THE BUTLER DIDN’T DO IT!
THE CONTINUED INFLUENCE OF
IMPLIED VS. DIRECTLY STATED MISINFORMATION

A thesis submitted
to Kent State University in partial
fulfillment of the requirements for the
Degree of Master of Arts

By

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# TABLE OF CONTENTS

LIST OF FIGURES ........................................................................................................ iv

LIST OF TABLES ........................................................................................................... v

CHAPTER

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>INTRODUCTION</td>
</tr>
<tr>
<td>II</td>
<td>EXPERIMENT 1a</td>
</tr>
<tr>
<td>III</td>
<td>EXPERIMENT 1b</td>
</tr>
<tr>
<td>IV</td>
<td>GENERAL DISCUSSION</td>
</tr>
</tbody>
</table>

APPENDICES .............................................................................................................. 44

A | NEWS REPORT MESSAGES .............................................................................. 45

B | FINAL QUESTIONNAIRE .................................................................................. 48

REFERENCES .............................................................................................................. 51
LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mean number of inferences generated per condition from both Experiment 1a (left side) and Experiment 1b (right side).</td>
<td>18</td>
</tr>
<tr>
<td>2</td>
<td>Mean number of inferences generated per condition from both Experiment 1a (left side) and Experiment 1b (right side).</td>
<td>21</td>
</tr>
<tr>
<td>3</td>
<td>Average rating of the likelihood of the son’s involvement on a scale from 1 (Highly Unlikely) to 6 (Highly Likely) per condition from both Experiment 1a (left side) and Experiment 1b (right side).</td>
<td>22</td>
</tr>
<tr>
<td>4</td>
<td>Average rating of the likelihood of the son’s involvement per condition from both Experiment 1a (left side) and Experiment 1b (right side) with the Correction conditions broken down into individuals who believe the correction (Correction-Believers) and individuals who do not believe the correction (Correction-Nonbelievers).</td>
<td>25</td>
</tr>
<tr>
<td>5</td>
<td>Standardized suspicion score by condition.</td>
<td>34</td>
</tr>
<tr>
<td>6</td>
<td>Standardized suspicion score by condition with the Correction conditions broken down into individuals who believe the correction (Correction-Believers) and individuals who do not believe the correction (Correction-Nonbelievers)</td>
<td>36</td>
</tr>
<tr>
<td>Table</td>
<td>Description</td>
<td>Page</td>
</tr>
<tr>
<td>-------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>1</td>
<td>Factor Scores, Loadings and Communalities for a Subset of Inference Questions and Likelihood of the Son’s Involvement Using a One-Factor Structure</td>
<td>33</td>
</tr>
</tbody>
</table>
CHAPTER I

INTRODUCTION

In our information rich society people have constant access to the media through radio, television, and the internet. The media uses these formats to report up-to-the-minute news about political figures, current events, and the state of the world. Although most of the news is factually correct, some news is based on incomplete information, speculation, or mistaken information (hereafter referred to as misinformation). These errors often occur because it takes time for all of the information to be found. However, news stories are released as the events are ongoing and not necessarily when the full story is known. For instance, on June 28, 2012 many American news organizations were waiting for the Supreme Court of the United States of America to rule on the Patient Protection and Affordable Care Act. Two of these news organizations, the Cable News Network and Fox News, rushed to report the ruling once it was posted. In their rush to report as quickly as possible, these organizations failed to read the entire ruling document and falsely reported that the act was unconstitutional. In cases where the news is reported in error, news organizations typically issue corrections and revise the story. In this case, the news organizations realized the error after a few minutes and corrected their reports. Ideally, such corrections should be sufficient to counteract the initial error.
Unfortunately, considerable empirical evidence shows that corrections do not always completely undo the effects of misinformation. This phenomenon has been demonstrated in a variety of domains including: beliefs about personality characteristics (Anderson, Lepper, & Ross, 1980), mock court cases and inadmissible testimony, (Kassin & Sommers, 1997), and beliefs about the cause of the Iraq War (Lewandowsky, Stritzke, Oberauer, & Morales, 2005). One well-studied laboratory paradigm that illustrates this phenomenon in the context of unfolding news reports is research on the continued influence effect (Ecker, Lewandowsky, & Apai, 2011a; Ecker, Lewandowsky, Swire, & Chang, 2011b; Ecker, Lewandowsky, & Tang, 2010; Guillory & Geraci, 2010; Johnson & Seifert, 1994; Lewandowsky, Ecker, Seifert, Schwarz, & Cook, 2012; Seifert, 2002; Wilkes & Leatherbarrow, 1988). The goal of the current study is to investigate how the nature of the initial misinformation contributes to the incidence and magnitude of this continued influence effect.

In the paradigm used to study the continued influence effect, participants read a series of messages imitating an ongoing news report. For example, in a study by Johnson and Seifert (1994, Experiment 3b) participants read a report describing the theft of valuable jewelry from an older couple’s home that occurred while they were away on vacation. Initially, the report states that the son, who had been asked to watch over the house, is a suspect in the case; this statement suggests that the son committed the crime, which is the misinformation. A subsequent message reports that the son was called away on business and was out of town when the theft occurred; this message is the correction. Hence, given the correction, readers should believe that the son is innocent. However,
Johnson and Seifert (1994) found that even when participants remembered the correction—that the son was out of town—and could report it on a later test, indirect measures of participants’ beliefs revealed some lingering suspicion about the son’s guilt. In other words, this suspicion is evidence of a continued influence of the misinformation.

In these studies, continued influence of the misinformation is typically assessed through a series of “inference questions” that indirectly probe participants’ beliefs about what happened by asking them about details that were not reported in the story they read. For example, Johnson and Seifert (1994) asked participants the inference question, “how did the thief enter the house,” even though the story never mentioned how the thief entered. Responses to these inference questions are coded based on whether they convey belief in the misinformation. Continuing with the previous example, participants gave responses to this inference question that either implied the theft was an “inside job” (e.g., “the thief used a key”) or implied the theft was an “outside job: (e.g., “the thief entered through a broken window”). The continued influence effect is the phenomenon where participants who receive misinformation (e.g., the son is the culprit) that is later corrected (e.g., the son was out of town) make more of the “inside job” responses than those who were never misled (e.g., those who were never led to believe he was the culprit).

To date, studies of the continued influence effect have focused on assessing whether some types of corrections are more effective than others, with the goal of identifying the conditions under which corrections might eliminate the effects of misinformation altogether (Ecker et al., 2010; Ecker et al., 2011b; Johnson & Seifert, 1994). Studies have shown that corrections alone are largely ineffective at eliminating
the effects of the initial misinformation, regardless of whether the correction is provided immediately after the misinformation (Johnson & Seifert, 1994), whether the correction is presented on multiple occasions (Ecker et al., 2011b), or whether people are given generic warnings about false information in news reports (Ecker et al., 2010). Suspicion about the son’s guilt is only eliminated when the correction is paired with additional information about the actual cause of the outcome (e.g., when participants are informed that the actual thief was caught with the jewelry in his possession; Johnson & Seifert, 1994).

