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EFFECTS OF MEMORY SELF-EFFICACY ON FALSE
MEMORY ACQUISITION

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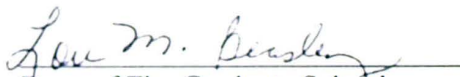

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Abstract

The component of metamemory known as memory self-efficacy was proposed to be a factor in whether or not research participants acquire false memory after misleading suggestion. The purpose of this study was to examine the hypothesis that a high memory self-efficacy reduces the likelihood of false memory acquisition when exposed to misleading suggestion. The current study was successful in producing false memories, but failed to establish a relationship between memory self-efficacy and false memory. In addition, there was no correlation of memory self-efficacy and correct memory.

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LIST OF ABBREVIATIONS

<u>Correct Memory</u>	<u>CM</u>
<u>False Memory</u>	<u>FM</u>
<u>Memory Functioning Questionnaire</u>	<u>MFQ</u>
<u>Memory Self-Efficacy</u>	<u>MSE</u>
<u>Memory Self-Efficacy Questionnaire</u>	<u>MSEQ</u>
<u>Metamemory in Adulthood</u>	<u>MIA</u>
<u>Self-Assessment of Laboratory Tests</u>	<u>SALT</u>
<u>Self-Efficacy Level</u>	<u>SEL</u>
<u>Self-Efficacy Strength</u>	<u>SEST</u>

CHAPTER 1

INTRODUCTION

In the courtroom, the accuracy of memory is important. The fate of a suspect is often determined by what a witness claims to remember. In general, most people would agree that people's memories are susceptible to forgetting or fading; nevertheless, people still believe that an eyewitness is credible because he or she was present during the crime. What many people do not realize is that the eyewitness undergoes a long process of repeated questioning during which the eyewitness is often exposed repeatedly to misinformation or suggestion (Zaragoza & Mitchell, 1996). It has been shown that the eyewitness memory is susceptible to alteration due to suggestion during repeated questioning (Ofshe & Watters, 1994, chap. 8).

Research has provided evidence that people are susceptible to creating false memories after exposure to suggestion or misleading information. For example, in two studies participants developed false autobiographical memories about being lost in a shopping mall due to the suggestion of the researcher (Loftus & Pickrell, 1995; Pezdek, Finger, & Hodge, 1997). In the study conducted by Pezdek et al. (1997) the researchers believed that the plausibility of the event was essential to the false-memory development. Also, Roediger and McDermott (1995) revealed that participants would incorrectly recall words that were not presented in a study list, but were associated with the presented words. In other words, a false memory for words was developed due to the hidden suggestion inherent in the association. Additional research has shown that repeated

exposure to suggestion can lead to the creation of false memories about witnessed events (Zaragoza & Mitchell, 1996). Such evidence complicates the courtroom setting as one begins to wonder if memory can be trusted, and if there are qualities that distinguish the person who develops false memories from the person who does not.

Due to its applicability to the eyewitness dilemma presented earlier, the research conducted by Zaragoza and Mitchell (1996) deserves discussion. According to Zaragoza and Mitchell, little evidence existed to support the common assumption that false memories are likely to be formed due to repeated suggestion. In order to test this assumption, Zaragoza and Mitchell presented 5 minutes of a police training videotape depicting a theft and a car chase. Participants were then exposed to misleading information, or suggestions, through the administration of a questionnaire. The misleading information presupposed the existence of plausible, yet non-existent events or objects. Participants were then tested for their memory of the source of several statements, some of which were the suggestions. A false memory was indicated when participants incorrectly claimed the source of a suggestion to be the video. As stated previously, there was evidence to support their hypothesis that repeated suggestion led to an increase in false memories.

In their study, Zaragoza and Mitchell (1996) did not address individual differences among their participants. Since it is likely that some participants did not develop false memories, it seems reasonable to ask what individual differences may exist among participants. An answer to this question might be found in the study of

metamemory, or a person's knowledge of or belief in their memory processes (Hertzog, Dixon, & Hultsch, 1990; Hertzog, Hultsch, & Dixon, 1989; Garner, 1987; Leal, 1987; Sinkavich, 1995). In particular, an emphasis on the metamemory component known as memory self-efficacy, or an individual's confidence in their memory capabilities in various situations, could prove enlightening. The concept of memory self-efficacy has been important in the study of metamemory (Bandura, 1989; Baskind & Cavanaugh, 1992; Berry, 1989; Berry & West, 1993; Berry, West, & Dennehey, 1989; Berry, West, & Scogin, 1983; Hertzog et al., 1989; Hertzog et al., 1990; Hertzog, Saylor, Fleece, & Dixon, 1994; McDougall, 1995; Rebok & Balcerak, 1989; West & Berry, 1994, chap. 27). This research has demonstrated that as people age they develop beliefs about how their memory works, as well as a basic knowledge of the quality of their memory. In one study, it was shown that younger children have a higher level of memory self-efficacy than those that are older (Baskind & Cavanaugh, 1992). In other words, as people age, memory self-efficacy is subject to change and people develop beliefs about whether or not they have a good or bad memory.

Memory self-efficacy is based upon the self-efficacy theory developed by Bandura (1977; 1989). Here self-efficacy is defined as a person's confidence in his or her capability to attain a certain level of performance in various situations. Bandura suggested that a person with a high self-efficacy would visualize success. This positive visualization would enhance the individual's performance. Conversely, an individual with low self-efficacy would visualize failure, handicapping performance (Bandura,

1989). Therefore, in terms of memory self-efficacy, it would be logical to conclude that individuals with more confidence in their memory should be more likely, when faced with memory challenges, to attain a relatively higher level of performance than individuals with poor memory self-efficacy.

Research has indicated a relationship between memory self-efficacy and performance predictions on memory tasks, as well as actual memory performance (Berry et al., 1983; Cavanaugh & Murphy, 1986; Hertzog et al., 1990; Hertzog et al., 1994; Rebok & Balcerak, 1989). Hertzog et al (1990) hypothesized a significant relationship between memory self-efficacy and performance prediction. Participants completed the Metamemory in Adulthood (MIA) questionnaire, as well as the Frequency of Forgetting scale of the Memory Functioning Questionnaire (MFQ). The measurement of memory self-efficacy used was the Capacity scale of the MIA questionnaire and the Frequency of Forgetting scale. Participants were asked to tell the researchers how well they thought they would perform on a memory task that had been previously described. This was the performance prediction measure. The study's results indicated a significant relationship between prediction and the memory self-efficacy factors.

Additional memory self-efficacy research by Hertzog et al (1994) examined relationships between memory self-efficacy, and performance predictions, as well as actual performance on memory tasks. The memory self-efficacy measurements were the same as the previous study. Participants were asked to perform various recall and recognition tasks. In one experiment, the results indicated a significant correlation

between memory self-efficacy and word recall performance. Another experiment in the study indicated a significant correlation between memory self-efficacy and recognition memory performance.

