

Summer 2008

Directed Forgetting of Live Motion Events: An Investigation of a New Stimulus Set

Shawn Dickerson
Old Dominion University

Follow this and additional works at: https://digitalcommons.odu.edu/psychology_etds



Part of the [Cognitive Psychology Commons](#)

Recommended Citation

Dickerson, Shawn. "Directed Forgetting of Live Motion Events: An Investigation of a New Stimulus Set" (2008). Master of Science (MS), Thesis, Psychology, Old Dominion University, DOI: 10.25777/n6fc-qh21 https://digitalcommons.odu.edu/psychology_etds/547

This Thesis is brought to you for free and open access by the Psychology at ODU Digital Commons. It has been accepted for inclusion in Psychology Theses & Dissertations by an authorized administrator of ODU Digital Commons. For more information, please contact digitalcommons@odu.edu.

**DIRECTED FORGETTING OF LIVE MOTION EVENTS: AN INVESTIGATION
OF A NEW STIMULUS SET**

by

Shawn Dickerson
B.S. May 2006, Old Dominion University
M.S. August 2008, Old Dominion University

A Thesis Submitted to the Faculty of
Old Dominion University in Partial Fulfillment of the
Requirement for the Degree of

MASTER OF SCIENCE

PSYCHOLOGY

OLD DOMINION UNIVERSITY
August, 2008

Approved by:

Elaine M. Justice, Ph.D. (Director)

Ivan K. Ash, Ph.D. (Member)

Louis H. Janda, Ph.D. (Member)

ABSTRACT

DIRECTED FORGETTING OF LIVE MOTION EVENTS: AN INVESTIGATION OF A NEW STIMULUS SET

**Shawn Dickerson
Old Dominion University, 2008
Director: Dr. Elaine M. Justice, Ph.D.**

Instructions to forget presented information are often given and it is necessary to further understand how those involved can be affected by what is called “directed forgetting”. The purpose of the current study was to investigate if a video stimuli would produce directed forgetting using the list method and a recognition style test. In addition, viewing live motion events has been suggested to be a more relevant modality to examine directed forgetting and thus another purpose of the current study was to utilize video stimuli to create a more valid assessment of this phenomenon. Participants ($N=181$) were selected through the use of convenience sampling to participate in the current study. They viewed a video and then were instructed to either remember or forget this first video. They were then presented with a second video which was identical except for 8 specific manipulations. All participants completed a recognition test which included a confidence assessment for either the first or second video. The first hypothesis that participants who were instructed to forget a video and remember a second video would have lower recognition accuracy for the first video compared to those instructed to remember both videos, thus producing the directed forgetting phenomenon was not supported. Also, the hypothesis that participants who were instructed to forget the first video would have better recognition accuracy for the second video than those instructed to remember both

videos was not supported. Finally, the hypothesis that participants who were instructed to forget the first video would have lower confidence in their answers on the first video and higher confidence on the second video compared to the remember groups who would have higher confidence on both videos was also not supported. Limitations and future directions are addressed.

Copyright, 2008, by Shawn Dickerson & Dr. Elaine Justice, All Rights Reserved.

This thesis is dedicated to all of those who have been influential in my graduate education and especially those who have challenged my abilities.

ACKNOWLEDGMENTS

I would like to acknowledge Dr. Elaine M. Justice, my thesis advisor and mentor, for her invaluable advice and guidance throughout this process. I would also like to acknowledge my thesis committee, Dr. Ivan K. Ash and Dr. Louis H. Janda, for their expertly insightful comments and suggestions, which undoubtedly helped make my thesis better. I greatly appreciate the input and assistance you all have given me through this endeavor.

TABLE OF CONTENTS

	Page
LIST OF TABLES.....	ix
LIST OF FIGURES	x
 Chapter	
I. INTRODUCTION	1
OVERVIEW	2
LIST VS. ITEM METHOD.....	4
DIRECTED FORGETTING RESEARCH	6
CONFIDENCE.....	7
CURRENT STUDY	8
II. METHOD	11
PARTICIPANTS	11
MATERIALS.....	11
PROCEDURE.....	14
III. RESULTS	17
ASSUMPTIONS.....	17
RECOGNITION ACCURACY RESULTS.....	18
CONFIDENCE RESULTS.....	21
IV. DISCUSSION.....	25
RECOGNITION ACCURACY	25
AVERAGE CONFIDENCE	27
LIMITATIONS.....	29
IMPLICATIONS	30
FUTURE RESEARCH AND CONCLUSIONS	31
REFERENCES	33
 APPENDICES	
A. PROCEDURAL TABLE.....	38
B. NOTIFICATION STATEMENT	39
C. MOVIE MANIPULATION CRITICAL ITEMS.....	41
D. RECOGNITION TEST VIDEO 1	42
E. RECOGNITION TEST VIDEO 2.....	50
F. ASRS-V 1.1	58

G. FAMOUS SAYINGS FILLER TASK.....	60
H. SCRIPT	63
J. DEBRIEFING FORM	67
VITA	68

LIST OF TABLES

Table	Page
1. Frequency Table of Groups for Instruction and Video Tested	15
2. Means for Critical and Non-Critical Item Recognition Accuracy by Instruction and Video	19
3. Means for Critical and Non-Critical Item Average Confidence by Instruction and Video	22

LIST OF FIGURES

Figure	Page
1. Analysis of Variance for Recognition Accuracy for Video and Question Type	20
2. Analysis of Variance for Average Item Confidence for Video and Question Type .	24

CHAPTER I

INTRODUCTION

The directed forgetting phenomenon was identified decades ago and is defined as the “motivated attempt to suppress information which limits the future expression of specific memory content” (Johnson, 1994, p.274). This phenomenon has recently undergone a rebirth of interest from many clinical, legal and social researchers. It has been applied to many areas of research but in particular, eyewitness testimony and situations that occur during courtroom proceedings (Bates, Ricciardelli, & Clarke, 1999; Deffenbacher, 1980; DePrince & Freyd, 2004; Echterhoff, Hirst, & Hussy, 2005; Golding & MacLeod, 1998; Ihlebaek, Løve, Eilertsen, & Magnussen, 2003; Mallard & Perkins, 2005; Shaw, Bjork, & Handal, 1995; White & Marks, 2004).

In terms of the body of literature on directed forgetting and legal research, a reliable result of the instruction to forget is that one’s memory for to-be-forgotten information is decreased compared to the information an individual is instructed to remember (Golding & MacLeod, 1998). However other studies suggest that the to-be-forgotten material may still affect subsequent judgments (Woodward & Bjork, 1971). For example, Carretta and Moreland (1983) presented participants who were acting as a jury in a mock trial with either admissible or inadmissible evidence of a wiretap recording. The results indicated that the participants presented with the wiretap were more likely to find the defendant guilty regardless of the admissibility of the evidence (Carretta & Moreland, 1983). Using the same wiretap scenario Sue, Smith and Caldwell (1973) found that when the judge ruled the evidence inadmissible, 35% of the jury still voted for

conviction; when the wiretap was not mentioned, zero participants voted for conviction. Multiple lines of research have investigated this ongoing debate to examine whether an individual could follow the instruction to forget certain evidence and disregard it or incorporate the evidence into their opinion of guilt (Golding & MacLeod, 1998)

In this introduction, I will provide an overview of the directed forgetting phenomenon, citing relevant research on this topic. This phenomenon will then be discussed while pointing out deficits in the current literature, specifically, the lack of ecological validity of popular paradigms. Finally, a new method will be proposed and tested, investigating the directed forgetting phenomenon.

Overview

The traditional directed forgetting list method task consists of presenting participants with a series of items to remember. Experimental participants then receive a cue to forget the previous items (to-be-forgotten items, TBF), whereas the control group receives no such cue. Both groups are then presented with a new set of items, which they are instructed to remember (to-be-remembered items, TBR). Finally, at recall the participants are instructed to report as many items from both TBF and TBR lists as possible (Soriano & Bajo, 2007). The directed forgetting effect occurs when there is a decrease in the ability to recall TBF items, while the TBR items are readily accessible.

Woodward and Bjork (1971) attempted to investigate why participants could remember some items and forget others. In this classic directed forgetting study, the previously described list method was utilized and recall was assessed using a free recall task. Participant performance on TBF item recall was compared with the TBR recall

performance. The results indicated that those instructed to remember words could recall more items compared to the TBF participants. On average, nearly 2.5% of the items from the TBF list were recalled, while the recall of TBR items was about 70% (Woodward & Bjork, 1971).

Interestingly, the instruction to forget did not completely remove the memory of TBF items. Participants were able to recall a small percentage of the TBF items. The authors suggested that the instructions to forget did not erase the memory and tested this in another experiment using the same procedure but providing related cues for the TBF items at recall. They found that with adequate cues the participant's memory for the TBF items could be improved. With the cueing task, the TBF item recall increased to 16% (Woodward & Bjork, 1971).