Although the nature of the correction clearly can play a role in the incidence and magnitude of the continued influence effect, the nature of the misinformation might play a role as well. Almost no studies of the continued influence effect have manipulated the nature of the misinformation. Rather, most have used initial misinformation that explicitly states the likely cause of the event (e.g., the son is a suspect; Ecker et al., 2011a; Ecker et al., 2010; Johnson & Seifert, 1994).

However, in real-world situations news stories do not always provide misinformation explicitly. Instead news stories may merely imply that something or someone might be the cause of an adverse outcome. Consider the following real-world news story described by Seifert (2002). In this case a television news channel reported that a family of four had been found dead. The news report also mentioned that the family had eaten at a Chinese restaurant that evening. A few days later the news channel reported that the deaths were actually caused by a faulty furnace. This story concluded with a report that the Chinese restaurant had closed. Thus, even though the actual death
was unrelated to the Chinese restaurant, readers appear to have believed that dining at the restaurant contributed to the family’s death and hence avoided dining at the restaurant. Apparently, people could not shake the suspicion that something wrong with the restaurant. I propose that this continued fear of the restaurant persisted because the restaurant was never explicitly linked to the deaths—its potential role was merely implied. Perhaps if the news story had explicitly stated that the police suspected food poisoning as the cause of deaths participants would have been better able to correct this misinformation when they later learned that the faulty furnace was responsible. The goal of this study is to determine whether implied misinformation is more difficult to correct and leads to a greater continued influence effect than explicit misinformation.

Several reasons exist to suspect that implied misinformation may be more difficult to correct than explicit misinformation and would thus lead to a greater continued influence effect. First, whereas explicit misinformation directly provides the causal link between the piece of evidence and the outcome, implied misinformation requires participants to go through some elaboration to make the connection between the implied cause and the outcome. The additional elaboration required to connect the implied misinformation to the outcome can be expected to increase memory for the misinformation, thereby making the misinformation more resilient to a correction. This prediction is supported by evidence from a study of causal relatedness and memory conducted by Myers, Shinjo & Duffy (1987). The authors found that sentences that are very high in causal relatedness are actually less well remembered than those that are only moderately related. Myers et al. (1987) argued that when a moderate causal relation
exists between two sentences additional elaboration is needed to form the causal link between them. This elaboration confers a mnemonic benefit that is not present for highly related sentences where the causal link is already explicitly provided. This increased memory may also cause implied misinformation, which requires such elaboration, to be more difficult to correct.

A second reason to suspect that implied misinformation may be more difficult to correct than explicit misinformation comes from studies of the hypercorrection effect. These studies have shown that people are more responsive to corrections of high confidence errors than low confidence errors (Butterfield & Metcalfe, 2006; Fazio & Marsh, 2009). This effect occurs for a few reasons, one of which is that people pay more attention to feedback when confidence does not match performance. Thus people remember the correction more often after high confidence errors than low confidence errors. Similarly, corrections of misinformation may be more effective when people are confident in the initial misinformation. When misinformation is presented explicitly participants are likely to accept with higher confidence than when the misinformation is implied and participants have to elaborate to make the connection. Thus studies of the hypercorrection effect would predict that implied misinformation would be more difficult to correct than explicit misinformation and leading to greater continued influence.

Another reason to suspect that implied misinformation may be more difficult to correct is based on a theory of mental contamination described by Wilson and Brekke (1994). Wilson and Brekke describe mental contamination as the unconscious or uncontrollable process which leads to any unwanted judgment, belief, behavior, or
emotion. The main example they use is the situation where a teacher fails to grade a student objectively because of the teacher’s feelings about the student. According to Wilson and Brekke (1994), correcting for such mental contamination requires a set of steps. This set of steps should help explain the continued influence effect because this effect arises from a failure to correct a mental contaminant. The first step in this process is awareness of the mental contamination. Wilson and Brekke argue that if an individual is unaware of the mental contamination then they will be unable to correct for that contamination. Explicit misinformation is tied directly to a statement participants can recall. Implied misinformation, on the other hand, is a product of elaboration performed by the reader and thus less directly linked to information the participant can recall. As such, participants are likely more aware of the influence of explicit misinformation than implied misinformation. Accordingly, implied misinformation should be more difficult to correct than explicit misinformation.

To investigate the prediction that implied misinformation is more difficult to correct and leads to a greater continued influence effect than explicit misinformation, the current studies modified materials used by Johnson and Seifert (1994, Experiment 3b). The materials used are those described above: a news story about the theft of jewelry from a family’s home that implicates the son at the outset but then provides a correction (i.e., he was out of town). In the current study the misinformation was modified to create an implied version and an explicit version. As in previous studies, the correction’s effectiveness will be assessed using a series of inference questions based on the questions used by Johnson and Seifert (1994). Additionally, a more direct measure of participants
continued belief is introduced in the current study. Specifically, participants will be asked to rate the likelihood of the son’s involvement. Based on previous studies I hypothesize that the correction will reduce the number of inferences and ratings of the son’s involvement in the theft. In addition, consistent with prior research I anticipate finding a continued influence effect such that participants who receive the correction should have higher ratings on both measures than participants who are never misled. However, the novel hypothesis this study examines is that a greater continued influence effect will be found after implied misinformation than explicit misinformation.
CHAPTER II

EXPERIMENT 1a

Experiment 1a Method

Participants

A total of 434 undergraduates at Kent State University (253 females) completed the experiment and were awarded credit for a course requirement. All participants were fluent in English.

Design

Participants were randomly assigned to 1 of 5 between-subjects conditions. These conditions can be described in terms of a 2 (Misinformation Type: Implied or Explicit) x 2 (Correction Condition: No Correction or Correction) design with an additional No-Suspect control condition (conditions described below). The numbers of participants in each of the 5 conditions were: Implied ($N = 90$), Implied-Correction ($N = 90$), Explicit ($N = 82$), Explicit-Correction ($N = 86$), and No-Suspect ($N = 86$).

Materials and Procedure

Participants came to the lab in groups of up to 10 participants for a single 45 minute session. All participants were informed that they would be reading a series of messages and then asked questions about the events described in the messages.
**Phase 1: News stories.** Participants were given 5 minutes to read a news report adapted from an experiment conducted by Johnson and Seifert (1994, Experiment 3b). The news report describes a police investigation into a jewelry theft at a private home while the occupants were on vacation. The report consisted of a series of 13 messages, each ranging from 1 to 4 sentences (see Appendix A). Three of the 13 messages (messages 4, 5 and 11) were *critical messages* that varied depending upon condition. The remaining messages were identical across all five conditions. In what follows, I describe how these critical messages were arranged to create the 5 conditions employed in this study.

**Implied and Explicit conditions.** Participants in these conditions read a story that implicated the son as a potential suspect (either indirectly or explicitly) and never received a correction. In the original Johnson and Seifert (1994) experiment, all participants actually received two messages which implicate the son as a potential suspect. The first message read:

> The Harter's report that they had asked their son, Evan, to check in on the house periodically during their absence. The son also did other odd jobs for many of the neighbors,

and the second message read:

> Police suspect that the Harter's son, Evan, may have taken the box from the house to help pay off large gambling debts.

