RAPPORT AND EYEWITNESS MEMORY: THE ROLES OF BENEVOLENCE AND DURATION

Except where reference is made to the work of others, the work described in this thesis is my own or was done in collaboration with my advisory committee. This thesis does not include propriety or classified information.

Jillian Peek

Jillian E. Peek

Certificate of Approval:

Rolando N. Carol, PhD, Chair
Associate Professor
Psychology

Clarissa J. Arms-Chavez, PhD
Associate Professor
Psychology

Pamela Tidwell, PhD
Associate Professor
Psychology

Matthew Ragland, PhD
Associate Provost

RAPPORT AND EYEWITNESS MEMORY: THE ROLES OF BENEVOLENCE AND DURATION

Jillian Peek

A Thesis

Submitted to

The Graduate Faculty of

Auburn University Montgomery

In Partial Fulfillment of the

Requirements for the

Degree of

Master of Science

Montgomery, Alabama

July 16, 2018

RAPPORT AND EYEWITNESS MEMORY: THE ROLES OF BENEVOLENCE AND DURATION

Jillian E. Peek

Jillian Peek

Signature of Author

08/11/18

Date of Graduation

Rapport and Eyewitness Memory: The Roles of Benevolence and Duration

ACKNOWLEDGMENTS

The completion of this research project marks the conclusion of my time in the Masters in Psychology program at Auburn University at Montgomery—the most challenging and most rewarding phase of my life thus far. I am proud of what I have accomplished in this program, and I humbly recognize that it would not have been possible without the efforts of many people with whom I share this success. First, the students of the Legal Psychology Lab contributed countless hours of their time to the advancement of my thesis, and I am endlessly thankful for their enthusiasm and cooperation. Of particular mention, the data that were collected would not exist without the assistance of Cassie Feck, Lola Torres, and Joy Johnson. Additionally, I would like to thank my thesis committee—Dr. Clarissa Arms-Chavez and Dr. Pamela Tidwell of AUM and Dr. Jacqueline Evans of Florida International University—for their insight and advice on the research design and interpretation of results. Finally, these acknowledgments would not be complete without recognizing the chair of my committee and director of my thesis, Dr. Rolando Carol. At each moment of doubt that led me to believe I couldn't accomplish this feat, his unwavering support and kind patience convinced me otherwise.

Abstract

Rapport building is a widely recommended tactic in the investigative interviewing literature. Although it is not without disadvantages, rapport building has been empirically shown to improve memory performance; however, relevant studies have yet to identify why this is so, or to exert methodological control over the (potentially confounding) rapport-building interaction duration. The present study proposed benevolence as the mediator of this observed relationship and incorporated a design capable of controlling duration's possible influence. Participants (N = 109) viewed a mock crime video and were interviewed in either a friendly or cold manner regarding the details of what they witnessed. Results indicated that participants who were questioned by a friendly, rapport interviewer were more likely to display benevolence towards that interviewer than when questioned by a cold, control interviewer. Furthermore, while rapport itself did not predict recall performance, higher levels of benevolence were associated with higher accuracy and less redundancy. These findings supplement previous research suggesting that rapport building is a highly worthwhile investigative interviewing strategy.

TABLE OF CONTENTS

LIST OF TABLES

Rapport and Eyewitness Memory: The Roles of Benevolence and Duration

The investigative interview is one of the most valuable information-gathering tools available to criminal investigators. When witnesses are cooperative, interviewers and interviewees share a similar objective—generating as much accurate information about the crime as possible in hopes of eventually convicting the perpetrator. However, this atmosphere of mutual exchange is typically not present when the interests of the two parties are at odds, such as suspect interrogations. Thus, in investigations lacking compelling physical evidence, accurate eyewitness testimony becomes all important for potential conviction of the perpetrator.

For this reason, identifying strategies that can improve eyewitness recall and understanding the mechanisms behind these strategies is imperative. Rapport building is one such strategy. Although definitions of this construct vary, rapport is a widely-recommended interviewing tactic for improving interview outcomes (Collins, Lincoln, & Frank, 2002; Fisher & Geiselman, 1992; Kleinman, 2011; Lamb, Orbach, Hershkowitz, Esplin, & Horowitz, 2007; Sandoval & Adams, 2001). Rapport is further recommended when considering evidence that it can improve eyewitness recall (Collins et al., 2002; Holmberg & Madsen, 2014; Vallano & Schreiber Compo, 2011), and the ease with which it can be established. These potential benefits provide support for the use of rapport building as an interviewing technique, but the mechanism(s) behind the effects of rapport on memory remain largely unexplored. The aim of the present study is thus to test a possible socio-motivational mechanism through which rapport affects eyewitness memory.

Rapport as a Construct

Although rapport is now commonly studied in the context of evidence-gathering interviews and criminal interrogations, it was traditionally studied—and continues to be investigated—in the context of the therapeutic relationship. In the literature, rapport has been defined as a relationship of a harmonious, empathetic, warm, and interested nature (Harrigan, Oxman, & Rosenthal, 1985; Newberry & Stubbs, 1990). Many other definitions have been posed, but one of the most comprehensive descriptions of rapport identifies three key characteristics: mutual attentiveness, positivity, and coordination (Tickle-Degnen & Rosenthal, 1990). However, operational definitions of rapport may differ depending on the relevant field of inquiry.

For instance, Kelly, Miller, Redlich, and Kleinman (2013) approached investigative rapport as a tactic in professionalism, where the emotionality of the relationship does not matter. Rather, reciprocating expectations help both parties to achieve their desired goals. This definition was echoed in a survey of law enforcement interviewers by Vallano, Evans, Schreiber Compo, and Kieckhaefer (2015). Vallano et al. found inconsistencies in interviewers' conceptualizations of rapport, such that most believed trust and communication were instrumental in building a positive relationship with a witness or suspect. However, others believed the presence of any relationship was sufficient to build rapport, whether the connection was positive or negative. This more general description of rapport is in line with the Reid Technique's (Inbau, Reid, Buckley, & Jayne, 2013) and the Army Field Manual's (U.S. Department of the Army, 2006) definition, where any type of relationship can constitute rapport, especially if it renders a particular desired result, such as a confession.

Vallano et al. (2015) suggest the inconsistencies in rapport's conceptualization may be a reflection of our limited understanding of the construct and, by extension, of the variations in type of interviewing training received. In the meantime, Vallano and Schreiber Compo (2015) advocate a function-as-definition approach, where rapport should be described in the context it is being used, such as in a clinical, witness, or suspect interview.

Rapport's Effects on Eyewitness Memory

Studies investigating rapport's effect on memory reveal mixed findings: some beneficial, some detrimental. For example, studies show that rapport can not only increase the total number of details reported by witnesses or suspects, but also the number of *correct* details reported (e.g., Collins et al., 2002; Vallano & Schreiber Compo, 2011). Collins et al. (2002) showed that rapport significantly increased the number of accurate details recalled, while incorrect information did not differ among groups. Rapport has also been shown to decrease the reporting of inaccurate details and misinformation (Vallano & Schreiber Compo, 2011). Furthermore, building rapport has been implicated as a protective factor or "inoculation" against subsequent misinformation (Kieckhaefer, Vallano, & Schreiber Compo, 2014, p. 1021), with a higher amount of accurate information reported by those in the rapport condition compared to those in the control condition, following exposure to post-event misinformation.

More recently, studies have been conducted to investigate constructs similar to (and perhaps related to) rapport, such as likability and mimicry. In examining the effects of a co-witnesses' likability, Kieckhaefer and Wright (2015) found that participants paired with a likable co-witness conformed less to their co-witness and consequently had

higher memory accuracy than those paired with an unlikable co-witness. Similarly, Shaw et al. (2015) found that participants randomly assigned to tell the truth, rather than lie about a meeting they attended, reported more details to an interviewer engaging in mimicry than to a non-mimicking interviewer. These findings suggest rapport, likability, and mimicry may be interrelated constructs that enhance not only the quantity, but also the quality of details provided in an investigative interview.

The benefits of rapport building can extend beyond the lab setting and generalize to the field, at least with child witnesses. Hershkowitz, Lamb, Katz, and Malloy (2015) compared transcripts from interviews using the standard NICHD (National Institute of Child Health and Human Development) Protocol to those from a rapport-focused interview. The authors focused on supportive and unsupportive comments made by the interviewers and uncooperative/reluctant comments made by suspected victims of child abuse. Findings indicated a higher number of relevant details provided by children in the rapport-interview condition, who also received more supportive comments from their interviewer and were less reluctant than children interviewed with the standard NICHD Protocol. An additional benefit of rapport building is that training in the technique does not seem to require an excess of time or resources. Yi, Jo, and Lamb (2016) showed that police officers participating in a two-day training program for the NICHD Protocol made significant improvement in asking directive questions and making invitations after only a few sessions of training. A survey of student satisfaction with the interviewers followed the training program and revealed higher levels of approval for officers who also received training in rapport building or episodic memory.

