97	1.87
Interviewer Care		Same	3.90	2.22
	Rapport	Different	2.72	1.83
		Total	3.34	2.12
	No Rapport	Same	4.06	1.96
		Different	4.82	2.03
		Total	4.45	2.02
Interviewer Interest		Same	5.96	2.52
	Rapport	Different	4.79	2.21
		Total	5.40	2.44
	No Rapport	Same	6.31	2.34
		Different	6.41	1.91
		Total	6.36	2.12
Share Interviewer's Goal		Same	6.20	2.02
	Rapport	Different	6.43	2.47
		Total	6.31	2.24
	No Rapport	Same	6.61	2.23
		Different	7.20	1.91
		Total	6.91	2.09

Social influence. Examining possible social influence from the interviewer on the participant, a 2 (rapport building: rapport vs. no rapport) X 2 (day 2 interviewer: same vs. different) MANOVA compared participant's rating of wanting to please the interviewer, pressure felt to agree with the interviewer, and pressure felt to be correct.

There was a marginally significant effect of rapport on wanting to please the interviewer, $F(1,194) = 3.22, p = .07, \eta^2 = .02$, such that no rapport participants reported wanting to please the interviewer more ($M = 5.64, SD = 2.39$) than rapport participants ($M = 5.03, SD = 2.42$) (see Table 12 for means and standard deviations).

There was also a significant effect of day 2 interviewer on pressure felt by the participant to agree with the interviewer, $F(1,194) = 3.89, p = .05, \eta^2 = .02$, such that participants with the same interviewer on day 2 reported feeling a stronger pressure to agree ($M = 4.62, SD = 2.66$) than different interviewer on day 2 participants ($M = 3.91, SD = 2.35$). Lastly, there was a marginally significant effect of day 2 interviewer on pressure felt to be correct, $F(1,194) = 1.23, p = .08, \eta^2 = .02$, such that participants with the same interviewer on day 2 reported feeling a stronger pressure to be correct ($M = 6.95, SD = 2.07$) than participants with a different interviewer ($M = 6.37, SD = 2.50$).

Table 12

Mean number of ratings for pressure to agree with interviewer, pressure to be correct and wanting to please the interviewer for rapport and day 2 interviewer conditions

	Rapport Condition	Interviewer Day 2 Condition	Mean	Std. Deviation
Pressure to Agree with Interviewer	Rapport	Same	4.73	2.77
		Different	3.72	2.41
		Total	4.24	2.64
	No Rapport	Same	4.51	2.58
		Different	4.10	2.30
		Total	4.30	2.44
Pressure to be Correct	Rapport	Same	6.55	2.39
		Different	6.26	2.64
		Total	6.41	2.51
	No Rapport	Same	7.35	1.60
		Different	6.49	2.39
		Total	6.91	2.08
Want to Please Interviewer	Rapport	Same	5.37	2.29
		Different	4.68	2.53
		Total	5.04	2.42
	No Rapport	Same	5.67	2.34
		Different	5.61	2.47
		Total	5.64	2.39

Cognitive load. Lastly, to assess participants perceived cognitive load, a 2 (rapport building: rapport vs. no rapport) X 2 (day 2 interviewer: same vs. different) MANOVA was conducted on participants' ratings of how much they felt the interviewer was evaluating him/her, how thoroughly the participant searched through his/her memory, how much he/she was thinking about other things during recall, the number of items the participant reported thinking about during recall, and the amount of mental effort the participant put forth. There were no significant main effects or interactions for any of these measures (see Table 13 for means and standard deviations).

Table 13

Mean number of ratings for feelings that the interviewer is evaluating you, thorough search of memory, thinking about other things during memory recall, the number of other things participant was thinking about during recall and amount of mental effort

	Rapport Condition	Interviewer Day 2 Condition	Mean	Std. Deviation
Interviewer Evaluating You		Same	5.29	2.51
	Rapport	Different	5.02	2.75
		Total	5.16	2.61
	No Rapport	Same	5.60	2.64
		Different	4.88	2.86
		Total	5.23	2.76
Thorough Memory Search		Same	5.37	2.05
	Rapport	Different	5.61	1.66
		Total	5.48	1.87
	No Rapport	Same	5.47	2.26
		Different	6.00	2.00
		Total	5.74	2.14
Thinking About Other Things		Same	3.49	2.42
	Rapport	Different	3.73	2.50
		Total	3.60	2.45
	No Rapport	Same	3.26	2.36
		Different	3.65	2.53
		Total	3.45	2.44
Number of items participant was thinking about during recall		Same	.76	1.13
	Rapport	Different	1.16	1.26
		Total	.95	1.20
	No Rapport	Same	.83	.94
		Different	.96	1.41
		Total	.89	1.12
Mental Effort		Same	6.59	1.57
	Rapport	Different	6.59	1.91
		Total	6.59	1.73
	No Rapport	Same	6.77	1.82
		Different	6.88	1.62
		Total	6.82	1.71

Anxiety. To examine initially whether rapport or change in day 2 interviewer affected witness anxiety, a 2 (rapport building: rapport vs. no rapport) X 2 (day 2 interviewer: same vs. different) mixed analysis of variance was conducted, with the five STAI's (Day 1: #1 after consent, #2 after video, and #3 after rapport/no rapport; Day 2: #1 start of session and #2 after open-ended and suggestive questions) as within factors, and rapport and day 2 interviewer as between factors. There was a significant main effect of STAI's, $F(4,177) = 13.24, p < .001, \eta^2 = .23$. Post hoc comparisons revealed that STAI 1 Day 1 scores were significantly different from STAI 2 Day 1 and STAI 3 Day 1 scores. Day 1's STAI's 2 and 3 were significantly different from all other STAI's. STAI 1 Day 2 was significantly different from all other STAI's except STAI 1 Day 1. These results (and the means, see Table 14) suggest that anxiety overall increased across the three STAI's on Day 1, and on Day 2 anxiety increased from the first to the second STAI.

There was also a significant interaction effect between the STAI's and rapport, $F(4,177) = 8.04, p < .001, \eta^2 = .15$ (see Figure 3). Post hoc analyses revealed that for the STAI 3 Day 1 measure (immediately after the rapport manipulation) the no rapport participants reported a significantly higher anxiety rating ($M = 8.17, SD = 6.24$) than rapport participants ($M = 4.42, SD = 4.98$) (see Table 14 for means and standard deviations). These results suggest that after the rapport building manipulation, no rapport participants reported a higher anxiety level than their rapport counterparts.

