

Spring 2018

# How the Authority of Misinformation Influences Personal Judgments of Others

Elizabeth Crosswhite

University of North Georgia, [crosswhiteliz@gmail.com](mailto:crosswhiteliz@gmail.com)

Follow this and additional works at: [https://digitalcommons.northgeorgia.edu/honors\\_theses](https://digitalcommons.northgeorgia.edu/honors_theses)



Part of the [Psychology Commons](#)

---

## Recommended Citation

Crosswhite, Elizabeth, "How the Authority of Misinformation Influences Personal Judgments of Others" (2018). *Honors Theses*. 39. [https://digitalcommons.northgeorgia.edu/honors\\_theses/39](https://digitalcommons.northgeorgia.edu/honors_theses/39)

This Honors Thesis is brought to you for free and open access by the Honors Program at Nighthawks Open Institutional Repository. It has been accepted for inclusion in Honors Theses by an authorized administrator of Nighthawks Open Institutional Repository.

How the Authority of Misinformation Influences Personal Judgments of Others

Elizabeth Crosswhite

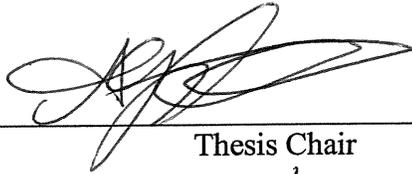
A Thesis Submitted to  
the Faculty of the University of North Georgia  
in Partial Fulfillment  
of the Requirements for the Degree  
Bachelor of Science in Psychology  
with Honors

Spring 2018

University of North Georgia

Accepted by the Honors Faculty  
of the University of North Georgia  
in partial fulfillment of the requirements for the title of  
Honors Program Graduate

Thesis Committee:



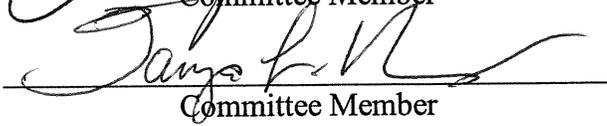
---

Thesis Chair



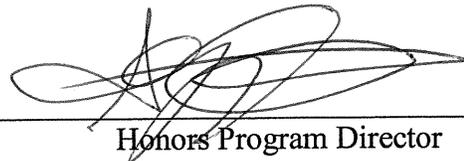
---

Committee Member



---

Committee Member



---

Honors Program Director

## INTRODUCTION

The study of misinformation blossomed with the work of Elizabeth Loftus in the 1970s, looking, for example, at how the presence of information in leading questions overshadowed the existing memory of a car crash. Loftus and Palmer (1974) first used the term misinformation effect and found a connection between language and episodic memory. At first, this term only referred to when participants were asked to recall an event when prompted by a biased question, and their memory of the misinformation was measured. Quickly there grew two types of misinformation effect, one in which the misleading information is presented before the event occurs as ‘priming’ the individual ((Lewandowsky, Ecker, Seifert, Schwarz & Cook, 2012), and one in which the biasing information is presented afterwards, as in the original study. More recently, Dalal, Diab and Tinsdale (2015) applied misinformation to hiring decisions in the use of rumors by employers, a specific type of misinformation. This study was groundbreaking for misinformation research as it showed the effect could impact not just declarative memory but person judgements as well. While many variables have been studied with respect to misinformation effects on memory, there has been very little work focused on the influence of misinformation on personal judgements and feelings.

One of the variables shown to influence the misinformation effect on memory is beliefs, which can be formed before or during the experiment. Anderson, Lepper and Ross (1980) discovered that misinformation persists even after it has been discredited because of what they termed belief perseverance. This belief perseverance effect can sustain the misinformation effect, as rumors that have been contradicted or proven unreliable will often continue to influence judgments. Other belief effects occur when subjects hold prior beliefs. Lewandowsky

et al. (2012) found that preexisting beliefs also have the effect of increasing belief in misinformation, especially if the misinformation aligns with those beliefs.

Another interesting misinformation moderator is the time elapsed since exposure to the misleading information. Appel and Richter (2007) observed that the passage of time increased the amount of misinformation participants remembered and believed. This incubation effect on misinformation is contingent on the timing of the delay. Appel and Richter (2007) presented their misinformation just before a filler period and found that this increased the magnitude of the misinformation effect. Dalal et al. (2015), however, used a filler task before exposure to misinformation and found that the accurate information presented earlier was more likely to resist the misinformation under these conditions than when the misinformation followed immediately.