Finally, Berry, West, and Scogin (1983) provided evidence supporting the conclusion that individuals with high self-efficacy have better performance. They assessed the memory self-efficacy of older individuals (58 to 80 years of age) with a questionnaire that described ten memory tasks at five levels of difficulty, arranged in order of decreasing difficulty for each task. For each task the participants were asked to indicate whether or not they would be able to perform the task. If they answered yes, participants were to indicate their confidence on a scale from 10% to 100%, in 10 - unit increments. The individual self-efficacy levels (SEL) were obtained by summing the number of "yes" responses. Self-efficacy strength (SEST) scores for each participant were obtained by summing the confidence ratings across the items. The participants then performed eight of the ten tasks that had been presented on the questionnaire. A significant difference was found between the performance of those that had high self-efficacy strength and those with low self-efficacy strength. The participants with the better memory performance were those indicating a higher self-confidence for memory tasks.

As one examines the available research on false memory acquisition and memory self-efficacy, it seems reasonable to theorize that memory self-efficacy's effect on performance could provide one clue why some people develop false memories when

exposed to misleading suggestions. As Bandura (1989) suggested, a high level of self-efficacy would increase performance on a given task. Therefore, one might assume that a person with greater memory self-efficacy would achieve a higher level of performance on a memory task than one with a lower level of memory self-efficacy. In terms of this study, a sufficient level of performance on the memory task is achieved if an individual is able to recognize misleading statements and prevent false memory acquisition. In order to avoid incorporating the suggestions into one's memory, one needs to have a sufficient level of confidence in their memory ability. Therefore, those with low memory self-efficacy may be more susceptible to the misleading suggestions since they will be less likely to challenge the statements that question their memory. In other words, they will be more likely to develop a false memory for the witnessed event. Conversely, if people have more confidence in their memory, or high memory self-efficacy, it is possible that they will be less susceptible to accepting the misinformation within the suggestions and not develop a false memory for the witnessed event.

The present study examined the hypothesis that high memory self-efficacy (MSE) reduces the likelihood of false memory acquisition when exposed to repeated suggestion. This study utilized the method of Zaragoza and Mitchell (1996) since their paradigm was effective in generating false memories.

CHAPTER 2

METHOD

Participants

The participants were 71 undergraduate volunteers at Austin Peay State University. Participants were informed that they would be viewing a video and would be asked questions concerning the content. On the informed consent form (see Appendix A) they were told that the study concerned memory. However, due to the nature of the study, they were not told about the misleading information or false memory aspect of the study until the source memory test. Participants were debriefed about the complete nature of the study following their completion.

Procedure and Materials

Before any manipulation, participants were given the Memory Self-Efficacy Questionnaire (MSEQ) developed by Berry et al. (1989). The MSEQ (see Appendix B) is “a paper-and-pencil task” which describes 10 memory tasks (Berry et al., 1989). Some examples of the tasks presented are word recall, digit recall, map directions to a friend’s house, and three telephone numbers from a phone book. Participants were asked to assess their memory abilities by indicating for each task whether they could perform it by circling yes or no. If yes was circled, participants were asked to indicate how confident they were by circling one of the confidence ratings ranging from 10% to 100% in 10-unit increments. Berry et al. demonstrated that the MSEQ is a reliable

[$r(\text{SEL}) = .90$ and $r(\text{SEST}) = .92$] and valid [laboratory tasks, $r(\text{SEL}) = .88$ and $r(\text{SEST}) = .90$; everyday tasks, $r(\text{SEL}) = .74$ and $r(\text{SEST}) = .78$] instrument.

After completing the MSEQ, participants viewed 5 minutes of a police training film depicting a home burglary by two youths and a car chase by police. Participants then completed the 36-item post-event questionnaire (see Appendix C), which included the 12 misleading suggestions developed by Zaragoza and Mitchell (1996). The questionnaire was divided into 3 subsets of 12 questions, with each question in each subset corresponding to 1 of the 12 video scenes in a running chronological sequence. The questions in each subset asked about slightly different aspects of the same scenes. For example, if question 1 in the first subset asked about how the thief entered the house, questions 13 and 26, in subsets two and three respectively, also asked about some element of the thief's entrance. Some of the questions were misleading in that they presupposed the existence of plausible objects or events that were not in the video.

Participants then engaged in a distracter task for 10 minutes. A list of 30 words randomly chosen from the dictionary was given to the participants (see Appendix D). Participants were asked to study the list for 5 minutes and then write down as many words they could freely recall for the last 5 minutes.

Following the distracter task, the participants were instructed on how to take the source memory test (see Appendixes E and F) developed by Zaragoza and Mitchell (1996). It consisted of 32-recorded statements that were listened to by the participants. Twenty of the statements were filler items with sources from either the video, the

questionnaire, or new. The remaining twelve statements were test probes with their source being the questionnaire. The instructions for the memory test informed participants that some of the questions on the post-event questionnaire contained misleading suggestions that were not presented in the video. This warning procedure was taken as a way of minimizing the claim of remembering suggested events due to incorrectly trusting complete accuracy of the questionnaire. The participants were also told that the source memory test list contained items from all possible source categories (video, questionnaire and video, questionnaire, and new).

After being warned about the misleading suggestions, participants were asked to listen to a list of 32-recorded statements. They were then asked to answer two questions about each statement: whether they remember the statement (a) from the video and (b) from the post-event questionnaire. The response options for each of these questions were on a Likert-type confidence scale. The response options were “definitely yes,” “probably yes,” “maybe yes,” “unsure,” “maybe no,” “probably no,” and “definitely no.” The measure of false memory was whether the participants incorrectly claimed the source of a misleading suggestion to be the video, using any “yes” response. Following completion of the study, participants were debriefed concerning the nature of the study and its use of deception.

CHAPTER 3

RESULTS

Of the original 71 participants, 15 participants were excluded due to incomplete data. Also, one participant was excluded prior to scoring due to failure to follow instructions. Only data from the remaining 55 participants was analyzed. The means and standard deviations for the number of “yes” responses to the source probes are presented in Table 1.

Table 1

Mean Number of “Yes” Responses to Source Probes (“Questions?” and “Video?”) as a Function of Number of Repetitions of Misleading Suggestions

Repetition	Source	
	“Questions?”	“Video?”
Zero	<i>M</i>	0.109
	<i>SD</i>	0.315
One	<i>M</i>	0.309
	<i>SD</i>	0.466
Three	<i>M</i>	2.891
	<i>SD</i>	0.873
	<i>M</i>	1.181
	<i>SD</i>	0.963
	<i>M</i>	3.400
	<i>SD</i>	0.955
	<i>M</i>	1.545
	<i>SD</i>	1.119

The data were analyzed to determine if the participants acquired false memory as a result of misleading suggestion. Specifically, a 2 x 3 analysis of variance was performed using the source of misleading suggestion (question vs. video) and the number of repetitions as the variables. This analysis indicated that more “yes” responses occurred to the questionnaire than to the video, $F(1, 54) = 501.677$, $MSE = 0.783$, $p < 0.001$. Secondly, the tendency to say “yes” increased with repetitions, $F(2, 108) = 87.124$, $MSE = 0.547$, $p < 0.001$. Finally, “yes” responses increased with repetitions at a faster rate for the questionnaire than for the video, $F(2, 108) = 12.912$, $MSE = 0.889$, $p < 0.001$.