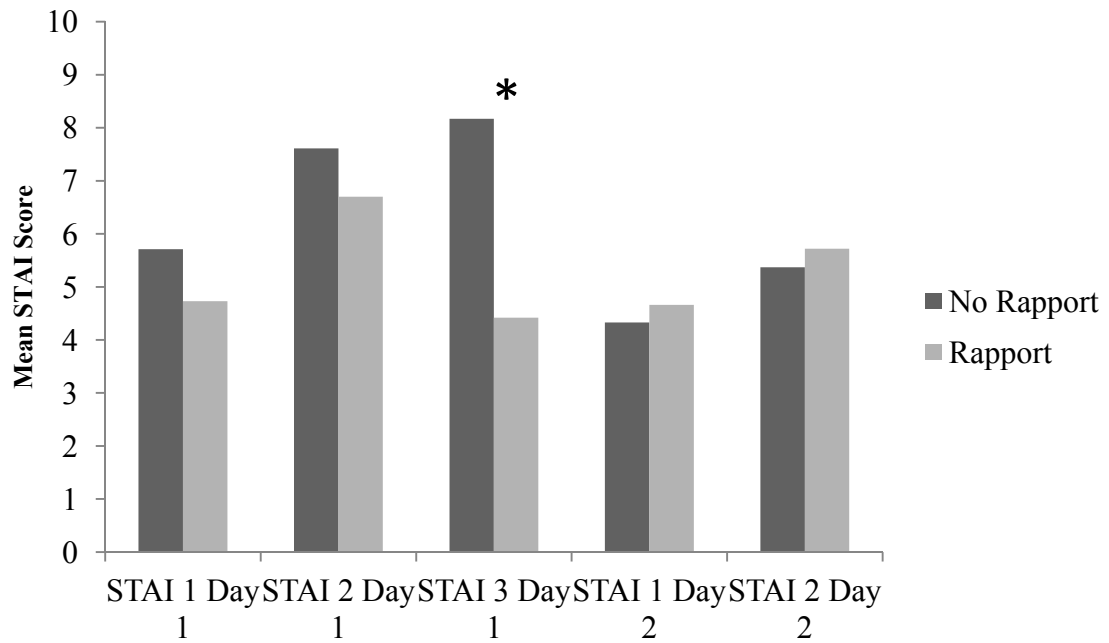


Figure 3. Mean STAI scores across the five administrations by rapport condition, with higher scores indicating more anxiety. Note that on Day 1, STAI 1 was given prior to any experimental manipulations, STAI 2 was given after viewing the mock crime video, and STAI 3 was after the rapport/no rapport interview. On Day 2, STAI 1 was given at the start of the experimental sessions and STAI 2 was given after the open-ended and suggestive questioning sections.

Table 14
Means and standard deviations of STAI in rapport condition

	Rapport Condition	Mean	Std. Deviation
STAI 1 Day 1	Rapport	4.73	4.36
	No Rapport	5.71	5.43
	Total	5.23	4.95
STAI 2 Day 1	Rapport	6.70	5.46
	No Rapport	7.61	5.94
	Total	7.16	5.71
STAI 3 Day 1	Rapport	4.42	4.98
	No Rapport	8.17	6.24
	Total	6.30	5.93
STAI 1 Day 2	Rapport	4.66	5.06
	No Rapport	4.33	4.35
	Total	4.50	4.71
STAI 2 Day 2	Rapport	5.72	5.17
	No Rapport	5.37	4.99
	Total	5.54	5.07

In order to formally examine whether rapport building's decreased witness anxiety influenced recall accuracy, a mediation analysis was considered. However, the first step for mediation was not met – bivariate regressions indicated that rapport alone did not significantly predict any of the recall accuracy variables (percentage accuracy, inaccurate-additions, inaccurate-modifications, don't know or subjective units reported). Next, to examine the effects of anxiety on open-ended recall accuracy, a 2 (rapport building: rapport vs. no rapport) X 2 (day 2 interviewer: same vs. different) MANCOVA on the percentage of accurate, inaccurate-additions, inaccurate-modifications, don't know and subjective information provided, was conducted, covarying STAI 3 Day 1. Results did not differ from the previous MANOVA (which did not covary the anxiety measure

score), which again suggests that anxiety did not have a significant effect on participants' recall accuracy. The absence of mediation combined with the MANCOVA results thus indicate that although rapport reduced eyewitness anxiety immediately after rapport was given, this reduction in anxiety was not related to the effects of rapport building on witness recall.

VI. DISCUSSION

The present study had three goals. The first goal was to replicate prior findings of rapport-building's benefits on adult witness recall. Specifically, the current study sought to expand upon the three published studies that have examined building rapport with adult witnesses (Collins et al., 2002; Kieckhafer et al., 2013; Vallano & Schreiber Compo, 2011) by examining rapport's possible effects on eyewitness accuracy after a week recall delay. A second goal was to examine whether rapport-building's effects are contingent upon the bond or context built between the witness and a specific interviewer, as no prior research has examined whether rapport's effects on witness recall and suggestibility are tied to the interviewer who built rapport or whether such effects are evident regardless of which interviewer is present at recall. Finally, the third goal of the present research was to assess whether rapport-building can act as a safeguard against or, in contrast, render a witness more vulnerable to subsequent investigator-suggested information. Two previous studies have examined rapport's effects on susceptibility to written misinformation (Kieckhafer et al., 2013; Vallano & Schreiber Compo, 2011), however, no study to date has examined rapport's effects on witnesses' susceptibility to subsequent correct- and incorrect-leading questions.

Five central predictions were made based on psychological theory and previous research findings: (1) Participants who received rapport on day 1 were expected to freely recall more information overall and more accurate information about the mock crime on day 2 than those who do not receive rapport-building, (2) witnesses who received the same interviewer on day 2 were expected to be more accurate during open-ended recall than those who had different interviewers between the two sessions, (3) participants who

received rapport on day 1 and had the same interviewer on day 2 were expected to provide the most plentiful and accurate witness accounts during open-ended questioning than any other group, (4) participants who received rapport on day 1 were also expected to be more accurate in response to correct- and incorrect- leading questions asked on day 2 compared to participants who did not receive rapport, and (5) participants who received rapport on day 1 and the same interviewer on day 2 were predicted to give the most correct responses and least number of incorrect answers in response to both correct- and incorrect leading questions asked on day 2.

In contrast to the predictions and previous research examining building rapport with adult witnesses (Collins et al., 2002; Kieckhaefer et al., 2013; Vallano & Schreiber Compo, 2011), rapport-building in this study did not increase eyewitness memory quantity or quality. Rapport-building also did not reduce susceptibility to interviewer suggestion, regardless of whether the suggestion was correct or incorrect-leading. In addition, whether or not the same or different interviewer conducted the interview one week later did not influence witness accuracy regardless of recall measure. Similarly, there was no interaction between rapport-building and same versus different interviewer at recall as originally hypothesized.

In light of interviewing guidelines (e.g., NIJ guidelines in the United States, and PEACE in the United Kingdom, and the Cognitive Interview) as well as previous research (Collins et al., 2002; Kieckhaefer et al., 2013; Vallano & Schreiber Compo, 2011) all suggest some benefit of building rapport, this set of null results is somewhat surprising. Collins and colleagues (2002) found an increase in correct information provided in written free recall when rapport was built compared to neutral and abrupt

rapport. Similarly, Vallano and Schreiber Compo (2011) found a main effect of rapport on accuracy, such that those who received rapport provided more accurate information about a mock crime video compared to participants who received a standard police interview (no rapport condition). Extending Collins et al. (2002), Vallano and Schreiber Compo (2011) additionally found that rapport had a beneficial effect in reducing the amount of inaccurate and misinformation units reported compared to a no rapport group. In line with these findings, Kieckhaefer and colleagues (2013) also found a beneficial effect of rapport on accuracy, but only when rapport was built *prior* to misinformation. Although the present research used a similar definition and operationalization of rapport it did not replicate these past findings.

One possible explanation for the lack of parallel findings is the one-week delay between rapport-building and recall present in this study. That is, in all previous studies rapport was built in close proximity to recall (Collins et al., 2002: concurrently; Kieckhaefer et al., 2013: immediately before or at most 30 minutes prior to recall; Vallano & Schreiber Compo, 2011: immediately prior to recall) whereas rapport in the current study was separated from recall by a week. This could imply that for rapport to have a beneficial effect on witness recall it needs to appear in close temporal proximity to recall. The lack of an interaction between same versus different interviewer and rapport building further suggests that even presenting the same rapport interviewer one week later was not enough to reinstate the original rapport context (Davies & Milne, 1985; Eich et al., 1975; Fernandez & Alonso, 2001; Godden & Baddeley, 1975; Smith, 1979; Tulving & Osler, 1968; Tulving & Pearlstone, 1966; Tulving & Thompson, 1973), which was used to predict the same interviewer condition's beneficial effects on witness recall

(see also Bjorklund et al., 2000). The present findings are also at odds with Kieckhaefer and colleagues (2013), who posited that rapport may affect the memory consolidation process. As such, the present study does not support the notion that rapport can have long lasting effects on subsequent recall accuracy even if the same interviewer continues the investigation, but instead suggests that for rapport to be effective it may have to be built in close temporal proximity to recall.

