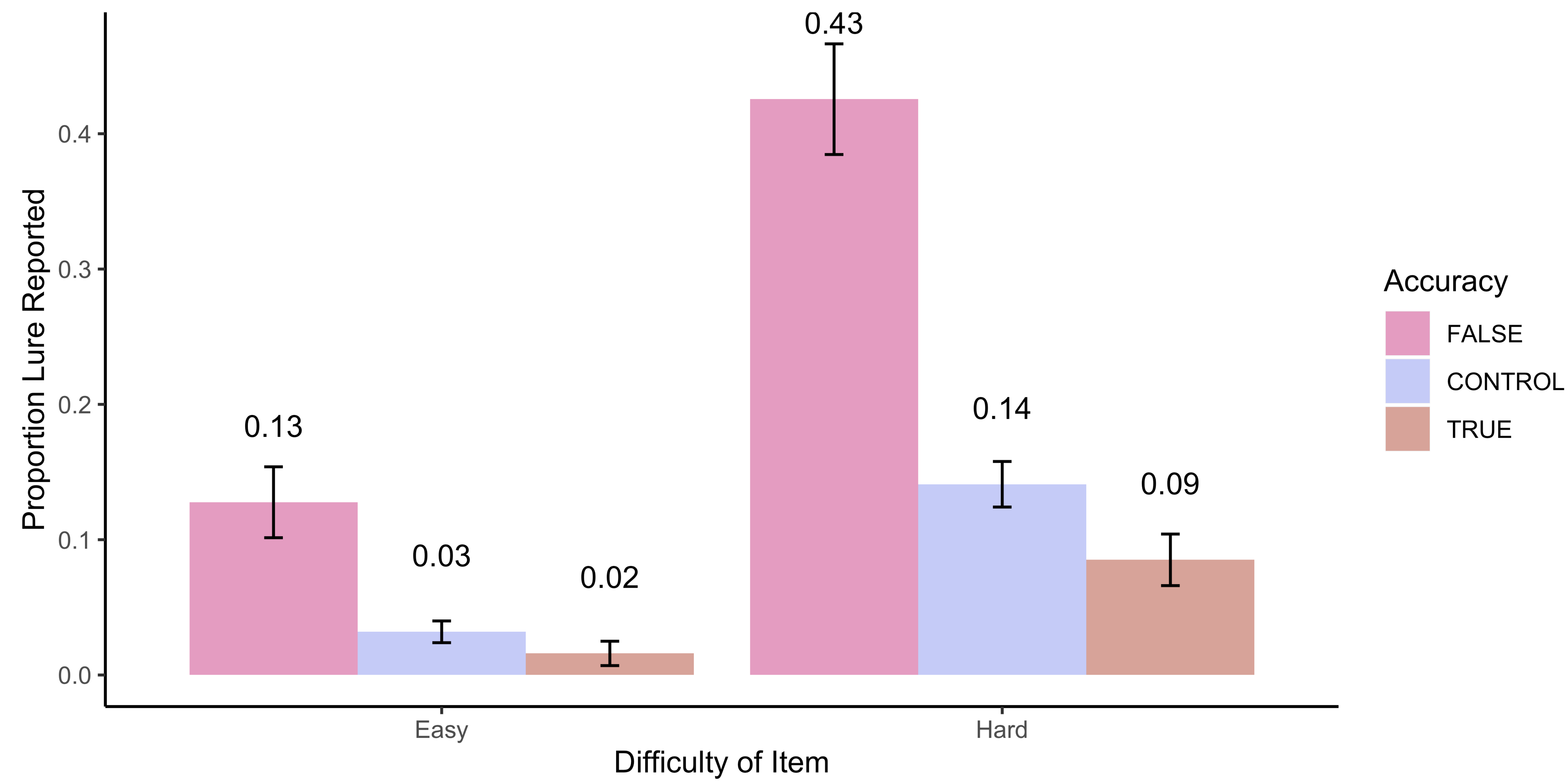


Social Contagion of Knowledge: Do People Reproduce Others' Incorrect Answers?