Another method to test the directed forgetting phenomenon uses the item method in which participants are presented with items one at a time that are coded as TBF or TBR. They are instructed prior to the presentation of the items to only remember the items which are cued as remember and to forget the items marked as forget (Soriano & Bajo, 2007). The cueing of items has been created using multiple methods such as different colored backgrounds or auditory tones. Weiner and Reed (1969) investigated directed forgetting using this item method procedure and the results indicated that the directed forgetting effect was present. More importantly, however, this paradigm demonstrated that participants participated in covert rehearsal for the items cued as TBR, but not for items cued as TBF (Weiner & Reed, 1969).

List vs. Item Method

The list and item method both reliably produce the directed forgetting effect but the results from the two methods differ, suggesting that there are multiple processes involved with this phenomenon. In the item method procedure the decreased recall of TBF items is suggested to occur as a result of differential encoding. Participants utilize less time and effort on the TBF items compared to the TBR items. TBR items receive more rehearsal leading to better storage (Soriano & Bajo, 2007). Also, in terms of rehearsal, Woodward and Bjork (1971) found that recall of the second TBR list was better for the participants who were instructed to forget the first list and only remember the second list as compared to the participants who were instructed to remember both lists. The researchers suggested that the TBF participants were not required to rehearse the first list after the forget cue and were able to rehearse the second list more efficiently which improved their recall of the second list compared to having to rehearse both lists. This explanation was termed the selective rehearsal account (Woodward & Bjork, 1971).

It is also argued by Conway, Harries, Noyes, Racsmany and Frankish (2000) that forgetting in the list method is a result of retrieval inhibition, while the instruction to forget during the presentation of the item list inhibits the items accessibility from long term memory. Although, the items are relatively inaccessible they were indeed encoded into memory. This theory supports the findings of Woodward and Bjork (1971) in that with adequate cues the recall performance of the TBF words was improved. As proposed by Elmes, Adams and Roediger (1970) because the TBF items exist in a participants' memory this finding does not support Woodward and Bjork's (1971) selective rehearsal

concept. This is because there should not be rehearsal of words that were supposed to be forgotten after the participant is instructed to forget.

Elmes et al. (1970) produced additional evidence against this concept of selective rehearsal because in their study there was not a difference in recognition of TBF and TBR items. This study was one of the first directed forgetting investigations that used a recognition test instead of a recall test. In addition, Sahakyan and Delaney (2005) found that directed forgetting occurred with a recognition test using the list method as used in the Elmes et al. (1970) study and also occurred with recall tests as with Woodward and Bjork (1971).

The results obtained using different measures for the directed forgetting phenomenon can be dependent on the method utilized. While many researchers have failed to find list method directed forgetting with recognition, other studies have revealed results of this phenomenon occurring with recognition when the list method was used (Bjork & Bjork, 2003; Gottlob & Golding, 2007; Sahakyan & Delaney, 2005; Woodward, Park, & Seebom, 1974). Woodward et al. (1974) examined list method directed forgetting with both recall and recognition tests. It was found that directed forgetting occurred with both the recall assessment and the recognition test. Bjork and Bjork (2003) found that with recognition, the TBF participants did exhibit list method directed forgetting. The results indicated that the TBF participants had reduced recognition memory on list 1 compared to list 2.

It has been suggested that recall differences are more apparent using a list method but recognition is still affected (Basden & Basden, 1998). Gottlob and Golding (2007)

supported this idea in two studies that found list method directed forgetting in recall and recognition. This study and the Sahakyan and Delaney (2005) study both used a more powerful multinomial analysis to investigate the group differences in recognition. The authors proposed that because this analysis is more powerful they were able to identify the effect of directed forgetting with their measure (Gottlob & Golding, 2007). Because of these findings, recognition can be considered a more stringent measure of directed forgetting (Gottlob & Golding, 2007). In the current study the more stringent recognition test was utilized with the list method to test directed forgetting.

Directed Forgetting Research

Multiple studies have investigated memory for events with different presentation modalities but these studies include modalities that may not fully address what occurs in real life situations (Ihlebaek et al., 2003; Lindholm, 2005; Roebbers, Gelhaar, & Schneider, 2004; Bates et al., 1999). As suggested by Macrae and MacLeod (1999), it is one thing to forget previously encountered items, for example a piece of fruit or a type of drink, but it may be an entirely different matter to inhibit the retrieval of information from meaningful social contexts. Although, the use of forgetting a word list in a lab does provide a basic premise for how an individual may react to being told to forget information, it does not fully capture the courtroom proceedings.

When evaluating research conducted in a lab and how it may relate to actual real life situations, the type of presentation modality needs to be addressed. Studies with contrasting modalities have obtained inconsistent results. Roebbers et al. (2004) manipulated the presentation modality of an event using a slide show, a video, or having

the participant witness the event live. The results indicated that recall of correct responses was not significantly different across modalities but recognition of the events was significantly different. In particular, recognition between the live witnessed event and the video was not different, but there was a difference for the live witnessed event and the slide show. This showed that the live event yielded higher recognition compared to the slide show. Because the video and live event did not differ, utilizing a video in the laboratory may be a more comparable method to assessing one's experience of an actual event. Consistent with the previous finding, Ihlebaek et al. (2003) found that memory errors were similar between those who actually witnessed an event and those who watched the event in a video. In this study, those who watched the event in a video actually reported more details and produced higher accuracy than those who witnessed the event live.

Confidence

Another aspect of memory that is important is the degree of confidence individuals have in their memory. Relatively few directed forgetting studies have investigated the relationship between confidence and accuracy of recall or recognition (see Deffenbacher, 1980 for a review). Confidence plays a crucial role in one's inclination to report past events (Roebbers et al., 2004). Of particular interest in the current study, it has been argued that when observing an event in real life one's memory is more detailed and vivid (Roebbers et al., 2004). The vividness of an individual's memory has been shown to predict confidence ratings. The more vivid a memory one has, the higher one's confidence will be that the memory is accurate (Robinson, Johnson, & Robertson,

2000). Based on this, the use of a video modality might be expected to produce a more vivid memory than a slide show and may be a more valid method to study directed forgetting. Motion video exposes the participant to much more information, thus creating a more detailed memory. The use of slides to test a person's memory only provides the participant with a snap-shot of an event, therefore, memory is lacking in detail which can lower ones' confidence.

There is a lack of evidence for the role of confidence in directed forgetting studies. It is important to note that accuracy of memory has been found to be highly correlated with one's confidence (Kassin, Rigby, & Castillo, 1991). Wells, Lindsay and Ferguson (1979), suggest that 50% of the variance in juror judgments is created by confidence. Hence one's confidence in their memory is very important and relevant when attempting to validate directed forgetting. In the current study participants rated their confidence for each response during the recognition test.

Current Study

One major purpose of the study was to investigate the use of media stimuli to produce the directed forgetting phenomenon. Rather than the traditional list and item procedures, participants were presented with motion video clips. In previous research, word list, word fragment completion and slide presentations were used to present participants with the test stimuli. In the current study two videos were used. The instruction to forget or remember occurred between the presentations of the videos. This method is most comparable to the list method.

Another purpose of the current study was to investigate whether these video stimuli could be used to create directed forgetting using a recognition style test. To test this, a forced-choice recognition test was used to assess the participants' performance with TBF and TBR items. Two groups were instructed to remember both videos and the other two were instructed to forget the first video and only remember the second video. In addition, one of the TBR groups were asked to complete a recognition test for the first video and the other group to complete the recognition assessment for the second video. The TBF participants completed the recognition test for the first video they were instructed to forget, whereas the other TBF group completed the assessment for the second video (Appendix A).

Based on traditional directed forgetting paradigms, the current study hypothesized:

1. Participants who were instructed to forget a video and remember a second video would have lower recognition accuracy of the first video compared to participants who were instructed to remember both videos.
2. Participants who were instructed to forget the first video would have better recognition accuracy for the second video compared to those instructed to remember both scenes.
3. Participants who were instructed to forget the first video would have lower confidence ratings on the first video and higher confidence ratings on the second video, whereas, the

remember group would have higher confidence ratings
compared to the forget group for all videos.

CHAPTER II

METHOD

Participants

One-hundred and eighty-one students participated in the current study.

Participants were selected using convenience sampling through the SONA Experiment Management system. All participants were a minimum of 18 years old. There were 154 females and 27 males who participated. The sample consisted of undergraduates who received one research credit point (Appendix B). All ethical guidelines were observed as described in the, American Psychological Association “Ethical Principles of Psychologist and Code of Conduct” (American Psychological Association, 2002). The current study was approved by the Old Dominion University College of Sciences Human Subjects Committee.