In memory formation, larger gaps between witnessing the event and being exposed to misinformation about the event saw more participants including the misinformation in their account of the events. This was hypothesized to be because the memory is recalled and reencoded without deliberate memorization (Appel & Richter, 2007). Loftus (1979) found that participants who resisted misinformation on important details of a case (identity of suspect) were more likely to later resist misinformation on unimportant details (color of object). Conversely, participants who were influenced by the important misinformation were later more prone to also accepting more minor misinformation. Pena, Klemfuss, Loftus and Mindthoff (2017) found that the plausibility of the misinformation was also a significant moderator of the effect. As predicted, participants were significantly less likely to incorporate the misleading information into their memories if it was highly implausible than if it was plausible. Overall, allowing

participants to have more time to study accurate information, or less reason to believe the inaccurate information, decreases the misinformation effect.

Skowronski (1989) found that negative information has a disproportionate impact on person judgments compared to positive and neutral information. This effect has been explained by the psychological phenomenon negativity bias, where subjects place more emphasis on negative information, opinions, and facts than positive information of the same weight. Skowronski (1989) suggested that the negativity bias in person judgments occurs because it is more evolutionarily advantageous to remember negative information about a person, as it can be relevant to personal safety. However, this negativity bias can be especially problematic for people when negative misinformation is provided. Turner (2003) found that rumors or gossip, a specific form of misinformation, are often seen in a negative light, even if the rumor is framed as a positive. The researchers were attempting to examine what could be done to make the target of gossip be seen in a positive light but expanded to scrutinize conditions under which perpetrators of gossip could be seen in either a negative or positive light. Turner (2003) suggested that for future research, instead of using the word *gossip* or *rumor*, to frame it more neutrally as to avoid negativity bias in any following research. The admittedly scant evidence suggests that the same memory effects shown in the classic misinformation effect studies are paralleled by influences on personal judgement.

An untested possible parallel between memory misinformation and personal judgment misinformation is the effect of plausibility. In memory tests of the misinformation effect, few studies have varied the plausibility on the misinformation, and each has significant limitations in terms of clarifying the potential carryover to personal judgments. Marsh, Meade, and Roediger (2003) first stumbled upon plausibility effects while studying how well people understood where

they received information and recalled explicit memory. Their study required participants to read fictional stories that contained a plot and characters like a normal story, but also general knowledge facts chosen from Nelson and Narens (1980) general knowledge norms. Having read the correct facts in the story provided by the researchers, the participants still attributed correct answers to prior knowledge. When questioned, they recognized that it was plausible that they had only read the correct answer recently (Marsh, 2003). This study, while innovative, barely yielded statistically significant results and spoke more to the amount of misinformation given to the participant than the plausibility of the misinformation. Hinze, Slaten, Horton, Jenkins and Rapp (2014) tried to replicate and clarify the Marsh (2003) study by testing how plausibility can affect the extent to which misinformation interferes with memory. Using a similar set up as the Marsh study, they used stories with either probable, improbable or correct answer choices and saw that misinformation was more likely to be absorbed by those who were given an answer with higher probability. Another study of plausibility's role in influencing personal judgements is the Mazzoni, Loftus, and Kirsch (2001) study. After having assessed participants' direct experience with improbable things like demon possession versus more probable things like choking, the researchers tried to manipulate the subjects into believing the event had occurred to them in childhood (Mazzoni, Loftus and Kirsch, 2001). However, since the researchers did not account for participants' prior beliefs in the supernatural, as explained previously by Lewandowsky et al. (2012), misinformation effects were diminished by the predispositions of the subjects.

Dodd and Bradshaw (1980) manipulated the authority of who presented misinformation to determine its effect on memory. Much like in the Loftus & Palmer (1974) study, participants watched a video of a car crash and then were presented misinformation from either an uninvolved bystander or from the lawyer representing the driver who caused the crash. The

participants in the condition that received misinformation from the uninvolved bystander recalled more misinformation than the condition who received their misinformation from the lawyer (Dodd & Bradshaw, 1980). The researchers hypothesized that the participants believed the lawyer was attempting to influence them. Skagerberg & Wright (2008) conducted a similar study of authority in which participants watched an event and were given a testimony from a co-witness of an event, either a child or a police officer. The misinformation effect was only seen in the high authority condition, when the police officer gave their testimony. No misinformation effect was seen in the low authority condition (Skagerberg & Wright, 2008). Skagerberg and Wright (2008) also studied the effect of authority on a line up identification task. Participants watched a video of a fake mugging and were presented with seven similar faces to identify the culprit. The actual culprit was not included, and participants were told they could say they didn't know, but all subjects made an identification. Subjects were told that either a majority of children or a majority of police officers made the same identification as they did, While the majority of subjects said it was a difficult task, almost half of the participants who were told that they gave the same response as the police officer said they felt good about their incorrect identification. Though the effect of authority on memory is now understood, we investigate the effect on the personal judgements of others.