Since false memory was defined as saying “yes” when the source was the video, the “yes” responses to the video were analyzed separately. A one way analysis of variance of these responses indicated that there was a significant increase in “yes” responses as the number of repetitions increased, $F(2, 108) = 38.023$, $MSE = 0.554$, $p < 0.001$. Furthermore, the increase in “yes” responses from 0 to 1 repetitions and from 1 to 3 repetitions were found to be significant at the 0.001 level by a Tukey HSD test ($HSD = 0.34$). These results indicate that false memories were produced and that the incidence of false memory increased as repetitions of misleading information increased. They also replicate the results of Zaragoza and Mitchell (1996).

Although the necessary deceptive precautions were taken to mask the true nature of the experiment, awareness of the experiment’s purpose was still a possibility. Because this might have had an impact on the outcome of the experiment, participants were asked in a post-experimental interview if they were aware of the true nature of the experiment

before their participation and if they had become aware of the nature of the experiment during participation. There were 46 participants who claimed they were not aware and 9 who claimed awareness. Those participants who were aware were compared with those who were not with a 2 (aware vs. not aware) x 2 (video vs. questionnaire) x 3 (0, 1, 2, and 3 repetitions) mixed analysis of variance. The results of this analysis failed to find an overall difference between aware and unaware participants ($F(1, 53) = 1.194$, $MSE = 1.144$, $p = 0.127$). It also failed to find a significant interaction between awareness and source ($F(1, 53) = 2.398$, $MSE = 0.763$, $p = 0.538$), between awareness and repetition ($F(2, 106) = 0.624$, $MSE = 0.551$, $p = 0.538$), and among awareness, source, and repetition ($F(2, 106) = 0.091$, $MSE = 0.904$, $p = 0.913$). In other words, there is no evidence that awareness of the purpose of the experiment had an impact on the results.

To examine the relationship between false memory acquisition and memory self-efficacy, Pearson correlations (see Table 2) were computed between the measures of memory self-efficacy (SEL and SEST) and the number of false memory responses, as well as between memory self-efficacy and the number of correct memory responses. After a Bonferroni correction of probabilities, no significant correlations between memory self-efficacy and either false or correct memory were obtained. The only significant correlation was that between SEL and SEST.

Table 2

Correlations Between Memory Self-efficacy Level (SEL), Memory Self-efficacy Strength (SEST), False Memory (FM), and Correct Memory (CM)

	SEL	SEST	FM	CM
SEL	---			
SEST	.858*	---		
FM	.183	.149	---	
CM	-.024	-.032	-.055	---
*p<0.001				

CHAPTER 4

DISCUSSION

The purpose of this study was to examine the hypothesis that high memory self-efficacy would protect a person from developing false memories when exposed to misleading information. While this study was successful in producing false memories, thus replicating Zaragoza and Mitchell (1996), it failed to find a relationship between memory self-efficacy and false memory. It also failed to find a relationship between memory self-efficacy and correct memory. Also, awareness of the nature of the experiment was not determined to be a factor in the results.

The hypothesis investigated was based on a number of studies showing a positive relationship between memory self-efficacy and memory performance (Berry et al., 1983; Cavanaugh & Murphy, 1986; Cavanaugh & Poon, 1989; Hertzog et al., 1990; Hertzog et al., 1994; Leal, 1987; McDonal-Miszczak, Gould, & Tychynski, 1999; Rebok & Balcerak, 1989). For example, Berry et al. (1983), using the basic format of what would become the MSEQ, examined the relationship between memory self-efficacy and performance. In general, correlations ranging from .43 to .47 between memory self-efficacy and performance on laboratory and everyday memory tasks were found. Also, the participants that exhibited a higher self-confidence (SEST) had better performance on the memory tasks and predicted most accurately their performance level.

Another example of a study showing a positive relationship between memory self-efficacy and performance is that by Cavanaugh and Murphy (1986) in which they

examined the effects of personality and metamemory on memory performance. The measurement of memory self-efficacy used was the Metamemory in Adulthood (MIA) questionnaire. This questionnaire was developed to be a more general measurement of metamemory consisting of seven subscales. Four of the subscales have been shown to be measurements of the memory self-efficacy component of metamemory (Capacity, Change, Anxiety, and Locus). In the study by Cavanaugh and Murphy (1986), the Capacity scale was found to have a correlation of .20 for word list and prose recall, while the Change scale had a correlation of .31 with word list recall. Also, a regression analysis indicated that the Change and Locus subscales were predictors of memory performance in their study.

In contrast, not all studies have shown a relationship between memory self-efficacy and memory performance (Baskind & Cavanaugh, 1992; Dellefield & McDougall, 1996; Hager & Hasselhorn, 1992; Wilhite, 1992). For example, Baskind and Cavanaugh (1992) studied the relationships of the metamemory components of self-efficacy and performance-predictions using a sample of children and young adults (5th and 9th graders and undergraduate students). This study utilized the MSEQ as the memory self-efficacy measurement. Although a positive relationship was found between memory self-efficacy and performance predictions, no correlation between memory self-efficacy and task performance was obtained. Baskind and Cavanaugh cited the young age of the participants and the differences in self-efficacy measurement (i.e. use of MSEQ versus MIA) as possible reasons for their failure to find a relationship between memory

self-efficacy and memory performance. Typically, studies involving memory self-efficacy have used samples of older and elderly adults (50-plus years old). Baskind and Cavanaugh suggested that younger individuals do not evaluate their memories in the same way.

Not only have some studies failed to find a relationship between memory self-efficacy and memory performance, at least one study has found a negative relationship (Wilhite, 1992). Wilhite examined the relationships between academic self-efficacy, memory self-efficacy, study activities, and academic performance in a particular course in an attempt to replicate a previous study he conducted in 1990. The measurement of memory self-efficacy used was the Everyday Memory Questionnaire and the measurement of academic self-efficacy was the Self-Concept of Academic Ability Test. Replication was not successful as results indicated a negative relationship between memory self-efficacy and performance. Additionally, Wilhite (1992) found that a more positive academic self-concept was associated with a more positive assessment of memory ability, also conflicting with his prior research. One reason noted for the inconsistency was the possibility that the samples in the two experiments differed in their accuracy of memory assessment.

Herrmann, Grubs, Sigmundi, and Grueneich (1986) examined the low to moderate validities of memory questionnaires by raising the possibility that people hold inaccurate beliefs about their memory abilities. Herrmann et al. presented three possible reasons for the low validity of metamemory questionnaires: (1) methodological

inadequacy, or poor questionnaire design in which task wording is unclear to the participants; (2) poor validity testing, or failure to match the tasks to be performed with the tasks that the questionnaire asked about; and (3) participants' inaccurate beliefs about their memory performance, or not entirely basing their memory judgments on reality.