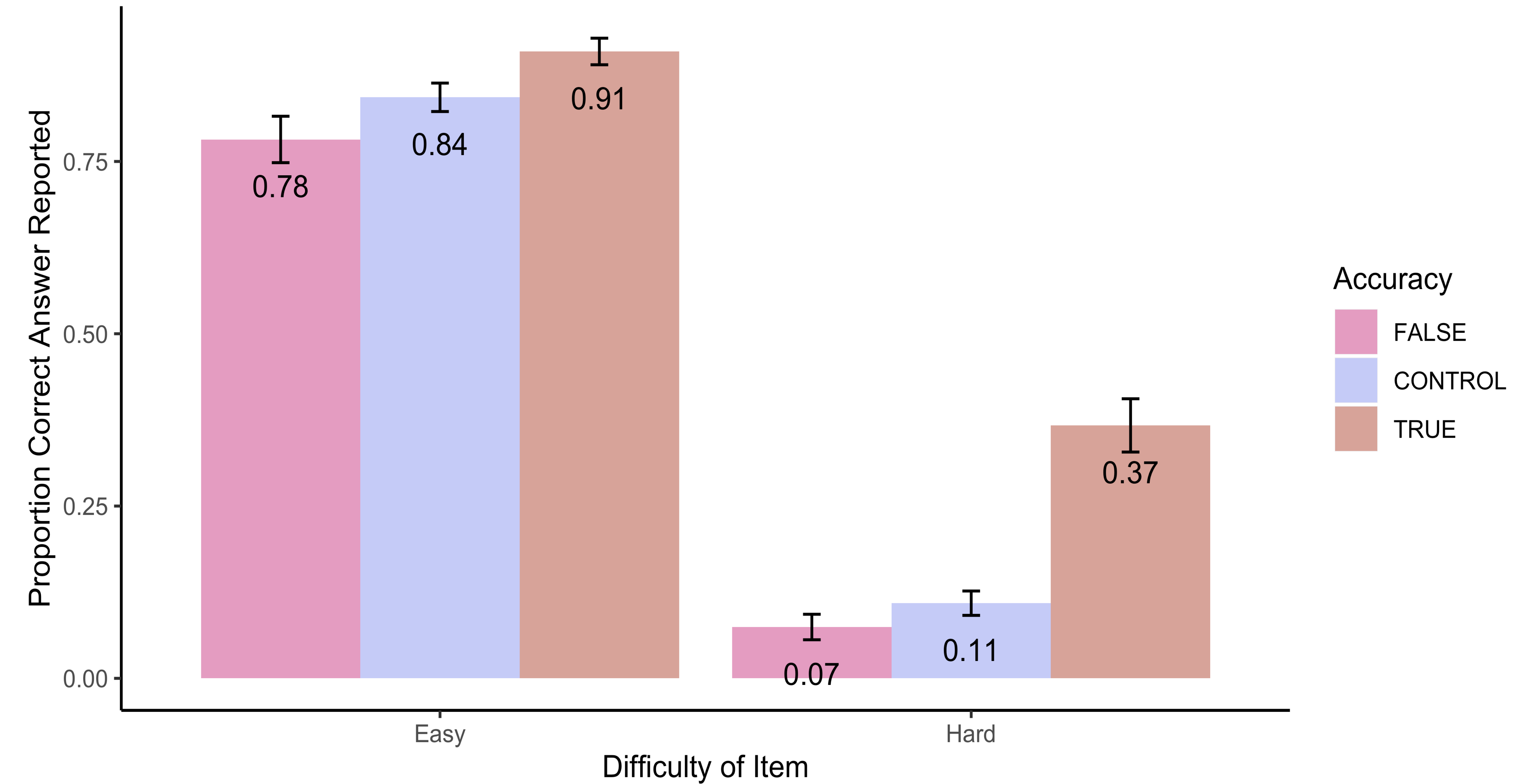
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Incorrect lures answered by participants during individual recall



Correct responses answered by participants during individual recall



Introduction:

People rely on information shared in collaborative settings, even when that information is incorrect [1]. This is known as the *social contagion of memory* [2].