As such, the present set of findings does not allow for an exclusion of the cognitive load hypothesis: rapport may still have an effect on witness recall via reducing cognitive load at recall resulting in increased accuracy because of more available mental resources, accessible retrieval cues or a more thorough memory search (e.g., Baddeley, 1986; Baldwin, 1894; Cherry, 1953; Craik, 1948; Kahneman, 1970; 1973), but not under the conditions tested in the present study (after a week delay). The present data set also did not yield any significant differences on the cognitive load theory measures (post-recall measures cognitive load) for the rapport and/or change in day 2 interviewer conditions. As rapport was predicted to have an impact on working memory, the week rapport delay may have dissipated the potential effects of rapport and participant perceptions related to working memory (i.e., how much did you think about if the interviewer was evaluating you, how thoroughly were you able to search through your memory?). It is thus possible that in order for rapport-building to influence and decrease cognitive load, similar to its effects in past studies with no delay (Vredeveldt et al., 2011; Vrij et al., 2008), the temporal proximity between building rapport and recall may play an important role.

Similarly, any possible effect of rapport via social influence, suggested as another possible theoretical explanation for rapport's effects, may have been diluted by the delay between rapport and recall, masking any possible increase of social influence in the rapport and same interviewer condition (Heintzman et al., 1993). A significant difference between rapport and change in interviewer conditions in the suggestive leading correct/incorrect questions was also predicted based on rapport's anticipated effect on witnesses' desire to please the interviewer and thus acquiescence to suggestive-leading questions. The lack of any significant finding to this extent suggests that in order for social influence to affect witness responses, and increase the witness's need to acquiesce, comply or need to please the interviewer (Moston & Engelberg, 2002) the feeling of rapport may still need to be salient in witness' assessment of the interviewing situation.

Likewise, the working alliance and motivation theoretical explanations for rapport's previous effects on accuracy may have been adversely affected by recall's delay after rapport. Since rapport was not 're-built' at recall a week later, the strength of the working alliance and the witness's motivation to help the interviewer (Horvath & Symonds, 1991; Collins et al., 2002; Hershkowitz, 2011) may not have carried over across the week delay and thus resulted in null accuracy findings. Future research systematically manipulating delay between rapport and recall is needed to disentangle the respective effects of rapport on recall accuracy, and to shed light on possible theoretical explanations.

Although broadly speaking there were mostly null results for predicted rapport differences, there were a few marginal and significant effects of interest. For instance, there was a marginal effect of rapport on open-ended recall on day 2, with rapport

participants reporting 2% more addition errors than no rapport participants. Albeit counterintuitive, this result is somewhat in line with Kieckhaefer and colleagues' (2013) finding of an increase in other false errors (about 2.5% more) in the rapport condition compared to the no rapport condition. Taken together, these two findings may point at potential conditions under which rapport can be detrimental. Similarly, the finding that rapport's effect on decreasing anxiety immediately after the rapport/no rapport interview did not yield any mediating effects on accuracy is consistent with past research (Kieckhaefer et al., 2013). That is, rapport does appear to reduce eyewitness anxiety immediately after it is built, compared to those who receive no rapport, but this reduction in anxiety does not influence subsequent accuracy (Kieckhaefer et al., 2013). Also similar to previous studies, the amount of time the participant spent in the rapport/no rapport interview was significantly longer (about 45 seconds) in the rapport compared to the no rapport condition (Vallano & Schreiber Compo, 2011). Interestingly, the amount of time spent during the suggestive questioning phase was also significantly longer if rapport was built a week prior compared to when no rapport was built. Although the difference is a relatively short amount of time (about 35 seconds), this result along with the increased time in the rapport interview may suggest that rapport may have some effects on witnesses' motivation (Horvath & Greenberg, 1989; Collins et al., 2002; Hershkowitz, 2011), although motivation was not directly tested and any motivation did not appear to translate into increased accuracy. Those in the rapport condition may have paused for longer periods or perhaps were searching their memory slightly longer before answering yes or no to each of the 20 suggestive leading questions. Interestingly, there were no differences between the rapport conditions on time spent in the free recall

portion or the number of words reported during free recall on day 2, suggesting that rapport did not influence participant talkativeness overall.

As far as the importance of same interviewer during rapport and subsequent recall is concerned, no prior research has examined this interesting aspect of investigations in the context of rapport-building. The present research therefore provided a first test of the respective bond built with an interviewer during an initial rapport interaction. This test was also important from an applied perspective, as it has the potential to inform policy as to whether there is an advantage of having the same interviewer consistently interview real-world witnesses across multiple encounters. From a theoretical perspective, similar to the relationship between a therapist and client, it is possible that rapport built between an investigator and witness could create a bond and working alliance that could increase motivation to be helpful and provide more accurate information compared to recalling the incident with a stranger across time (Horvath & Greenberg, 1989; Horvath & Symonds, 1991). From a cognitive perspective, having the same investigator build rapport (shortly after a crime) and interview a witness at a later time may also serve as context-reinstatement, facilitating recall (Davies & Milne, 1985; Eich et al., 1975; Fernandez & Alonso, 2001; Godden & Baddeley, 1975; Smith, 1979; Tulving & Osler, 1968; Tulving & Pearlstone, 1966; Tulving & Thompson, 1973). Bjorklund and colleagues (2002) have tested and support this notion, finding that having the same interviewer across two interviews acted as a reinstatement cue that lead to fewer incorrect recognition responses compared to those who received a different interviewer.

With a few exceptions, there were no effects of change in interviewer on the main dependent variables. Surprisingly, participants who had a different interviewer on day 2

tended to recall about 6 more units of information than those who had the same interviewer both sessions. Thus, regardless of rapport condition, having a new person interview the witness actually resulted in a few more pieces of information. There were also significant day 2 interviewer effects related to the amount of time spent in certain portions of the experiment. During the open-ended questioning phase, witnesses who had a different interviewer spent more time in this phase (about 35 seconds more) compared to those who had the same interviewer across both days – regardless of prior rapport. Interestingly, this finding suggests that the novelty of being interviewed by someone new could potentially result in witnesses trying harder to impress the interviewer, potentially outshining any possible effect of context reinstatement. This finding is in line with the theory of impression management (Goffman, 1959), which posits that people use a wide array of strategies to control the ideas that others have about them. It is possible that witnesses interviewed by the same interviewer on day two may have felt more comfortable with the interviewer, and thus felt less compelled to manage the interviewer’s impression of them. In contrast, those with a different interviewer on day 2 may have managed the new impressions that the interviewer was expected build to a greater extent by recalling more units of information and spending more time participating in the experiment.