In order to test their theories of why the validity of metamemory questionnaires is low, Herrmann et al. (1986) set out to control for methodological inadequacy and poor validity testing. A questionnaire was designed that was clear in its descriptions of tasks and asked specifically about the tasks that would be performed by the participants. The questionnaire they developed was the Self-Assessment of Laboratory Tests (SALT). The SALT was completed before and after the tasks to determine the questionnaire's predictive and postdictive validity. The results indicated that the participants' initial ratings on the SALT had no correlation with their performance scores, while their final ratings were correlated with their performance scores. The lack of predictive validity and presence of postdictive validity of the SALT indicates that, prior to actual experience in the tasks to be performed, participants held inaccurate beliefs in regard to their memory abilities. In other words, the everyday beliefs that people hold about their memory may not be entirely based on reality since complete feedback about their performance is usually lacking. Also, people's self-efficacy judgments are continuously being updated based on experience. Therefore, it is a possibility that the lack of participants' accuracy in predicting their memory performance may provide additional explanation for the inconsistent findings (relationship vs. no relationship to performance) in metamemory

research.

In addition to the possibility that the participants' memory self-efficacy judgments may not necessarily be veridical, there are other explanations for the failure of the current research to find a relationship between memory self-efficacy and false memory acquisition. First, sample size must be considered. The current experiment's sample was considerably smaller in comparison to other studies that found significant results (Cavanaugh & Murphy, 1986; Cavanaugh & Poon, 1989; Hertzog et al., 1994). These studies incorporated sample sizes of 100 to 200-plus participants. The power of a larger sample size enables easier detection of a small effect. In other words, the current research's sample size may not have been adequate to detect an effect if it was small.

The current research may have also been affected by too little variability within the sample. This might be determined by a comparison of the standard deviations of this study and other studies that used the MSEQ. Berry et al. (1989) tested the reliability and validity of the MSEQ and would be the best study to use for this comparison given the age characteristics of their sample. The current study's sample consisted of primarily undergraduate students with some of the students being non-traditional, while Berry et al. (1989) used a combination of undergraduate students with average age of 18.66 and older adults averaging 68.11 years of age. Berry et al. at pre-test and post-test had a SEL standard deviation equaling 0.9. The SEST standard deviations for pre-test and post-test were 16.3 and 15.3, respectively. In comparison, the standard deviation in the current study for SEL was 0.751 and for the SEST was 13.58. Although, these standard

deviations indicate less variability in the study, the difference is not large. This makes it unlikely that the current study suffers from too little variability in self-efficacy scores.

Bandura's 1977 self-efficacy theory presents another possible explanation. He noted that people will avoid situations they feel are beyond their capabilities. In terms of memory research, those with low MSE may avoid memory tasks. It is possible that the people with low MSE did not sign up to participate for this study because they avoid memory tasks resulting in a sampling bias. Therefore, the sample in this research may have had a higher than average MSE. Again, a comparison to the data presented by Berry et al. (1989) may be beneficial. Berry found mean SEL was 3.6, with the mean SEST equaling 52.9. The data of the current study indicated the mean SEL and mean SEST equaled 3.69 and 59.46, respectively. The similarity of Berry et al.'s data and the current study suggests that there was not much possibility of a sampling bias of MSE in the current study.

The MSEQ itself deserves attention regarding this study's lack of support for its hypothesis. The MSEQ may have asked about tasks dissimilar to the tasks performed. For example, the MSEQ asked about remembering word pairs while the current research's task was remembering the source of misleading suggestion. The MSEQ typically has been used in studying prediction of performance having the participants perform the tasks about which the questionnaire asked. The current study used the MSEQ as a measurement of memory self-efficacy without having the participants perform those exact tasks explicitly. Different results may have been found had the MSEQ been adapted

to this study by identifying and asking about the tasks that would actually be performed in the context of this research. In addition, according to Berry and West (1993), the MSEQ may be better suited for research exploring prediction of performance of specific tasks, while a more general measurement of memory self-efficacy would be more appropriate for self-evaluation of abilities as a whole or when specific tasks cannot be identified separately. If it is true that the MSEQ is not a valid measurement in the context of this study, future research needs to consider what measurement tool would be more appropriate in regards to the actual tasks to be performed.

Some examples of other metamemory/memory self-efficacy measurement tools are the MIA and the MFQ (Dixon et al., 1988; Hertzog et al., 1989; Hertzog et al., 1994; McDonald-Miszczak et al. 1999). The MIA and the MFQ have been used in various studies that found relationships between memory self-efficacy and performance (Cavanaugh & Murphy, 1986; Cavanaugh & Poon, 1989; Hertzog et al., 1990; Hertzog et al., 1994; McDonald-Miszczak et al., 1999). Also, the two questionnaires have been shown to exhibit good convergent validity (Hertzog, Hultsch, & Dixon, 1989). Hertzog and his colleagues reported that it had already been determined that the MIA measures the memory self-efficacy component of metamemory on 4 of its 7 subscales (Capacity, Anxiety, Change, and Locus). Also, they felt it apparent that upon examination, the MFQ's scales of General Rating, Frequency of Forgetting, and Remembering Past Events measured parts of memory self-efficacy. The results of their convergence study indicated that the two tests did measure the same underlying construct of memory self-efficacy

with the two best indicators being the MIA's Capacity scale and the MFQ's Frequency of Forgetting scale. Other indicators of memory self-efficacy that were found were the Anxiety, Change, and Locus scales of the MIA, as well as the Remembering Past Events and General Rating scales of the MFQ. Also, Berry and West (1993) did acknowledge the MIA to be a more global or general measurement. Given the good convergence validity the MFQ had with the MIA, it appears safe to assume the MFQ would also be more general in its measurement. If the MIA and the MFQ are more appropriate measurements of memory self-efficacy in regards to the current study's design (general vs. specific), it is possible that the current study may have found a relationship between memory self-efficacy and false memory had these measurements been used. This is, of course, a possibility for future research.

Another topic future research may want to examine is the effect of awareness on false memory acquisition. Given the use of deception in this study, it became necessary to determine if there was any effect of awareness of the experiment's true nature on the results of false memory acquisition. The lack of any effect of awareness suggests that even if eyewitnesses are aware of the possibility of misleading suggestions while being questioned by police, media, or lawyers, they may be no better at safeguarding their memories. It also indicates factors other than repeated suggestion (e.g. power and authority of interviewers) are possibly involved in false memory acquisition.

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APPENDIXES

Appendix A

Informed Consent Form

You are being asked to participate in a research study. This form is designed to provide you with information about this study and to answer any of your questions. You may ask the researchers listed below about this study or you may call the Office of Grants and Sponsored Research, Box 4517, Austin Peay State University, Clarksville, TN 37044, (931) 221-7881 with questions about the rights of research participants.

Title of research study: The effects of confidence on eyewitness memory

Principle Investigator: Rebecca Brooke Olson, graduate student, Psychology Department, Austin Peay State University, (931) 647-1284.

Faculty Supervisor: Dr. Buddy Grah, Austin Peay State University, Psychology Department, Clarksville, TN, (931) 221-7231.

Purpose of the research (why this study is being done): The purpose of this research is to investigate any effects of the level of a person's confidence in his/her memory ability on his/her ability to recall a witnessed event. This study is being conducted to fulfill a master's degree requirement. Data may be published or presented.