To create the Implied and Explicit conditions for the present study, I gave participants only one of these two statements as Message 5. Specifically, participants in the Implied condition received only the first statement regarding the son watching the house while the
Harters were away (see Appendix A). This statement does not name the son explicitly as a suspect, but makes it clear that he had the opportunity to commit both the theft of his parents’ jewelry and the other thefts in the neighborhood, and hence implicates him as a potential suspect. Participants in the Explicit condition received only the second statement as Message 5. This statement explicitly states the son is a suspect and provides a motive for the son stealing the jewelry (see Appendix A).

**Implied-Correction and Explicit-Correction conditions.** These conditions were identical to the corresponding Implied and Explicit conditions described above with the exception that in the latter part of the news story participants read an additional correction message (Message 11). This message indicated the son was out of town on business during his parents’ vacation and is a correction because the son could not have committed the theft if he was out of town. In the Explicit-Correction condition participants received the same correction used by Johnson and Seifert (1994) when participants were informed that the son had a gambling debt. This correction read:

The Harters’ son is not a suspect because several independent sources confirm that he had been out of town on business during the Harters’ vacation.

In the Implied-Correction condition participants received the same correction used by Johnson and Seifert (1994) when participants were only informed that the son was watching over his parents’ house. This correction read:

Police have found that Evan had been called away on business and had not been in town to look after the house during the Harters’ vacation.
Note that in the Implied-Correction condition I removed the phrase stating the son is “not a suspect” because that phrase indicates that the son was initially worth suspecting and is tantamount to explicitly stating he was a suspect.

**No-Suspect condition.** The No-Suspect condition was a control condition insofar as the news story provided no information that implicated the Harter’s son as a possible suspect in the case. The messages received by participants in the No-Suspect condition were identical to the messages used in the Implied and Explicit conditions except for messages 4 and 5. These messages were rearranged and modified so the son could be mentioned without providing reason to believe he was a suspect. For participants in the No-Suspect condition, message 4 read:

Mrs. Harter specifically remembers that she went through her jewelry before leaving to get her pearl earrings. They were the last things she packed before the Harters’ son, Evan, arrived to take them to the airport.

This was followed by message 5, which was constructed to maintain similar information across all conditions and read:

A tall tree arches near the bedroom window, but police have found no evidence of tampering with the window.

Similar to the Implied and Explicit conditions, participants in the No-Suspect condition did not receive the correction that the son was out of town (Message 11).

**Phase 2: Filler questions.** Participants were given 20 minutes to complete a set of questionnaires as filler tasks.
**Phase 3: Final questionnaire.** Participants were given 20 minutes to complete a written questionnaire that was a modified version of the measures used by Johnson and Seifert (1994). As in Johnson and Seifert, participants were first asked to free recall the news story and answer a single question regarding the cause of the theft.¹ This was followed by a set of questions that, although presented as a single questionnaire, consisted of several subgroups of questions that appeared in the following order: 10 factual questions, 10 inference questions, 2 manipulation check questions, one direct question about participants’ belief in the son’s guilt and one direct question regarding participants’ belief in the correction. The various question types are described below.

The first 10 questions (questions 2-10, Appendix B) were factual questions taken from Johnson and Seifert (1994) that queried participants about the main events of the news story. The primary purpose of these questions was to ensure that participants had encoded the news story.

The following 10 questions (questions 11-20, Appendix B) were inference questions that asked participants about information not explicitly mentioned in the news story. Hence, participants were required to draw inferences that went beyond the information given. The inference questions were designed to uncover, in an indirect way, participants’ beliefs and assumptions about the son’s role in the theft and thus served as one of the primary dependent measures. For example, one inference question was “Whose car might the neighbor have noticed parked in the alley?” The response “the son’s car” could indicate a belief that the son was responsible for the theft, whereas the response “a

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¹ Similar to Johnson and Seifert (1994) this measure showed no evidence of continued influence and hence the results for this measure will not be reported.
stranger’s car’ would not. Nine of the inference questions in the current study were taken from Johnson and Seifert and one question is a new question (question 19) that was substituted for one of Johnson and Seifert’s questions. Evidence of continued influence would be indicated by finding that participants who initially received information implicating the son as a suspect but later receive the correction that he was out of town (i.e., participants in the Implied-Correction and Explicit-Correction conditions) provide more inferences consistent with a belief that the son committed the theft than participants who never receive the initial information (i.e., participants in the No-Suspect condition).

Following Johnson and Seifert (1994) the next two questions were manipulation check questions (questions 21 and 22, Appendix B) that were designed to assess participants’ memory for the correction that the son was out of town. Only participants in the correction conditions received question 21 which specifically queried participants about the son’s whereabouts. All participants received question 22.

The last two questions in the questionnaire (questions 23 and 24, Appendix B) were new measures developed for purposes of the present study. Whereas all previous studies of continued influence have probed participants’ belief in the corrected misinformation indirectly through inference questions, in the present study I also probed participants’ belief in the corrected misinformation directly. I introduced a direct measure because participants’ responses to the inference questions are often ambiguous and uninformative. For example, in response to the earlier question “Whose car might the neighbor have noticed parked in the alley?” many participants respond with general answers such as “the thief’s.” In an attempt to get a clearer assessment of participants’ belief in the son’s
involvement, all participants in the present study received the direct probe: “How much do you believe that Evan Harter was involved in the theft of the jewelry?” This question was answered using a scale from 1 (Highly Unlikely) to 6 (Highly Likely) (see question 23, Appendix B). Participants’ responses to this measure were the second dependent variable of primary interest.

The second novel measure introduced in this experiment was a measure of the extent to which participants believed the correction to be true (question 24, Appendix B). Whereas previous studies have assessed whether participants who receive the correction can remember it, no studies have assessed to what extent participants accept the correction as the truth. However, some participants may evidence continued influence because, although they remember the correction from the news story and can report it, they do not believe it. Given this possibility, I wanted to assess to what extent participants believed the correction to be true. To this end, participants in all 4 experimental conditions were asked: “How much do you believe that Evan Harter was out of town on business while his parents were on vacation?” This question was also answered using a scale from 1 (Highly Unlikely) to 6 (Highly Likely) (see question 24 in Appendix B). If participants vary in the extent to which they accept the correction as true, then the continued influence effect may also vary based on these beliefs.

**Experiment 1a Results**

I first excluded from the analyses participants who clearly did not attend to and/or remember the content of the news story. Of critical importance was excluding those participants who did not remember the correction. Based on the manipulation check
questions, 20 participants in the Correction conditions (5%) were excluded for failing to report that the son was out of town. Additionally, 6 participants were excluded because overall performance on the factual questions fell below 3 standard deviations from the mean (an approximate score of 4.5 or less out of 9). In total, 26 participants were excluded leaving 411 participants: 84 No-Suspect, 88 Implied, 77 Implied-Correction, 81 Explicit and 81 Explicit-Correction participants. After excluding, participants’ mean accuracy on the factual questions was 7.70 out of 9 (SD = .87). An analysis of accurate responses to the factual questions revealed no significant differences in memory across the 5 groups (F(4, 406) = 1.14, p = .34).