In addition to the few main effects of both rapport and change in day 2 interviewer, there were also some interaction effects in the present study. Participants who received no rapport on day 1 reported significantly more subjective units on day 2 when interviewed by a *different* interviewer compared to the same no rapport interviewer. This suggests that participants who previously had a somewhat negative experience (no

rapport) on day 1 may be seeking approval from, or trying to make a good impression on the new interviewer on day 2, presented with a new ‘chance’, resulting in providing more general, conversational information. Similarly, for the social influence theory measures, participants who received no rapport on day 1 wanted to please the day 2 interviewer more than those who previously received rapport. One possible explanation of these findings comes from research examining behaviors people display after rejection (Baumeister, 2005). When a rejection experience is followed by a chance to make a new friend the rejected people appear “extra willing” to make efforts such as choosing to work with someone, allocating more praise or rewards to the new partner, to self-regulate, and view others as potentially more accepting and friendly. In line with this research, the no rapport manipulation may have resulted in participants’ feelings of rejection by the interviewer, because the interviewer did not look at him/her, did not smile, did not face him/her and did not show any empathy. Thus a new interviewer during the second part of the study likely presented a new opportunity to form a successful bond. Since those who received no rapport likely felt rejected, those participants may have been much more willing and eager to take this second ‘chance’ than those who were not rejected after the first interview.

There were also interesting source-monitoring results. Participants who received false interviewer suggestion also incorrectly answered the subsequent/final written recall reporting that false suggestion and incorrectly remembered where they received that information (i.e., the correct answer being that they received the information from the interviewer). In line with hypotheses, of those who received a different interviewer on day 2, participants who had no rapport a week prior were more likely to incorrectly

source-monitor false interviewer suggestions than those who received the rapport interview. Similarly, those who received rapport and a different week two interviewer were more likely to make these errors than if they had the same rapport interviewer. These findings cautiously suggest that a change in rapport interviewer may result in poorer source-monitoring performance after a delay, particularly for witnesses who had no rapport and a change in interviewer. Although not tested directly, this finding could be explained in light of what is outlined earlier. Specifically, a change in interviewer may take up cognitive resources (the new interviewer has to be re-acquainted), which in turn are deducted from those available for source-monitoring decisions (e.g., Baddeley, 1986; Baldwin, 1894; Cherry, 1953; Craik, 1948; Kahneman, 1970; Kahneman, 1973).

Those participants who received rapport a week prior, and who had the same rapport interviewer at recall also made more don't know source-monitoring decisions than those who had a different interviewer on day 2. Similarly, those who had a different interviewer on day 2 and received rapport a week earlier provided more don't know source-monitoring responses than those that received the no rapport interview. This increase in don't know responses related to the rapport interview is quite interesting, possibly indicating an increased level of comfort with both the interviewer and the memory recall process overall. This result is further in line with previous findings (Kieckhaefer et al., 2013) of an increase in rapport participants' don't know responses in open-ended recall. Specifically, although the current study did not have a similar increase in open-ended don't know responses, there is a similar don't know increase with rapport in the source-monitoring results. It therefore appears that rapport with the same interviewer on day 2, or rapport built regardless of interviewer has the potential to

increase participant comfort, resulting in more don't know answers (even when he/she is answering via a written questionnaire in private).

The current study also sought to investigate different theoretical rationales for rapport's effects on witness memory accuracy. Unfortunately there were no effects of rapport on accuracy, which resulted in the inability to run mediation analyses with measures of theory. Instead I examined participants' ratings related to each measure of theory, including motivation, bond, social influence and working memory. Although there were no direct impacts on accuracy, rapport did affect witnesses' motivation to provide plentiful information at recall: no rapport participants felt a stronger motivation than rapport participants. A similar counterintuitive finding was found in the day 2 interviewer manipulation – those who received a different interviewer on day 2 were more motivated than those who received the same interviewer.

When examining the effects of rapport and interviewer change on bonding, these findings are again in line with the behaviors following rejection research (Baumeister, 2005), which suggest that those who were recently rejected will be more eager to make a good impression and form a bond when a new opportunity arises. For instance, in the current research witnesses who received no rapport and a different interviewer a week later perceived a stronger connection with the day 2 interviewer, and more interviewer interest compared to rapport. Also in line with previous results, of those who received rapport on day 1, participants who received the same interviewer on day 2 perceived more interviewer interest and care compared to the different interviewer condition. Taken together these results suggest some participant-perceived benefits of the same rapport

interviewer present on day 2, however most significant differences appear in the no rapport and different interviewer conditions.

Limitations and Future Directions

The present set of studies had several limitations. One such limitation was the sample population, which was primarily female (76%) and Hispanic (68%). Although other studies with similar samples have found benefits of rapport building (Kieckhaefer et al., 2013; Vallano & Schreiber Compo, 2011), much is unknown about rapport-building across cultures and genders. Also similar to previous research, the undergraduate research assistants conducting the study were primarily female and Hispanic. Thus future research involving building rapport needs to assess whether racial and gender effects exist across different gender and ethnic combinations between interviewer and witness.

A second limitation was the lack of ecological validity regarding who played the role of interviewer. In the United States today there are over 900,000 trained law enforcement officers, 88% of which are male (National Law Enforcement Officers Memorial Fund, 2013). In contrast, the undergraduates who served as interviewers in the study were mostly female, in their early to mid-twenties and were currently college undergraduates. These undergraduates were used, just as in previous studies, to increase the feasibility of running such a large-scale interviewing study. Future research needs to include experienced investigators during both the rapport-building and recall portions of the experiment to mimic more closely real-life criminal investigations. Utilizing real-life officers will also allow for a more realistic approximation of the power differential in real-life investigator and witness scenarios, and allow for an examination of how rapport affects those relationships.

A third limitation is that a mock crime video was used. Although this mock video was the first of the adult rapport-building studies to have a weapon present, mimicking a real-life armed convenience store robbery, the video is still not as anxiety-provoking and realistic as actually experiencing a crime. For obvious ethical reasons a life-threatening event could not be implemented, however, future studies could stage a mock crime for each participant to better mimic real-life crime scenarios.

A fourth limitation was the week delay interval. As described earlier, the delay was included as a means to examine a previously unexplored area of whether or not rapport has lasting effects. However, instead of the assumption that rapport would have lasting effects, including time delay as an independent variable could have directly addressed the temporal proximity hypothesis. I am currently collecting data using an immediate design to determine if rapport and change in interviewer actually yield significant differences when tested in close temporal proximity.

Lastly, but perhaps most importantly, a final limitation is the lack of consensus within the field of what rapport is. Across and even within disciplines scholars and applied persons disagree about exactly rapport is, how it should be built, what components are and are not necessary and how much time is necessary to build rapport (Hall et al., 2009; Minichiello et al., 1990). There is also a lack of understanding as to what actual law enforcement officers do to build rapport, if they believe it is necessary and what they believe it accomplishes. The field of investigative interviewing could benefit greatly from a systematic research program on rapport-building across laboratories that examine different types and components of rapport, and what components are necessary to facilitate witness memory (Abbe & Brandon, 2013).

Implications and Conclusions

To summarize, the present work neither supports previous adult eyewitness interviewing research, demonstrating beneficial effects of rapport, nor national interviewing guideline recommendations for rapport's use. A possible reason for the lack of findings may lie in the week delay between building rapport and testing witness recall accuracy, urging the manipulation of delay in future research programs investigating rapport before offering implications on theory and real-life applications. However, the majority of studies to date still cautiously support a beneficial effect of rapport-building on witness memory (Collins et al., 2002; Kieckhafer et al., 2013; Vallano & Schreiber Compo, 2011).