Materials

Eric Electrician Videos. The videos used in the current study were created by Takarangi, Parker and Garry (2006). In each video a tradesman is snooping around an unoccupied home while he is repairing multiple electrical components of the house. While he is in the house, he looks through the homeowners’ belongings, consumes food and drink, and steals multiple items. The videos were created using Commotion Pro by Pinnacle Systems motion graphics editing program and iMovie 3. The end result was two 6 minute and 28 second clips that are exactly the same but with 8 critical items that were manipulated. The items that differed across the two videos are shown in appendix C.

These manipulations were produced in four ways. First, the original footage was edited to manipulate the baseball cap color and mug color using Commotion Pro editing tools. This created two identical clips with only the critical item differing. Second, the van logo and the clock on the wall were created by overlaying different graphics onto the original footage. Third, the type of drink, tool and the type of magazine were manipulated by filming two segments and matching characteristics (lighting, frame size and length) of the new segment to the original footage. Lastly, to manipulate the bed and the flower vase, the actor was filmed in front of a green screen. This allowed the creators to insert different backgrounds into the footage.

Multiple versions of the videos were used in a pilot study to investigate participant responses to each manipulation. To maximize the effect of the critical items the creators varied the amount of time certain items appeared and removed items that were not successful. In the current study each of the two types were used first for half of the groups tested. The groups were randomly assigned to one of the two tape presentation orders (Appendix A). This assignment was counterbalanced using a cyclic Latin square design.

Recognition Test. A two-alternative forced choice recognition test created by Takarangi et al. (2006) that pertains to the videos presented to the participants were used (Appendixes D & E). The test contained 20 items that asked about events which occurred in the movie. For example one question asked, “What was the magazine that Eric read?”. The participant was asked to select either a. Time or b. Newsweek. They were also required to rate on a 1-5 Likert scale, how confident they were that their answer was

correct, where 1 was not at all confident and 5 was very confident. There were eight video specific critical questions (3, 5, 6, 7, 10, 11, 17 and 18) and 12 non-critical questions that assessed their overall accuracy of the participants' memory for the movie.

The recognition test was utilized in two studies conducted by Takarangi, et al. (2006) and yielded similar results in both studies which pertained to the misinformation effect. With their manipulation the researchers were able to produce a reliable misinformation effect that was consistent with results from many other misinformation studies (Takarangi et al., 2006). Although, the study that validated this measure investigated a different memory phenomenon, the authors suggested that these materials may also be advantageous with other memory research studies. Most importantly, this assessment ultimately measured participant responses to the videos they were shown and was a reliable measure of recognition when viewing this depiction of an event. Because this test is new it has only been utilized in these two studies, which makes determining the reliability and validity difficult. However, in the studies which used this test, the results obtained were similar to the common findings in other related investigations.

Filler Tasks. The Adult ADHD Self-Report Scale Version 1.1 (Appendix F) and the Famous Sayings Filler Task developed by Bass (1958) (Appendix G) were administered between the presentation of the second video and the recognition test. The ASRS-v1.1 is composed of 18 items to assess the frequency of ADHD symptoms. It was developed by the World Health Organization and the Workgroup on Adult ADHD (Kessler et al., 2005). It is based on the criteria set forth from the DSM-IV-TR but pertains to frequency as opposed to severity. This measure is rated on a Likert scale of 0

(never) to 4 (very often) within the past six months. It asks questions for symptoms in which adults can relate. For example, “How often do you misplace or have difficulty finding things at home or work?”

The Famous sayings task is a 40-item list of common famous sayings. For example: “He who laughs last laughs longest!”. The participant was required to agree or disagree with the saying by circling yes or no. If the participant was unsure about the saying they were able to circle the “?”. The approximate length of the filler tasks was fifteen minutes.

Procedure

Using convenience sampling 181 participants were tested in small groups (2-10) in a computer lab at Old Dominion University. The computer lab was utilized so that the participants could complete each questionnaire electronically. Each group was randomly assigned to one of the four conditions resulting from the 2 (instruction: remember/forget) x 2 (video tested: first video / second video) design (Appendix B). The number of participants in each condition is shown in Table 1. The researcher then read a script (Appendix H) to explain to the participants that they were participating in a study in which they were going to watch videos of a home theft. The notification statement was then read by the participants.

All participants (TBF & TBR) were then informed that they were going to be shown the first video and that they should try to remember as many details about the first video as possible. At the conclusion of the first video, the TBR participants were instructed that they were going to view another video that was similar to the previous

video but contained subtle differences. They were also instructed that they were to keep in mind the details from the first video while viewing the upcoming video and that there would be a memory test after the clip.

Table 1

Frequency Table of Groups for Instruction and Video Tested

Variable	<i>n</i>	%
Remember		
Test For First Video	40	22.22
Test For Second Video	45	25.00
Total	85	47.20
Forget		
Test For First Video	44	24.44
Test For Second Video	51	28.33
Total	95	52.80

Note. *N* = 180.

The TBF participants were also instructed that they were going to view another video that was similar but they were to forget the first video and only remember the upcoming video. Following this instruction, all of the participants (TBF & TBR) viewed

the second video, then completed the filler tasks. After the completion of the filler tasks each participant completed the recognition test for either the first video or the second video depending on their assigned condition (see Appendix A). Once all of the videos had been shown and the questionnaires had been completed the participants were debriefed (Appendix I).

CHAPTER III

RESULTS

Assumptions

Prior to conducting the mixed ANOVA certain assumptions were addressed. First, there were no cases with missing data. Second, for each case the dependent variable scores were converted to a standardized z score to identify potential outliers. If the score was greater than 3.29 it was considered an outlier and was deleted (Tabachnick & Fidell, 2007). Subsequently, one case was removed from the sample because of participant error completing the questionnaire. Third, the assumption of identical between group distributions and normality of residuals were evaluated. To check these assumptions the skewness and kurtosis of percent correct critical item recognition accuracy, percent correct non-critical item recognition accuracy, average critical item confidence and average non-critical item confidence were examined (Table 2). According to Keppel and Wickens (2004) the shape of the distribution did not pose a problem because there was a large sample size and the groups were relatively equal: remember first video ($n=40$), remember second video ($n=45$), forget first video ($n=44$) and forget second video ($n=51$). In terms of the non-critical percent correct and non-critical average confidence, these values were expected to be non-normally distributed because in both videos the correct answers did not change. Also, Levene's test for percent correct critical item recognition accuracy revealed that there was homogeneity of variance, $F(3,176)=2.62$, $n.s.$ and the Levene's test for percent correct non-critical item recognition accuracy also showed homogeneity, $F(3,176)=1.85$, $n.s.$ The Levene's test for average critical item

confidence and average non-critical item confidence revealed that there was homogeneity of variance, $F(3,176) = .54, n.s.$, $F(3,176) = .62, n.s.$, respectively. Because there were only two levels of the independent variable of question type the assumption of sphericity was met. To ensure that the counterbalanced order of the videos used did not have an effect on the variables of interest, it was included as a variable in the preliminary analyses. The results indicated that there were no significant effects of this order variable. The results indicated that all F values were less than 2.43 and subsequently the different video orders were collapsed.

Recognition Accuracy Results

Descriptive statistics (Table 2) were obtained for percent correct critical and non-critical item recognition accuracy for the first video and the second video for both groups (TBF & TBR). A 2 (instruction: forget vs. remember) X 2 (video tested: first video vs. second video) X 2 (question type: critical vs. non-critical) mixed ANOVA was conducted on the dependent variable of percent correct recognition accuracy.

Table 2

Means for Critical and Non-Critical Item Recognition Accuracy by Instruction and Video

<i>Group</i>	<i>Mean</i>	<i>SD</i>
Critical Items	79.79	14.55
Remember	80.74	15.50
Test For Video 1	82.81	14.06
Test For Video 2	78.89	16.61
Forget	78.95	13.68
Test For Video 1	80.11	10.89
Test For Video 2	77.94	15.73
Non-Critical Items	95.05	7.71
Remember	95.20	6.97
Test For Video 1	93.96	8.22
Test For Video 2	96.30	5.49
Forget	94.91	8.36
Test For Video 1	95.08	6.80
Test For Video 2	94.77	9.57

The results revealed that there was a significant main effect of question type, $F(1, 176) = 185.52, p < .001$, partial $\eta^2 = .51$, power = 1.00 (Figure 1). Participants had significantly higher percent correct for non-critical questions ($M = 95.05, SD = 7.71$) compared to critical questions ($M = 79.79, SD = 14.55$). All other main and interaction effects were non-significant.