Procedures for this research (what you will be asked to do): This research will consist of one session lasting approximately one hour. You will be asked to complete the Memory Self-Efficacy Questionnaire which will take about 15 minutes. It presents and describes 10 memory tasks. You will be asked to make judgements on how well you can perform these tasks at various difficulty levels. Afterwards, you will be asked to view 5

minutes of a police training video depicting a theft by two youth and a car chase by the police. Immediately following the video, you will be asked to complete a brief questionnaire about the video. It should take about 15 minutes to complete the 36-item questionnaire. Following the questionnaire, you will be given a list of 30 words which you will study for 5 minutes. You will then be asked to write down as many words from the list that you can remember for another 5 minutes. Finally, you will be given instructions and asked to take an additional memory test. This test should only take about 15 minutes. Following completion of the study, a discussion will take place about the study, where you will be able to ask any questions you might have. The discussion is expected to last about 5 minutes.

What will happen to your responses: All data will be held confidential. Confidentiality will be maintained by using a participant number only on the data sheets. A separate list of participants will be stored separately from data. Any data that is published or presented will be presented as averages which makes it impossible to identify individual responses.

Potential risks or benefits to you: There are no known risks from participation in this research. You do not have to answer any question you do not wish to answer. No immediate benefits to you are expected. Extra credit may be granted at the discretion of your instructor.

Informed Consent Statement: I have read the above and understand what the study is about, why it is being done, and any benefits or risks involved. I understand that my participation in this study is completely voluntary, and my refusal to participate will

involve no penalty or loss of rights. I agree to participate in this study and understand that by agreeing to participate I have not given up any of my human rights. I understand that I am free to quit at any time without penalty or prejudice. I understand that I will receive a copy of this form.

If I have questions about this study, I may call Rebecca Brooke Olson (graduate student, Psychology Department) at 931-647-1284 or Dr. Buddy Grah (faculty supervisor, Psychology Department) at 931-221-7231.

Name (please print)

Signature of Research Participant

Date

Signature of Researcher

Date

Appendix B

Memory Self-Efficacy Questionnaire

The purpose of these questions is to find out what you think about your own memory ability. We would like to know your opinions. There are no right or wrong answers.

Directions:

There are some memory tasks described on the following pages. Circle "No" if you think that you cannot do the memory task described in the statement. Circle "Yes" if you think that you can do the memory task described in the statement. If you circle yes, you should also indicate how confident you are by circling a percentage given between 10% and 100%.

1. If someone showed me the pictures of 16 common everyday objects (see example below), I could look at the pictures once and remember the names of 16 objects.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

2. If someone showed me the pictures of 16 common everyday objects, I could look at the pictures once and remember the names of 12 of the objects.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

3. If someone showed me the pictures of 16 common everyday objects, I could look at the pictures once and remember the names of 8 of the objects.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

4. If someone showed me the pictures of 16 common everyday objects, I could look at the pictures once and remember the names of 4 of the objects.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

5. If someone showed me the pictures of 16 common everyday objects, I could look at the pictures once and remember the names of 2 of the objects.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

Sample Objects: Lamp, Umbrella

6. If I placed 10 common everyday objects (see examples below) in different locations at home, a few minutes later I could remember where I had put 10 of the items.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

7. If I placed 10 common everyday objects in different locations at home, a few minutes later I could remember where I had put 8 of the items.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

8. If I placed 10 common everyday objects in different locations at home, a few minutes later I could remember where I had put 6 of the items.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

9. If I placed 10 common everyday objects in different locations at home, a few minutes later I could remember where I had put 4 of the items.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

10. If I placed 10 common everyday objects in different locations at home, a few minutes later I could remember where I had put 2 of the items.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

Sample objects: Keys, Comb

11. If I looked up 3 phone numbers (see example below) in the phone book at the same time, I could remember 3 phone numbers.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

12. If I looked up 3 phone numbers in the phone book at the same time, I could remember 2 phone numbers.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

13. If I looked up 3 phone numbers in the phone book at the same time, I could remember 1 phone number and the first 3 digits of another phone number.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

14. If I looked up 3 phone numbers in the phone book at the same time, I could remember 1 phone number.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

15. If I looked up 3 phone numbers in the phone book at the same time, I could remember the first 3 digits of 1 phone number.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

Sample Phone Numbers: 734-5912, 684-6325, 737-7665

16. If I heard it twice, I could remember 12 items from a friend's grocery list of 12 items (see example below), without taking any list with me to the store.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

17. If I heard it twice, I could remember 10 items from a friend's grocery list of 12 items, without taking any list with me to the store.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

18. If I heard it twice, I could remember 8 items from a friend's grocery list of 12 items, without taking any list with me to the store.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

19. If I heard it twice, I could remember 5 items from a friend's grocery list of 12 items, without taking any list with me to the store.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

20. If I heard it twice, I could remember 2 items from a friend's grocery list of 12 items, without taking any list with me to the store.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

Sample Items: Cheese, Eggs

21. If someone read the list to me twice, I could remember the names of 12 common objects from a list of 12 names (see example below).

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

22. If someone read the list to me twice, I could remember the names of 10 common objects from a list of 12 names.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

23. If someone read the list to me twice, I could remember the names of 8 common objects from a list of 12 names.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

24. If someone read the list to me twice, I could remember the names of 5 common objects from a list of 12 names.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

25. If someone read the list to me twice, I could remember the names of 2 common objects from a list of 12 names.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

Sample Objects: hat, keys, umbrella

26. If someone told me 7 sets of numbers, one at a time, with 7 to 10 digits in each set (see example below), I could say each one of the 7 number sets correctly, right after hearing it.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

27. If someone told me 7 sets of numbers, one at a time, with 7 to 10 digits in each set, I could say 5 of the number sets correctly, right after hearing it.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

28. If someone told me 7 sets of numbers, one at a time, with 7 to 10 digits in each set, I could say 4 of the number sets correctly, right after hearing it.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

29. If someone told me 7 sets of numbers, one at a time, with 7 to 10 digits in each set, I could say 2 of the number sets correctly, right after hearing it.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

30. If someone told me 7 sets of numbers, one at a time, with 7 to 10 digits in each set, I could say 1 of the number sets correctly, right after hearing it.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

Sample Number Set: 36514782

31. If a friend gave me the directions (see examples below) to his or her new house, and the directions involved 10 steps, a few minutes later I could draw the route to the house on a map, using the 10 steps in the directions.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

32. If a friend gave me the directions to his or her new house, and the directions involved 10 steps, a few minutes later I could draw the route to the house on a map, using the first 8 steps in the directions.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

33. If a friend gave me the directions to his or her new house, and the directions involved 10 steps, a few minutes later I could draw the route to the house on a map, using the first 6 steps in the directions.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

34. If a friend gave me the directions to his or her new house, and the directions involved 10 steps, a few minutes later I could draw the route to the house on a map, using the first 4 steps in the directions.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

35. If a friend gave me the directions to his or her new house, and the directions involved 10 steps, a few minutes later I could draw the route to the house on a map, using the first 2 steps in the directions.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

Sample Steps: Turn right onto Peach St.; at first stop light, turn left onto Shirley Dr.