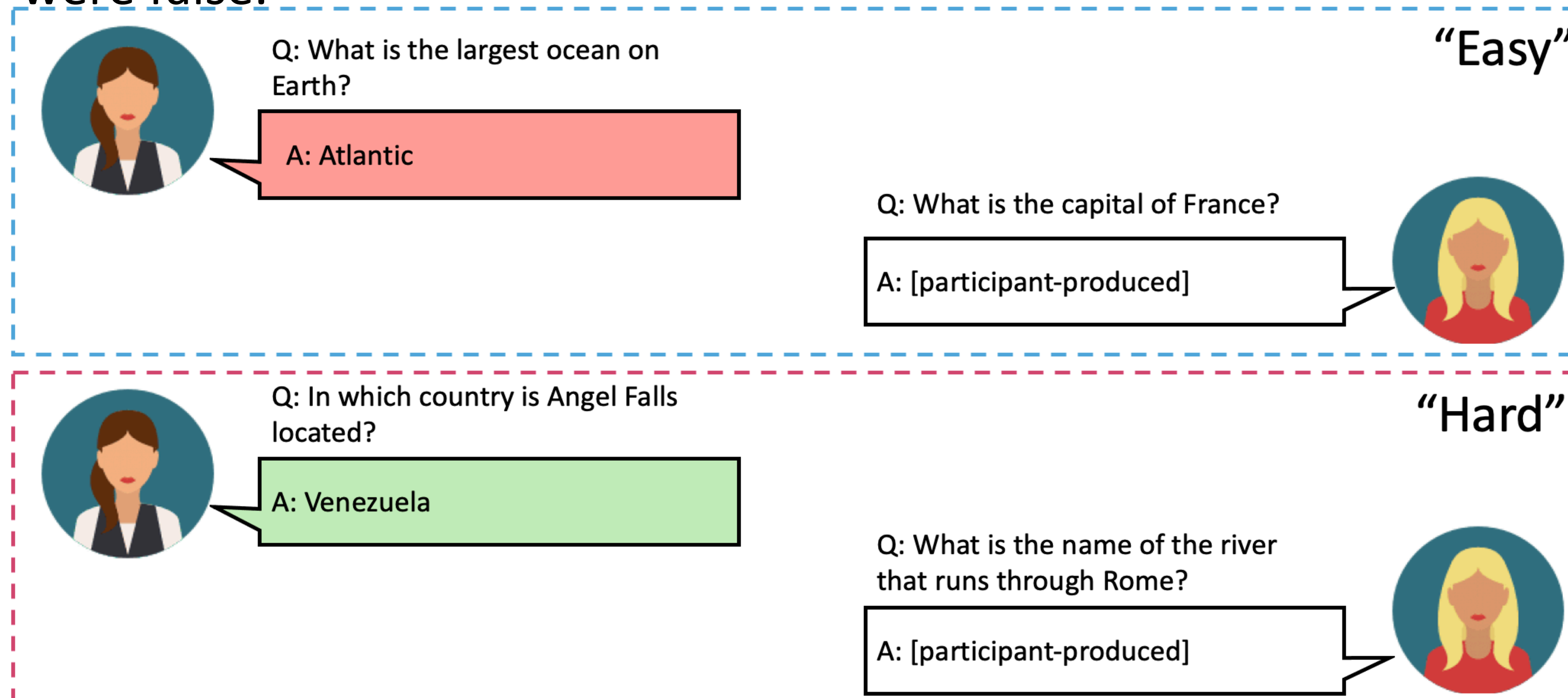
The current study extends the effects of social contagion of memory to social contagion of *knowledge*: Does what people know to be true change when they hear a collaborative partner produce inaccurate answers to facts?

Question 1. Do participants produce more incorrect lures after confederates answer with false versus true or control (self-produced) information? Does it matter if that information is well-known (easy) versus lesser known (hard)?