While rapport appears to have some beneficial effects, some experiments have revealed disadvantageous implications. For example, Kieckhaefer et al. (2014) found an unexpected detrimental effect of rapport, where participants in the high rapport condition reported *fewer* misinformation details, but also a *greater* number of other false details (i.e., non-misinformation) when compared to low rapport participants. Furthermore, some research suggests that rapport building can make interviewees more susceptible to suggestive tactics (Wright, Nash & Wade, 2015). Specifically, participants were encouraged to corroborate a false accusation against their partners following a pseudo-gambling task, and then were exposed to either verbal and visual evidence or verbal evidence alone. Those exposed to verbal and visual evidence with rapport were most likely to corroborate the falsehood, but being in the rapport condition alone predicted corroboration of the false accusation.

Vallano and Schreiber Compo (2015) also acknowledge possible criticisms of rapport building, such as a potential increase in a suspect's vulnerability to coercive interrogation strategies. This issue is addressed by Alison, Alison, Noone, Elntib, and Christiansen (2013) as well, who argue that rapport inherently cannot be used to "trick" a suspect, as its only purpose is to encourage open communication. A portion of this open communication is facilitated by upholding the autonomy of the interviewee. Preserving his/her sovereignty helps to ensure all information provided, including potential confessions, is freely and voluntarily given.

While Collins et al. (2002) demonstrated a beneficial effect of rapport on memory, the authors noted that the amount of time spent with the interviewer could have confounded the results: rapport-group participants spent significantly longer in interview

than other participants. However, they argue that understanding the specific mechanism behind rapport is not necessary in order to have successful rapport-building and rapport-related benefits (Collins et al., 2002). Other studies further reveal a lack of experimental control over factors like interaction and/or interview duration, making causal claims between rapport building and improved recall difficult. Controlling for potential confounds directly (e.g., rapport-building interaction duration) would allow for stronger causal claims between rapport and memory accuracy. Therefore, one aim of the present study was to control experimentally the duration of the rapport-building phase that occurs before the substantive investigative eyewitness interview.

Mechanisms of Rapport

While building rapport is widely recommended as an interviewing technique, the underlying mechanisms driving rapport's efficacy are less understood. The present study proposed benevolence as a possible mechanism behind rapport's beneficial effects on eyewitness memory. In the context of prosocial behavior, benevolence is a form of prosocial helping where both parties benefit from the action performed (Ferguson, Farrell, & Lawrence, 2008; Nunney, 1985). According to Zulawski and Wicklander (1993), a supportive interviewer is more likely to elicit cooperation from an interviewee than one who is distant. Benevolence could help explain why rapport can improve eyewitness recall in that an interviewer displaying interest in a witness' narrative might motivate him/her to strive to remember more details in order to reciprocate the friendliness of the interviewer.

Benevolence can be contrasted with altruism: a form of prosocial behavior in which the action is performed without the expectation of reciprocating benefits (Piliavin

& Callero, 1991; Titmuss, 1971). Furthermore, altruistic acts result in some inconvenience for the actor (e.g., Bar-Tal, 1985; Sober & Wilson, 1998). While a distinction between benevolence and altruism is made here, some argue that the self-gratification derived from performing "altruistic" acts is benevolence in disguise, making no behavior purely altruistic (Andreoni, 1990; Baumann, Cialdini, & Kenrick, 1981; Cialdini & Kenrick, 1976).

Another proposed mechanism for the beneficial effects of rapport involves the relationship between anxiety and working memory capacity (Brown et al., 2013; Carter, Bottoms, & Levine, 1996; Hershkowitz, 2011; Holmberg & Madsen, 2014; Home Office, 2011). Because anxiety has been implicated as a contributor to deficits in working memory capacity (Balderston et al., 2017; Moran, 2016), it seems logical that heightened anxiety could also negatively impact eyewitness recall, especially given the high-stakes implications of investigative interviews. If this assumption is accurate, interviewing witnesses using rapport-building techniques could potentially decrease their anxiety, thereby freeing up working memory and consequently affecting recall performance. Despite the intuitiveness of this "anxiety-reduction" hypothesis, relevant investigations have provided little support. For instance, Kieckhaefer et al. (2014) found high levels of rapport reduced anxiety, but lower anxiety did not lead to a corresponding increase in accuracy. Being that empirical evidence for anxiety as a mediator between rapport building and eyewitness accuracy is lacking, this mechanism is not investigated further in the present study. This experiment focuses instead on benevolence as a potential mediator of the rapport-memory relationship.

Benevolence is associated with increases in behaviors such as helping others, making monetary donations, and volunteering (Grant & Mayer, 2009; Rioux & Penner, 2001; Verplanken & Holland, 2002). Relatedly, past studies have measured benevolence via scales and questionnaires by assessing participants' willingness to help with fundraising and by their self-reported, personal satisfaction resulting from donating blood (Ferguson et al., 2008; Griskevicius et al., 2007). Rather than self-reported benevolence, Van de Vyver and Abrams (2015) assessed the construct behaviorally by requesting voluntary donations of prize money to be given to charity. Participants could choose to donate all, some, or none of their prize money to a charity of their choice. Similarly, Maio, Olson, Allen, and Bernard (2001) measured benevolence in a behavioral manner by asking participants whether they were willing to volunteer for an additional experiment (for which they would receive no research credit) and the amount of time they were willing to volunteer. A behavioral measure, rather than a self-report measure, allows for arguably greater objectivity, as the behavior is directly observed. Furthermore, using multiple methods to assess benevolence (e.g., questionnaires *and* overt behaviors) could serve as indicators of both measurement reliability and convergent validity with regards to measuring this construct. As such, another primary goal of the proposed study was to test this socio-motivational hypothesis of benevolence by measuring it through both questionnaires and overt behavior.

The Present Study

The purpose of the present study was twofold. The first aim was to explore benevolence as the mechanism behind rapport's effects on eyewitness memory. That is, does an interviewee's benevolence towards his/her interviewer explain *why* rapport

improves eyewitness recall performance? Further, this study intended to assess benevolence behaviorally, in addition to assessing it via self-report questionnaires. The second aim was to control experimentally the duration of the rapport-building interaction in order to assess more conclusively rapport's causal role in enhanced eyewitness accounts—whereas interaction duration has previously been controlled for statistically, or not at all (e.g., Collins et al., 2002).

Participants were randomly assigned to one of two pre-questioning interaction phases: a warm interaction where rapport was built or a cold, distant interaction—an experimental manipulation implemented after the viewing of a mock crime video. The pre-questioning interaction phase was then systematically interrupted to control for its duration. Following a working memory task, participants were interviewed regarding their memories of the mock theft. Participants' benevolence toward the interviewer was assessed via self-report questionnaires and behaviorally.

Consistent with prior literature, I hypothesized that: (1) participants in the rapport condition would self-report higher levels of benevolence towards their interviewer than non-rapport controls; (2) rapport participants would report a greater number and proportion of accurate details and a lower number and proportion of inaccurate details than control participants; (3) rapport participants would have higher behavioral benevolence than control participants—that is, rapport participants would volunteer to participate in an additional, future experiment more often than controls; (4) rapport participants would agree with fewer incorrect-leading suggestive questions than non-rapport controls; and (5) benevolence would mediate the relationship between experimental condition and eyewitness recall such that rapport participants would

demonstrate higher benevolence (via questionnaire scores) than control participants, and this increased benevolence would in turn lead to improved eyewitness recall performance.

Method

Design and Participants

The present study was a 2 (Rapport: rapport vs. control) × 2 (Suggestion veracity: correct-leading vs. incorrect-leading) mixed factorial design, with rapport as a between-participants factor and suggestion veracity as a within-participants factor. During the eyewitness interview, participants were asked 16 closed-ended questions. Half of these questions suggested false information, and the other half did not. The particular set of misleading items presented to each participant (that is, version A or B) was determined by random assignment. The primary dependent variables were benevolence (including self-report questionnaires and a behavioral measure) and eyewitness performance on free recall and cued questions (including accurate, inaccurate, subjective, novel, central and peripheral details).

One hundred eleven undergraduate students from Auburn University at Montgomery participated in the present investigation in exchange for research credit. Two participants were excluded because of incomplete data, for a final $N = 109$. The sample was 78% female, 28% male; 56% Black, non-Hispanic, 36% White, non-Hispanic, 4% Asian, 3% Hispanic, and 1% Other, with a mean age of 20 years ($SD = 5$ years).

According to a sample size calculation using G*Power 3.1 (Faul, Erdfelder, Lang, & Buchner, 2007) for an F-test, MANOVA with a priori hypotheses, anticipating a

medium effect size ($f^2(V) = .06$), alpha of 0.05, and power of 0.80, the recommended sample size was $N = 110$. There were two predictors (rapport and suggestion veracity), but since this was a mixed design, there were only two groups (rapport and control). There were three response variables: eyewitness performance, self-reported benevolence, and behavioral benevolence.

