

Associative Inference: Another Cognitive Driver of Misinformation Susceptibility

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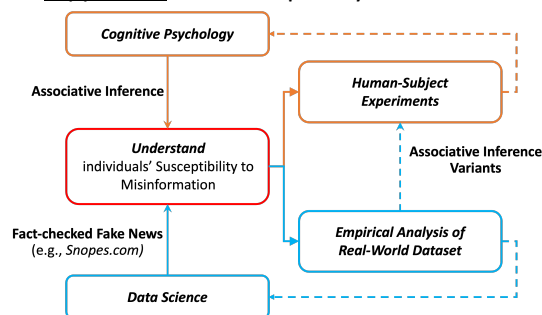
MOTIVATION

- Fake news is an **age-old** problem. Misinformation especially becomes “successful” when people perceive it as being true.
- It is essential to understand **cognitive processes** that account for people’s susceptibility to misinformation.
- **Memory Illusion (Associative Inference):** People tend to **recombine** the elements from **prior knowledge** that share a common feature flexibly and **make novel (false) connections** that they have not directly experienced.



CHALLENGES

- **Goal:** Understand and mitigate misinformation
- **Key Questions:**
 - Are people susceptible to **associatively inferred misinformation**?
 - Does associative inference really occur **in the wild**?
- **Approach:** Interdisciplinary

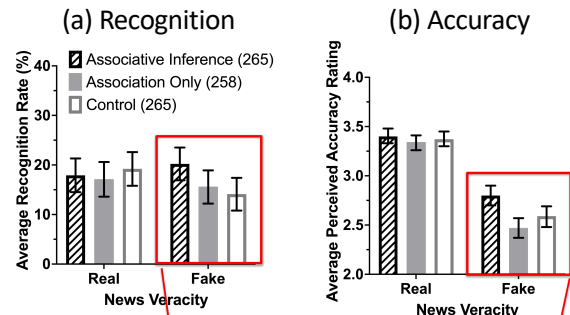


BROADER IMPACT

- Advanced scientific knowledge that contributes to understanding people's susceptibility to misinformation
- Helped researchers and practitioners better mitigate misinformation from human aspects
- Funded undergraduate student research (including female students)

KEY FINDINGS

- **Human-subject Experiments**



For the same fake new, participants in the associative inference condition showed higher recognition rate and accuracy rating.

- **Empirical Dataset Analysis**

Variants – Polarization through Verbs

	Example
\underline{AV}_{w1B}	Trump Administration Relaxes Michelle Obama's Nutrition Standards for School Meals.
$\underline{AV}_{w2B'}$	Trump Administration Loosens Obama School Food Rules.
$\underline{A'V}_{pB}$	President Trump cancelled Michelle Obama's school lunch program in October 2018.