There also appears to be little detriment (and possibly a slight advantage) to witness accuracy if interviewed by different interviewers across time, at times regardless of whether rapport was built or not, which is particularly interesting in light of the applied value of the present set of results. For instance, since the present work found that both rapport and change in interviewer influenced witness feelings, this study also has implications for community policing. Thus, rapport may help create lasting relationships between police officers and members of the community, which could increase citizen's willingness to be helpful. Rapport may help facilitate more tips being provided to the police, increase witness willingness to come forward, increases in case closure rates, citizens becoming more engaged with community policing in general and aide in solving crimes. Further research is needed to replicate and explore further how rapport and changing interviewers during the investigation affects recall accuracy and witness motivation to give plentiful and accurate statements, including and without rapport.

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APPENDICES
Appendix A
Research Questions, Hypotheses and Variables

Research Questions	Hypotheses	Independent Variable(s)	Dependent Variables
1. Does building rapport influence witness information quantity and accuracy?	Witnesses who received rapport-building will be more accurate and will provide more information than those interviewed with no rapport.	Rapport	<ul style="list-style-type: none"> • Percent accuracy • Quantity of details reported
2. Does the same interviewer present across interviews influence witness quantity and accuracy?	The same interviewer present across both days should increase the quantity and accuracy of recall.	Interviewer at time 2	<ul style="list-style-type: none"> • Percent accuracy • Quantity of details reported
3. Does building rapport and having the same interviewer across interviews influence witness quantity and accuracy?	Witnesses who receive rapport at time 1 and the same interviewer at time 2 will recall the largest quantity of information, and be the most accurate.	Rapport Interviewer at time 2	<ul style="list-style-type: none"> • Percent accuracy • Quantity of details reported
4. Does building rapport influence witness susceptibility to accurate and inaccurate suggestive leading questions?	Witnesses who receive rapport will be less likely to inaccurately acquiesce and more likely to accurately acquiesce to the interviewer's suggestive questions.	Rapport	<ul style="list-style-type: none"> • Correct acquiescence • Correct rejection • Incorrect acquiescence • Other false
5. Does building rapport and having the same interview present across interviews influence witness susceptibility to accurate and inaccurate suggestive leading questions?	Witnesses who receive rapport at time 1 and the same interviewer at time 2 are expected to be the least likely to inaccurately acquiesce to interviewer suggestion and the most accurate.	Rapport Interviewer at time 2	<ul style="list-style-type: none"> • Correct acquiescence • Correct rejection • Incorrect acquiescence • Other false

Appendix B
Modified STAI
 (given five times throughout study)

Please rate the following items based on the extent to which they are true for you right now.

	Not at all	Somewhat	Moderately	Very much so
1. I feel calm	0	1	2	3
2. I feel secure	0	1	2	3
3. I am tense	0	1	2	3
4. I feel at ease	0	1	2	3
5. I feel anxious	0	1	2	3
6. I feel comfortable	0	1	2	3
7. I feel nervous	0	1	2	3
8. I am relaxed	0	1	2	3
9. I am worried	0	1	2	3
10. I feel over-excited and “rattled”	0	1	2	3

11. Please rate your current anxiety on a scale from 0 – 100 (You can circle your answer or give your own numerical response):

0	10	20	30	40	50	60	70	80	90	100
No Anxiety					Moderate Anxiety					Extreme Anxiety

Appendix C
Rapport Script

Interviewer: (say as soon as you enter room) Hi, I'm [your full name] (handshake and smile while introducing yourself), but you can call me [first name], and I'm here to talk to you today. What's your name?

Interviewer Response: It's very nice to meet you. Can I call you [interviewee's first name]? (if they do mind, ask them what they would like to be called)

Interviewer: How's your day going so far?

Interviewer Response: I'm glad [sorry] to hear that.

Interviewer: So, did you find the room okay [interviewee's first name]?

Interviewer Response: Okay good / Yeah - I know it can be a little confusing to find.

Interviewer: To start, please tell me a little about your experience as a student here at FIU.

Interviewer Response: It sounds like you have [have not] enjoyed your experience at FIU. (match the participant's response).

Interviewer: What year are you in school? (skip if already answered)

Interviewer Response: Oh so you don't have that much time left at FIU [Oh so you're just starting out here]

Interviewer: What's your major? [if already answered above skip question]

Interviewer: What do you want to do with your [fill in major] degree?

Interviewer Response: That sounds nice/Yea it's hard to figure out what to do once you're out of school.

Interviewer: How is your college experience different than high school?

Interviewer Response: Ah okay.

Interviewer: What are the students like at FIU?

Interviewer: Do you live on campus or do you commute?

Interviewer: [if commute] How's the drive?

Interviewer response: Oh not too bad/Yea I know the traffic can get pretty bad.

Interviewer: Tell me about the things you like to do for fun, like your hobbies and interests.

Interviewer Response: That sounds nice/fun.

Interviewer: Where are you from originally [interviewee's first name]? (skip if already answered)

Interviewer Response: How does your home compare to Miami?

[If the participant is from Miami: What's it like to go to school in your hometown?]

Interviewer: What city do you live in?

Interviewer: What do you enjoy about living in South Florida?

Interviewer Response: That is definitely one of the nicer things about living here.

[Those are definitely some of the nicer things about living here.]

[Really? I'm sorry to hear that.]

Interviewer: Tell me about where you like to go on vacation.

Interviewer Response: That sounds really relaxing/fun. It would be nice to be there right now.

Interviewer: Where'd you go on your last vacation? (skip if already answered)

Interviewer: If you could visit anywhere in the world where would you go?

Interviewer Response: I've heard that's a great place to visit.

Interviewer: Tell me about your family [interviewee's first name].

Interviewer: Where are they from? [if already answered skip question]

Interviewer: Do you have any brothers or sisters? [if already answered skip question]

Interviewer: How old is he/she/they? [if already answered skip question]

Interviewer Response: I see - that is a big [small] family. (Match participant's response)

Interviewer: Do you have any big plans this week or weekend [interviewee's first name]?

Interviewer Response: That sounds nice/Oh okay.

Interviewer: Well thank you very much for all the information. The experimenter will be back in to give you further instructions. It was very nice to meet you [interviewee's first name] (smile, shake interviewee's hand before exiting).

Appendix D
No Rapport Script

Interviewer: This is case number FIU 14P[p #]. Your name is? [pause and wait for them to say their name], I am [full name], and today's date is [date]. It is now [time]. We are currently in DM 209 of Florida International University, 10700 S.W. 8th Street, Miami, Florida 33199.

Interviewer: Do you affirm that the information that you are about to provide to me is going to be the truth, the whole truth, and nothing but the truth so help you God?

Interviewer: State your full name for the record.

Interviewer: Spell your first name

Interviewer: Spell your middle name

Interviewer: Spell your last name

Interviewer: What is your date of birth?

Interviewer: Are you single, married, divorced or widowed?

Interviewer: What is your phone number?

Interviewer: What about your house phone number? [if they say previous is a house number, ask "what is your cell phone number"]

Interviewer: Tell me about where you live.

Interviewer: What city do you live in? (skip if already answered)

Interviewer: Tell me your mailing address (skip if already answered)

Interviewer: Tell me about how long have you lived at this address (skip if already answered)

Interviewer: Have you ever lived in the campus dorms?

Interviewer: Tell me about how you got to campus today.

Interviewer: Tell me about the route that you took to get to campus today.

Interviewer: How long did it take you to get to campus today?

Interviewer: Tell me about the vehicle you used to get to campus today

Interviewer: Who owns this vehicle?

Interviewer: Tell me about how long you've used this vehicle.

Interviewer: Tell me about how often you use this vehicle.

Interviewer: Tell me about your educational background.

Interviewer: Tell me where you went to elementary school. (skip if already answered)

Interviewer: Tell me where you went to middle school. (skip if already answered)

Interviewer: Tell me where you went to high school. (skip if already answered)

Interviewer: Tell me where you went to college. (skip if already answered)

Interviewer: Tell me the classes that you are currently taking.