36. If a friend asked me to do 10 errands (see examples below), 5 minutes later I could remember 10 of the errands I had to do.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

37. If a friend asked me to do 10 errands, 5 minutes later I could remember 8 of the errands I had to do.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

38. If a friend asked me to do 10 errands, 5 minutes later I could remember 6 of the errands I had to do.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

39. If a friend asked me to do 10 errands, 5 minutes later I could remember 4 of the errands I had to do.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

40. If a friend asked me to do 10 errands, 5 minutes later I could remember 2 of the errands I had to do.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

Sample Errands: Deposit Checks; Wash Car; Pay Electric Bill

41. If I heard 7 pairs of words (see examples below) and then someone told me the first word in each pair, I could remember 7 of the second words from each pair.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

42. If I heard 7 pairs of words and then someone told me the first word in each pair, I could remember 5 of the second words from each pair.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

43. If I heard 7 pairs of words and then someone told me the first word in each pair, I could remember 4 of the second words from each pair.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

44. If I heard 7 pairs of words and then someone told me the first word in each pair, I could remember 2 of the second words from each pair.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

45. If I heard 7 pairs of words and then someone told me the first word in each pair, I could remember 1 of the second words from each pair.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

Sample Word Pair: "Count" (first word) and "Fantasy" (second word)

46. If someone showed me the photographs of 10 people and told me their names once (see examples below), I could identify 10 persons by name if I saw the pictures again a few minutes later.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

47. If someone showed me the photographs of 10 people and told me their names once, I could identify 8 persons by name if I saw the pictures again a few minutes later.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

48. If someone showed me the photographs of 10 people and told me their names once, I could identify 6 persons by name if I saw the pictures again a few minutes later.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

49. If someone showed me the photographs of 10 people and told me their names once, I could identify 4 persons by name if I saw the pictures again a few minutes later.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

50. If someone showed me the photographs of 10 people and told me their names once, I could identify 2 persons by name if I saw the pictures again a few minutes later.

No	Yes	10%	20	30	40	50	60	70	80	90	100%
----	-----	-----	----	----	----	----	----	----	----	----	------

Sample Names: Carla Jones, Mark Carson

Appendix C

Post-Video Questionnaire (Forms A, B, C) (by permission, Zaragoza & Mitchell)

Form A

1. At the beginning of the scene, a young man dressed in jeans, a t-shirt and gloves entered the house. Did he enter through the door?
2. The young man then walked into the bedroom and went to the nightstand. Was the nightstand directly next to the bed?
3. After finding some money in the dresser, did the thief continue to look for more items in the drawers?
4. Was the driver, who was sitting in the car smoking a cigarette while he waited, listening to the radio?
5. During this time, the neighbor woman's attention was drawn to an unfamiliar car parked in front of the house next door. Did she write down the license plate number?
6. Later, as he was leaving the house the thief looked both ways and went out the door. Did he slam the door behind himself?
7. After the thief got into the car and put on his seatbelt, he told the driver to "... get out of here!" Did the driver say that the neighbor had seen them?
8. During the phone call the neighbor made to the police she said, "I'd like to report what I think is a robbery." She said she had gotten part of the license plate number. Did she say it was "HGN4073"?
9. Later was a scene in which two officers sitting in a police cruiser spotted the thief's

car. When the officer said, "Damn if it isn't!" did he suggest they follow the car?

10. In the next scene the police officer told the dispatcher the "vehicle is not stopping . . . driver appears to be DWI . . . we are in pursuit." Did he seem sure the car would not stop?

11. When the police said, "Pull over! You're under arrest!", did the thief curse at the driver?

12. The videotape ended as the thief said, "That's it, I'm giving this up!" Did the car then screech to a halt?

13. Let's begin at the start of the scene again. At the beginning of the film clip, the young man who entered the house was dressed in jeans, a t-shirt and gloves. Was it a "Mickey Mouse" t-shirt?

14. When the young man later entered the bedroom did he turn on a light before rummaging through the nightstand?

15. Having taken some money from the dresser, did the thief count the money before putting it into his pocket?

16. Meanwhile, the driver was sitting in the car smoking a cigarette while he waited. Was he wearing a "Harley Davidson" hat?

17. Was the neighbor working in her garden when her attention was drawn to an unfamiliar vehicle parked next door?

18. Before leaving the house the thief looked both ways to see if anyone was watching. After he got out the door, did he begin to run?

19. When the thief got into the car and put on his seatbelt did he seem angry with the driver for not moving fast enough?
20. When the neighbor called the police she said, "I'd like to report what I think is a robbery." She then reported that they had left in a _____ car (Fill in the blank with a color)
21. Later in the film two police officers saw the car involved in the burglary. After the officer said, "Damn if it isn't!", did they call the dispatcher?
22. Soon after, the police officer reported that the "vehicle is not stopping. . Driver appears to be DWI . . . we are in pursuit." Did he say he thought the car was stolen?
23. In the pursuit scene, when the police said, "Pull over! You're under arrest!", did the thief say, "I knew we'd never get away!"?
24. During the last scene the thief said, "That's it, I'm giving this up!" Did the driver refuse to stop?
25. Ok, returning once again to the beginning of the scene, a slender young man wearing jeans, a t-shirt and gloves entered the house. Did he wear a jacket?
26. The thief later entered the bedroom and began to rummage through the nightstand. Did he take anything from the nightstand?
27. The thief then took a ring and some money from the dresser. Did he put the money into his left or his right back pocket?
28. Meanwhile, the driver smoked a cigarette while he waited. Did he appear anxious?
29. At the same time, a woman in a red shirt was in her front yard and her attention was

drawn to an unfamiliar vehicle parked in front of her neighbors' house. Did she move closer to get a better look at the car?

30. As the thief was leaving the house, he put his hand on the gun at his waist, looked both ways and walked out the door. Did he step out onto a porch?

31. When the thief got into the car he put on his seatbelt and said, "Hey man, let's get out of here!", did he also say, "I think I got some pretty good stuff!"?

32. When the neighbor phoned the police, as she looked out the window she said, "I'd like to report what I think is a robbery," she gave details of the situation to the dispatcher. Did she appear confident?

33. In the next scene, there are two police officers sitting in a cruiser. One of the officers said he thought the car they'd seen was the one involved in the burglary. The other officer put down his Coke and responded, "Damn if it isn't!" Did he recognize the car by the license number?

34. While chasing the car, the officers told the dispatcher that the "vehicle is not stopping . . . driver appears to be DWI . . . we are in pursuit." Did he say the car was traveling faster than 25 miles per hour?

35. When the police said, "Pull over or we'll shoot! You're under arrest!", did the driver pull over?

36. At the end, the thief said, "That's it, I'm giving this up! It's not worth it for this crap we got out of that place!" Did the driver say, "I told you this was a dumb idea!"?