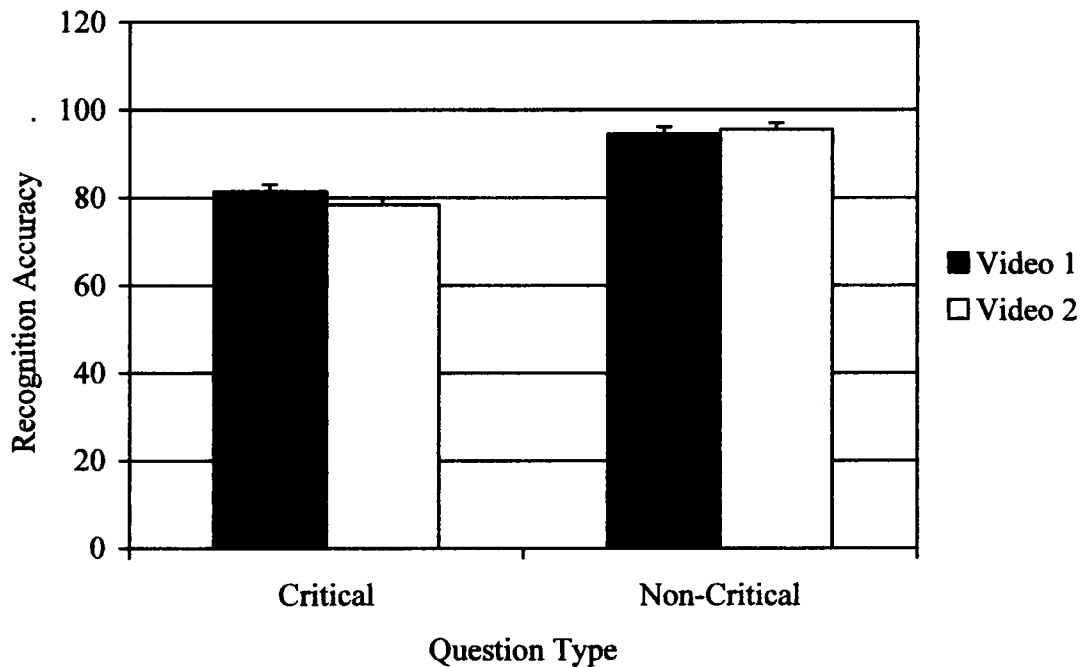


Figure 1. Analysis of Variance for Recognition Accuracy for Video and Question Type

Confidence Results

Descriptive statistics (Table 3) were obtained for average critical item and non-critical item confidence for the first video and the second video for both groups (TBF & TBR). Another 2 (instruction: forget vs. remember) X 2 (video tested: first video vs. second video) X 2 (question type: critical vs. non critical) mixed ANOVA was conducted on the dependent variable of average item confidence.

Table 3

Means for Critical and Non-Critical Item Average Confidence by Instruction and Video

<i>Group</i>	<i>Mean</i>	<i>SD</i>
Critical Items	3.90	.60
Test For Video 1	3.74	.58
Remember	3.82	.57
Forget	3.67	.60
Total	3.74	.58
Test For Video 2	4.04	.57
Remember	4.09	.53
Forget	4.00	.61
Total	4.04	.57
Non-Critical Items	4.52	.47
Test For Video 1	4.48	.45
Remember	4.50	.45
Forget	4.46	.44
Total	4.48	.45
Test For Video 2	4.55	.49
Remember	4.59	.43
Forget	4.51	.53
Total	4.55	.49

There was a significant main effect of video tested, $F(1, 176) = 6.75, p < .05$, partial $\eta^2 = .04$, power = .73. There was a significant main effect of question type, $F(1, 176) = 291.03, p < .001$, partial $\eta^2 = .62$, power = 1.00. This was qualified by a significant interaction effect of question type and video tested, $F(1, 176) = 10.00, p < .01$, partial $\eta^2 = .05$, power = .88 (Figure 2). A Bonferroni adjustment revealed that participants were more confident on the second video with critical items ($M = 4.04, SD = .57$) compared to participants on the first video with critical items ($M = 3.74, SD = .58$), $F(1, 175) = 11.70, p < .01$, partial $\eta^2 = .06$, power = .93. There was no difference in confidence between the videos for non-critical items. All other main and interaction effects were non-significant.

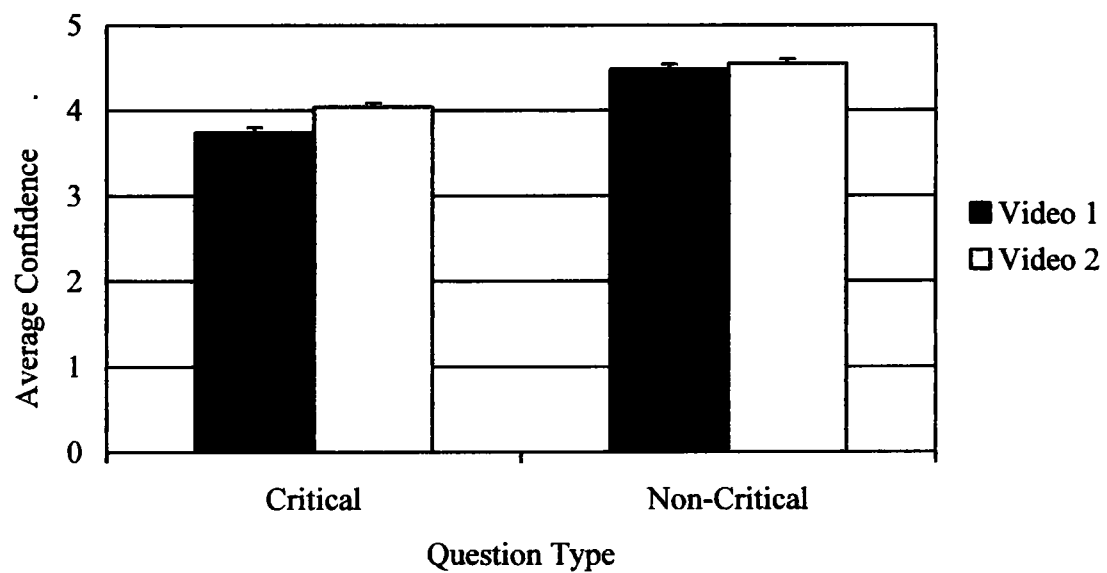


Figure 2. Analysis of Variance for Average Item Confidence for Video and Question Type

CHAPTER IV

DISCUSSION

The focus of the current study was to investigate the use of media stimuli to test the directed forgetting phenomenon and to investigate whether these video stimuli would produce directed forgetting using a recognition style test. It was found that the instruction to remember or forget did not produce the directed forgetting using a recognition test. However, differences did occur when investigating recognition on critical and non-critical types of questions. Confidence was not affected by the overall instruction to forget but was affected by the type of question, in that participants were more confident on items that did not change (non-critical items) between the videos. Confidence was also affected by which video the participant was asked to complete the recognition test for.

Recognition Accuracy

The first hypothesis that TBF participants would have lower recognition accuracy on the first video compared to the TBR participants was not supported in the current study. Although, the TBF participants did have lower recognition accuracy compared to the TBR participants the directed forgetting difference was small. This minute difference may not have been a result of the instruction manipulation but from other extraneous factors because of the small effect size (partial-eta squared = .001).

Another potential reason behind the similarity of the groups could be a result of a ceiling effect. The mean percent correct recognition accuracy of both groups was high (81.40%) for the eight critical items. This ceiling effect may have occurred because the videos were designed to maximize each critical item's effect (Takarangi et al., 2006). In

doing this the participants may have been able to accurately identify the differences between each video, therefore, producing optimal performance.

This finding in the current study is similar to another study that also investigated directed forgetting using a recognition test. Benjamin (2006) found that the TBF participants had lower accuracy on the first list of words compared to the TBR participants on the same list. It is important to note that in the Benjamin (2006) study each list contained 80 items. This study may have been able to produce directed forgetting using a recognition test because there were more critical items. Including more items possibly created a harder test and more list competition which may have prevented the participants from having higher recognition. This can be supported in the current study, in that the TBF participants had higher recognition accuracy with the non-critical items on the first video compared to the TBR participants on the same video. There were more non-critical items that the participants were required to remember compared to the critical items thus the TBR group had the most to remember. Because of the increased number of items to-be-remembered the TBR group did not perform as well as the TBF group.

The second hypothesis that TBF participants would have better recognition accuracy for the second video compared to the TBR participants was also not supported in the current study. In contrast to the current hypothesis, the TBF participants had slightly lower recognition accuracy on both critical and non-critical items compared to the TBR participants on this second video. However, the difference was not significant. A potential explanation for this result has been suggested by Conway et al. (2000) in that

for directed forgetting to occur using the list method, new dissimilar TBR material must be presented because exposure to an instruction alone is not solely responsible for effective forgetting. Requiring participants to focus attention to new unrelated items after the instruction occurs creates attentional demands which are an important aspect of retrieval inhibition. As suggested by Conway et al. (2000), the more dissimilar the new TBR items are from the previous TBF items creates more list competition and ultimately more forgetting will occur. Although, in the current study the participants were given a new set of items to remember these items were closely related to the TBF items. Because of the close similarity, the TBF participants may have been re-exposed to the items they were instructed to forget, which has been found to dramatically decrease the directed forgetting effects (Bjork & Bjork, 1996). This finding suggests why the accuracy of the TBF participants in the current study was similar to the accuracy of the TBR participants.