An innovation introduced in the present study was the inclusion of an assessment of participants’ beliefs in the correction. A surprising finding was that a large proportion of participants who remembered the correction later endorsed not believing it. Belief in the correction was operationalized as a rating of 4 (somewhat likely) or higher in response to the question: “How much do you believe that Evan Harter was out of town on business while his parents were on vacation?” Of participants who were given and remembered the correction, only 42% (66/158) believed it was at least somewhat likely that the son was out of town. Furthermore, the rates of believing the correction did not differ significantly between the Explicit-Correction (47%; 38/81) and Implied-Correction (36%; 28/77) conditions (X^2(1) = 1.81, p = .18). In the results reported below I first report the results for all participants who remember the correction. I then report the results for the subgroup of

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2 However, according to a 2 (Correction) x 2 (Misinformation Type) ANOVA implied misinformation led to less belief that the son was out of town (F(1, 323) = 6.04, p < .05, η^2 = .002). This effect is likely due to the correction, which said the son was out of town, directly contradicting the implied misinformation, which said the son was watching the house.
those participants who believed the correction separate from the results of the subgroup of participants who did not.

**Does Implied Misinformation Lead to Greater Continued Influence than Explicit?**

Two measures of belief in the misinformation (and thus continued influence of the misinformation following correction) were used: (1) “inside job” responses to the inference questions and (2) ratings of belief in the son’s involvement in the theft. As I report below, the results varied depending on the measure.

**Inference questions measure.** Following Johnson and Seifert (1994) the inference questions were coded for responses consistent with an “inside job” theme, which implies the son’s involvement. Two trained raters, blind to condition, coded each response with a score of 1, 0.5, or 0 depending on the degree of the implication. For example, when asked how the thief got into the house an answer that strongly implicated the son (e.g., “a key”) was scored as a 1. However, a vague or general response that did not implicate the son as strongly (e.g., “the front door”) was scored as a 0.5. Furthermore, the results reported below do not change if the coding scheme used is either more conservative (i.e., partial inferences recoded as no inference) or more liberal (i.e., partial inferences recoded as inferences). Overall, the independent coders had a reliability of 93% on the inference questions.

The mean number of “inside job” inferences per subject for each group is illustrated in the left side of Figure 1. Inspection of the figure yields a few main observations supported by statistical analyses. Consistent with prior research, exposure to
Figure 1. Mean number of inferences generated per condition from both Experiment 1a (left side) and Experiment 1b (right side). Bars represent standard error of the mean.
misinformation led to an increase in “inside job” inferences (for both the Explicit and Implied conditions) and a correction following misinformation reduced the number of “inside job” inferences for both the Implied and Explicit misinformation groups. However, contrary to expectations, the correction was completely effective in eliminating the misinformation effect in both groups: continued influence was not evidenced in either the Implied-Correction or Explicit-Correction groups. Hence, the results did not support the hypothesis that continued influence would be greater in the Implicit-Correction group. The statistical analyses supporting these conclusions are reported in order below.

Participants exposed to the uncorrected misinformation (Implied and Explicit) provided more “inside job” inferences than No-Suspect participants who never received such misinformation as indicated by a significant one-way ANOVA conducted on the Implied, Explicit and No-Suspect groups ($F(2, 250) = 19.29, p < .001, \eta^2 = .13$). Planned comparisons confirmed that participants in both the Implied and Explicit groups generated more inferences than participants in No-Suspect group (both $p$’s < .001) and that the Implied and Explicit groups did not differ from each other ($p = .19$). Hence, both implied and explicit misinformation increased inferences to the same extent.

I next assessed whether, as I hypothesized, the effect of the correction varied as a function of whether the misinformation was implied or explicit. To this end, the number of inferences generated by participants in the four misinformation groups were submitted to a 2 (Misinformation Type: Explicit vs. Implied) x 2 (Correction: Correction vs. No Correction) ANOVA. Although the main effect of correction was significant ($F(1, 323) = 48.59, p < .001, \eta^2 = .04$), neither the main effect of misinformation type ($F(1, 323) = .27, p$
= .61) nor the interaction between correction and misinformation type \((F(1, 323) = 1.93, p = .17)\) were significant, thus showing that the correction was equally effective for both implied and explicit misinformation.

Finally, in contrast to previous studies, continued influence was not evidenced; participants in the Correction groups did not generate more inferences than the No-Suspect group (compare to the dashed horizontal line in Figure 1). A one-way ANOVA conducted on the Implied-Correction, Explicit-Correction, and No-Suspect groups was not significant \((F (2, 239) = .40, p = .67)\), again suggesting that the correction was equally effective for both implied and explicit misinformation.

**Do the results vary depending on belief in the correction?**

Given that only 42% of the participants endorsed believing the correction that the son was out of town, I next separated those participants in the Implied- and Explicit-Correction groups who believed the correction (i.e., Correction-Believers) from those who did not believe the correction (Correction-Nonbelievers), and analyzed these subgroups separately (using the same analyses reported above for the entire sample of participants in the Correction groups). The number of inferences generated by these subgroups is illustrated in Figure 2. With regard to the main hypotheses of interest, for each of the subgroups the pattern of findings replicated the findings reported above: the correction significantly decreased the number of inferences and this effect did not vary as a function of whether the misinformation was implied or explicit. Furthermore, the Implied- and Explicit-Correction conditions did not differ in either subgroup (both \(p\)’s > .10). The primary difference between the subgroups is that, for both the Implied and Explicit groups,
Figure 2. Mean number of inferences generated per condition from both Experiment 1a (left side) and Experiment 1b (right side) with the Correction conditions broken down into individuals who believe the correction (Correction-Believers) and individuals who do not believe the correction (Correction-Nonbelievers). Bars represent standard error of the mean.

Correction-Nonbelievers generated significantly more inferences than Correction-Believers ($t(75) = 2.04, p = .05$ and $t(79) = 3.30, p = .001$, for the Implied and Explicit groups, respectively).

**Direct measure of belief in son’s guilt.** The mean ratings of belief in the son’s guilt for each of the five groups are shown in the left side of Figure 3. As illustrated, the results supported the hypothesis that implied misinformation is more difficult to correct
than explicit misinformation. Specifically, though both implied and explicit misinformation increased belief in the son’s guilt to the same extent, the correction reduced belief in the son’s guilt following explicit, but not implied, misinformation. This resulted in a continued influence effect following implied misinformation but not explicit misinformation. The statistical analyses supporting these conclusions are reported in order below.

![Graph](image_url)

*Figure 3.* Average rating of the likelihood of the son’s involvement on a scale from 1 (*Highly Unlikely*) to 6 (*Highly Likely*) per condition from both Experiment 1a (left side) and Experiment 1b (right side). Bars represent standard error of the mean.
Participants exposed to the uncorrected misinformation (Implied and Explicit) rated the son as more likely to have committed the theft than No-Suspect participants who never received such misinformation ($F(2, 250) = 10.02, p < .001, \eta^2 = .07$). Planned comparisons confirmed that participants in both the Implied and Explicit groups provided higher ratings than participants in No-Suspect group (both $p$’s < .001) and that the Implied and Explicit groups did not differ from each other ($p = .90$).