Form B

1. At the beginning of the scene, a young man dressed in jeans and a t-shirt entered the house. Did he enter through the door?
2. The young man then walked into the bedroom, pulled the window shade, and went to the nightstand. Was the nightstand directly next to the bed?
3. After finding some money in the dresser, did the thief continue to look for more items in the drawers?
4. Was the driver, who was sitting in the car waiting, listening to the radio?
5. During this time, a barking dog had drawn the neighbor woman's attention to an unfamiliar car parked in front of the house next door. Did she write down the license plate number?
6. Later, as he was leaving the house the thief looked both ways and went out the door. Did he slam the door behind himself?
7. After the thief got into the car he told the driver to "... get out of here!" Did the driver say the neighbor had seen them?
8. During the phone call the neighbor made to the police she said, "This is Mrs. Anderson, I'd like to report what I think is a robbery." She said she had gotten part of the license plate number. Did she say it was "HGN4073"?
9. Later was a scene in which two officers sitting in a police cruiser spotted the thief's car. When the officer said, "Damn if it isn't!" did he suggest they follow the car?
10. In the next scene the police officer told the dispatcher the "vehicle is not stopping . . .

we are in pursuit.” Did he seem sure the car would not stop?

11. When the police said, “Pull over! You’re under arrest!” did the thief curse at the driver?

12. The videotape ended as the driver jumped the curb and the thief said, “That’s it, I’m giving this up!” Did the car then screech to a halt?

13. Let’s begin at the start of the scene again. At the beginning of the film clip, the young man who entered the house was dressed in jeans and a t-shirt. Was it a “Mickey Mouse” t-shirt?

14. When the young man later entered the bedroom and pulled down the window shade, did he turn on a light before rummaging through the nightstand?

15. Having taken some money from the dresser, did the thief count the money before putting it into his pocket?

16. Meanwhile, the driver was seen sitting in the car waiting. Was he wearing a “Harley Davidson” hat?

17. Was the neighbor working in her garden when a barking dog drew her attention to an unfamiliar vehicle parked next door?

18. Before leaving the house the thief looked both ways to see if anyone was watching. After he got out the door, did he begin to run?

19. When the thief got into the car did he seem angry with the driver for not moving fast enough?

20. When the neighbor called the police she said, “This is Mrs. Anderson, I’d like to

report what I think is a robbery.” She then reported that they had left in a _____ car. (Fill in the blank with a color)

21. Later in the film, two police officers saw the car involved in the burglary. After the officer said, “Damn if it isn’t”, did they call the dispatcher?
22. Soon after, the police officer reported that the “vehicle is not stopping . . . we are in pursuit.” Did he say he thought the car was stolen?
23. In the pursuit scene, when the police said, “Pull over! You’re under arrest!”, did the thief say, “I knew we’d never get away!”?
24. During the last scene, the driver jumped the curb and the thief said, “That’s it, I’m giving this up!” Did the driver refuse to stop?
25. OK, returning once again to the beginning of the scene, a slender young man wearing jeans, a t-shirt, and gloves entered the house. Did he wear a jacket?
26. The thief later entered the bedroom, pulled the window shade down, and began to rummage through the nightstand. Did he take anything from the nightstand?
27. The thief then took some money from the dresser. Did he put the money into his left or his right back pocket?
28. Meanwhile, the driver smoked a cigarette while he waited. Did he appear anxious?
29. At the same time, a woman in a red shirt was in her front yard when a barking dog drew her attention to an unfamiliar vehicle parked in front of her neighbors’ house. Did she move closer to get a better look at the car?
30. As the thief was leaving the house he looked both ways and walked out the door. Did

he step out onto a porch?

31. When the thief got into the car he put on his seatbelt and said, "Hey man, let's get out of here!" Did he also say, "I think I got some pretty good stuff!"?

32. When the neighbor phoned the police, as she looked out the window she said, "This is Mrs. Anderson, I'd like to report what I think is a robbery." She gave details of the situation to the dispatcher. Did she appear confident?

33. In the next scene, there are two police officers sitting in a cruiser. One of the officers said he thought the car they'd seen was the one involved in the burglary. The other officer responded, "Damn if it isn't!" Did he recognize the car by the license number?

34. While chasing the car, the officers told the dispatcher that the "vehicle is not stopping . . . driver appears to be DWI . . . we are in pursuit." Did he say the car was traveling faster than 25 miles per hour?

35. When the police said, "Pull over! You're under arrest!", did the driver pull over?

36. At the end, the driver jumped the curb and the thief said, "That's it, I'm giving this up! It's not worth it for this crap we got out of that place!" Did the driver say, "I told you this was a dumb idea!"?

Form C

1. At the beginning of the scene, a young man dressed in jeans and a t-shirt entered the house. Did he enter through the door?
2. The young man then walked into the bedroom and went to the nightstand. Was the nightstand directly next to the bed?
3. After finding a ring and some money in the dresser, did the thief continue to look for more items in the drawers?
4. Was the driver, who was sitting in the car waiting, listening to the radio?
5. During this time, the neighbor woman's attention was drawn to an unfamiliar car parked in front of the house next door. Did she write down the license plate number?
6. Later, as he was leaving the house the thief, putting his hand on the gun at his waist, looked both ways and went out the door. Did he slam the door behind himself?
7. After the thief got into the car he told the driver to "... get out of here!" Did the driver say that the neighbor had seen them?
8. During the phone call the neighbor made to the police she said, "I'd like to report what I think is a robbery." She said she had gotten part of the license plate number. Did she say it was "HGN4073"?
9. Later was a scene in which two officers sitting in a police cruiser spotted the thief's car. When the officer set down his Coke and said, "Damn if it isn't!" did he suggest they follow the car?
10. In the next scene the police officer told the dispatcher the "vehicle is not stopping ...

we are in pursuit.” Did he seem sure the car would not stop?

11. When the police said, “Pull over or we’ll shoot! You’re under arrest!”, did the thief curse at the driver?

12. The videotape ended as the thief said, “That’s it, I’m giving this up!” Did the car then screech to a halt?

13. Let’s begin at the start of the scene again. AT the beginning of the film clip, the young man who entered the house was dressed in jeans and a t-shirt. Was it a “Mickey Mouse” t-shirt?

14. When the young man later entered the bedroom did he turn on a light before rummaging through the nightstand?

15. Having taken a ring and some money from the dresser, did the thief count the money before putting it into his pocket?

16. Meanwhile, the driver was seen sitting in the car waiting. Was he wearing a “Harley Davidson” hat?

17. Was the neighbor working in her garden when her attention was drawn to an unfamiliar vehicle parked next door?

18. Before leaving the house the thief checked the gun at his waist and looked both ways to see if anyone was watching. After he got out the door, did he begin to run?

19. When the thief got into the car did he seem angry with the driver for not moving fast enough?

20. When the neighbor called the police she said, “I’d like to report what I think is a

robbery” she then reported that they had left in a _____ car. (Fill in the blank with a color)

21. Later in the film, two police officers saw the car involved in the burglary. After the officer put down his Coke and said, “Damn if it isn’t!”, did they call the dispatcher?
22. Soon after, the police officer reported that the “vehicle is not stopping . . . we are in pursuit.” Did he say he thought the car was stolen?
23. In the pursuit scene, when the police said, “Pull over or we’ll shoot! You’re under arrest!”, did the thief say, “I knew we’d never get away!”?
24. During the last scene the thief said, “That’s it, I’m giving this up!” Did the driver refuse to stop?
25. OK, returning once again to the beginning of the scene, a slender young man wearing jeans and a t-shirt entered the house. Did he wear a jacket?
26. The thief later entered the bedroom, pulled the window shade down, and began to rummage through the nightstand. Did he take anything from the nightstand?
27. The thief then took a ring and some money from the dresser. Did he put the money into his left or his right back pocket?
28. Meanwhile, the driver was waiting in front of the house. Did he appear anxious?
29. At the same time, a woman in a red shirt was in her front yard when a barking dog drew her attention to an unfamiliar vehicle parked in front of her neighbors’ house. Did she move closer to get a better look at the car?
30. As the thief was leaving the house, he put his hand on the gun at his waist, looked

both ways and walked out the door. Did he step out onto a porch?