Average Confidence

The third hypothesis that those instructed to forget the first video would have lower confidence ratings on the first video and higher confidence ratings on the second video was not supported. This was also not supported with the non-critical items for the forget group. The pattern of means suggest that the TBF groups had lower average confidence on the first video but this difference was once again minimal.

As discussed earlier it has been suggested that there is a positive relationship between accuracy and confidence (Deffenbacher, 1980; Kassin et al., 1991). In the current study this was also the case. There was a significant positive correlation between the recognition accuracy and average confidence for both critical and non-critical

questions, $r(179) = .47, p < .001$ and $r(179) = .41, p < .001$, respectively. Because the participants had such high accuracy this may have contributed to the minimal variance between the videos for this TBF group.

In contrast, there was a difference in average confidence with the videos when taking into account the within subjects factor of question type. In support of the recency effect the participants were in fact more confident on the second video with the critical items compared to the first video with the critical items. This trend was also apparent with the non-critical items.

The second prediction of this hypothesis, that the remember group would have higher confidence ratings compared to the forget group on all videos was also not supported in the current study. This may have also been a result of the ineffective instruction to forget. This manipulation did not create the directed forgetting effect, thus the TBF participants may have believed that they were able to adequately differentiate between the two videos. This false belief may have encouraged the participants to rate their confidence higher and subsequently similar to the TBR participants. This may also suggest why there was no interaction effect of instruction and question type on confidence.

This current finding is supported in a study conducted by Golding and Keenan (1985) who investigated directed forgetting of driving directions using a recognition test that measured accuracy and confidence. The researchers found that the confidence of the to-be-forgotten and to-be-remembered participants did not differ significantly. One possible explanation for this outcome was that because the participants were in an

experimental study they may believe that all information is relevant and the instruction to forget is not adhered to (Golding & Keenan, 1985). When this happens the TBF participants may have similar confidence compared to the TBR participants because the forgetting did not occur.

Limitations

One major limitation in the current study was the type of test used. As stated earlier, research using a recognition style test with the list method has produced mixed results. The current findings support the difficulty of obtaining directed forgetting using this paradigm. By using a recall test these materials may better examine the directed forgetting phenomenon and produce greater group variation.

Another limitation of the study was that the videos used may not have been appropriate for eliciting the directed forgetting effect. Takarangi et al. (2006) created the videos for use in misinformation effect research. For this purpose the effect of each critical item was maximized by increasing the duration of time that the items were visible. According to Wetzel and Hunt (1977) for directed forgetting to occur the presentation of the critical items should be short in duration. The longer pre-cue exposure to each critical item allows for more processing of these critical items. This higher processing is responsible for better retrieval of the critical items. This result was also found in a study conducted by McDermott and Watson (2001), which showed that increasing the duration by one second reduced the amount of forgetting that occurred. This is consistent with the retrieval inhibition hypothesis of directed forgetting because

the participant is able to encode more details about each item. This increased amount of details makes the memory more accessible and harder to inhibit.

Implications

The current study can provide further support to the retrieval inhibition hypothesis. With retrieval inhibition the new post-cue to-be-remembered list inhibits the pre-cue to-be-forgotten list memory but when the post-cue to-be-remembered list contains items from the to-be-forgotten list the inhibition does not occur (Soriano & Bajo, 2007). This release of retrieval inhibition readily occurs when the new post-cue list is quite similar to the pre-cue list. In the case of the current study, the directed forgetting effect may not have occurred because of the similarity of the two lists. Because the videos were similar there was minimal memory competition which contributed to superior recognition and release of inhibition for the TBF participants.

As stated earlier the role of self-reported confidence in directed forgetting has not received much attention. The current study, which included a confidence measure, provides insight to how ones' confidence can be influenced when an instruction to remember or forget is present. More importantly, when a person is instructed to recollect aspects of an event they are more confident on details that do not change (non-critical items) compared to the details that do change (critical items). This finding provides support to the fact that new incongruent information can disrupt ones' ability to accurately report on their memory for an event regardless of whether they were instructed to remember or forget. Consistent with the recency effect participants were more confident with more recent information compared to earlier memories. Thus, in any

situation where a person must report on what occurred their memory can be fragile and susceptible to degradation from many factors.

Future Research and Conclusions

To further investigate directed forgetting in memory with the current design, the use of a recall test may better differentiate between the groups. Once again, a common finding with the list method and a recognition test is that the TBF items are not reliably impaired compared to the TBR items. This is especially true when a forced choice or yes-no type of recognition test is used (Bjork & Bjork, 2003). In the current study this test was used because it was suggested to be a more stringent assessment for this phenomenon (Gottlob & Golding, 2007). Thus, to produce the directed forgetting effect a less stringent recall style test with this same method may better produce group variation.

Alternatively, a recognition test including more multiple choice options may possibly create a harder test that could show the effects of instruction by preventing a ceiling effect. By doing this the researchers could also investigate hits and false alarm rates. This would allow for a better understanding of how memory for details of an event may change because of an instruction. Moreover, reaction time may be another method as opposed to self-report measures to investigate the role of confidence in memory and how it can be susceptible to post-event cues or instructions. This would also allow for a more accurate comparison of the relationship between accuracy and confidence. In conclusion these materials may be useful for event memory research and should continue to warrant investigation. Future research should also continue to examine the use of video stimuli as

a more valid real life assessment of what may occur when someone is required to recollect aspects for events that they experienced.

References

- American Psychological Association. (2002). Ethical principles of psychologist and code of conduct. *American Psychologist*, 47, 1597-1611.
- Basden, B. H., & Basden, D. R. (1998). Directed forgetting: A contrast of methods and interpretations. In J. M. Golding & C. M. MacLeod (Eds.), *Intentional Forgetting: Interdisciplinary Approaches* (pp. 139-172). Lawrence Erlbaum Publishers.
- Bass, B. M. (1958). Famous sayings: Form 1. Psychological Test Specialists.
- Bates, J., Ricciardelli, L. A., & Clark, V. A. (1999). The effects of participation and presentation media on the eyewitness memory of children. *Australian Journal of Psychology*, 51, 71-76.
- Benjamin, A. S. (2006). The effects of list-method directed forgetting on recognition memory. *Psychonomic Bulletin and Review*, 13, 831-836.
- Bjork, E. L., & Bjork, R. A. (2003). Intentional forgetting can increase, not decrease, residual influences of to-be-forgotten information. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 29, 524-531.
- Bjork, E. L., & Bjork, R. A. (1996). Continuing influences of to-be-forgotten information. *Consciousness and Cognition*, 5, 176-196.
- Caretta, T., Moreland, R. (1983). The direct and indirect effects of inadmissible evidence. *Journal of Applied Social Psychology*, pp.285-95.
- Conway, M. A., Harries, K., Noyes, J., Racsmany, M., & Frankish, C. R. (2000). The disruption and dissolution of directed forgetting: Inhibitory control of memory. *Journal of Memory and Language*, 43, 409-430.

- Deffenbacher, K. A., (1980). Eyewitness accuracy and confidence. *Law and Human Behavior* 4, 243–260.
- DePrince, A. P. & Freyd, J. J. (2004). Forgetting trauma stimuli. *Psychological Science*, 7, 488–492.
- Echterhoff, G., Hirst, W. & Hussy, W. (2005). How eyewitnesses resist misinformation: Social postwarnings and the monitoring of memory characteristics. *Memory & Cognition*, 30, 770-782.
- Elmes, D. G., Adams, C. A., & Roediger, H. L. (1970). Cued forgetting in short-term memory: Response selection. *Journal of Experimental Psychology*, 86, 103-107.
- Golding, J. M., & Keenan, J. M. (1985). Directed forgetting and memory for directions to a destination. *The American Journal of Psychology*, 98, 579-590.
- Golding, J. M., & MacLeod, C. M. (Eds.). (1998). *Intentional forgetting: Interdisciplinary approaches*. New York: Lawrence Erlbaum & Associates.
- Gottlob, L. R., & Golding, J. M. (2007). Directed forgetting in the list method affects recognition memory for source. *The Quarterly Journal of Experimental Psychology*, 60, 1524-1539.
- Ihlebaek, C., Love, T., Eilertsen, D. E., & Magnussen, S. (2003). Memory for a staged criminal event witnessed live and on video. *Memory*, 11, 319-327.
- Johnson, H. M. (1994). Processes of successful intentional forgetting. *Psychological Bulletin*, 116, 274-292.