Interviewer: How long have you attended Florida International University?

Interviewer: Tell me the events at Florida International University that you have attended.

Interviewer: What is your email address?

Interviewer: Is the best way to contact you through phone or email?

Interviewer: Is the day or evening the best time to contact you?

Interviewer: Do you have a computer?

Interviewer: [skip if doesn't have a computer] What type of computer do you have?

Interviewer: Tell me about where you work

Interviewer: [skip if person doesn't work] Tell me about what you do for that company

Interviewer: [skip if person doesn't work] What is your current job title?

Interviewer: [skip if person doesn't work] How long have you worked there?

Interviewer: [skip if person doesn't work] What is the phone number at work?

Interviewer: Tell me about where have you been employed previously and for how long

Interviewer: Tell me about the languages that you speak

Interviewer: [skip if doesn't speak more than 1 language] Is English your first language?

Interviewer: [skip if doesn't speak more than 1 language] Tell me about how long you have fluently spoken English.

Interviewer: Do you understand that this conversation is being recorded?

Interviewer: Tell me if I have your consent to do that.

Interviewer: Thank you for the information. The experimenter will be back in with further instructions.

Appendix E
Interaction Questionnaire
(Given at Time 1 and Time 2)

Part I: Open-Ended Questions About the Interview

1. How did you feel during the interview today?

2. How did the interviewer treat you today?

3. Did you like today's interview and interviewer? What did the interviewer do that you liked? What did the interviewer do that did not like?

4. How much rapport did you experience today during the interview? Rapport involves how comfortable you felt with the interviewer, whether you trusted the interviewer, and whether you liked/disliked the interviewer. Briefly discuss how much you liked the interviewer, felt comfortable around the interviewer, and trusted the interviewer.

5. Briefly discuss the amount of anxiety/nervousness you felt during the interview today.

Part II: Interaction Rating Scale

Directions: Rate the **investigator (who interviewed you today)** on the following characteristics

Smooth	1	2	3	4	5	6	7
	Not smooth		Somewhat smooth			Extremely smooth	
Bored	1	2	3	4	5	6	7
	Not bored		Somewhat bored			Extremely bored	
Engaging	1	2	3	4	5	6	7
	Not engaging		Somewhat engaging			Extremely engaging	
Rude	1	2	3	4	5	6	7
	Not rude		Somewhat rude			Extremely rude	
Awkward	1	2	3	4	5	6	7
	Not awkward		Somewhat awkward			Extremely awkward	
Kind	1	2	3	4	5	6	7
	Not kind		Somewhat kind			Extremely kind	
Attentive	1	2	3	4	5	6	7
	Not attentive		Somewhat attentive			Extremely attentive	
Friendly	1	2	3	4	5	6	7
	Not friendly		Somewhat friendly			Extremely friendly	
Active	1	2	3	4	5	6	7
	Not active		Somewhat active			Extremely active	
Positive	1	2	3	4	5	6	7
	Not positive		Somewhat positive			Extremely positive	
Likeable	1	2	3	4	5	6	7
	Not likeable		Somewhat likeable			Extremely likeable	

Trustworthy	1	2	3	4	5	6	7
Not trustworthy			Somewhat trustworthy			Extremely trustworthy	

Credible	1	2	3	4	5	6	7
Not credible			Somewhat credible			Extremely credible	

Respectful	1	2	3	4	5	6	7
Not respectful			Somewhat respectful			Extremely respectful	

Directions: Rate the **interaction (between you and the investigator today)** on the following characteristics

Well-coordinated	1	2	3	4	5	6	7
Not coordinated			Somewhat coordinated			Extremely coordinated	

Boring	1	2	3	4	5	6	7
Not boring			Somewhat boring			Extremely boring	

Cooperative	1	2	3	4	5	6	7
Not cooperative			Somewhat cooperative			Extremely cooperative	

Harmonious	1	2	3	4	5	6	7
Not harmonious			Somewhat harmonious			Extremely harmonious	

Unsatisfying	1	2	3	4	5	6	7
Unsatisfying			Satisfying			Extremely satisfying	

Uncomfortably Paced	1	2	3	4	5	6	7
Uncomfortably paced			Reasonably paced			Comfortably paced	

Cold	1	2	3	4	5	6	7
Not cold			Somewhat cold			Extremely cold	

Awkward	1	2	3	4	5	6	7
	Not awkward		Somewhat awkward		Extremely awkward		
Engaging	1	2	3	4	5	6	7
	Not engaging		Somewhat engaging		Extremely engaging		
Unfocused	1	2	3	4	5	6	7
	Not focused		Focused		Extremely focused		
Involving	1	2	3	4	5	6	7
	Not involving		Somewhat involving		Extremely involving		
Intense	1	2	3	4	5	6	7
	Not intense		Somewhat intense		Extremely intense		
Unfriendly	1	2	3	4	5	6	7
	Unfriendly		Friendly		Extremely friendly		
Active	1	2	3	4	5	6	7
	Not active		Somewhat active		Extremely active		
Positive	1	2	3	4	5	6	7
	Not positive		Somewhat positive		Extremely positive		
Dull	1	2	3	4	5	6	7
	Not dull		Somewhat dull		Extremely dull		
Worthwhile	1	2	3	4	5	6	7
	Not worthwhile		Somewhat worthwhile		Extremely worthwhile		
Slow	1	2	3	4	5	6	7
	Not slow		Somewhat slow		Extremely slow		

Appendix F
Open-ended Questions
(Asked on Day 2)

Interviewer: Hello, I am the investigator who will be interviewing you about the crime that you witnessed a week ago. To aid in the investigation, I'm going to ask you a series of questions. Please respond to my questions with as much detail as possible. All details are important for the investigative process, however trivial they may seem, so please report everything that you can remember.

Interviewer: Tell me everything you can remember about the event.

Interviewer: What else do you remember about the event?

Interviewer: Tell me everything you can remember about the female customer.

Interviewer: What else do you remember about the female customer?

Interviewer: Tell me everything you can remember about the male witness.

Interviewer: What else do you remember about the male witness?

Interviewer: Tell me everything you can remember about the cashier.

Interviewer: What else do you remember about the cashier?

Interviewer: Tell me everything you remember about the robber.

Interviewer: What else do you remember about the robber?

Interviewer: Tell me everything you remember about the store.

Interviewer: What else do you remember about the store?

Interviewer: Is there anything else that you remember that I haven't asked you about?

Appendix G
Suggestive Questions
(Asked on Day 2)

Interviewer: Now I'm going to ask you a series of more specific questions about the incident. Please provide me with a response to each question, even if you are uncertain.

Accurate/Inaccurate Suggestive Questions

- ½ correct, ½ incorrect leading questions (correct answer/incorrect answer)
 - Within that, have ½ memorable (low accuracy), ½ memorable items

MEMORABLE (95% - 58% accurate)

1. Was the gun black/silver?
2. Was the robber wearing sneakers/boots?
3. Was the robber wearing jeans/shorts?
4. Was the robber's sweatshirt black/grey?
5. Was the cashier holding a cell phone/pen?
6. Was the female customer carrying a dog/cat?
7. Did the robber hold the gun in his right/left hand?
8. Were there 2/Was there 1 door in the convenience store?
9. Did the perpetrator pick up a drink/chips while in the store?
10. Were there 3/2 people in the convenience store at the time of the robbery?