Materials and Procedure

Participants were randomly assigned to the rapport or control condition, as well as version A or B of the closed-ended, suggestive portion of the eyewitness interview. Following informed consent (see Appendix A), participants were instructed by a Research Assistant (RA) to put on the headphones provided and look at the computer monitor. The participants were further directed to press "Enter" when ready, which initiated the playing of a 30-second video depicting a mock wallet theft. These instructions were deliberately vague in order to better simulate the occurrence of a real-world crime, and thus, an assessment of incidental eyewitness memory more reflective of reality. Following the mock crime viewing, participants met their interviewer for the pre-questioning interaction phase. In this phase, the interviewer, a separate individual from the first RA, collected demographic information from each participant in one of the two randomly-assigned interviewing styles (i.e., rapport vs. control), following a predetermined script (see Appendix B).

Participants in the rapport group interacted with and were interviewed by a warm, friendly interviewer. Examples of techniques used by the rapport interviewer include active listening, (exhibited through head nods, verbal encouragers, appropriate facial expressions, voice modulation, etc.) personalizing the interview by using the participant's

name, and displaying a general interest in the participant's statements. Participants in the control group interacted with and were interviewed by a cold, abrupt interviewer. Control group interaction scripts were previously modified from actual police interview transcripts (Kieckhaefer et al., 2014; Vallano & Schreiber Compo, 2011); therefore, the control condition can be considered a "police interview group." The control interviewer acted apathetic and disinterested—facing slightly away from the participant, limiting eye contact, and speaking in a flat tone of voice (procedures adapted from Kieckhaefer et al., 2014; Vallano & Schreiber Compo, 2011).

At minute 3:00 of the pre-questioning interaction phase, the initial RA, who introduced the mock crime video, knocked on the door and interrupted the interaction in order to control for its duration discretely. The interviewer then left the room under the guise he/she was needed outside. The RA remained to help the participant proceed through the next phase of the study—a working memory filler task to minimize suspicions regarding the purpose of the experiment. This working memory task also served to disrupt memory rehearsal and allowed for potential memory decay. Following the working memory task, the RA left the room, and the interviewer returned for the eyewitness interview, which was audio-recorded. During this phase, the interviewer maintained the randomly-assigned interviewing style from the pre-questioning interaction phase (i.e., rapport vs. control) and remained "in character" in terms of demeanor and body orientation (i.e., modulated versus flat voice, facing toward versus turned slightly away from the participant).

During the interview phase, the interviewer collected information regarding the mock crime via questions from a predetermined interviewing script (see Appendix C).

This substantive interview consisted of initial open-ended probes (e.g., “Please tell me everything you can remember about the video you watched earlier,”) followed by five cued questions that inquired about specific features of the mock crime (e.g., “Please tell me everything you can remember about the thief in the video.”). The cued questions were then followed by a series of closed, yes/no suggestive questions: half of which were correct-leading, (e.g., “Was the thief around 5’10” in height?”) and the other half incorrect-leading (e.g., “Was the thief around 5’5” in height?”). There were two versions of the yes/no questionnaire, such that item order and suggestion veracity were randomized and counterbalanced (see Appendix C, Yes/No Questionnaire). The version used to question participants was also randomly assigned.

As a manipulation check, participants subsequently rated their experience of the interviewer and the interview itself (adapted from Kieckhaefer et al., 2014; Vallano & Schreiber Compo, 2011, see Appendix D). Participants then responded to a self-report questionnaire assessing their benevolence towards their interviewer (adapted from Carol, Kieckhaefer, Peek, Schreiber Compo, in progress, see Appendix E). To assess benevolence behaviorally, participants were also asked to indicate their willingness to volunteer for an additional experiment being conducted by their interviewer—an experimental ruse—by marking “yes” or “no” on the interest form at the end of their questionnaire packet (see Appendix F).

After providing instructions, the interviewer left the room, which, along with a written (as opposed to a verbal) response, allowed participants to answer more covertly, reducing potential social influence confounds. Participants responding affirmatively were asked to provide a specific time and date of availability to participate, along with a phone

number and email address at which they could be contacted with additional information. Requesting specifics about availability and contact information, rather than simply soliciting general interest, was designed to address potential commitment to participation in a future study, as well as participants' benevolence directly toward their interviewer. At the conclusion of the study, participants were thanked and thoroughly debriefed as to the true nature of the experiment (see Appendix G).

Eyewitness recall scoring. The present study assessed participant recall accuracy as a main dependent variable. Audio recordings of participant interviews were first transcribed verbatim in their entirety. Next, all interview transcriptions were segmented; specifically, all utterances were broken down into the smallest units of information that could be verified and scored for accuracy. Multiple segmenting trainings were conducted between the primary investigator, the faculty supervisor, and a research assistant. Consequently, the research assistant was designated as the "master segmenter" and the primary investigator served as a "co-segmenter." The master segmenter segmented all 109 transcriptions, while the co-segmenter segmented the first 40 transcriptions, which were then reviewed and verified for consistency by the master segmenter.

Following completion of segmenting, the primary investigator and a research assistant were trained in scoring the eyewitness interviews. After multiple trainings, the primary investigator was designated as the "master scorer" and the research assistant was designated as the "co-scorer." All 109 interviews were scored by the master scorer, while the co-scorer was responsible for a random 10% (i.e., 11 interviews). Both scorers were always blind to participant condition. Inter-rater reliability was calculated using an intraclass correlation coefficient, which assessed specifically for absolute agreement

between the two scorers. The analysis revealed an intraclass correlation coefficient of .994 across the eleven participants randomly chosen for co-scoring.

The scoring system devised for this study required that all segments be categorized as accurate, inaccurate, subjective, or "other" details. Accurate details were those verifiably correct (e.g., the thief stole the victim's wallet), while inaccurate details were verifiably false (e.g., the thief stole the victim's cellphone). Subjective details included segments that could not be verified as either accurate or inaccurate details—namely opinions (e.g., the thief looked like he was up to no good; the victim was just trying to enjoy a nice day in the park). Finally, segments classified as "other" were those determined not to be better classified as another type of detail, such as the participant responding, "I don't remember anything else," or "No," when asked if there was anything else he/she would like to add.

Segments were also scored for novel information, such that any accurate, inaccurate, or subjective segment stated for the first time was scored as "new," meaning non-redundant with a previous segment. The scoring system also addressed both certainty and uncertainty expressed in relation to any given segment. For example, "I know his hair was black," was considered certain, while "I think he might have been wearing glasses," was considered uncertain. Finally, the scoring system divided accurate, inaccurate, and subjective segments into central and peripheral details. Central details were those relating directly to the crime and the persons involved (e.g., the thief was wearing a white shirt), while peripheral details were not relevant to the crime—such as the background, the weather, and/or the environment (e.g., it looked like they were in a park).

Results

Manipulation Checks and Reliability

Interviewer questionnaire. Participants completed a 9-item questionnaire assessing their perceptions of the interviewer in relation to various adjectives (e.g., smooth, bored, friendly). Internal consistency was calculated for all nine items, which produced a Cronbach's alpha of .898. Removing the item "engrossed" would increase internal consistency, so this item was removed resulting in an 8-item inventory with a final Cronbach's alpha of .925.

An interviewer total score was calculated by summing participants' responses to eight items (negatively-phrased items were reverse coded). Total scores ranged from 9 to 56 (M = 40.61, SD = 13.46). An independent samples t-test assessed whether interviewer total scores differed between rapport and control groups. This analysis confirmed that rapport participants rated the interviewer significantly higher (M = 51.16, SD = 4.49) than control participants (M = 29.85, SD = 10.74), $t(107) = 13.56$, $p < .001$.

Interaction questionnaire. Participants completed a 17-item questionnaire assessing their perceptions of the interaction itself in relation to various adjectives (e.g., cooperative, involving, dull). Internal consistency was calculated for all 17 items, which produced a Cronbach's alpha of .721. The analysis indicated that removing five items (unsatisfying, unfocused, unfriendly, intense, and engrossed) would increase internal consistency, so these items were removed resulting in a 12-item interaction inventory with a final Cronbach's alpha of .767.

I then calculated an interaction total score by summing participants' responses to twelve items (negatively-phrased items were reverse coded and then summed). Total

interaction scores ranged from 29 to 84 (M = 61.87, SD = 15.36). Next, an independent samples t-test assessed whether interaction total scores differed between rapport and control groups. This analysis also confirmed that rapport participants rated the interaction itself significantly higher (M = 73.40, SD = 6.96) than control participants (M = 50.13, SD = 12.38), $t(107) = 12.13$, $p < .001$.

Benevolence questionnaire. Participants' benevolence toward the interviewer was measured via an 11-item inventory completed after the eyewitness interview. Internal consistency for these 11 benevolence items was calculated, producing a Cronbach's alpha of .797. This analysis further indicated that if the reverse-coded version of item nine was removed ("My opinion of the interviewer did not play a role in how much effort I put into being helpful"), internal consistency would improve significantly. Thus, after removing this bad item and recalculating, the final Cronbach's alpha for the 10-item benevolence measure was .858. Benevolence total scores ranged from 26 to 90 (M = 76.48, SD = 11.42).