- Kassin, S. M., Rigby, S., & Castillo, S. R. (1991). The accuracy-confidence correlation in eyewitness testimony: Limits and extensions of the retrospective self-awareness effect. *Journal of Personality and Social Psychology*, 61, 698-707.
- Keppel, G. & Wickens, T. D. (2004). *Design and Analysis: A Researcher's Handbook*. New Jersey: Pearson Education.
- Kessler, R. C., Adler, L., Ames, M., Demler, O., Faraone, S., Hiripi, E., Howes, M. J., Jin, R., Secnik, K., Spencer, T., Ustun, T. B., & Walters, E. E. (2005). The World Health Organization Adult ADHD Self-Report Scale (ASRS). *Psychological Medicine*, 35, 245-256.
- Lindholm, T. (2005). Group-based biases and validity in eyewitness credibility judgments: Examining effects of witness ethnicity and presentation modality. *Journal of Applied Social Psychology*, 35, 1474-1501.
- McDermott, K. B., & Watson, J. M. (2001). The rise and fall of false recall: The impact of presentation duration. *Journal of Memory and Language*, 45, 160-176.
- Macrae, C. N., & MacLeod, M. D. (1999). On recollections lost: When practice makes imperfect. *Journal of Personality & Social Psychology*, 77, 463-473.
- Mallard, D., & Perkins, D. P. (2005). Disentangling the evidence: Mock jurors, inadmissible testimony and integrative encoding. *Psychiatry, Psychology and Law*, 12, 289-297.
- Robinson, M.D., Johnson, J. T. & Robertson, D.A. (2000). Process versus content in eyewitness metamemory monitoring. *Journal of Experimental Psychology: Applied*, 6, 207-221.

- Roebers, C. M., Gelhaar, T. & Schneider, W. (2004). "It's magic!" The effects of presentation modality on children's event memory, suggestibility and confidence judgments. *Journal of Experimental Child Psychology*, 87, 320–335.
- Sahakyan, L. & Delaney, P. F. (2005). Directed forgetting in incidental learning and recognition testing: Support for a two factor account. *Journal of Experimental Psychology: Learning, Memory & Cognition*, 31, 789-801.
- Sariano, M. F., & Bajo, M. T. (2007). Working memory resources and interference in directed forgetting. *Psicologica*, 28, 63-85.
- Shaw, J., Bjork, R., & Handal, A. (1995). Retrieval-induced forgetting in an eyewitness memory paradigm. *Psychonomic Bulletin and Review*, 2, 249-253.
- Sue, S., Smith, R. E., & Caldwell, C. (1973). Effects of inadmissible evidence on the decisions of simulated jurors: A moral dilemma. *Journal of Applied Social Psychology*, 3, 345–353.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using Multivariate Statistics*. Boston: Allyn & Bacon.
- Takarangi, M. K. T., Parker, S., & Garry, M. (2006). Modernizing the misinformation effect. *Applied Cognitive Psychology*, 20, 583-590.
- Weiner, B., & Reed, H. (1969). Effects of the instructional sets to remember and to forget on short-term retention: Studies of rehearsal control and retrieval inhibition (repression). *Journal of Experimental Psychology*, 79, 226-232.

- Wetzel, C. D., & Hunt, R. E. (1977). Cue delay and the role of rehearsal in directed forgetting. *Journal of Experimental Psychology: Human Learning and Memory*, 3, 233-245.
- Wells, G. L., Lindsay, R. C. L., & Ferguson, T. J. (1979). Accuracy, confidence, and juror perceptions in eyewitness identification. *Journal of Applied Psychology*, 64, 440-448.
- White, H. A., & Marks, W. (2004). Updating memory in list-method directed forgetting: Individual differences related to adult attention-deficit hyperactivity disorder. *Personality and Individual Differences*, 37, 1453-1462.
- Woodward, A. E., & Bjork, R. A. (1971). Forgetting and remembering in free recall: Intentional and unintentional. *Journal of Experimental Psychology*, 89, 109-116.
- Woodward, A. E., Park, D. C. & Seebohm, K. (1974). Directed forgetting as a function of explicit within-list cueing and implicit post-list cueing. *Journal of Experimental Psychology*, 102, 1001-1006.

Appendix A

PROCEDURAL TABLE

Group 1	Video 1	Instruction to Remember Video 1 & 2	Video 2	Test for Video 2
Group 2	Video 1	Instruction to Forget Video 1 and Remember Video 2	Video 2	Test for Video 1
Group 3	Video 1	Instruction to Forget Video 1 and Remember Video 2	Video 2	Test for Video 2
Group 4	Video 1	Instruction to Remember Video 1 & 2	Video 2	Test for Video 1

Appendix B

NOTIFICATION STATEMENT

PROJECT TITLE: PROJECT JURY

RESEARCHERS: R.P.I.: Dr. Elaine Justice, ejjustice@odu.edu. P.I.: Shawn Dickerson, sdick003@odu.edu, College of Sciences, Department of Psychology.

Research Assistants:

DESCRIPTION OF RESEARCH STUDY: You are asked to participate as a volunteer in a scientific investigation conducted by Shawn Dickerson of the Department of Psychology. This project, titled “Project Jury”, where you will be asked to view a series of videos that might be presented to a jury. You will then be asked to answer questions pertaining to famous sayings and then questions based on what you viewed. You will also be asked to complete a survey of attention. All surveys are anonymous. At any time you can stop participating and have your responses discarded.

EXCLUSIONARY CRITERIA: To be eligible for this study you must be either an undergraduate or graduate student at ODU. You also must be 18 years of age or older.

RISKS: There are no risks associated with this study beyond the risk of watching movies. Although, if you state that you have become uncomfortable at any time while filling out the surveys, you may stop participation. You do not have to resume participation unless you feel comfortable in doing so. At any time during the research, you have the right to stop and decide that you no longer want to participate. For those participants that choose to end their participation, their surveys will be destroyed and will not be part of the final write-up.

BENEFITS: There are no direct benefits with participating in this study. One benefit that may be accrued from this study is better scientific knowledge of memory and eyewitness testimony.

COSTS AND PAYMENTS: The researchers are unable to give you any monetary payment for participating in this study. If you decide to participate in this study, you will receive 1 Psychology department research credits, which may be applied to course requirements or extra credit in certain Psychology courses. You do not have to participate in this study, or any Psychology Department study, in order to obtain this credit.

NEW INFORMATION: If the researchers find new information during this study that would reasonably change your decision about participating, then they will give it to you.

CONFIDENTIALITY: All survey responses are anonymous. The results of this study may be used in reports, presentations, and publications; but the researcher will not identify you.

WITHDRAWAL PRIVILEGE: At any time during the research you may stop and decide to no longer participate. Your responses will then be discarded and not used in the final write-up. You may terminate your participation at any time, without penalty. Those participants that choose to withdraw will still receive the research credits.

Appendix C

MOVIE MANIPULATION CRITICAL ITEMS

Version 1	Version 2
<ol style="list-style-type: none">1. RJ's2. made bed3. Coke4. white mug5. black cap6. Time7. clock8. Pisa	<ol style="list-style-type: none">1. AJ's2. unmade bed3. Pepsi4. yellow mug5. blue cap6. Newsweek7. watch8. Eiffel

Appendix D

RECOGNITION TEST VIDEO 1

You will now be asked some questions about the first video you saw. We are testing your memory for this first video.

Each question has two parts:

- 1) the first part asks you about a particular item from the video;
- 2) the second part asks you how confident you are about your answer.

Here is a sample question.

Eric was working in _____

a house b. a shop

How confident are you that your answer is correct?

1	2	3	4	5
Not at all				Very
Confident				Confident

WHEN YOU HAVE READ AND UNDERSTOOD HOW TO ANSWER THESE QUESTIONS, TURN OVER THE PAGE AND BEGIN THE TEST.

1. In the first video Eric was wearing _____

- a. overalls b. jeans

How confident are you that your answer is correct?

1	2	3	4	5
Not at all				Very
Confident				Confident

2. In the first video Eric ate _____

- a. an apple b. a banana

How confident are you that your answer is correct?

1	2	3	4	5
Not at all				Very
Confident				Confident

3. In the first video the magazine that Eric read was _____

- a. Time b. Newsweek

How confident are you that your answer is correct?

1	2	3	4	5
Not at all				Very
Confident				Confident

4. In the first video Eric read the note from the homeowner in the _____

a. kitchen

b. hallway

How confident are you that your answer is correct?

1	2	3	4	5
Not at all			Very	
Confident			Confident	

5. In the first video the tool that Eric used in the kitchen was _____

a. pliers

b. a screwdriver

How confident are you that your answer is correct?

1	2	3	4	5
Not at all			Very	
Confident			Confident	

6. In the first video, in the lounge the picture Eric looked at was the

_____ Tower

a. Eiffel

b. Leaning

How confident are you that your answer is correct?

1	2	3	4	5
Not at all			Very	
Confident			Confident	

7. In the first video the bed in the first bedroom was _____

- a. made b. unmade

How confident are you that your answer is correct?

1	2	3	4	5
Not at all			Very	
Confident			Confident	

8. In the first video, in the second bedroom, Eric tested a _____

- a. electrical socket b. light fitting

How confident are you that your answer is correct?