NOT MEMORABLE (46% - 11% accurate)

1. Did the robber have any facial hair/Was the robber clean shaven?
2. Was the female customer's shirt blue/green?
3. Was the female customer wearing a purse/necklace?
4. Was the female customer's hair pulled back in a ponytail/down and behind her shoulders?
5. Was the male witness's shirt brown/black?
6. Did the male witness have any facial hair/Was the male witness clean shaven?
7. Was the convenience store called Wink's/Val's quick stop?
8. Did the robber pull the gun out from behind his back/ front sweatshirt pocket?
9. Was the item the female customer bought green/yellow?
10. Was the shirt the robber was wearing underneath his sweatshirt green/blue?

Cued Questions (v1)

Interviewer: Now I'm going to ask you a series of more specific questions about the incident. Please provide me with a response to each question, even if you are uncertain.

1. Was the item the female customer bought green?
2. Did the robber pick up chips while in the store?
3. Was the robber wearing sneakers?
4. Was the robber's sweatshirt black?
5. Was the shirt the robber was wearing underneath his sweatshirt green?
6. Were there only 3 people in the convenience store at the time of the robbery?
7. Did the robber pull the gun out from behind his back?
8. Did the robber hold the gun in his left hand?
9. Was the gun silver?
10. Did the male witness have any facial hair?
11. Did the robber have any facial hair?
12. Was the female customer wearing a necklace?
13. Was the cashier holding a pen?
14. Was the female customer carrying a cat?
15. Was the female customer's shirt green?
16. Was the male witness's shirt black?
17. Were there only 2 doors at the entrance of the convenience store?
18. Was the convenience store called Val's quick stop?
19. Was the robber wearing jeans?
20. Was the female customer's hair down and behind her shoulders?

Interviewer: Thank you for the information. The experimenter will be back in to give you further instructions.

Cued Questions (v2)

Interviewer: Now I'm going to ask you a series of more specific questions about the incident. Please provide me with a response to each question, even if you are uncertain.

1. Was the item the female customer bought yellow?
2. Did the robber pick up a drink while in the store?
3. Was the robber wearing boots?
4. Was the robber's sweatshirt grey?
5. Was the shirt the robber was wearing underneath his sweatshirt blue?
6. Were there only 2 people in the convenience store at the time of the robbery?
7. Did the robber pull the gun out from his front sweatshirt pocket?
8. Did the robber hold the gun in his right hand?
9. Was the gun black?
10. Was the male witness clean shaven?
11. Was the robber clean shaven?
12. Was the female customer wearing a purse?
13. Was the cashier holding a cell phone?
14. Was the female customer carrying a dog?
15. Was the female customer's shirt blue?
16. Was the male witness's shirt brown?
17. Was there only 1 door at the entrance of the convenience store?
18. Was the convenience store called Wink's quick stop?
19. Was the robber wearing shorts?
20. Was the female customer's hair pulled back in a ponytail?

Interviewer: Thank you for the information. The experimenter will be back in to give you further instructions.

Appendix H
Source Monitoring Questionnaire

Directions: For the next set of questions, you will be asked to answer the question, to report where you remember learning that information and then your confidence that the information you reported is correct.

1. What color was the gun?

Where do you remember encountering this information?

- a. From the interviewer b. From the video
c. From the interviewer and video d. Don't know

How confident are you that you correctly remember this information?

1	2	3	4	5	6	7	8	9	10
<i>Not</i>				<i>Somewhat</i>					<i>Very</i>
<i>Confident</i>				<i>Confident</i>					<i>Confident</i>

2. What was the robber wearing on his feet?

Where do you remember encountering this information?

- a. From the interviewer b. From the video
c. From the interviewer and video d. Don't know

How confident are you that you correctly remember this information?

1	2	3	4	5	6	7	8	9	10
<i>Not</i>				<i>Somewhat</i>					<i>Very</i>
<i>Confident</i>				<i>Confident</i>					<i>Confident</i>

3. What bottoms was the robber wearing?

Where do you remember encountering this information?

- a. From the interviewer
- b. From the video
- c. From the interviewer and video
- d. Don't know

How confident are you that you correctly remember this information?

1	2	3	4	5	6	7	8	9	10
<i>Not</i>				<i>Somewhat</i>				<i>Very</i>	
<i>Confident</i>				<i>Confident</i>				<i>Confident</i>	

4. What color was the robber's sweatshirt?

Where do you remember encountering this information?

- a. From the interviewer
- b. From the video
- c. From the interviewer and video
- d. Don't know

How confident are you that you correctly remember this information?

1	2	3	4	5	6	7	8	9	10
<i>Not</i>				<i>Somewhat</i>				<i>Very</i>	
<i>Confident</i>				<i>Confident</i>				<i>Confident</i>	

5. What was the cashier holding in her hand?

Where do you remember encountering this information?

- a. From the interviewer
- b. From the video
- c. From the interviewer and video
- d. Don't know

How confident are you that you correctly remember this information?

1	2	3	4	5	6	7	8	9	10
<i>Not</i>				<i>Somewhat</i>				<i>Very</i>	
<i>Confident</i>				<i>Confident</i>				<i>Confident</i>	

6. What animal was the female customer carrying?

Where do you remember encountering this information?

- a. From the interviewer
- b. From the video
- c. From the interviewer and video
- d. Don't know

How confident are you that you correctly remember this information?

1	2	3	4	5	6	7	8	9	10
<i>Not</i>				<i>Somewhat</i>					<i>Very</i>
<i>Confident</i>				<i>Confident</i>					<i>Confident</i>

7. Which hand did the robber hold the gun in?

Where do you remember encountering this information?

- a. From the interviewer
- b. From the video
- c. From the interviewer and video
- d. Don't know

How confident are you that you correctly remember this information?

1	2	3	4	5	6	7	8	9	10
<i>Not</i>				<i>Somewhat</i>					<i>Very</i>
<i>Confident</i>				<i>Confident</i>					<i>Confident</i>

8. How many doors were there at the entrance of the convenience store?

Where do you remember encountering this information?

- a. From the interviewer
- b. From the video
- c. From the interviewer and video
- d. Don't know

How confident are you that you correctly remember this information?

1	2	3	4	5	6	7	8	9	10
<i>Not</i>				<i>Somewhat</i>					<i>Very</i>
<i>Confident</i>				<i>Confident</i>					<i>Confident</i>

9. What item did the robber pick up while shopping?

Where do you remember encountering this information?

- a. From the interviewer b. From the video
c. From the interviewer and video d. Don't know

How confident are you that you correctly remember this information?

1	2	3	4	5	6	7	8	9	10
<i>Not</i>				<i>Somewhat</i>					<i>Very</i>
<i>Confident</i>				<i>Confident</i>					<i>Confident</i>

10. How many people were in the convenience store at the time of the robbery?

Where do you remember encountering this information?

- a. From the interviewer b. From the video
c. From the interviewer and video d. Don't know

How confident are you that you correctly remember this information?

1	2	3	4	5	6	7	8	9	10
<i>Not</i>				<i>Somewhat</i>					<i>Very</i>
<i>Confident</i>				<i>Confident</i>					<i>Confident</i>

11. Did the robber have any facial hair?

Where do you remember encountering this information?

- a. From the interviewer b. From the video
c. From the interviewer and video d. Don't know

How confident are you that you correctly remember this information?

1	2	3	4	5	6	7	8	9	10
<i>Not</i>				<i>Somewhat</i>					<i>Very</i>
<i>Confident</i>				<i>Confident</i>					<i>Confident</i>

12. What color was the female customer's shirt?

Where do you remember encountering this information?

- a. From the interviewer
- b. From the video
- c. From the interviewer and video
- d. Don't know

How confident are you that you correctly remember this information?