To test my main hypothesis, participants’ ratings of the son’s guilt were submitted to a 2 (Misinformation Type: Explicit vs. Implied) x 2 (Correction: Correction vs. No Correction) ANOVA. Both the main effect of correction ($F(1, 323) = 10.56, p = .001, \eta^2 = .002$), and the main effect of misinformation type ($F(1, 323) = 4.30, p < .05, \eta^2 = .001$) were significant, but these effects were qualified by a significant interaction between correction and misinformation type ($F(1, 323) = 5.11, p < .05, \eta^2 = .001$). Planned comparisons confirmed that the locus of the interaction was that the correction was effective following explicit misinformation only. Ratings of belief in the son’s guilt were significantly lower in the Explicit-Correction group than in the Explicit group ($F(1, 323) = 15.07, p < .001, \eta^2 = .003$), but ratings in the Implied-Correction group did not differ from those in the Implied group ($F(1, 323) = .49, p = .48$). These findings support the hypothesis that implied misinformation was more difficult to correct than explicit misinformation.

Consistent with the above analyses, a one-way ANOVA conducted on the Implied-Correction, Explicit-Correction, and No-Suspect groups indicated significant differences between these groups ($F(2, 239) = 5.43, p < .05, \eta^2 = .04$). Specifically, a significant
continued influence effect was evidenced following implied misinformation (the Implied-Correction group had significantly higher ratings than the No-Suspect group, $t(239) = 2.91$, $p < .01, d = .46$) but not following explicit misinformation (ratings in the Explicit-Correction did not exceed those of the No-Suspect participants, $t(239) = .07, p = .95$). Finally, the Implied-Correction group evidenced significantly higher ratings than the Explicit-Correction group ($t(239) = 2.82, p < .01, d = .46$).

Do the results vary depending on belief in the correction?

As with the inference measure, I once again analyzed the subgroup of participants who believed the correction separately from the subgroup who did not believe the correction (see Figure 4). With regard to the main hypothesis of interest, the pattern of results reported above is driven entirely by the subgroup of participants who believe the correction. Correction-Nonbelievers evidenced no differences between Implied and Explicit misinformation ($t(173) = 1.20, p = .23$); in fact, for Correction-Nonbelievers, the correction had no effect ($F(1, 257) = 2.24, p = .14$) and did not interact with misinformation type ($F(1, 257) = 1.23, p = .27$). Hence, Correction-Nonbelievers evidenced a significant overall continued influence effect ($F(1, 173) = 16.34, p < .001, \eta^2 = .16$) and individual continued influence effects for both Implied and Explicit misinformation ($t(173) = 5.34, p < .001, d = .95$, and $t(173) = 3.79, p < .001, d = .72$, respectively).
Figure 4. Average rating of the likelihood of the son’s involvement per condition from both Experiment 1a (left side) and Experiment 1b (right side) with the Correction conditions broken down into individuals who believe the correction (Correction-Believers) and individuals who do not believe the correction (Correction-Nonbelievers). Bars represent standard error of the mean.

In contrast, among Correction-Believers the correction produced a significant effect ($F(1, 231) = 59.57, p < .001, \eta^2 = .02$) while misinformation type and the interaction were only marginally significant ($F(1,231) = 2.94, p = .09$ and $F(1,231) = 3.47, p = .06$ respectively). Consistent with these marginal effects, ratings in the Implied-Correction group were only marginally higher than ratings in the Explicit-Correction group ($t(147) = 1.92, p = .06, d = .52$). Indeed, it appears that these participants over-correct relative to No-Suspect participants. Specifically, ratings of the son’s guilt were significantly lower in the
Explicit-Correction than in the No-Suspect condition, \((t(147) = -3.53, p = .001, d = .70)\).

Ratings in the Implied-Correction condition, however, were not \((t(147) = -0.98, p = .33)\).

**Experiment 1a Discussion**

The results of Experiment 1a are consistent with the conclusion that the degree of continued influence may vary based on the nature of the initial misinformation. Specifically, participants who received implied misinformation showed a continued influence effect but participants who received explicit misinformation showed no continued influence effect. Though this pattern was not observed on the number of inferences generated—the traditional measure of continued influence—it was observed when participants directly rated the likelihood of the son’s involvement in the theft. Thus, misinformation which influences beliefs openly appears to be less likely to produce a continued influence effect than information which influences beliefs subtly.

However, two major confounds are present in Experiment 1a which undermine this interpretation of the results. The first confound is the nature of the evidence against the suspect. In the implied misinformation the son is suggested to be a suspect because he has the opportunity to commit the crime: he was asked to watch over the house during his parents’ vacation. In the explicit misinformation the son is suggested to be a suspect because he has a motive to commit the crime: he has a large gambling debt that could be paid off with the jewelry. Previous research has suggested that a motive to commit an act is more important in judgments of guilt than the opportunity to commit the crime (Kaplan, 1989). Though the findings of the current study contradict this prior research
and suggest that this confound may not be impacting the current results, the presence of this confound makes any definitive conclusion difficult.

The second confound is the strength of the correction used. In the correction accompanying implied misinformation, participants were informed that the son was called away on business and was unable to watch over his parents’ house. In the correction accompanying explicit misinformation participants were informed that the son was no longer a suspect and numerous independent sources confirmed he was out of town on business. These confounds make it difficult to draw clear conclusions about the differences between implied and explicit misinformation.

To address whether these confounds influenced the results reported in Experiment 1a, in Experiment 1b an additional set of participants were tested in revised versions of the Explicit conditions. These confounds were eliminated by altering the messages presented to participants who received explicit misinformation. Specifically, instead of presenting the son as a suspect due to a gambling debt, participants in the Explicit conditions were informed that the son was a suspect because he had been asked to watch over the house. Therefore participants in these conditions received identical evidence against the son as participants in the Implied conditions of Experiment 1a. Furthermore, the correction used in the Explicit-Correction condition was identical to the correction used in the Implied-Correction condition. The goal of Experiment 1b was to assess if these changes to the materials would affect performance in the Explicit conditions.
CHAPTER III

EXPERIMENT 1b

Experiment 1b Method

Participants

One hundred and thirty eight undergraduates at Kent State University (68 females) completed the experiment and were awarded credit for course requirement. Only participants fluent in English were included.

Design

Participants were randomly assigned to 1 of 2 conditions that were modifications of the Explicit conditions from Experiment 1a. These conditions were the Explicit-B condition ($N = 66$) and the Explicit-Correction-B condition ($N = 72$).

Materials

The Explicit-B conditions were modified such that they were identical to the corresponding versions of the Implied conditions with the exception that an explicit statement was added indicating that the son was a suspect. Specifically, for the Explicit-B and Explicit-Correction-B conditions, participants received the following statement as Message 5:
“Police suspect that the Harters’ son, Evan, may have taken the box from the house. The Harters report that they had asked their son to check in on the house periodically during their absence. The son also did other odd jobs for many of the neighbors.”

All other materials were the same as Experiment 1a (see Appendix A for a complete listing of the materials).

**Procedure**

The procedure was the same as Experiment 1a.

**Experiment 1b Results**

Based on the manipulation check questions, 6 participants in the Explicit-Correction-B condition were excluded for failing to report that the son was out of town, and no participants were excluded due to poor performance on the factual questions. This resulted in a total of 132 participants: 66 Explicit-B and 66 Explicit-Correction-B participants. Mean accuracy on the factual questions was 7.65 out of 9 (SD = .89), and did not differ by group ($F(4, 376) = .77, p = .55$).