1	2	3	4	5
Not at all			Very	
Confident			Confident	

9. In the first video Eric played a _____

- a. video b. CD

How confident are you that your answer is correct?

1	2	3	4	5
Not at all			Very	
Confident			Confident	

10. In the first video, in the second bedroom, Eric tried on a _____ hat

a. blue

b. black

How confident are you that your answer is correct?

1 2 3 4 5

Not at all

Very

Confident

Confident

11. In the first video the name of Eric's company was _____

a. AJ's Electricians

b. RJ's Electricians

How confident are you that your answer is correct?

1 2 3 4 5

Not at all

Very

Confident

Confident

12. In the first video Eric checked the time _____

a. on his watch

b. on the wall clock

How confident are you that your answer is correct?

1 2 3 4 5

Not at all

Very

Confident

Confident

13. In the first video the jewelry that Eric stole in the first bedroom was _____

- a. earrings b. a necklace

How confident are you that your answer is correct?

1 2 3 4 5

Not at all

Very

Confident

Confident

14. In the first video in the lounge Eric looked through a _____

- a. journal b. photo album

How confident are you that your answer is correct?

1 2 3 4 5

Not at all

Very

Confident

Confident

15. In the first video Eric's van was _____

- a. blue b. red

How confident are you that your answer is correct?

1 2 3 4 5

Not at all

Very

Confident

Confident

16. In the first video Eric found the house key under a _____

a. door mat

b. flower pot

How confident are you that your answer is correct?

1 2 3 4 5

Not at all

Very

Confident

Confident

17. In the first video Eric rummaged through papers that were next to a

_____ mug

a. yellow

b. white

How confident are you that your answer is correct?

1 2 3 4 5

Not at all

Very

Confident

Confident

18. In the first video Eric drank a can of _____

a. coke

b. pepsi

How confident are you that your answer is correct?

1 2 3 4 5

Not at all

Very

Confident

Confident

19. In the first video, in the bathroom Eric stole _____

a. pills

b. perfume

How confident are you that your answer is correct?

1

2

3

4

5

Not at all

Very

Confident

Confident

20. In the first video Eric stole _____ in the second bedroom

a. money

b. a ring

How confident are you that your answer is correct?

1

2

3

4

5

Not at all

Very

Confident

Confident

Appendix E

RECOGNITION TEST VIDEO 2

You will now be asked some questions about the second video you saw. We are testing your memory for this second video.

Each question has two parts:

- 1) the first part asks you about a particular item from the video;
- 2) the second part asks you how confident you are about your answer.

Here is a sample question.

Eric was working in _____

a house b. a shop

How confident are you that your answer is correct?

1	2	3	4	5
Not at all				Very
Confident				Confident

WHEN YOU HAVE READ AND UNDERSTOOD HOW TO ANSWER THESE QUESTIONS, TURN OVER THE PAGE AND BEGIN THE TEST.

1. In the second video Eric was wearing _____

- a. overalls b. jeans

How confident are you that your answer is correct?

1	2	3	4	5
Not at all			Very	
Confident			Confident	

2. In the second video Eric ate _____

- a. an apple b. a banana

How confident are you that your answer is correct?

1	2	3	4	5
Not at all			Very	
Confident			Confident	

3. In the second video the magazine that Eric read was _____

- a. Time b. Newsweek

How confident are you that your answer is correct?

1	2	3	4	5
Not at all			Very	
Confident			Confident	

4. In the second video Eric read the note from the homeowner in the _____

- a. kitchen b. hallway

How confident are you that your answer is correct?

1	2	3	4	5
Not at all			Very	
Confident			Confident	

5. In the second video the tool that Eric used in the kitchen was _____

- a. pliers b. a screwdriver

How confident are you that your answer is correct?

1	2	3	4	5
Not at all			Very	
Confident			Confident	

6. In the second video in the lounge the picture Eric looked at was the
_____ Tower

- a. Eiffel b. Leaning

How confident are you that your answer is correct?

1	2	3	4	5
Not at all			Very	
Confident			Confident	

7. In the second video the bed in the first bedroom was _____

- a. made b. unmade

How confident are you that your answer is correct?

1	2	3	4	5
Not at all			Very	
Confident			Confident	

8. In the second video in the second bedroom, Eric tested a _____

- a. electrical socket b. light fitting

How confident are you that your answer is correct?

1	2	3	4	5
Not at all			Very	
Confident			Confident	

9. In the second video Eric played a _____

- a. video b. CD

How confident are you that your answer is correct?

1	2	3	4	5
Not at all			Very	
Confident			Confident	

10. In the second video in the second bedroom, Eric tried on a _____ hat

a. blue

b. black

How confident are you that your answer is correct?

1 2 3 4 5

Not at all

Very

Confident

Confident

11. In the second video the name of Eric's company was _____

a. AJ's Electricians

b. RJ's Electricians

How confident are you that your answer is correct?

1 2 3 4 5

Not at all

Very

Confident

Confident

12. In the second video Eric checked the time _____

a. on his watch

b. on the wall clock

How confident are you that your answer is correct?

1 2 3 4 5

Not at all

Very

Confident

Confident

13. In the second video the jewelry that Eric stole in the first bedroom was _____

a. earrings

b. a necklace

How confident are you that your answer is correct?

1

2

3

4

5

Not at all

Very

Confident

Confident

14. In the second video in the lounge Eric looked through a _____

a. journal

b. photo album

How confident are you that your answer is correct?

1

2

3

4

5

Not at all

Very

Confident

Confident

15. In the second video Eric's van was _____

a. blue

b. red

How confident are you that your answer is correct?

1

2

3

4

5

Not at all

Very

Confident

Confident

16. In the second video Eric found the house key under a _____

a. door mat

b. flower pot

How confident are you that your answer is correct?

1 2 3 4 5

Not at all

Very

Confident

Confident

17. In the second video Eric rummaged through papers that were next to a _____ mug

a. yellow

b. white

How confident are you that your answer is correct?

1 2 3 4 5

Not at all

Very

Confident

Confident

18. In the second video Eric drank a can of _____

a. coke

b. pepsi

How confident are you that your answer is correct?

1 2 3 4 5

Not at all

Very

Confident

Confident

19. In the second video in the bathroom Eric stole _____

a. pills

b. perfume

How confident are you that your answer is correct?

1

2

3

4

5

Not at all

Very

Confident

Confident

20. In the second video Eric stole _____ in the second bedroom

a. money

b. a ring

How confident are you that your answer is correct?

1

2

3

4

5

Not at all

Very

Confident

Confident

Appendix F

ASRS-V 1.1

Please answer the questions below, rating yourself on each of the criteria shown using the scale on the right side of the page. As you answer each question, place an X in the box that best describes how you have felt and conducted yourself over the past 6 months.	Never	Rarely	Sometimes	Often	Very Often
1. How often do you have trouble wrapping up the final details of a project, once the challenging parts have been done?					
2. How often do you have difficulty getting things in order when you have to do a task that requires organization?					
3. How often do you have problems remembering appointments or obligations?					
4. When you have a task that requires a lot of thought, how often do you avoid or delay getting started?					
5. How often do you fidget or squirm with your hands or feet when you have to sit down for a long time?					
6. How often do you feel overly active and compelled to do things, like you were driven by a motor?					
SECTION A					
7. How often do you make careless mistakes when you have to work on a boring or difficult project?					
8. How often do you have difficulty keeping your attention when you are doing boring or repetitive work?					
9. How often do you have difficulty concentrating on what people say to you, even when they are speaking to you directly?					
10. How often do you misplace or have difficulty finding things at home or at work?					
11. How often are you distracted by activity or noise around you?					
12. How often do you leave your seat in meetings or other situations in which you are expected to remain seated?					
13. How often do you feel restless or fidgety?					

14. How often do you have difficulty unwinding and relaxing when you have time to yourself?					
15. How often do you find yourself talking too much when you are in social situations?					
16. When you're in a conversation, how often do you find yourself finishing the sentences of the people you are talking to, before they can finish them themselves?					
17. How often do you have difficulty waiting your turn in situations when turn taking is required?					
18. How often do you interrupt others when they are busy?					
SECTION B					

Appendix G

FAMOUS SAYINGS FILLER TASK

Directions: This is a test of attitudes toward various famous sayings. Read each one carefully to find out its true meaning for you. If you agree more than you disagree with it, then circle "Yes." If you disagree more than you agree with the saying, then circle "No." If you are uncertain or not sure whether you agree or disagree, the circle the "?"
Make one mark for every saying.