I conducted a third independent samples t-test to assess whether total benevolence scores differed between rapport and control groups. Consistent with my first hypothesis, this t-test indicated that rapport participants displayed significantly higher benevolence toward the interviewer (M = 81.65, SD = 7.16) than control participants (M = 71.20, SD = 12.54), $t(107) = 5.35$, $p < .001$.

Interviewer effects. To assess the possibility of differential interviewer effects, a one-way multivariate analysis of variance (MANOVA) compared the total scores of participants' investigator ratings, interaction ratings, and benevolence scores across all interviewers. The multivariate test revealed no significant differences across interviewers

(p = .76) indicating that no individual interviewer produced significantly different investigator, interaction, or benevolence scores from any other interviewer.

Primary Analyses

The effect of rapport building on accurate and inaccurate details. To address my second hypothesis, I conducted a series of independent samples *t*-tests comparing the number and proportion of accurate and inaccurate details reported between rapport and non-rapport control groups. The number of accurate and inaccurate segments reported did not differ significantly between groups, *p*-values = .38 and .31, respectively. The proportion of accurate details did differ significantly between groups, with control participants reporting a higher proportion of accurate details (M = .77, SD = .09) than rapport participants (M = .72, SD = .11), $t(107) = 2.46$, p = .016. The proportion of inaccurate details reported did not differ between groups, p = .36.

Behavioral benevolence measure. To address my third hypothesis, a Chi Square analysis assessed whether experimental condition predicted participants' likelihood of volunteering for the additional experiment opportunity. As shown in Table 1, this analysis confirmed my prediction, indicating that participants in the rapport group were 2.5 times more likely to volunteer than participants in the control group, $\chi(1) = 5.10$, p = .02.

The effect of rapport on acquiescence to suggestive questions. To investigate my fourth hypothesis, that is, the effect of rapport building on participants' acquiescence to suggestive Yes/No items, I conducted two 2 (rapport vs. control) × 2 (suggestion veracity: correct-leading vs. incorrect-leading) mixed MANOVAs: one for the number and another for the proportion of accurate responses to correct-leading and incorrect-

leading questions. See Table 2 for descriptive statistics. The analyses revealed no effects of rapport building on the number or proportion of accurate responses to leading questions, *p*-values = .49 and .50, respectively.

Surprisingly, there was an effect of suggestion veracity such that participants responded accurately more often—both in quantity ($F(1,107) = 42.04$, $p < .001$) and proportion ($F(1,107) = 42.04$, $p < .001$)—to *incorrect-leading* items compared to correct-leading items. The rapport × suggestion veracity interaction was not significant, $p = .34$.

The effect of rapport on eyewitness performance through benevolence. To address my final hypothesis, a MANOVA assessed for an effect of rapport building on the number of accurate, inaccurate, subjective, and irrelevant segments, while controlling for benevolence total scores as a covariate. See Table 3 for descriptive statistics. The multivariate test for rapport building was significant ($p = .043$) but it was not significant for benevolence ($p = .20$). The between-subjects univariate effects revealed no significant differences, but there was a marginally significant difference such that participants in the control group provided more accurate details ($M = 44.31$, $SE = 2.36$) than those in the rapport group ($M = 37.64$, $SE = 2.34$), $p = .061$. Further, participants in the rapport group provided marginally more irrelevant segments ($M = 6.57$, $SE = .38$) than control group participants ($M = 5.52$, $SE = .38$), $p = .069$.

There was a significant between-subjects univariate effect of benevolence on the number of accurate segments reported; since both of these variables are continuous quantitative variables, a Pearson's bivariate correlation was conducted between benevolence scores and number of accurate segments. The correlation was a significant

positive correlation: higher benevolence scores predicted more accurate details reported, $r = .16$, $p = .049$.

A second MANOVA assessed for an effect of rapport building on the proportion of accurate, inaccurate, subjective, and irrelevant segments (with total segments reported as the denominator), while controlling for benevolence total scores as a covariate. Neither the multivariate test for rapport nor the test for benevolence were significant, *p*-values = .08 and .86, respectively.

It appears that, when controlling for participants' benevolence towards the interviewer, rapport building was a weak or non-predictor of eyewitness performance. To investigate the extent to which self-reported benevolence predicted eyewitness performance, a multiple linear regression was conducted with benevolence total scores as the outcome variable and the number of accurate, inaccurate, subjective, and irrelevant segments as the predictor variables. Total benevolence was significantly positively correlated with accurate segments ($r = .16$, $p = .049$); however, the overall regression model was not significant, $r = .21$, $r^2 = .04$, $p = .34$. A second multiple linear regression was conducted with benevolence total scores as the outcome variable and the *proportion* of accurate, inaccurate, subjective, and irrelevant segments as the predictor variables. None of correlations with benevolence were significant and neither was the overall regression model, $r = .11$, $r^2 = .01$, $p = .85$.

Bivariate Pearson's correlations were calculated between total benevolence scores and various eyewitness performance measures (i.e., accurate, inaccurate, subjective, new, central, and peripheral, and irrelevant segments; See Table 4). The following variables were significantly positively correlated with benevolence: accurate segments ($p = .049$),

new segments (p = .028), and peripheral details (p = .026). Thus, analyses suggest that while benevolence did sometimes predict better eyewitness performance, rapport building itself did not (and in fact was associated with fewer correct details), and therefore mediation of rapport on eyewitness memory through benevolence was not detected.

Discussion

The present study had two primary aims. It first sought empirical evidence for benevolence as a mechanism underlying rapport's beneficial effects on eyewitness memory. To test this, benevolence was measured by both self-report and a behavioral measure. While benevolence has previously been measured behaviorally as a product of volunteering (e.g., Maio et al., 2001), to my knowledge, this is the first such investigation in the literature of eyewitness interviewing. The present study's second goal was to control experimentally the duration of the rapport-building interaction. Prior studies exploring rapport's effect on eyewitness memory either accounted for interaction duration as a statistical covariate or did not account for this possible confound at all. Of the previous research reviewed, the present study seems to be the first to exert methodological control over this variable.

Consistent with expectations, building rapport with participants did lead to significantly higher self-reported benevolence toward the interviewer when compared to control participants. Questionnaire items such as "When recalling the crime video, I tried my best to be informative in order to help the interviewer," and "I tried to be helpful to the interviewer by recalling the video accurately" indicated those with high benevolence scores exhibited prosocial behaviors directly towards their interviewer. Items such as "Being informative to the interviewer made me feel good about my contribution to the

study," and "I enjoyed recalling the details of the crime video" indicated those with high scores felt they had received some benefit from their prosocial actions. These two factors, performing some helping behavior and receiving some reciprocating benefit, are consistent with the construct of benevolence as defined by Nunney (1985). These findings lend some support to the notion that benevolence—at least in part—may help explain why rapport building has a noticeable effect on eyewitness recall.

A consistent finding in past research on rapport is that participants with whom rapport is built report a greater number of accurate details during eyewitness recall (e.g., Collins et al., 2002). Prior research also suggests rapport can inhibit the reporting of inaccurate details (Vallano & Schreiber Compo, 2011). Therefore, I hypothesized that rapport participants would report a greater number of accurate details and a lower number of inaccurate details. Unexpectedly, this pattern of findings did not hold in this experiment—proportion-wise (with no statistical difference in quantity), *control* participants were more accurate than those in the rapport group, and inaccurate details did not differ between groups. These results are also contrary to the detrimental effect of rapport exhibited in Kieckhaefer et al. (2014), where high-rapport participants reported a greater number of false details (separate from the experimental misinformation) compared to low-rapport participants. Notably, rapport participants in the present study provided marginally more irrelevant details, which could explain the difference in accuracy proportions between groups. While these data are preliminary, it may be the case that interaction duration was, in fact, a confound in previous research and that controlling for this variable diminishes rapport's beneficial effects. More time spent in

the rapport-building phase of an experiment may increase the participant's later disclosure of information during the eyewitness interview.

I also predicted that participants with whom rapport was built would be more likely to volunteer for a proposed future study with their interviewer. Results confirmed this prediction, with rapport participants being 2.5 times more likely to volunteer than those in the control group. This finding supports the idea that demonstrating friendliness as an interviewer generates reciprocating friendliness and subsequent helping behaviors. By exhibiting rapport-like characteristics towards another (e.g., active listening, personalization using another's name), the likelihood of eliciting prosocial behavior from that other person increases—by more than double in the present case. In the context of investigative interviewing, this study provides evidence that a warm, friendly interviewer prompts more helpful behaviors from an interviewee than does a cold, abrupt interviewer.