## METHOD

### Participants

All participants ( $N = 115$ ) were adults over the age of 18 who were enrolled at the University of North Georgia in Dahlonega. Participants signed up for the study posted in the SONA system provided by the University of North Georgia. Student participants were offered

community service hours or research participation hours as required for their psychology course requirement. All psychology students have access to the SONA system to complete course requirements for Psychology 1101, and these students made up the majority of the participants.

### Procedure

Once participants signed up for the study through SONA, the participants completed the study online. Subjects were first presented with a consent form which they had to submit before moving on to the next page. The form deceived the student participants into believing that they were being asked for their input on a who they would like to see lecture at the local library. Subjects then watched three videos around five minutes each in length depicting job interviews, which they believed were real interviewers for a lecture position at a local library which wanted student input on who to hire. Each interviewee was asked the same questions as a control, and the responses were scripted to be equal in length and impact. All participants watched the videos in the same order. Each interviewee posed as a master's student applying for a position at the local library to lecture on Georgia history. We filmed each "interviewee" from the waist up and did not show the interviewer, though both could be heard in the audio. The video showed applicants being asked questions about their education, location in relation to the program, and their favorite historical figures. Having watched all videos, the participants moved to the next page and received one of four notes containing opinions on the interviewees: one containing misinformation from the interviewer, one with misinformation from a previous student participant, one containing no misinformation from the interviewer, and one with no misinformation from a previous student participant. The included notes were all the same except in the two conditions where misinformation was provided. In those conditions the subjects were told that interviewee one was "spinning around in [her] chair," highlighting that she was not a

professional. The inclusion of the author of the note was intended to create an effect of high and low authority, with the student as a low authority source on the interviews, and the professional interviewer as a high authority on the capabilities of the interviewee. The subjects were placed randomly in one of the four conditions by the last 2 digits of their university issued ID number. After reading the opinion note, subjects were told to move to the next page and asked to rate the education level, professionalism, personability, well roundedness, and level of fit in the university for each candidate on a 5 option Likert scale ranging from strongly agree to strongly disagree. We were most concerned with how they rated the professionalism of candidate one in each of the experimental conditions. The survey should have taken at least 45 minutes to complete before subjects were debriefed and given class service credit for their participation.

## RESULTS

Dependent measures included ratings of how professional, personable, well-educated and well-rounded each interviewee was, in addition to a judgment of their overall fit for the position. As these ratings were only very weakly correlated (highest  $r$  was .35), they were analyzed individually rather than collectively. A 3 (candidate number) x 2 (misinformation vs. no misinformation) by 2 (high credibility source vs. low credibility source) mixed ANOVA was thus performed for each dependent measure. The only robust effect was a main effect of candidate, as the target candidate (#1), received lower ratings than the other two candidates on every measure except perceived education level, regardless of whether misinformation about this candidate was provided. These results are summarized in Table 1 below. The effect of the candidate factor was significant for perceptions of professionalism ( $F(2, 108) = 27.05, p < .01$ ), personability ( $F(2, 108) = 20.68, p < .01$ ), fit ( $F(2, 108) = 24.21, p < .01$ ), and roundedness ( $F(2, 108) = 20.41, p < .01$ ).

TABLE ONE

	Candidate 1		Candidate 2		Candidate 3	
	M	SD	M	SD	M	SD
Professionalism	3.49	1.05	4.32	0.62	4.31	0.85
Personability	3.57	0.93	4.11	0.86	4.21	0.85
Fit of Candidate	3.78	0.96	4.35	0.68	4.38	0.73
Roundedness	3.72	0.88	4.27	0.66	4.28	0.82
Education	4.34	0.71	4.43	0.59	4.56	0.73

The intended focal test was the 2 (misinformation) x 2 (credibility) interaction with respect to candidate #1. However, given that there were no three-way interactions between candidate number, misinformation and credibility, it was unsurprising that none of these 2 x 2 interactions were significant. In fact, this interaction effect for the expected prime outcome variable, perceived professionalism, was almost as insignificant as possible,  $F(1, 109) = .001, p > .95$ . The misinformation by source credibility interaction effect was, however, marginally significant for the perceived education level measure,  $F(2, 108) = 2.82, p = .10$ . As can be seen in Table 2 below, for this rating the target candidate (candidate one) was perceived less favorably if misinformation was provided and came from a credible source.