1	2	3	4	5	6	7	8	9	10
<i>Not</i>				<i>Somewhat</i>					<i>Very</i>
<i>Confident</i>				<i>Confident</i>					<i>Confident</i>

13. What if any accessory was the female customer wearing?

Where do you remember encountering this information?

- a. From the interviewer
- b. From the video
- c. From the interviewer and video
- d. Don't know

How confident are you that you correctly remember this information?

1	2	3	4	5	6	7	8	9	10
<i>Not</i>				<i>Somewhat</i>					<i>Very</i>
<i>Confident</i>				<i>Confident</i>					<i>Confident</i>

14. How was the female customer's hair styled?

Where do you remember encountering this information?

- a. From the interviewer
- b. From the video
- c. From the interviewer and video
- d. Don't know

How confident are you that you correctly remember this information?

1	2	3	4	5	6	7	8	9	10
<i>Not</i>				<i>Somewhat</i>					<i>Very</i>
<i>Confident</i>				<i>Confident</i>					<i>Confident</i>

15. What color was the male witness's shirt?

Where do you remember encountering this information?

- a. From the interviewer b. From the video
c. From the interviewer and video d. Don't know

How confident are you that you correctly remember this information?

1	2	3	4	5	6	7	8	9	10
<i>Not</i>				<i>Somewhat</i>					<i>Very</i>
<i>Confident</i>				<i>Confident</i>					<i>Confident</i>

16. Did the male witness have any facial hair?

Where do you remember encountering this information?

- a. From the interviewer b. From the video
c. From the interviewer and video d. Don't know

How confident are you that you correctly remember this information?

1	2	3	4	5	6	7	8	9	10
<i>Not</i>				<i>Somewhat</i>					<i>Very</i>
<i>Confident</i>				<i>Confident</i>					<i>Confident</i>

17. What was the name of the convenience store?

Where do you remember encountering this information?

- a. From the interviewer b. From the video
c. From the interviewer and video d. Don't know

How confident are you that you correctly remember this information?

1	2	3	4	5	6	7	8	9	10
<i>Not</i>				<i>Somewhat</i>					<i>Very</i>
<i>Confident</i>				<i>Confident</i>					<i>Confident</i>

18. Where did the robber keep the gun?

Where do you remember encountering this information?

- a. From the interviewer b. From the video
- c. From the interviewer and video d. Don't know

How confident are you that you correctly remember this information?

1	2	3	4	5	6	7	8	9	10
<i>Not</i>				<i>Somewhat</i>					<i>Very</i>
<i>Confident</i>				<i>Confident</i>					<i>Confident</i>

19. What color was the item that the female customer purchased?

Where do you remember encountering this information?

- b. From the interviewer b. From the video
- c. From the interviewer and video d. Don't know

How confident are you that you correctly remember this information?

1	2	3	4	5	6	7	8	9	10
<i>Not</i>				<i>Somewhat</i>					<i>Very</i>
<i>Confident</i>				<i>Confident</i>					<i>Confident</i>

20. What color was the robber's shirt that he wore underneath his sweatshirt?

Where do you remember encountering this information?

- c. From the interviewer b. From the video
- c. From the interviewer and video d. Don't know

How confident are you that you correctly remember this information?

1	2	3	4	5	6	7	8	9	10
<i>Not</i>				<i>Somewhat</i>					<i>Very</i>
<i>Confident</i>				<i>Confident</i>					<i>Confident</i>

Appendix I
Theory Testing Questionnaire

Motivation

1. When interviewed about the crime today, how motivated were you to provide accurate and plentiful information?

Not motivated at all extremely motivated

1 2 3 4 5 6 7 8 9

2. If the interviewer contacted you in the future asking for your help regarding this study, how likely would you be to help?

Not likely at all extremely likely

1 2 3 4 5 6 7 8 9

3. In your own words, please describe your motivation to be helpful in providing information about the crime.

Bond

4. When interviewed about the crime today, how connected did you feel to the interviewer?

Not connected at all Extremely connected

1 2 3 4 5 6 7 8 9

5. When interviewed about the crime today, how much did you feel the interviewer cared about you?

Didn't care about me at all Cared a lot

1 2 3 4 5 6 7 8 9

6. When interviewed about the crime today, how much did you feel the interviewer was interested in the information you were providing?

Not interested at all Very interested

1 2 3 4 5 6 7 8 9

7. When interviewed about the crime today, how much did you share the interviewer's goal of providing as much information as possible?

Not at all A lot

1 2 3 4 5 6 7 8 9

8. Please describe in your own words the connection you felt with the interviewer when remembering the crime.

Social Influence

9. How much pressure did you feel to agree with the interviewer?

None at all A lot

1 2 3 4 5 6 7 8 9

10. How much pressure did you feel to provide the correct information?

None at all A lot
1 2 3 4 5 6 7 8 9

11. How much did you want to please the interviewer?

Not at all A lot
1 2 3 4 5 6 7 8 9

Cognitive load

12. When interviewed about the crime today, how much did you think about if the interviewer was evaluating you?

Not at all A lot
1 2 3 4 5 6 7 8 9

13. When interviewed about the crime today, how thoroughly were you able to search through your memory?

Not at all Very thoroughly
1 2 3 4 5 6 7 8 9

14. When interviewed about the crime today, how much were you thinking about other things besides the crime?

Not thinking about other things at all Thinking about other things a lot
1 2 3 4 5 6 7 8 9

15. If you were thinking/focusing on other things while you were remembering the crime, please describe those.

16. When remembering the crime today, how much mental effort did you use/spend on providing accurate and plentiful information?

very, very low mental effort									very, very high mental effort
1	2	3	4	5	6	7	8	9	

17. When remembering the crime today, how difficult was it to thoroughly search your memory?

Not at all difficult									Very difficult
1	2	3	4	5	6	7	8	9	

18. In your own words, please describe how mentally tiring it was to remember the crime.

Context reinstatement

19. How did the interviewer influence your responses today?

20. Did you have the same interviewer on both days of the study? (The interviewer is the person that verbally asked you questions about yourself and about the crime)

If **YES**,

- Please describe in your own words your opinion of having the same interviewer at time 1 and at time 2. What were you thinking? What were you feeling? What effect did it have on remembering the crime?

Would you have preferred a different interviewer the second time/when you remembered the crime?

If **NO**,

- Please describe in your own words your opinion of having different interviewers at time 1 and at time 2. What were you thinking? What were you feeling? What effect did it have on remembering the crime?

- Would you have preferred having the same interviewer both times?

Appendix J
Demographics Questionnaire

1. What is your age? _____ Years
2. What is your gender? Check one: _____ Male _____ Female
3. Which of the following categories best reflects your ethnic/racial identity? (**check only one**)
- | | |
|---------------------------|------------------------------|
| _____ Black | _____ Asian/Pacific Islander |
| _____ White: Non-Hispanic | _____ Hispanic |
| _____ Native American | _____ Other _____ |
4. What is the highest education level you have **completed**?
- | | |
|---------------------------------|------------------------------------|
| _____ high school graduate | _____ junior year in college |
| _____ freshman year in college | _____ senior year in college |
| _____ sophomore year in college | _____ currently in graduate school |
| | _____ none of the above |
5. Is English your primary/native language? _____ Yes _____ No
If no, how long have you spoken English fluently? _____ Years
If no, what is your native language?

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PUBLICATIONS AND PRESENTATIONS

Kieckhaefer, J. M., & Wright, D. B. (accepted for publication). Friendly Co-Witnesses Increase Eyewitness Accuracy and Decrease Suggestibility. *Memory*.

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