Regarding the suggestive questions from the eyewitness interview, I predicted that rapport participants would agree with fewer incorrect-leading suggestive questions than control participants. Not only was the rapport condition non-predictive of acquiescence, but also participants in both conditions responded more accurately to *incorrect-leading* questions. This was surprising, given Kieckhaefer and Wright's (2015) finding that likability influenced conformity. In their study, participants who were paired with an unlikable co-witness conformed more, contradicting the performance of control participants in the current study. One possible explanation for witnesses' higher accuracy in response to incorrect-leading items is that the false details generated for these incorrect-leading items may have been too obviously false and thus particularly easier to reject. For instance, one incorrect-leading item asked if the crime took place around

twilight in rainy weather. Considering the bright and sunny conditions of the mock crime video, participants likely had an easy time disagreeing with this obviously false suggestion.

Lastly, I hypothesized that benevolence would mediate the relationship between rapport and improved eyewitness accuracy such that higher levels of benevolence would in turn lead to a corresponding improvement in memory performance. The results did not support this hypothesis—while controlling for benevolence as a covariate, *control* participants provided a marginally higher quantity of accurate details than rapport participants. However, rapport participants reported a marginally higher quantity of irrelevant details, suggesting this group was more likely to be expressive or talkative, even though this information provided no insight of their memory concerning the crime video. The findings of this study do not replicate previous group differences between rapport and control conditions, such as higher accuracy and lower inaccuracy (Collins et al., 2002; Vallano & Schreiber Compo, 2011).

Interestingly, benevolence was a better predictor of eyewitness accuracy than rapport group membership. Specifically, higher benevolence scores predicted significantly more accurate details, new (i.e., non-redundant) details, and peripheral details. This pattern is partly consistent with my prediction: participants who indicated that they tried to be helpful to the interviewer and enjoyed doing so reported more accurate information and were less likely to repeat themselves. Participants reporting higher benevolence also provided more peripheral details, suggesting that in their efforts to be informative they tended to provide unimportant details that would not necessarily assist in resolving the investigation.

A quantitative, continuous variable (i.e., self-reported benevolence toward the interviewer) may be a more sensitive measure of the benevolence construct and thus possibly a stronger predictor of eyewitness accuracy than a dichotomous categorical label of "rapport." This difference between the present study's rapport and benevolence variables may help explain the curious finding that benevolence significantly predicted various dependent measures reflective of good eyewitness performance while experimental condition did not.

Limitations and Future Directions

A common limitation of psychological experiments, and one at issue in this investigation, is that of external validity. Although efforts were made to simulate a real-world crime, it is possible the results obtained from a convenience sample of undergraduate students viewing a relatively innocuous mock theft are not an accurate reflection of real-world eyewitness memory. In terms of limitations more unique to the present study, the suggestiveness manipulation used might have been a weak implementation of leading questions, making it difficult to detect any real group differences. Future studies exploring the effect of rapport on eyewitness performance could implement stronger suggestion and/or misinformation manipulations; for instance, dedicating a phase of the experiment to introducing various false details after encoding but before eyewitness recall. Further, future studies implementing incorrect-leading suggestive questions may want to use more plausible and less obviously false suggestions.

Another potential limitation/criticism of the present study may be argued against the promise of an additional research credit for those choosing to volunteer in the second

(fictitious) research opportunity. This is a methodological difference from Maio et al. (2001), where participants were volunteering for a study for which they would receive no additional credit. Perhaps some participants in this study who chose to volunteer did so only to earn another credit; however, those who agreed to this additional study were also more likely to self-report higher benevolence toward the interviewer and were more likely to have been in the rapport-building condition. Thus, even if they did volunteer with the hopes of earning an extra research credit, benevolence seemed to reveal itself across multiple measures.

While volunteering to earn an additional research credit seemed to be a reliable behavioral measure of benevolence, future research could operationalize behavioral benevolence slightly differently. Namely, researchers could ask participants to volunteer while experimentally manipulating the offer of additional research credits, where half of participants are told they will receive an additional credit for volunteering, and the other half are not offered an additional credit. Future researchers who wish to implement the present study's operational definition of behavioral benevolence could modify the dependent measure to require that participants report the *amount of time* they are willing to spend volunteering (as in Maio et al., 2001), in addition to availability and contact information. Potentially increasing the sensitivity of the measure could further elucidate benevolence's predictive abilities of recall accuracy.

Future studies should also assess performance differences between various question types (i.e., open-ended vs. cued questions). The present study only assessed eyewitnesses' performance on free recall and suggestive yes/no questions, without further distinguishing between performance for free-recall and cued questions. It may be the case

that rapport differentially affects participant responding based on the way a question is phrased. Finally, since this experiment seems to be the first controlling for interaction duration, future studies should continue to do so—particularly given the finding, contrary to previous research, that control participants were more accurate than rapport participants. The replication of this finding would not undo or undermine the past research on rapport's efficacy; rather, subsequent studies might aim, for example, to determine the ideal duration for rapport-building interactions that would maximize rapport's benefits on eyewitness recall, thereby deepening our understanding of how this construct affects memory.

Conclusion

The present study investigated the role of benevolence as a possible explanatory mechanism for rapport's effect on eyewitness memory. Benevolence was measured in two distinct ways: a self-report questionnaire and a behavioral volunteer task. The present study also controlled the duration of the rapport-building interaction rigidly to remove its possible confounding effect on eyewitness performance. Results indicated that rapport building led to higher benevolence toward the interviewer, reflected by both a self-report measure and a behavioral measure. Participants in the rapport condition were not more accurate than control participants; instead, control participants provided more accurate accounts (as a proportion) compared to the rapport group, which might be explained by the rapport group reporting marginally more irrelevant details overall. Rapport building had no effect on acquiescence to false suggestions, but, strangely, participants responded more accurately to incorrect-leading items than they did to correct-leading ones. Lastly, while participants' experimental group membership was not a strong predictor of

eyewitness accuracy, self-reported benevolence was: higher benevolence scores significantly predicted more accurate, new, and peripheral details reported. Thus, this study supplements prior research emphasizing the importance of building rapport with eyewitnesses: investigators who demonstrate warmth and friendliness towards interviewees are more likely to engender reciprocating prosocial helping than are cold, abrupt investigators. Based on the atmosphere of such interactions, the resulting benevolence that an interviewee does or does not feel towards his/her interviewer can impact the quality of information obtained during an evidence-gathering interview. Compared to interviewees with whom no rapport is built (and therefore have little desire to help), witnesses with whom rapport *is* built (and who subsequently exert more effort in assisting the investigator) may be less redundant while providing more accurate information about a witnessed crime.

References

Alison, L.J., Alison, E., Noone, G., Elntib, S., & Christiansen, P. (2013). Why tough tactics fail and rapport gets results: Observing Rapport-Based Interpersonal Techniques (ORBIT) to generate useful information from terrorists. *Psychology, Public Policy, and Law, 19*, 411-431.

Andreoni, J. (1990). Impure altruism and donations to public goods: A theory of warm glow giving. *The Economic Journal, 100*, 464–477.

Balderston, N. L., Vytal, K. E., O'Connell, K., Torrisi, S., Letkiewicz, A., Ernst, M., & Grillon, C. (2017). Anxiety patients show reduced working memory related dlPFC activation during safety and threat. *Depression and Anxiety, 34*(1), 25-36. doi:10.1002/da.22518

Bar-Tal, D. (1985). Altruistic motivation to help: Definition, utility and operationalization. *Homboldt Journal of Social Relations, 13*(1-2), 3–14.

Baumann, D. J., Cialdini, R. B., & Kendrick, D. T. (1981). Altruism as hedonism: Helping and self-gratification as equivalent responses. *Journal of Personality and Social Psychology, 40*(6), 1039-1046. doi:10.1037/0022-3514.40.6.1039

Brown, D.A., Lamb, M.E., Lewis, C., Pipe, M.E., Orbach, Y., & Wolfman, M. (2013). The NICHD investigative interview protocol: An analogue study. *Journal of Experimental Psychology: Applied, 19*, 367-382.

Carter, C.A., Bottoms, B.L., & Levine, M. (1996). Linguistic and socioemotional influences on the accuracy of children's reports. *Law and Human Behavior, 20*, 335-358.

Cialdini, R. B., & Kenrick, D. T. (1976). Altruism as hedonism: A social development perspective on the relationship of negative mood state and helping. *Journal of Personality and Social Psychology, 34*(5), 907-914. doi:10.1037/0022-3514.34.5.907

Collins, R., Lincoln, R., & Frank, M. G. (2002). The effect of rapport in forensic interviewing. *Psychiatry, Psychology, and Law, 9,* 69-78.

Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods, 39,* 175-191.

Ferguson, E., Farrell, K., & Lawrence, C. (2008). Blood donation is an act of benevolence rather than altruism. *Health Psychology, 27*(3), 327-336. doi:10.1037/0278-6133.27.3.327

Fisher, R.P., & Geiselman, R.E. (1992). *Memory-enhancing techniques for investigative interviewing: The cognitive interview.* Springfield, IL: Charles C. Thomas.