Of Explicit-Correction-B participants who remembered the correction, only 32% (21/66) believed it was at least *somewhat likely* that the son was out of town. This was lower than the rate obtained in the Explicit-Correction (47%) in Experiment 1a, and closer to the level of belief obtained in the Implied-Correction (36%) in Experiment 1a. This change would be expected now that the content of the messages is more similar in the Implied and Explicit-B conditions.
As illustrated in the right hand panels of Figures 1 and 3, and confirmed by the analyses reported below, eliminating the confound did not alter the findings in the Explicit misinformation conditions: When the explicit misinformation groups from Experiment 1a and 1b were directly compared, no differences were found, and this was true for both measures. For each dependent variable, separate 2 (Experiment: Explicit vs. Explicit-B) x 2 (Correction: Correction vs. No Correction) ANOVAs were conducted. For both the inference questions and the direct ratings, neither the main effect of Experiment \( F(1, 290) = 1.01, p = .32 \) and \( F(1, 289) = .40, p = .53 \) respectively, nor the interaction \( F(1, 290) = .05, p = .83 \) and \( F(1, 289) = 1.27, p = .26 \) respectively) were significant, but, consistent with the results of Experiment 1a, the main effect of correction was significant \( F(1, 290) = 67.75, p < .001, \eta^2 = .06 \) and \( F(1, 289) = 16.03, p < .001, \eta^2 = .004 \) respectively).

The right hand side of Figures 2 and 4 illustrate the results of Experiment 1b broken down by Correction-Believers and Correction-Nonbelievers. As is obvious from the figures, for both subgroups, the pattern of results in Experiment 1b is identical to that obtained for Experiment 1a.

**Factor Analysis Using Combined Data to Derive Suspicion Score**

Previous studies have argued that the inference questions are measuring belief in the discredited information (Johnson & Seifert, 1994). However, in the studies reported above the results from the inference questions did not match the results I obtained when participants were asked directly to rate the likelihood that the son was involved in the theft (i.e., the discredited misinformation). Presumably, however, each inference question and the direct question about the son’s involvement should be measuring the same construct:
suspicion that the son was involved in the theft. If the inference questions and the direct question are all measuring the same construct then it should be possible, using the overlap between these measures, to derive a measure of suspicion that the son was involved in the theft. This composite measure may provide a more accurate picture of the relationship between corrections and the type of misinformation presented than the measures individually. Although I assumed that the inference questions and direct question were measuring the same construct, I first had to establish that this was the case. This was accomplished using an exploratory factor analysis.

The first step in conducting the current factor analysis was to identify whether any of the variables were related. This was done by examining the bivariate relationships between each of the inference questions and between these inference questions and the direct question about the son’s involvement. To accurately analyze these bivariate relationships, the participants from both Experiments 1a and 1b were combined. These bivariate relationships were analyzed using polychoric correlations because of the categorical nature of the inference questions. A polychoric correlation is a statistical technique for estimating the correlation between two constructs that are theoretically normally distributed but are measured using two categorical variables. For example, each inference question is a categorical variable tapping the construct of suspicion, so the correlation between any two inference questions can be estimated using polychoric correlation. These polychoric correlations can be interpreted in the same ways as more traditional measures of correlation. The polychoric correlations between many of the
questions, including the direct probe, exceeded .3 indicating that many of the different questions were closely related.

The next step was to conduct the actual factor analysis. As factor analyses are dependent on the correlations between the different continuous variables, the polychoric correlations were used to conduct the current factor analysis. Due to low rates of inferences on two of the inference questions (12 and 15), the factor analysis was conducted on scores for only 8 of the inference questions and the direct question about the son’s involvement. To conduct the factor analysis I used principal axis factoring because the focus was on understanding the structure of the shared variance between the different variables. The initial factor analysis produced eigenvalues indicating two factors: the first explaining 40% of the variance and the second explaining 11% of the variance. Based on these eigenvalues both one and two factor structures were examined with promax rotation. The one-factor model, which explained 40% of the variance, was preferred not only because a single construct was theorized but also because visual examination of the scree plot and cross-loading in the two-factor model suggested that a one-factor model was a better solution.

The factor analysis produced the variance (communalities), the factor loadings and the factor scores for each variable which are listed in Table 1. These variables were used to create a composite factor score by multiplying each variable by its corresponding factor score and then summing these weighted values.\(^3\) These values were then standardized to

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\(^3\) Note that because this was an exploratory factor analysis and not a confirmatory factor analysis, the measurement error is present as a part of these factors. As such, the findings related to this factor should be approached with some skepticism.
allow for easier interpretation of the results. This composite will hereafter be referred to as the suspicion score.

Table 1

*Factor Scores, Loadings and Communalities for a Subset of Inference Questions and Likelihood of the Son’s Involvement Using a One-Factor Structure*

<table>
<thead>
<tr>
<th>Question</th>
<th>Factor Score</th>
<th>Factor Loading</th>
<th>Communalities ($R^2$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Likelihood of Involvement</td>
<td>.20</td>
<td>.65</td>
<td>.43</td>
</tr>
<tr>
<td>(Question 24)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Police Next Steps</td>
<td>.20</td>
<td>.65</td>
<td>.42</td>
</tr>
<tr>
<td>(Question 16)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recent Robberies</td>
<td>.18</td>
<td>.62</td>
<td>.34</td>
</tr>
<tr>
<td>(Question 20)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Son Feeling Bad</td>
<td>.18</td>
<td>.61</td>
<td>.39</td>
</tr>
<tr>
<td>(Question 14)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question Next</td>
<td>.17</td>
<td>.62</td>
<td>.43</td>
</tr>
<tr>
<td>(Question 21)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access Jewels</td>
<td>.16</td>
<td>.59</td>
<td>.29</td>
</tr>
<tr>
<td>(Question 19)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mysterious Car</td>
<td>.14</td>
<td>.57</td>
<td>.32</td>
</tr>
<tr>
<td>(Question 13)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access House</td>
<td>.09</td>
<td>.42</td>
<td>.19</td>
</tr>
<tr>
<td>(Question 18)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Why Not TV</td>
<td>.08</td>
<td>.41</td>
<td>.20</td>
</tr>
<tr>
<td>(Question 17)</td>
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</table>
Analysis of the suspicion factor. This suspicion score was used as a third measure of participants’ belief in the son’s guilt. The mean suspicion score per participant for each of the five groups are shown in the left side of Figure 5. As illustrated in Figure 5, the results supported the hypothesis that implied misinformation is more difficult to correct than explicit misinformation. Specifically, though both implied and explicit misinformation increased suspicion to the same extent, the correction reduced suspicion more after explicit misinformation. This resulted in a significant continued influence effect following implied misinformation but not explicit misinformation. The statistical analyses supporting these conclusions are reported below.

Figure 5. Standardized suspicion score by condition. Bars represent standard error of the mean.
Participants exposed to the uncorrected misinformation (Implied and Explicit) produced higher suspicion scores than No-Suspect participants who never received such misinformation \((F(2, 315) = 20.55, p < .001, \eta^2 = .11)\). Planned comparisons confirmed that participants in both the Implied and Explicit groups provided higher ratings than participants in No-Suspect group (both \(p\)’s < .001) and that the Implied and Explicit groups did not differ from each other \((p = .29)\).