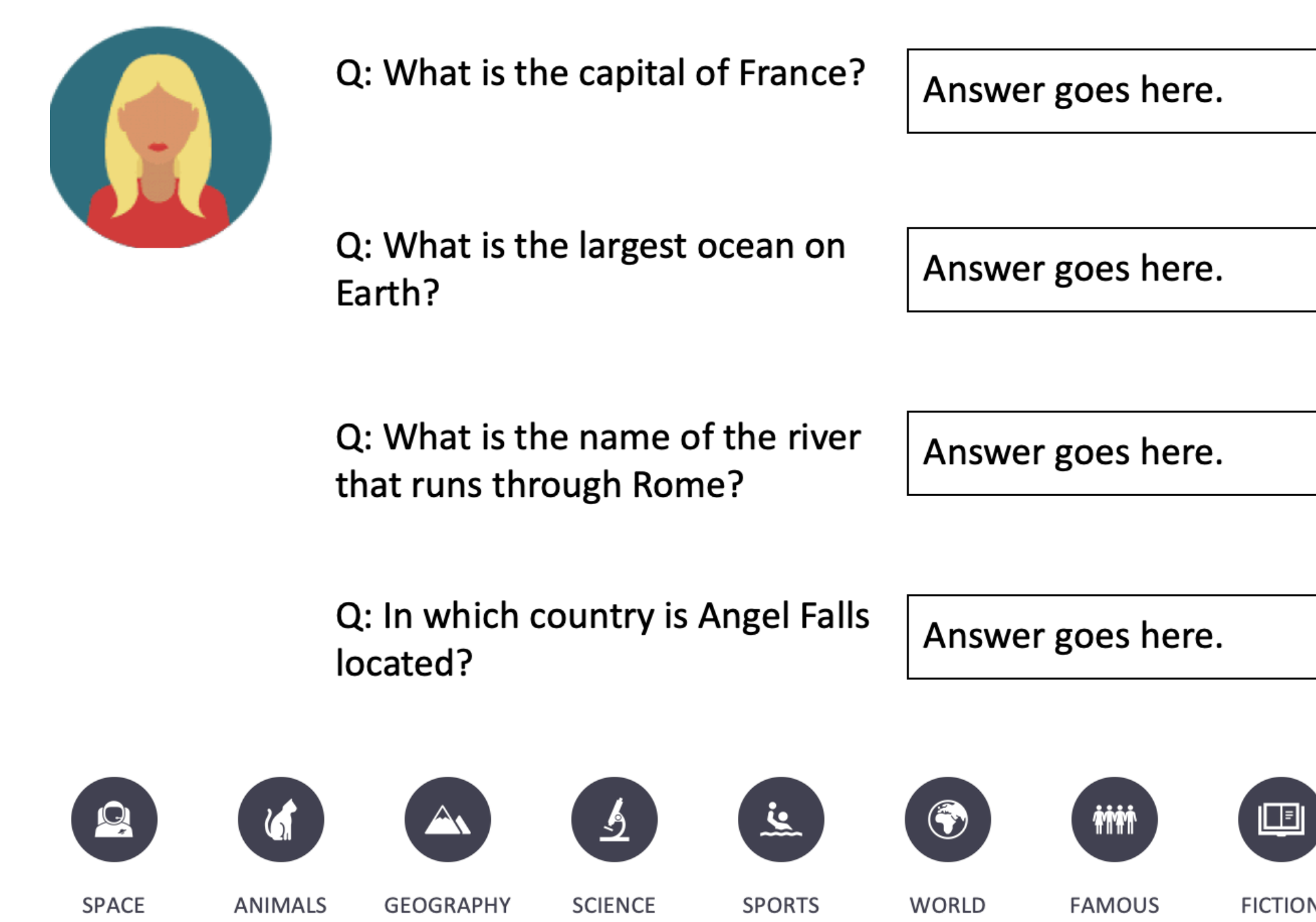
Question 2. Do participants produce fewer correct answers after confederates answer false versus true or control (self-produced) information? Does it matter if that information is well-known (easy) versus lesser known (hard)?

Methods:

During **collaborative recall** (8 categories x 4 questions = 32 questions) participants and confederates took turns answering general knowledge questions. Half of confederate answers (left) were false.



During **individual recall**, participants answered the same questions in a random order on their own.



Results & Discussion:

Answer 1. Participants produced more incorrect lures for hard ($M = .22$, $SD = .24$) as compared to easy items ($M = .06$, $SD = .13$; $b = 1.92$, $z = 4.47$, $p < .001$). Participants produced significantly more incorrect lures after exposure to false answers ($M = .28$, $SD = .03$) as compared to control ($M = .09$, $SD = .11$; $b = -2.03$, $z = -4.1$, $p < .001$) and true answers ($M = .05$, $SD = .11$; $b = -3.17$, $z = -3.43$, $p < .001$).

Answer 2. Participants produced more correct answers for easy ($M = .84$, $SD = .18$) as compared to hard items ($M = .18$, $SD = .22$; $b = 4.87$, $z = 7.48$, $p < .001$). Participants produced significantly fewer correct answers after exposure to false answers ($M = .43$, $SD = .40$) as compared to control answers ($M = .64$, $SD = .34$), $b = 2.48$, $z = 5.47$, $p < .001$). This difference was greater for hard as compared to easy items, as indicated by a significant interaction, $b = -1.39$, $z = .66$, $p = .04$. While people produced numerically fewer correct responses after exposure to false as compared to control (self-produced) answers ($M = .48$, $SD = .39$), this difference was not significant, $p = .20$.

Participants are influenced by information they hear from their confederate partners, demonstrating the social contagion of knowledge. This effect is stronger than that found in studies when exposure to inaccurate information comes from fictional text or reading statements; this may have to do with the authenticity of the information as it is produced by another person. Future research will look at the social contagion of knowledge in discourse.

References:

- [1] Andrews-Todd, J., Salovich, N. A., & Rapp, D. N. (2020). Differential effects of pressure on social contagion of memory. Manuscript submitted for publication.
- [2] Roediger, H. L., III, Meade, M. L., & Bergman, E. T. (2001). The social contagion of memory. *Psychonomic*
- [3] Tauber, S. K., Dunlosky, J., Rawson, K. A., Rhodes, M. G., & Sitzman, D. M. (2013). General knowledge norms: Updated and expanded from Nelson and Narens (1980) norms. *Behavioral Research Methods*, 45, 1115-1143.