Grant, A. M., & Mayer, D. M. (2009). Good soldiers and good actors: Prosocial and impression management motives as interactive predictors of affiliative citizenship behavior. *Journal of Applied Psychology, 94,* 900–912.

Griskevicius, V., Tybur, J.M., Sundie, J.M., Cialdini, R.B., Miller, G.F., & Kenrick, D.T. (2007). Blatant benevolence and conspicuous consumption: When romantic motives elicit strategic costly signals. *Journal of Personality and Social Psychology, 93*(1), 85-102. doi:10.1037/0022-3514.93.1.85

Harrigan, J. A., Oxman, T. E., & Rosenthal, R. (1985). Rapport expressed through nonverbal behavior. *Journal of Nonverbal Behavior, 9,* 95-110.

Hershkowitz, I. (2011). Rapport building in investigative interviews of children. In M.E. Lamb, D.J. La Rooy, L.C. Malloy, & C. Katz (Eds.) *Children's testimony: A handbook of psychological research and forensic practice* (pp. 109—128). Chichester, England: Wiley-Blackwell.

Hershkowitz, I., Lamb, M. E., Katz, C., & Malloy, L. C. (2015). Does enhanced rapport-building alter the dynamics of investigative interviews with suspected victims of intra-familial abuse? *Journal of Police and Criminal Psychology, 30*(1), 6-14.

Holmberg, U., & Madsen, K. (2014). Rapport operationalized as a humanitarian interview in investigative interview settings. *Psychiatry, Psychology and Law, 21*(4), 591-610.

Home Office. (2011). *Achieving best evidence in criminal proceedings: Guidance on interviewing victims and witnesses, and using special measures.* London: Author.

Inbau, F.E., Reid, J.E., Buckley, J.P., & Jayne, B.C. (2013). *Criminal interrogation and confessions* (5th ed.). Burlington, MA: Jones & Bartlett.

Kelly, C.E., Miller, J.C., Redlich, A.D., & Kleinman, S.M. (2013). A taxonomy of interrogation methods. *Psychology, Public Policy, and Law, 19*, 165-178.

Kieckhaefer, J.M., Vallano, J.P., Schreiber Compo, N. (2014). Examining the positive effects of rapport building: When and why does rapport building benefit adult eyewitness memory? *Memory*, *22*(8), 1010-1023.

Kieckhaefer, J.M., & Wright, D.B. (2015). Likable co-witnesses increase eyewitness accuracy and decrease suggestibility. *Memory, 23*(3), 462-472.

Kleinman, S. (2011). National security interrogations: Myth versus reality. retrieved from http://www.thirdway.org/report/national-security-interrogations-myth-v-reality

Lamb, M.E., Orbach, Y., Hershkowitz, I., Esplin, P.W., & Horowitz, D. (2007). A structured forensic interview protocol improves the quality and informativeness of investigative interviews with children: A review of research using the NICHD Investigative Interview Protocol. *Child Abuse & Neglect, 31,* 1201—1231.

Maio, G.R., Olson, J.M., Allen, L. & Bernard, M.M. (2001). Addressing discrepancies between values and behavior: The motivating effect of reasons. *Journal of Experimental Social Psychology, 37,* 104-117. 10.1006/jesp.2000.1436

Moran, T. P. (2016). Anxiety and working memory capacity: A meta-analysis and narrative review. *Psychological Bulletin, 142*(8), 831-864.

Newberry, J. J., & Stubbs, C. A. (1990). *Advanced interviewing techniques*. Bureau of Alcohol, Tobacco, and Firearms National Academy: Glynco, Georgia.

Nunney, L. (1985). Group selection, altruism, and structured-deme models. *American Naturalist, 126,* 212–230.

Piliavin, J. A., & Callero, P. L. (1991). *Giving blood: The development of an altruistic identity*. Baltimore, MD, US: Johns Hopkins University Press.

Rioux, S. M., & Penner, L. A. (2001). The causes of organizational citizenship behavior: A motivational analysis. *Journal of Applied Psychology, 86,* 1306–1314.

Sandoval, V.A., & Adams, S.H. (2001, August). Subtle skills for building rapport: Using neuro-linguistic programming in the interview room. *FBI Law Enforcement Bulletin, 70,* 1—10.

Shaw, D. J., Vrij, A., Leal, S., Mann, S., Hillman, J., Granhag, P. A., & Fisher, R. P. (2015). Mimicry and investigative interviewing: Using deliberate mimicry to

elicit information and cues to deceit. *Journal of Investigative Psychology and Offender Profiling, 12*(3), 217-230.

Sober, E., & Wilson, D. S. (1998). *Unto others: The evolution and psychology of unselfish behavior*. Cambridge, MA, US: Harvard University Press.

Titmuss, R. M. (1971). *The gift relationship: From human blood to social policy*. New York: Pantheon.

U.S. Department of the Army. (2006). *Human intelligence collector operations* (Field Manual 2-22.3). Washington, DC: Headquarters, U.S. Department of the Army.

Vallano, J. P., Evans, J. R., Schreiber Compo, N, & Kieckhaefer, J. M. (2015). Rapport-building during witness and suspect interviews: A survey of law enforcement. *Applied Cognitive Psychology, 29*(3), 369-380.

Vallano, J. P., Schreiber Compo, N. (2011). A comfortable witness is a good witness: Rapport building and susceptibility to misinformation in an investigative mock-crime interview. *Applied Cognitive Psychology, 25*, 960-970.

Vallano, J.P., Schreiber Compo, N. (2015). Rapport-building with cooperative witnesses and criminal suspects: A theoretical and empirical review. *Psychology, Public Policy, and Law, 21*(1), 85-99.

Van de Vyver, J., & Abrams, D. (2015). Testing the prosocial effectiveness of the prototypical moral emotions: Elevation increases benevolent behaviors and outrage increases justice behaviors. *Journal of Experimental Social Psychology, 58*, 23-33. doi:10.1016/j.jesp.2014.12.005

Verplanken, B., & Holland, R. W. (2002). Motivated decision making: Effects of activation and self-centrality of values on choices and behavior. *Journal of Personality and Social Psychology, 82*, 434– 447.

Wright, D. S., Nash, R. A., & Wade, K. A. (2015). Encouraging eyewitnesses to falsely corroborate allegations: Effects of rapport-building and incriminating evidence. *Psychology, Crime & Law, 21*(7). 648-660.

Yi, M., Jo, E., & Lamb, M. E. (2016). Assessing the effectiveness of NICHD Protocol training focused on episodic memory training and rapport-building: A study of Korean police officers. *Journal of Police and Criminal Psychology*, 1-10.

Zulawski, D.E., & Wicklander, D.E. (1993). *Practical aspects of interview and interrogation*. New York: Elsevier.

Appendix A

Auburn University at Montgomery, Department of Psychology

INFORMED CONSENT
Concerning Participation in a Research Study
Interviewing: Short-Term and Long-term Memory

You are invited to participate in a study exploring the relationship among short-term memory, long-term memory, and witness interviewing.

Research Purpose & Procedures:

The present study aims to investigate the relationship among short-term (also known as working memory), long-term memory for an event, and interviewing strategies. We hope to discover and develop a better understanding of any predictive relationship between working memory and long-term memory for an event. You were selected as a possible participant because you are enrolled in *Introduction to Psychology* and you expressed interest in participating in this particular study. If you decide to participate, I, Jillian Peek, a master's student, along with Dr. Rolando Carol, and some research assistants, will assess your working memory capacity and your long-term memory for an event. Also, you will be asked to share some descriptive and personal information about yourself with a research assistant. A portion of this study will be audio recorded (NOT video recorded) only to assure accuracy of responses. All audio recordings will be deleted after conclusion of this project. Any information we collect will not be identifiable, so no one will ever know which participants provided which details. You will complete a series of questionnaires and assessments before being interviewed about your memory for an event. Participation in this study will take between 30 minutes and 1 hour and you will only need to participate in this one session today. If you choose to participate, you will be 1 of 150 total participants that we plan to include in this study.

Risks or Discomforts/Potential Benefits:

- The study will take between 30 minutes and 1 hour to complete so you may expect the risks and discomforts of sitting in a room at a desk in front of a computer for a lengthy period of time.
- You will be asked to share some basic personal information with one of our research assistants, so you may feel uncomfortable sharing information with a stranger.
- You will be tested on your recall for an event, so you make feel the pressures associated with recalling an event correctly.
- You will be asked to view a short video which may be comparable to videos or stories seen daily on the local news.
- You will be awarded 1 PREP/Sona credit for every hour you spend participating with us today.

- You will have the opportunity to participate in a scientific psychological study and to contribute to the ever-growing body of empirical psychological literature.
- You may learn more about your working memory and your long-term memory for short events.
- We cannot promise you that you will receive any or all of these benefits.

