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**Using the source provided, respond to all parts of the question.**

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1. Your response to the question should be provided in six parts: A, B, C, D, E, and F. Write the response to each part of the question in complete sentences. Use appropriate psychological terminology in your response.
  - A. Identify the research method used in the study.
  - B. State the operational definition of high misinformation in the study.
  - C. Describe what the mean indicates for the percentage of correct responses between the high misinformation group and the low misinformation group.
  - D. Identify at least one ethical guideline applied by the researchers.
  - E. Explain the extent to which the research findings may or may not be generalizable using specific and relevant evidence from the study.
  - F. Explain how at least one of the research findings supports or refutes the misinformation effect.

### **Introduction**

This research study explores the effect of being presented with varying amounts of misinformation about a specific event on the memory of that event.

### **Participants**

A total of 127 students at a large university were recruited through the university's research participation system. They participated in the study in exchange for course credit. The final sample of participants was 69% women and 31% men. The race/ethnicity of the participants was reported as follows: 65% Hispanic/Latino/a, 15% Black/African American, 11% White/European American, 4% Asian/Asian American, and 5% Other.<sup>1</sup> The participants ranged in age from 18 to 39 years old (mean age = 21.21, standard deviation = 3.28).

### **Method**

After providing consent, participants viewed a 6.5-minute silent video of a mock crime. The video depicted an electrician entering a house to fix items such as an oven and a light fixture. While he was in the house, he stole some of the owners' possessions. After watching the video, participants completed a 12-minute trivia questionnaire as a distractor task.<sup>2</sup> Participants completed all portions of the study online.

Participants were then told that eight previous participants had written brief summaries of the robbery shown in the video. They were also told that one of those summaries would be presented to them, along with a profile of the previous participant, to refresh their memory. Unknown to the participants, these "previous participants" were not real people. The researchers created the previous participants' profiles based on the demographics of the population of students on the university campus. The goal was to create believable profiles so that the summaries would be more credible to the participants.

Participants were randomly assigned to one of three conditions to receive a summary with a specific amount of misinformation:

- Low misinformation condition: 8 of 40 sentences (20% misleading information)
- Medium misinformation condition: 20 of 40 sentences (50% misleading information)
- High misinformation condition: 32 of 40 sentences (80% misleading information)

The misleading information changed details about items seen in the video. No information was added. The non-misleading sentences were neutral to avoid strengthening the participant's memory of the target items. For example, a misleading item description was, "He noticed the dresser was covered with a brown cloth." In reality, the cloth was navy blue. The neutral description of that item was, "He noticed the dresser was covered with a cloth."

After reading an entire previous participant's summary, each current participant completed a 5-minute math test as a distractor task. Then, all participants were asked an identical set of 40 multiple-choice questions in random order about the mock crime video. Each question had three answer options:

1. Correct: the correct option corresponding to what was shown in the video (e.g., a navy blue cloth);
2. Misled: an incorrect answer that reflected misinformation provided in the summaries (e.g., a brown cloth); and
3. Incorrect: an incorrect answer containing information that was not portrayed in the video or any summary (e.g., a yellow cloth).

Participants then completed a questionnaire asking about the credibility of the previous participant's summary (e.g., "How good was the quality of the summary?" and "How familiar with the video was the participant who wrote this summary?").

### **Results and Discussion**

The researchers analyzed the results of the questionnaire by comparing participants' correct responses with how participants viewed the credibility of the previous participant's summary. The researchers hypothesized that if participants distrusted the summary, they would be less likely to incorporate the information into their memory of the event, leading to their being less likely to choose an incorrect answer. The results are shown in the table.

Mean Percentages of Correct, Misled, and Incorrect Responses for Each Misinformation Condition

Response Type	Misinformation Condition		
	High Misinformation Group	Medium Misinformation Group	Low misinformation Group
Correct	63%	66%	74%
Misled	30%	27%	19%
Incorrect	7%	7%	7%

The researchers found that within each condition, participants performed best if they distrusted the accuracy of the summary. Participants who were presented with higher levels of misinformation were more likely to report being distrustful, and those who reported being distrustful of the summary resisted more misinformation than those who did not.

Pena, M. M., Klemfuss, J. Z., Loftus, E. F., & Mindthoff, A. (2017). The effects of exposure to different amounts of misinformation and source credibility perception on source monitoring and memory accuracy. *Psychology of Consciousness: Theory, Research, and Practice*, 4(4), 337-347.

- 1: Language referencing racial, ethnic, or gender identities may be outdated or fail to reflect the complexities of identity that participants represent. Race/ethnicity categories reflect those reported in the original research article.
- 2: a task that is unrelated to the primary task that participants are asked to complete before they are asked to recall the target information.