To test my main hypothesis, participants’ suspicion scores were again submitted to a 2 (Misinformation Type) x 2 (Correction) ANOVA. Both the main effect of correction \((F(1, 454) = 37.32, p = .001, \eta^2 = .07)\), and the main effect of misinformation type \((F(1, 454) = 3.98, p = .05, \eta^2 = .001)\) were significant, but these effects were qualified by a significant interaction between correction and misinformation type \((F(1, 454) = 3.76, p = .05, \eta^2 = .007)\). Planned comparisons showed that the locus of the interaction was that the correction was more effective following explicit misinformation than implied misinformation. Though suspicion scores were significantly lower after a correction for both the Explicit \((F(1, 454) = 45.07, p < .001, \eta^2 = .09)\), and Implied conditions \((F(1, 454) = 6.78, p = .01, \eta^2 = .01)\), a significant continued influence effect was evidenced following implied misinformation only. That is, the Implied-Correction group had significantly higher scores than the No-Suspect group \((t (305) = 2.22, p < .05, d = .34)\) but scores in the Explicit-Correction did not exceed those of the No-Suspect group, \(t (305) = .84, p = .40\). Finally, the Implied-Correction group evidenced marginally higher suspicion scores than the Explicit-Correction group \((t (305) = 1.67, p = .10, d = .31)\).
**Results conditionalized on belief in the correction.** As with the other measures, I once again analyzed the subgroup of participants who believed the correction separately from the subgroup who did not believe the correction (see Figure 6). Contrary to the results from the direct question, the differences between Implied and Explicit misinformation after a correction were not evidenced in either the Correction-Nonbelievers ($t(218) = .90, p = .37$) or the Correction-Believers ($t(168) = 1.25, p = .21$) though numerically the differences were in the hypothesized direction.

*Figure 6.* Standardized suspicion score by condition with the Correction conditions broken down into individuals who believe the correction (Correction-Believers) and individuals who do not believe the correction (Correction-Nonbelievers). Bars represent standard error of the mean.
The goal of the current study was to determine whether implied misinformation leads to a stronger continued influence effect than explicit misinformation. However, an unexpected finding was that I failed to replicate the continued influence effect with the inference question measure, a measure that is widely used in studies of the continued influence effect. Indeed, neither implied nor explicit misinformation resulted in continued influence when the inference question measure was used.

The absence of a continued influence effect may be related to the low rates of “inside job” inferences generated by participants following exposure to the implied and explicit misinformation. In other words, the inference question measure yielded little evidence that the misinformation had much influence on participants’ belief in the son’s guilt, even before the correction. When misinformation has little influence to begin with, little room exists to detect continued influence, much less differences in the magnitude of the continued influence effect following implied and explicit misinformation.

The relatively small misinformation effect obtained with the inference measure is uncharacteristic of studies on the continued influence effect, and is likely due to a change made to create the two misinformation conditions. As mentioned previously, in Johnson and Seifert (1994, Experiment 3b) participants exposed to misinformation were given two
reasons to suspect the son: he was watching over the house and he had large gambling debts. In the current study, however, regardless of condition or experiment, participants received either the first piece of information or the second piece of information and never both. Thus, the participants in the current study had fewer reasons to suspect the son leading them to be less likely to produce inference scores of the same magnitude. This intuitive relationship between the amount of evidence consistent with the misinformation and the amount of belief in that misinformation has yet to be directly examined in studies of the continued influence effect. However, I am currently collecting data in a follow-up of the current research that provides participants who receive the misinformation with both pieces of evidence implicating the son. Based on the results of this follow-up, future studies may look to directly test whether varying the amount and causal relevance of the implicating evidence alters the nature of the continued influence effect.

Although the inference questions showed no evidence of differences between implied and explicit misinformation, the results from a direct question about belief in the son’s guilt were consistent with my central hypothesis. Specifically, implied misinformation led to a significant continued influence effect on the direct probe while explicit misinformation did not. Moreover, combining both measures to create a suspicion factor produced additional evidence consistent with my hypothesis that implied misinformation is more difficult to correct than explicit misinformation. Although these findings need to be replicated and extended before firm conclusions can be drawn, the results support the hypothesis that implied misinformation produces a stronger continued influence effect than explicit misinformation.
The overall results appear to pose a slight challenge to current views of the continued influence effect. Previous research has indicated that when the misinformation plays a causal role continued influence is nearly unavoidable if a causal alternative is not provided (Johnson & Seifert, 1994; Lewandowsky et al., 2012). However, the current study shows that a simple correction can successfully eliminate the influence of initial misinformation even when the misinformation occupies a key causal position and an alternative explanation is not provided.

So, if the causal nature of the story is not driving the current effect, what mechanisms are responsible? Unfortunately, the current study was not designed to address the mechanisms which cause continued influence after implied but not explicit misinformation. However, the results do provide a glimpse into these mechanisms. One important observation is that both implied and explicit misinformation led to comparable levels of initial belief in the misinformation (prior to the correction). Hence, differences in the initial belief of the two types of misinformation cannot be the explanation for the current findings. This would seem to rule out some potential explanations for why implied misinformation was more difficult to correct than explicit misinformation.

With regards to the causal relatedness account, the results of Myers et al. (1982) would suggest that memory for the implied misinformation should be greater than memory for the explicit misinformation. Intuitively, this should also lead to greater belief in the misinformation in the implied condition, which was not evident in the current study.
With regard to the hypercorrection account, the proposal I advanced in the introduction was that participants might be more confident in explicit misinformation than implied misinformation. Presumably greater confidence in the misinformation would be directly related to greater belief in the misinformation, which was not evidenced in the current study.

However, confidence is only part of the explanation suggested by the hypercorrection effect. According to some views of the hypercorrection effect, confidence matters because it influences the amount of attention devoted to the correction (Butterfield & Metcalfe, 2006). Specifically, explicit misinformation may lead to greater attention to the correction than implied misinformation. However, attention was not directly assessed in the current study. Future studies could examine whether reading times for the correction differs between the two misinformation conditions. Alternatively, if the messages were presented as a part of a single narrative an eye tracker could be used to examine whether individuals spend longer looking at the correction after explicit misinformation than after implied misinformation. However, the current study found no evidence that participants had better memory for the correction following explicit rather than implied misinformation.

The explanation that appears most promising comes from the theory of mental contamination proposed by Wilson and Brekke (1994). Recall that this theory suggests that a number of steps are necessary to correct misinformation and that the first step to correcting mental contamination is to be aware of said contamination. Thus, differences in the continued influence effect could be due to differences in the ability to recognize
that the misinformation is leading to mental contamination. The current study provides little evidence testing this explanation. Thus future studies should look to directly test this explanation. The simplest method would be to probe participants about whether the misinformation influenced their responses. If this explanation is true then differences may exist between the reported influence of implied and explicit misinformation.

A novel and unexpected contribution of this study was the finding that a large proportion of participants who remembered the correction claimed not to believe the correction was true. Previous studies of the continued influence effect have assumed, with some good reason, that participants who remember the correction should have little reason not to believe the correction. Thus previous studies have chosen to simply demonstrate that participants remember the correction (Johnson & Seifert, 1994; Lewandowsky et al., 2012; Seifert, 2002) and have not queried participants about their belief in the correction.