31. When the thief got into the car he said, "Hey man, let's get out of here!", did he also say, "I think I got some pretty good stuff!"?

32. When the neighbor phoned the police, as she looked out the window she said, "This is Mrs. Anderson, I'd like to report what I think is a robbery." She gave details of the situation to the dispatcher. Did she appear confident?

33. In the next scene, there are two police officers sitting in a cruiser. One of the officers said he thought the car they'd seen was the one involved in the burglary. The other officer put down his Coke and responded, "Damn if it isn't!" Did he recognize the car by the license number?

34. While chasing the car, the officers told the dispatcher that the "vehicle is not stopping ... we are in pursuit." Did he say the car was traveling faster than 25 miles per hour?

35. When the police said, "Pull over or we'll shoot! You're under arrest!", did the driver pull over?

36. At the end, the driver jumped the curb and the thief said, "That's it, I'm giving this up! It's not worth it for this crap we got out of that place!" Did the driver say, "I told you this was a dumb idea!"?

Appendix D

Distracter Task - List of 30 Words

Heel

Shoe

Light

Dull

Sew

Chief

Hunt

Excuse

More

Neighbor

Fern

Resort

Use

Drop

Type

Fetch

Carpet

Bottle

Ocean

Deep

Cart

Bleach

Mud

Envelope

Daisy

Invent

Dance

Silver

Tent

Riddle

Appendix E

Source Memory Test - audiotape presentation (by permission, Zaragoza & Mitchell)

- A. BOTH - The thief stole some money
- B. SAW - The police car was #12
- C. ML - The thief wore gloves.
- D. BOTH (1) - The neighbor looked out her window.
- E. NEW - The thief stole some CD's.
- F. BOTH - There was a nightstand.
- G. ML - The police thought the driver was DWI.
- H. SAW - The thief carried a bag.
- I. BOTH (1) - The neighbor looked out her window.
- J. ML - The thief had a gun.
- K. SAW - The police dispatcher was female.
- L. ML - The neighbor's name was Mrs. Anderson.
- M. BOTH (1) - The neighbor wore a red shirt.
- N. SAW - The thieves drove a Buick.
- O. ML - The thief pulled a window shade down.
- P. BOTH (1) - The thief said, "It's not worth it for this crap we got out of that place!"
- Q. ML - One of the police officers had a Coke.
- R. NEW - The neighbor started to cry.
- S. ML - The driver jumped a curb with the car.

T. SAW - There was a camera bag.

U. ML - The thief took a ring.

V. NEW - It was raining.

W. SAW - One of the thieves was on parole.

X. ML - The driver smoked a cigarette.

Y. SAW - The neighbor's phone was in the kitchen.

Z. ML - There was a barking dog.

AA. SAW - The dresser had a mirror.

BB. ML - The police said they would shoot.

CC. BOTH - The thief wore a t-shirt.

DD. ML - The thief put on his seatbelt.

EE. BOTH - A police officer said, "Pull over! You're under arrest!"

FF. NEW - The thief broke a window.

Appendix F

Source Memory Test - instructions and response sheet

The test which you are about to take is a memory test. You will be tested on the source of the statements which you will be listening to. Before you continue, I must warn you that some of the questions on the questionnaire which you completed following the video contained some incorrect information that was not presented in the video. There are four possible sources. They are as follows: (1) video, (2) questionnaire, (3) video and questionnaire, and (4) new. The “new” source means that the source of the statement is not from the video or the questionnaire.

You will now hear 32 recorded statements. Please answer the following questions concerning each statement: (1) Do you remember the item from the video? and (2) Do you remember the item from the questionnaire that followed the video? To answer each question, circle a number between 1 and 7 in each column. The meanings of each number choice are as follows:

1 = definitely no

2 = probably no

3 = maybe no

4 = unsure

5 = maybe yes

6 = probably yes

7 = definitely yes

Keep in mind that the same response can be given for both questions.

1 = definitely no; 2 = probably no; 3 = maybe no; 4 = unsure; 5 = maybe yes; 6 = probably yes; 7 = definitely yes

ITEM	FROM THE VIDEO?	FROM THE QUESTIONNAIRE?
A	1 2 3 4 5 6 7	1 2 3 4 5 6 7
B	1 2 3 4 5 6 7	1 2 3 4 5 6 7
C	1 2 3 4 5 6 7	1 2 3 4 5 6 7
D	1 2 3 4 5 6 7	1 2 3 4 5 6 7
E	1 2 3 4 5 6 7	1 2 3 4 5 6 7
F	1 2 3 4 5 6 7	1 2 3 4 5 6 7
G	1 2 3 4 5 6 7	1 2 3 4 5 6 7
H	1 2 3 4 5 6 7	1 2 3 4 5 6 7
I	1 2 3 4 5 6 7	1 2 3 4 5 6 7
J	1 2 3 4 5 6 7	1 2 3 4 5 6 7
K	1 2 3 4 5 6 7	1 2 3 4 5 6 7
L	1 2 3 4 5 6 7	1 2 3 4 5 6 7
M	1 2 3 4 5 6 7	1 2 3 4 5 6 7
N	1 2 3 4 5 6 7	1 2 3 4 5 6 7
O	1 2 3 4 5 6 7	1 2 3 4 5 6 7
P	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Q	1 2 3 4 5 6 7	1 2 3 4 5 6 7
R	1 2 3 4 5 6 7	1 2 3 4 5 6 7

ITEM	FROM THE VIDEO?	FROM THE QUESTIONNAIRE?
S	1 2 3 4 5 6 7	1 2 3 4 5 6 7
T	1 2 3 4 5 6 7	1 2 3 4 5 6 7
U	1 2 3 4 5 6 7	1 2 3 4 5 6 7
V	1 2 3 4 5 6 7	1 2 3 4 5 6 7
W	1 2 3 4 5 6 7	1 2 3 4 5 6 7
X	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Y	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Z	1 2 3 4 5 6 7	1 2 3 4 5 6 7
AA	1 2 3 4 5 6 7	1 2 3 4 5 6 7
BB	1 2 3 4 5 6 7	1 2 3 4 5 6 7
CC	1 2 3 4 5 6 7	1 2 3 4 5 6 7
DD	1 2 3 4 5 6 7	1 2 3 4 5 6 7
EE	1 2 3 4 5 6 7	1 2 3 4 5 6 7
FF	1 2 3 4 5 6 7	1 2 3 4 5 6 7

VITA

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Rebecca is presently employed as an Adolescent Substance Abuse Counselor at Cumberland County Mental Health Center in Fayetteville, North Carolina.