- | | | | |
|--|-----|---|----|
| 1. Good-will overcomes ill-will. | Yes | ? | No |
| 2. To obtain success by your own efforts is the greatest joy in life. | Yes | ? | No |
| 3. The humblest of friendships is better than the triumphs of genius. | Yes | ? | No |
| 4. To be afraid about having accidents is the best guard against them. | Yes | ? | No |
| 5. There is no satisfaction without a companion to share it. | Yes | ? | No |
| 6. If he tries hard enough, one can be first in anything. | Yes | ? | No |
| 7. People often grudge others what they cannot enjoy themselves. | Yes | ? | No |
| 8. Most people enjoy having a secret enemy. | Yes | ? | No |
| 9. Since you spend one-third of your life in bed, you should spare no expense
No | Yes | ? | No |
| in purchasing the most comfortable one you can find. | | | |
| 10. A man's wealth is measured by his friendship. | Yes | ? | No |
| 11. Every normal man must be tempted at times to commit murder. | Yes | ? | No |
| 12. It is better to have friends than fame. | Yes | ? | No |
| 13. When a man is no longer interested in doing his best, he is done for. | Yes | ? | No |
| 14. Most people enjoy the inferiority of their best friends. | Yes | ? | No |
| 15. Nothing else which life can offer is a substitute for a great achievement.
No | Yes | ? | No |
| 16. He who does not please his belly will not please anything else. | Yes | ? | No |

- | | | | |
|---|-----|---|----|
| 17. We like best which flies beyond our reach. | Yes | ? | No |
| 18. He that has many friends need never fear disaster. | Yes | ? | No |
| 19. Marriage is a field of battle. | Yes | ? | No |
| 20. Better humble security than glittering danger. | Yes | ? | No |
| 21. Goodwill subdues its opposite, like water subdues fire. | Yes | ? | No |
| 22. If you wish to mount a ladder you always must begin at the lowest rung. | Yes | ? | No |
| 23. Charity should begin with being charitable to your enemies. | Yes | ? | No |
| 24. It isn't the common man at all who is important; it is the uncommon man. | Yes | ? | No |
| 25. We become wise by being intimate with people. | Yes | ? | No |
| 26. You can fool most of the people all of the time. | Yes | ? | No |
| 27. Meekness is better than vengeance. | Yes | ? | No |
| 28. Give good for bad; blessings for curses. | Yes | ? | No |
| 29. Crime never pays. | Yes | ? | No |
| 30. Injuries may be forgiven, but never forgotten. | Yes | ? | No |
| 31. Ambition is the father of virtue. | Yes | ? | No |
| 32. The world is full of people who are not worth speaking to. | Yes | ? | No |
| 33. The threat of force can persuade people easier than all the talk in the world. | Yes | ? | No |
| 34. Only ambition will bring a man's mind into full activity. | Yes | ? | No |
| 35. The feeling of friendship is like that of being comfortably filled with roast beef. | Yes | ? | No |
| 36. She who flirts with all is less likely to fall than she who flirts with one. | Yes | ? | No |

37. Love is more just than justice. Yes ? No
38. Our chief want is life is somebody who will make us do what we can. Yes ? No
39. We are all born for love. Yes ? No
40. Don't count you chickens before they're hatched. Yes ? No

Appendix H

SCRIPT

1. Have participants check off their name on the sign up sheet (either you can tell them to check off their name as they come, or you can call out their name and check them off yourself at the beginning of the experiment)

2. Instruct them to log in on the computers and go to:

<https://periwinkle.ts.odu.edu/surveys/GD465T>

3. “You will be asked to view a series of videos that are presented. You will then be asked to answer questions pertaining to famous sayings, attention and then questions based on what you viewed.

“There are little risks associated with this study but if you feel uncomfortable at anytime you can quit the study and you may omit questions that you do not feel comfortable answering.”

“A benefit from this study is that you will receive one extra credit psychology department research point.”

“By agreeing to participate in this study you have acknowledged that you have been properly informed about this study and understand all that is involved.”

“Please only click “Next” when I instruct you to.”

4. Before 1st video:

“In this study we are interested in people’s ability to remember information that they see in a videotaped event. This would be somewhat similar to viewing a crime scene and later having to report on what you saw. I will now show you the first video. Please pay close attention to the video. As you watch the video, try to pay very close attention to the details of the video because you will be asked questions pertaining to the defendant’s actions”.

Play video # 1.

5. When video clips is finished:

To Be Remembered

“Please click next. I would like you to try to remember as many details of this video as you can. Now, I’m going to show you a different video that is similar but with subtle differences. So I want you to remember the first video, but also remember the second video because you will be asked questions on it later. Also, please click that you were instructed to remember.”

To Be Forgotten

“Please click next. I would like you to try to forget this first video. Now, I am going to show a different video that is similar but with subtle differences. So I want you to forget the first video and remember the second video because you will be asked questions on it later. Also, please click that you were instructed to forget.”

6. Play video # 2

At the conclusion of the video instruct the participants to click “Next” and complete the filler task.

“This is a test of attitudes toward various famous sayings. Read each one carefully to find out its true meaning for you. If you agree more than you disagree with it, then select “Yes.” If you disagree more than you agree with the saying, then select “No”. If you are uncertain or not sure whether you agree or disagree, the select the “?”. “You have 10 minutes to complete these questions.”

At the conclusion of the filler task instruct the participants to click “Next” and complete the attention task.

“This is a test regarding your attention in the past 6 months. Please answer the questions below, rating yourself on each of the criteria shown using the scale on the right side of the screen. As you answer each question, select the box that best describes how you have felt and conducted yourself over the past 6 months.”
“You have 5 minutes to complete these questions.”

7. Once everyone has completed the filler task:

Instruct them to click “Next”.

Remember Group Test for Video A

“Please click that you are instructed to remember the first video then click next.”

“Now we want you to recall information from one of the videos you saw. We want you to remember information from the first video. Please answer all of the questions to the best of your ability based on the first video. Also, for each answer indicate how confident you are in your memory from 1 “Not at all” to 5 “Very confident”. Once you have completed the 20 questions please look at me so I know you are done.”

Remember Group Test for Video B

“Please click that you are instructed to remember the second video then click next.”

“Now we want you to recall information from one of the videos you saw. We want you to remember information from the second video. Please answer all of the questions to the best of your ability based on the second video. Also, for each answer indicate how confident you are in your memory from 1 “Not at all” to 5 “Very confident”. Once you have completed the 20 questions please at me so I know you are done.”

Forget Group Test for Video A

“Please click that you are instructed to remember the first video then click next.”

“Now we want you to recall information from one of the videos you saw. We want you to remember information from the first video. Please answer all of the questions to the best of your ability based on the first video. Also, for each answer indicate how confident you are in your memory from 1 “Not at all” to 5 “Very confident”. Once you have completed the 20 questions please at me so I know you are done.”

Forget Group Test for Video B

“Please click that you are instructed to remember the second video then click next.”

“Now we want you to recall information from one of the videos you saw. We want you to remember information from the second video. Please answer all of the questions to the best of your ability based on the second video. Also, for each answer indicate how confident you are in your memory from 1 “Not at all”

to 5 “Very confident”. Once you have completed the 20 questions please at me so I know you are done.”

8. Debriefing Script

Please click “Next”.

“Thank you for participating in Project Jury. This study was about memory and confidence pertaining to real life witnessed events after being instructed to remember or forget them. If you have any questions regarding this study, then you may contact the researcher at the email address provided on the Notification Sheet. This concludes the study. Please click finish and you should be redirected to the ODU home page. Once you get to the homepage please log out of the computer. Thank you and enjoy the rest of your day.”

Appendix I

DEBRIEFING STATEMENT

Thank you for participating in Project Jury. This study was about memory and confidence pertaining to real life witnessed events. If you have any questions feel free to contact the researcher sdick003@odu.edu . This concludes the study!

VITA

Name: Shawn Dickerson, B.A.

EDUCATION:

2006	B.S., Psychology May 2006 Old Dominion University Norfolk, Virginia GPA: 2.87
2008	M.S., Psychology August 2008 Old Dominion University Norfolk, Virginia GPA: 3.96

RESEARCH EXPERIENCE:

Fall 2005- Summer 2006	Research Assistant: Old Dominion University, Norfolk, VA <i>Rat Performance in the Radial-Arm Maze after Chronic Injection of Pfiesteria Toxin.</i> Supervisor: Dr. Perry Duncan
Fall 2006- Spring 2007	Project Leader: Old Dominion University, Norfolk, VA <i>The Effect of Similar Trauma on One's Susceptibility to the Misinformation Effect.</i> Supervisor: Dr. Elaine Justice

TECHNICAL REPORTS:

Morrow, J.A., Dunaway, K., Dickerson, S., & Braitman A. (2006). *Perceptions of Portsmouth Police Officers: How NIOs and UPOs Differ.*

RESEARCH PRESENTED AT PROFESSIONAL MEETINGS:

Dickerson, S., & Justice, E. M. (2002). *The Effect of Similar Trauma on One's Susceptibility to the Misinformation Effect.*
Presented at the annual meetings of the American Psychological Association, Richmond, VA.