TABLE TWO

Means (and SDs) for ratings of candidate one's education level

	No Misinformation	High Misinformation
Low Authority	4.32 (0.65)	4.42 (0.58)

High Authority	4.44 (0.64)	4.21 (0.89)
----------------	-------------	-------------

### Discussion

The results found in this study were not predicted by our hypothesis. There were no significant main effects of authority on misinformation and no interactions between the variables were found. The inconclusive results may have been result of design flaws. Because most subjects in the study were first year psychology students only participating for credit, we suspect that many of the participants did not read the entire note and could contribute to our lack of misinformation effect. In the future, an attention check should be used to eliminate respondents who did not pay attention. Also, subtitles should have been included on the videos, as several participants later remarked they had a hard time with the audio. It is also possible that the videos themselves presented aa problem, as they were student produced and were not pilot tested for baseline ratings of the candidate first. The video shown for candidate one should have been less distinctive so that the videos should have been rated equally before the presentation of misinformation. Future research should include randomized order of equal videos, so that the videos themselves are not causing our main effect, and attention checks to reduce participants who flip through the survey. The use of google docs as a collection method created technical difficulties in participant navigation and perhaps compromised our study materials. In the next study, the data collection method used should be easier to navigate through and should use page breaks instead of new link for each part to prevent participants from feeling discouraged and discontinuing the survey.

## References

- Anderson, C. A., Lepper, M. R., & Ross, L. (1980). Perseverance of social theories: The role of explanation in the persistence of discredited information. *Journal of Personality and Social Psychology*, 39(6), 1037-1049. doi:10.1037/h0077720
- Appel, M., & Richter, T. (2007). Persuasive effects of fictional narratives increase over time. *Media Psychology*, 10(1), 113-134.
- Dalal, D. K., Diab, D. L., & Tindale, R. S. (2015). I Heard That ... : Do rumors affect hiring decisions?. *International Journal of Selection & Assessment*, 23(3), 224-236. doi:10.1111/ijsa.12110
- Dodd, D. H., & Bradshaw, J. M. (1980). Leading questions and memory: Pragmatic constraints. *Journal Of Verbal Learning & Verbal Behavior*, 19(6), 695-704. doi:10.1016/S0022
- Hinze, S., Slaten, D., Horton, W., Jenkins, R., & Rapp, D. (2014). Pilgrims sailing the Titanic: Plausibility effects on memory for misinformation. *Memory & Cognition*, 42(2), 305. doi:10.3758/s13421-013-0359-9
- Lewandowsky, S., Ecker, U. H., Seifert, C. M., Schwarz, N., & Cook, J. (2012). Misinformation and Its Correction: Continued Influence and Successful Debiasing. *Psychological Science in the Public Interest*, 13(3), 106-131.
- Loftus, E. F. (1979). Reactions to blatantly contradictory information. *Memory & Cognition*, 7(5), 368-374. doi:10.3758/BF03196941
- Loftus, E. F., & Palmer, J. C. (1974). Reconstruction of automobile destruction: An example of the interaction between language and memory. *Journal of Verbal Learning and Verbal Behavior*, 13(5), 585-589. doi:10.1016/s0022-5371(74)80011-3

- Marsh, E. J., Meade, M. L., & Roediger III, H. L. (2003). Learning facts from fiction. *Journal of Memory & Language*, 49(4), 519. doi:10.1016/S0749-596X(03)00092-5
- Mazzoni, G. L., Loftus, E. F., & Kirsch, I. (2001). Changing beliefs about implausible autobiographical events: A little plausibility goes a long way. *Journal of Experimental Psychology: Applied*, 7(1), 51-59. doi:10.1037/1076-898X.7.1.51
- Nelson, T. O., & Narens, L. (1980). Norms of 300 general-information questions: Accuracy of recall, latency of recall, and feeling-of-knowing ratings. *Journal of Verbal Learning & Verbal Behavior*, 19(3), 338-368. doi:10.1016/S0022-5371(80)90266-2
- Pena, M. M., Klemfuss, J. Z., Loftus, E. F., & Mindthoff, A. (2017). The Effects of Exposure to Differing Amounts of Misinformation and Source Credibility Perception on Source Monitoring and Memory Accuracy. *Psychology of Consciousness: Theory, Research, and Practice*, doi:10.1037/cns0000137
- Skowronski, J. J., & Carlston, D. E. (1989). Negativity and extremity biases in impression formation: A review of explanations. *Psychological Bulletin*, 105(1), 131-142. doi:10.1037/0033-2909.105.1.131
- Turner, M. M., Mazur, M. A., Wendel, N., & Winslow, R. (2003). Relational ruin or social glue? The joint effect of relationship type and gossip valence on liking, trust, and expertise. *Communication Monographs*, 70(2), 129-141. doi:10.1080/0363775032000133782