Alternative Procedures:

You are not obligated to complete the project in its entirety. You may choose to end your participation at any time without penalty. The PREP/Sona credit(s) you earn from your participation will reflect the amount of time you spent with us today. You may withhold responding to any questions that make you feel uncomfortable.

Provisions for Confidentiality:

Any information obtained in connection with this study that can be identified with you will remain confidential and will be disclosed only with your permission. The only document with identifying information will be this consent form, which will be stored separately from any other information you provide to us today. You will receive 1 PREP/Sona credit as compensation for every hour you spend with us today.

Contacts for Additional Information:

Before you decide whether to accept this invitation to take part in the study, please ask any questions that might come to mind now. Later, if you have questions about the study, you can contact the investigators, Dr. Rolando Carol; rcarol@aum.edu; 334-244-3589, and Jillian Peek, jpeek@aum.edu. If you have any questions about your rights as a volunteer in this research, contact Debra Tomblin, Research Compliance Manager, AUM, 334-244-3250, dtomblin@aum.edu.

Voluntary Participation & the Right to Discontinue Participation without Penalty:

If you decide to participate, you are free to withdraw your consent and to discontinue participation at any time without penalty. If you decide later to withdraw from the study, you may also withdraw any information that has been collected about you. Your decision whether to participate will not prejudice your future relations with Auburn University at Montgomery, the psychology department, or with Dr. Carol. The researcher may discontinue the study at any point. The researcher may terminate your participation from the project at any point. We will give you a copy of this consent form to take with you.

YOU ARE MAKING A DECISION WHETHER TO PARTICIPATE. YOUR SIGNATURE INDICATES THAT YOU HAVE DECIDED TO PARTICIPATE, HAVING READ THE INFORMATION PROVIDED ABOVE.

Participant's signature & Date _____

Appendix B

Rapport Checklist

- This interview should feel as natural as possible (as natural as a scripted interview with a stranger can feel)
- The goal is to get the witness **comfortable** with you
- Active listening (e.g., head nodding and answering affirmatively to indicate the interviewer is listening); Display interest in what the witness is saying
- Use the interviewee's first name multiple times (where scripted)
- Eye contact with witness
- Smiling at witness
- Facing the witness during the interview (whole body faced towards witness)
- Minimal physical contact (e.g., handshakes at beginning and end)

Rapport Pre-questioning Phase 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, [interviewee's first name].

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 AUM.

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

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

Interviewer Response: Oh so you're just starting out here [Oh so you're kind of in the middle, don't have that much time left at AUM]

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

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

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

Interviewer: How has your college experience been different from high school so far?

Interviewer Response: Ah okay.

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 Montgomery?

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

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

Interviewer: What do you enjoy about living in Alabama?

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.

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: That's neat/cool. 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: Okay, so you've got a pretty big [small] family, then. (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. It was very nice to meet you [interviewee's first name] (smile, shake interviewee's hand before exiting). We are now going to proceed with the remainder of the study.

Control/Police Checklist

- Be **extremely cold** towards the participant
- No eye contact
- No smiling
- Monotonous tone of voice
- No voice inflections
- No signs of active listening displayed (no nodding, no verbal reinforcers)
- Interviewer will not directly face the witness during the interview
- Will not shake the witness's hand (or any physical contact)
- Pretend that you are slightly annoyed with having to be there at all, and asking all of these boring questions

Control/Police Pre-questioning Phase Script

Interviewer: This is participant number AUM [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 GH 212 of Auburn University Montgomery, 7061 Senators Drive, Montgomery, AL 36117.

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?

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: 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.

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

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

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 the classes that you are currently taking.

Interviewer: How long have you attended AUM?

Interviewer: Tell me the events at AUM that you have attended, if any.

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 there.

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 English is first language] Tell me about how long you have fluently spoken English.

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

Appendix C

Eyewitness Interview Script

"We are now recording this interview. This is participant number _____."

1. Please, tell me everything you can remember about the video you watched earlier.
2. Anything else you remember about the video that you did not mention already?
3. Is there anything else you would like to add?
4. Please, tell me everything you can remember about the **bystander** in the video. When I say "bystander," I am referring to the individual in the video who was neither the victim nor the thief.
5. Please, tell me everything you can remember about the **victim** in the video.
6. Please, tell me everything you can remember about the **thief** in the video.
7. Please, tell me everything you can remember about what was said (i.e., out loud, verbally) during the video.
8. Please, tell me everything you can remember about any words that were visible during the video.

All Suggestive Yes/No items

Note: Option A is correct-leading, Option B is incorrect-leading

9. **Bystander's hair**
    a. Did the bystander have short hair?
    b. Did the bystander have long hair?
10. **Bystander's action**
    a. Was the bystander talking on the phone?
    b. Was the bystander talking to someone in person?
11. **Thief's appearance**
    a. Did the thief have facial hair?
    b. Was the thief clean-shaven?
12. **Thief's height**
    a. Was the thief around 5'10" in height?
    b. Was the thief around 5'5" in height?
13. **Thief's hair**
    a. Was the thief's hair long and loose?
    b. Was the thief's hair in a ponytail?
14. **Thief's shirt**
    a. Was the thief's shirt white?
    b. Was the thief's shirt gray?
15. **Thief's shirt word**
    a. Did the thief's shirt say "graduate"?
    b. Did the thief's shirt say "hiking"?
16. **Thief's actions**
    a. Was the thief standing next to a tree while watching the victim?
    b. Was the thief standing next to a car while watching the victim?
17. **Thief's threat**
    a. Did the thief yell "I'll shoot!"?
    b. Did the thief yell "I'll stab you!"?
18. **Victim's shirt?**
    a. Was the victim's shirt grey?
    b. Was the victim's shirt white?
19. **Victim's actions**
    a. Was the victim reading a book?
    b. Was the victim texting on his cell phone?
20. **Object Stolen**
    a. Did the thief steal the victim's wallet?
    b. Did the thief steal the victim's cellphone?
21. **Object stolen from**
    a. Did the thief steal the item from the table?

b. Did the thief steal the item from the victim's pocket?

22. **Wallet's appearance**
    a. Was the stolen item black in color?
    b. Was the stolen item white in color?
23. **Weather**
    a. Did the crime take place around midday in sunny weather?
    b. Did the crime take place around twilight in rainy weather?
24. **Surroundings**
    a. Did the sign on the tree say "hiking"?
    b. Did the sign on the tree say "dispose"?

Yes/No Questionnaire

Version: A

Instructions: For each of the following questions, simply reply with **Yes** or **No**.

1. Did the bystander have short hair? Yes No
2. Was the bystander talking to someone in person? Yes No
3. Was the thief clean-shaven? Yes No
4. Was the thief around 5'5" in height? Yes No
5. Was the thief's hair in a ponytail? Yes No
6. Was the thief's shirt gray? Yes No
7. Did the thief's shirt say "graduate"? Yes No
8. Was the thief standing next to a car while watching the victim? Yes No
9. Did the thief yell "I'll shoot!"? Yes No
10. Was the victim's shirt gray? Yes No
11. Was the victim reading a book? Yes No
12. Did the thief steal the victim's cellphone? Yes No
13. Did the thief steal the item from the table? Yes No
14. Was the stolen item white in color? Yes No
15. Did the crime take place around midday in sunny weather? Yes No
16. Did the sign on the tree say "hiking"? Yes No

Yes/No Questionnaire

Version: B

Instructions: For each of the following questions, simply reply with **Yes** or **No**.

1. Did the bystander have long hair? Yes No
2. Was the bystander talking on the phone? Yes No
3. Did the thief have facial hair? Yes No
4. Was the thief around 5'10" in height? Yes No
5. Was the thief's hair long and loose? Yes No
6. Was the thief's shirt white? Yes No
7. Did the thief's shirt say "hiking"? Yes No
8. Was the thief standing next to a tree while watching the victim? Yes No
9. Did the thief yell "I'll stab you!"? Yes No
10. Was the victim's shirt white? Yes No
11. Was the victim texting on his cellphone? Yes No
12. Did the thief steal the victim's wallet? Yes No
13. Did the thief steal the item from the victim's pocket? Yes No
14. Was the stolen item black in color? Yes No
15. Did the crime take place around twilight in rainy weather? Yes No
16. Did the sign on the tree say "dispose"? Yes No

PLEASE, TURN YOUR ATTENTION TO THE INTERVIEWER

Appendix D

Interviewer Interaction Rating Scale

Directions: Rate the interviewer 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
Satisfied	1	2	3	4	5	6	7
	Not satisfied		Somewhat satisfied				Extremely satisfied
Awkward	1	2	3	4	5	6	7
	Not awkward		Somewhat awkward				Extremely awkward
Engrossed	1	2	3	4	5	6	7
	Not engrossed		Somewhat engrossed				Extremely engrossed
Involved	1	2	3	4	5	6	7
	Not involved		Somewhat involved				Extremely involved
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

Directions: Rate your **interaction** with the interviewer 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
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
Engrossing	1	2	3	4	5	6	7
	Not engrossing			Somewhat engrossing			Extremely engrossing
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 E

Benevolence Questionnaire

Directions: Circle one number/value for each question that best represents your level of agreement with each statement.

1. My overall opinion of the interviewer was positive.

1	2	3	4	5	6	7	8	9
Strongly Disagree		Moderately Disagree		Neither disagree nor agree		Moderately Agree		Strongly Agree

2. I put forth a lot of effort when providing the interviewer with information.

1	2	3	4	5	6	7	8	9
Strongly Disagree		Moderately Disagree		Neither disagree nor agree		Moderately Agree		Strongly Agree

3. While recalling the crime video, I made a conscious effort to be thorough.

1	2	3	4	5	6	7	8	9
Strongly Disagree		Moderately Disagree		Neither disagree nor agree		Moderately Agree		Strongly Agree

4. When recalling the crime video, I tried my best to be informative in order to help the interviewer.

1	2	3	4	5	6	7	8	9
Strongly Disagree		Moderately Disagree		Neither disagree nor agree		Moderately Agree		Strongly Agree

5. My desire to assist the interviewer played a role in my recalling the crime video.

1	2	3	4	5	6	7	8	9
Strongly Disagree		Moderately Disagree		Neither disagree nor agree		Moderately Agree		Strongly Agree

6. I tried to be helpful to the interviewer by recalling the video accurately.

1	2	3	4	5	6	7	8	9
Strongly Disagree		Moderately Disagree		Neither disagree nor agree		Moderately Agree		Strongly Agree

7. Being informative to the interviewer made me feel good about my contribution to the study.

1	2	3	4	5	6	7	8	9
Strongly Disagree		Moderately Disagree		Neither disagree nor agree		Moderately Agree		Strongly Agree

8. I enjoyed recalling the details of the crime video.

1	2	3	4	5	6	7	8	9
Strongly Disagree		Moderately Disagree		Neither disagree nor agree		Moderately Agree		Strongly Agree

9. My opinion of the interviewer did not play a role in how much effort I put into being helpful.

1	2	3	4	5	6	7	8	9
Strongly Disagree		Moderately Disagree		Neither disagree nor agree		Moderately Agree		Strongly Agree

10. Providing interviewers with information is a helpful thing to do.

1	2	3	4	5	6	7	8	9
Strongly Disagree		Moderately Disagree		Neither disagree nor agree		Moderately Agree		Strongly Agree

11. Providing the interviewer with information was rewarding to me.

1	2	3	4	5	6	7	8	9
Strongly Disagree		Moderately Disagree		Neither disagree nor agree		Moderately Agree		Strongly Agree

Appendix F

Interest Form

Additional Research Opportunity: The interviewer will be conducting an additional research study soon and is in need of volunteers to participate. Are you interested in helping the interviewer by volunteering? If you are interested, indicate your availability and contact information below, so that we can notify you regarding dates/times of experiment, general purpose of the study, and PREP/Sona credit information.

_____ No, I am not interested in volunteering.

_____ Yes, I would like to volunteer and be notified of additional details.

Email: _____

Phone: _____

Indicate the weekday(s) you are able to participate: _____

Indicate the hour timeslot(s) in which you are able to participate: _____

Appendix G

Debriefing Script

(Read to all participants) Thank you for participating in our study. We will now describe to you in detail the purpose of the study. We were interested in the effect of misinformation and rapport-building—or lack thereof—on benevolence and eyewitness memory. Specifically, we wanted to see if having a friendly interaction with an interviewer prior to an expected interview would have a positive effect on your memory performance. That's why we had you fill out the questions about your perception of the interviewer and the interview itself. We were also interested in keeping the duration of the friendly interaction consistent across all participant interviews. That's why your interview was interrupted by the second research assistant. Furthermore, we were interested in how misinformation might affect your memory, which is why you were asked five leading questions with false details during the interview.

There were a few things about this study that we were not completely honest about. First, we did not tell you that you would be watching a mock crime. We apologize for surprising you, but we wanted to simulate real-world scenarios where eyewitnesses aren't expecting to witness a crime, so we couldn't warn you ahead of time and still investigate all of the things we are interested in. Second, the working memory task you completed was a filler task to mislead any suspicions you might have had about the purpose of the study. The results from the task are not relevant to our study and will not be analyzed. We apologize for the deception, but we needed to distract you to reduce the chances that you guessed the purpose of the experiment. We are sorry for making you engage in a cognitive task that did not serve any data-collection purposes and that might have been mentally taxing. Third, the interviewer will not be conducting an additional experiment later in the semester. We were interested in your willingness to help the interviewer, which we assessed with the questionnaire about helping and the additional experiment opportunity. We again apologize for the deception, but we had to make you temporarily believe there was a reason the interviewer needed your help in order to assess your willingness to volunteer. While the interviewer has no additional study planned for this semester, there may be other experiments in which you can participate. These experimental design decisions were purposeful and not made to make anyone intentionally uncomfortable. Rest assured that none of the personal information you provided will be used by anyone nor will it ever leave this lab.

There were two main groups in this study: the rapport group and the control/police group. You were randomly assigned to the (rapport / police) group.

(***If assigned to the rapport group***) Rapport is when an interviewer attempts to make a witness or interviewee comfortable by getting to know them a little better. In this group, the research assistant made regular eye contact, was friendly, warm, and learned about

you while providing some personal information about him/herself. Hopefully, rapport was achieved and you felt comfortable while speaking to the research assistant.

(***If assigned to the control/police group***) In your group, the research assistant was intentionally cold and distant. This information-gathering phase was based on typical police interviews in terms of how they tend to go about collecting information from witnesses. The research assistant avoided eye contact, faced away from you, rarely smiled, and asked boring questions without sharing any personal information. This was not done to make you uncomfortable and it was nothing personal against you. This group simply served as our control group, compared to the other group where the research assistant was friendly and warm. We hope you understand why this was necessary.

(**Read to all participants)** For psychological experiments in general, it is very difficult, if not impossible, to measure our variables of interest when participants are aware of the true purpose of study. We apologize for the use of deception in this study. However, we felt it was necessary in order investigate what we were interested in. We could not have looked at the effect of misinformation and rapport on benevolence and memory performance if you were informed of our specific hypotheses. We are very sorry for this deception and we hope that you do not take it personally. We assure you that there was nothing personal about the deception involved in this study. We would like to emphasize the importance of confidentiality regarding this study. Please, do not tell anyone about the details of this study. If participants come to us knowing what to expect, we can no longer investigate what we intend to. Being a psychology student, you are no stranger to the importance of your participants being unaware of your specific hypotheses. We ask that you please keep this information to yourself so that we can continue to conduct this study successfully. Thanks again for your time and we really appreciate your help!

Do you have any questions for us? (**Answer questions accordingly)**

Table 1. Crosstabulation of rapport's effect on behavioral measure of benevolence

		Additional Research Opportunity		
		No	Yes	Total
Condition	Control	26	28	54
	Rapport	15	40	55
Total		41	68	109

Table 2. Descriptive statistics for acquiescence to leading items by experimental condition

				95% CI	
Condition	Leading	M	SE	LL	UL
Control	Correct	.76	.02	.72	.80
	Incorrect	.88	.02	.85	.92
Rapport	Correct	.76	.02	.73	.80
	Incorrect	.86	.02	.82	.89

Note: DV = dependent variable; M = mean; SE = standard error; CI = confidence interval with lower (LL) and upper (UL) limits.

Table 3. Descriptive statistics for the effect of rapport building on eyewitness accuracy

				95% CI	
DV	Condition	M	SE	LL	UL
Accurate segments	Control	44.31	2.36	39.62	48.99
	Rapport	37.64	2.34	33.01	42.28
Inaccurate segments	Control	5.27	.61	4.07	6.47
	Rapport	5.70	.60	4.51	6.88
Subjective segments	Control	1.44	.36	.72	2.15
	Rapport	2.14	.36	1.43	2.85
Irrelevant segments	Control	5.52	.38	4.76	6.28
	Rapport	6.57	.38	5.81	7.32

Note: DV = dependent variable; M = mean; SE = standard error; CI = confidence interval with lower (LL) and upper (UL) limits.

Table 4. Bivariate Pearson's correlations of primary dependent measure

	Total Benevolence	Accurate Segments	Inaccurate Segments	Subjective Segments	New Segments	Central Segments	Peripheral Segments	Irrelevant Segments
Accurate Segments	.16*							
Inaccurate Segments	0.1	.17*						
Subjective Segments	0.1	0.1	.36**					
New Segments	.18*	.86**	.41**	.36**				
Central Segments	0.2	.89**	.36**	.31**	.82**			
Peripheral Segments	.19*	.85**	.42**	.30**	.85**	.65**		
Irrelevant Segments	0.1	0.1	.28**	0.1	.19*	0.2	.18*	

Note: **=significant at 0.01; *=significant at 0.05