When the responses of Correction-Believers and Correction-Nonbelievers were examined separately, the pattern of responses was quite different. On both measures, Correction-Believers tended to “overcorrect”, evidencing levels of belief in the misinformation lower than the controls. These findings raise the possibility that simply mentioning the son in the news story (the manipulation employed in the control condition) might encourage some suspicion in the son’s guilt. Whether or not this is the case, the important finding is that, on both measures, Correction-Believers showed no evidence of continued influence. In contrast, Correction-Nonbelievers had much higher
levels of belief in the misinformation. Indeed, on the direct probe measure the correction was completely ineffective in reducing belief among the Correction-Nonbelievers.

Although the foregoing findings raise the possibility that the continued influence effect is due to participants who do not believe the correction, a potential interpretive difficulty exists with regard to the measure of belief in the correction used in this study. Specifically, the question about belief in the correction (i.e., that the son was out of town) came immediately after the direct probe about the son’s guilt. As such, participants may have responded to the question about the belief in the correction based on how they responded to the question about belief in the misinformation. For instance, a participant who responded that the son was “highly likely” involved in the theft, may have felt the need to remain consistent and respond that it was therefore “highly unlikely” that the son was out of town on business. In other words, participants who had expressed suspicion in the son’s guilt may have felt they would be contradicting themselves if they then expressed a belief that the son was out of town. The extent to which this is taking place in the current study is unclear. This interpretive ambiguity is being addressed in a study that I am currently conducting and so far data appears consistent with the findings reported here. Although this unresolved issue affects my interpretation of the differences between believers and nonbelievers, it does not reduce the impact of finding that individuals who remember the correction might not believe the correction.

Conclusion

In summary, in the current study, implied misinformation led to a greater continued influence effect than explicit misinformation. In addition, the present study
introduced alternative measures and approaches to investigating the continued influence effect. Finally, and perhaps most surprisingly, the current results provides evidence to suggest that one potential consequence of exposure to misinformation is an unwillingness to accept the correction.
APPENDICES
APPENDIX A

NEWS REPORT MESSAGES
**APPENDIX A**

**NEWS REPORT MESSAGES**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>At 3:00 p.m., May 2nd, police responded to a call made from a home on Acorn Street in the middle-class, residential neighborhood of Sunny Hollow.</td>
</tr>
<tr>
<td>2</td>
<td>The homeowner, June Harter, reported that her jewelry box was missing. The box’s contents included gold chains, gold and silver earrings, rings, and pendants with precious stones.</td>
</tr>
<tr>
<td>3</td>
<td>She discovered that the box was missing when she and her husband returned from a vacation and she wanted to put a new necklace she had bought in the jewelry box. The box had been stored in a locked drawer in her bedroom dresser.</td>
</tr>
</tbody>
</table>
| 4 | **All Suspect conditions:** Mrs. Harter swears that she had checked the box before leaving on vacation and that everything was in order. A tall tree arches near the bedroom window, but police have found no evidence of tampering with the window.  
**No-Suspect:** Mrs. Harter specifically remembers that she went through her jewelry before leaving to get her pearl earrings. They were the last things she packed before the Harters’ son, Evan, arrived to take them to the airport. |
| 5 | **Explicit and Explicit-Correction:** Police suspect that the Harters’ son, Evan, may have taken the box from the house to help pay off large gambling debts.  
**Implied and Implied-Correction:** The Harters report that they had asked their son, Evan, to check in on the house periodically during their absence. The son also did other odd jobs for many of the neighbors.  
**No-Suspect:** A tall tree arches near the bedroom window, but police have found no evidence of tampering with the window.  
**Explicit-B and Explicit-Correction-B:** Police suspect that the Harters’ son, Evan, may have taken the box from the house. The Harters report that they had asked their son to check in on the house periodically during their absence. The son also did other odd jobs for many of the neighbors. |
| 6 | Sunny Hollow has been hit with a number of thefts recently, but there are no arrests or leads in these cases so far. |
| 7 | The Harters’ next-door neighbor reported that she noticed a light on in the Harters’ house after her dog suddenly began barking late Saturday evening, April 28th. An unfamiliar dark-colored car had been parked in a nearby alley. |
| 8 | However, a search for footprints and tire tracks has turned up inconclusive due to a recent rainstorm. In the course of the investigation, an officer also noted a broken latch on a basement window. |
| 9 | Police are still attempting to determine whether other valuables are missing from the home. The television and home computer, however, had not been disturbed. |
| 10 | The Harters reported that they had contacted their insurance company about the loss. The last appraisal showed the box’s content to be worth several thousand dollars. |
| 11 | **Explicit-Correction:** The Harters’ son is not a suspect because several independent sources confirm that he had been out of town on business during the Harters’ vacation.  
**Implied-Correction:** Police have found that Evan had been called away on business and had not been in town to look after the house during the Harters’ vacation.  
**Explicit-Correction-B:** Same as Implied-Correction. |
| 12 | In addition, Mrs. Harter is considering offering a reward for the return of several of the pieces of jewelry because they have great sentimental value for her. She says that there would be no questions asked. |
| 13 | Detectives will look for similarities between this case and the other thefts reported in the neighborhood recently. If you have any information which may aid in the investigation, please contact the police department. |
APPENDIX B

FINAL QUESTIONNAIRE

Causal Question

1. What caused the box to be missing from the Harters’ home?

Factual Questions

2. How much did an appraisal show the box’s contents to be worth?

3. Where was the Harters’ home located?

4. Where was the jewelry box normally kept?

5. Why did Mrs. Harter consider offering a reward?

6. What did the Harters’ next-door neighbor notice?

7. What kinds of jewelry did the box contain?

8. When did Mrs. Harter discover that the jewelry box was missing?

9. What did the police notice about the bedroom window?

10. When did the neighbor’s dog suddenly start barking?

Inference Questions

11. Why might the neighbor’s dog have been barking?

12. Whose car might the neighbor have noticed parked in the alley?

13. Why might the son feel bad about the incident?

14. What could the Harters have done to better avoid this problem?

15. What steps should the police take next?
16. Why wasn’t the television taken?

17. How might the thief have gotten into the house?

18. How do you think the thief got into the locked drawer to steal the jewelry box?

19. What might be responsible for the other thefts in the neighborhood recently?

20. Who, if anyone, should be questioned more thoroughly by the police?

Manipulation Check Questions

21. (Correction Conditions Only) What did the story report about where Evan Harter was during the Harters’ vacation?

22. What facts about the case did the police change their minds about, based on information they discovered later?

Likert Scale Questions

23. How much do you believe that Evan Harter was involved in the theft of the jewelry? Please indicate your answer using the scale below:

1 2 3 4 5 6
Highly Moderately Somewhat Somewhat Moderately Highly
Unlikely Unlikely Unlikely Likely Likely Likely

24. (Suspect Conditions Only) How much do you believe that Evan Harter was out of town on business while his parents were on vacation? Please indicate your answer using the scale below:

1 2 3 4 5 6
Highly Moderately Somewhat Somewhat Moderately Highly
Unlikely Unlikely Unlikely Likely Likely Likely
REFERENCES
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Wilson, T. D., & Brekke, N. (1994). Mental contamination and mental correction: