

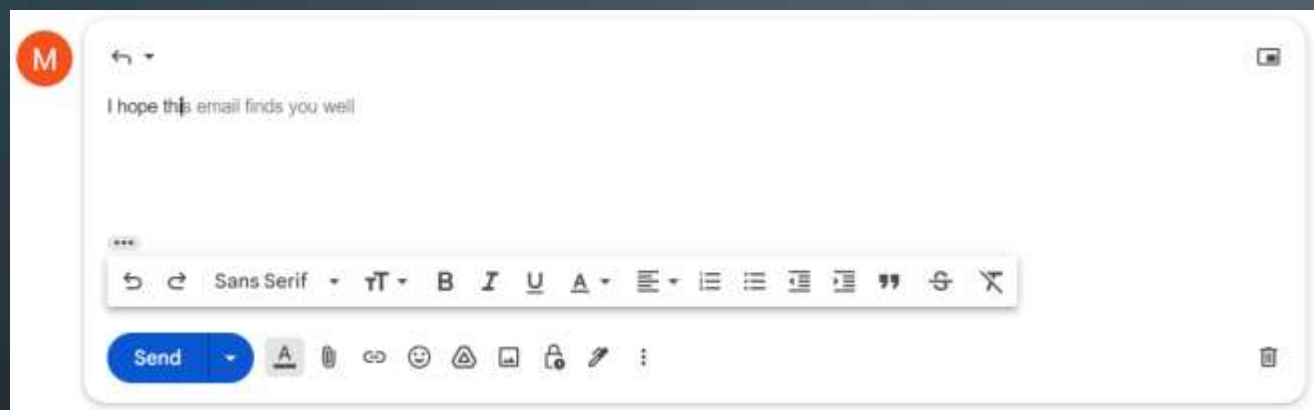


# ARTIFICIAL INTELLIGENCE (AI) IN COMMUNICATION: IMPACT ON RELATIONSHIPS AND BEHAVIOR

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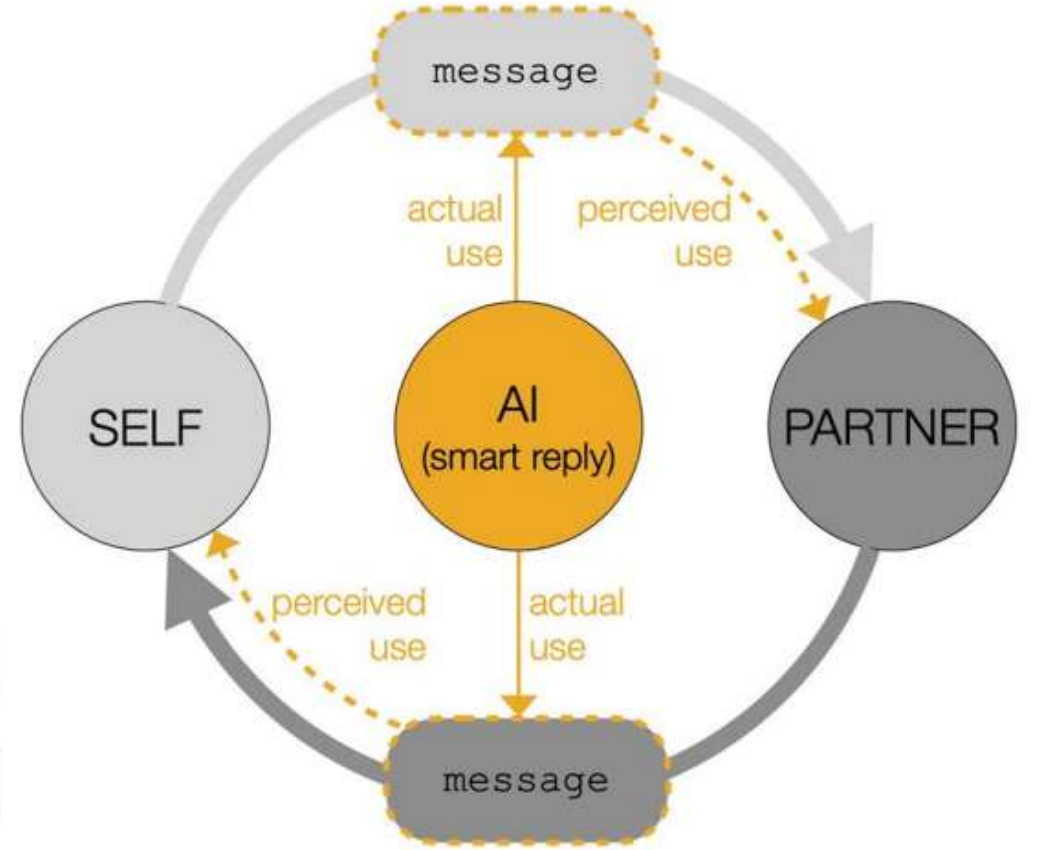
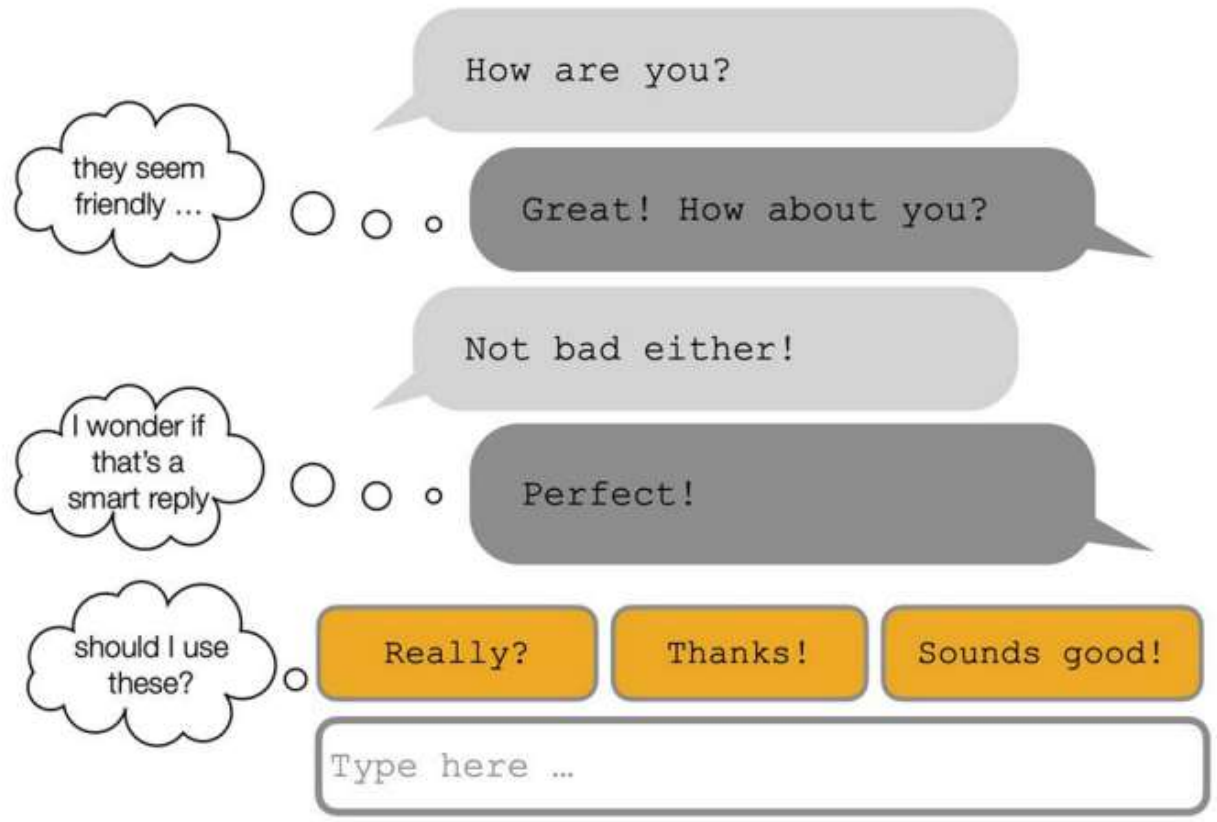
# WHERE HAVE I SEEN AI?



# WHAT'S THE RESEARCH?

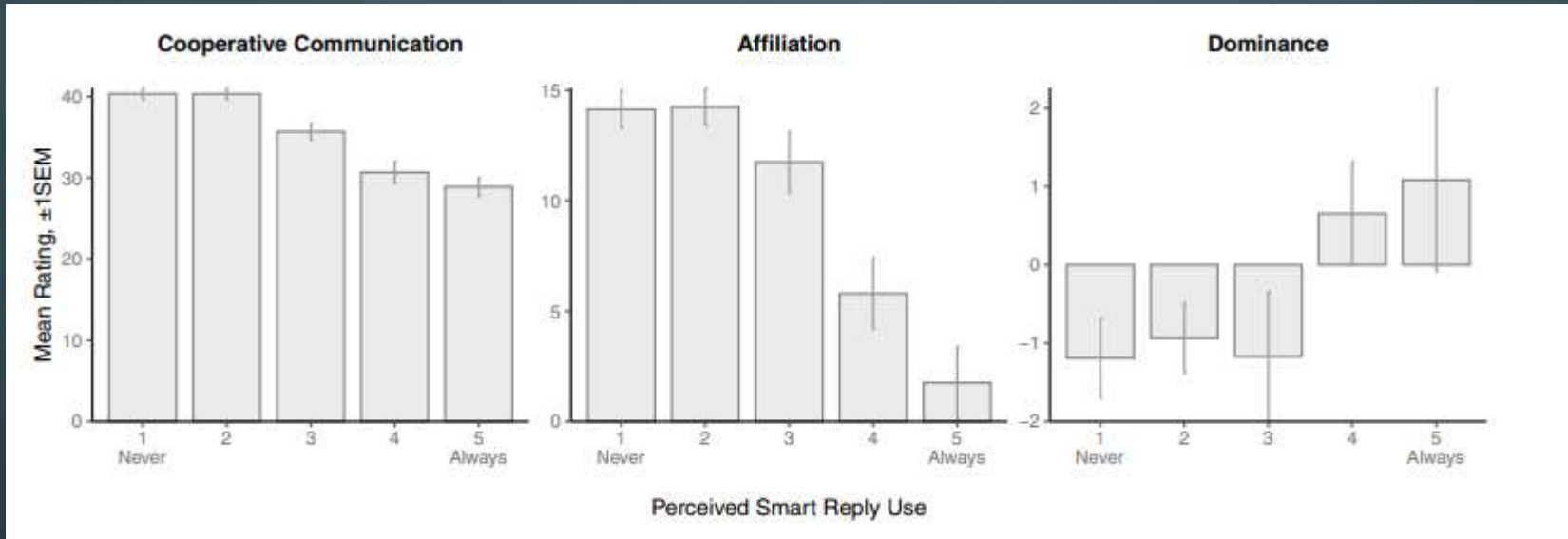
- Hohenstein et al: “Artificial intelligence in communication impacts language and social relationships”
- Self and partner discuss policy issue with varying access to “smart replies”
  - **Study 1:** How does AI influence perception of conversation partner?
  - **Study 2:** How does AI affect conversational language – positive vs negative emotion?

# STUDY 1: HOW DOES AI INFLUENCE PERCEPTION OF PARTNER?



# STUDY 1: PERCEPTION OF CONVERSATION PARTNER

“AI is perceived negatively but impacts interpersonal perceptions”



Weak correlation between perceived use and actual use ( $r = 0.22$ )

Based on the *perceived use* of AI, self rated the partner as..

- Less cooperative
- More dominant
- Felt less affiliated to them

Based on the *actual use* of AI, when more AI smart phrases were used compared with fewer phrases...

- Self rated partner as more cooperative
- Felt more affiliated
- Both parties used more positive language (even if partner had smart phrases but self did not)

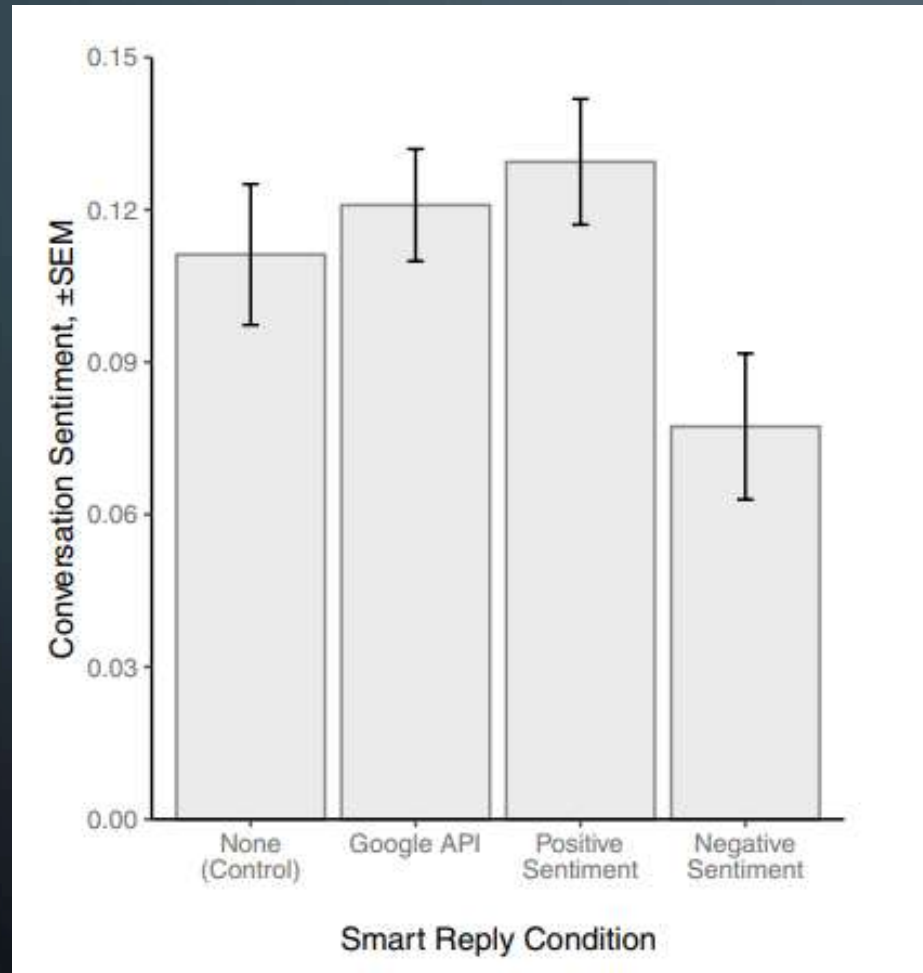
## STUDY 2: HOW DOES AI AFFECT CONVERSATIONAL LANGUAGE?

Both assigned **positive** smart replies

Both assigned **negative** smart replies

Neither given smart replies

# STUDY 2: AFFECT ON CONVERSATIONAL LANGUAGE



Availability of **negative** smart replies = more **negative** conversational emotional sentiment

Availability of **positive** smart replies = more **positive** conversational emotional sentiment

Google replies: bias towards positive sentiments in the available replies but not much change compared to control

# THE TAKEAWAYS

## *Artificial Intelligence In Communication*

- AI suggested responses are more positive than normal conversation
- When smart replies are available, people tend to use them
- If you're going to use AI in communication, be sneaky about it.
  - “Text suspected of, or labeled as generated by AI was perceived as less trustworthy”
- May make conversations more positive, but could also lead to loss of personal communication styles over time

## *Artificial Intelligence In Healthcare*

- Smart phrases in AI in health care – potential for AI to answer simple patient questions
- AI neural learning networks as supports for clinical decision-making



# REFERENCES

Hohenstein, J., Kizilcec, R.F., DiFranzo, D. *et al.* Artificial intelligence in communication impacts language and social relationships. *Sci Rep* **13**, 5487 (2023). <https://doi.org/10.1038/s41598-023-30938-9>

Reddy S, Fox J, Purohit MP. Artificial intelligence-enabled healthcare delivery. *J R Soc Med.* 2019;112(1):22-28. doi:10.1177/0141076818815510