

HRI Reading Group

@ Instituto Superior Técnico

Meeting #5 (19 Nov 2018)

Paper

Chidambaram, V., Chiang, Y. H., & Mutlu, B. (2012, March). **Designing persuasive robots: how robots might persuade people using vocal and nonverbal cues.** In Proceedings of the seventh annual ACM/IEEE international conference on Human-Robot Interaction (pp. 293-300). ACM.

Persuasion

Persuasion: “an attempt to shape, reinforce, or change behaviors, feelings, or thoughts about an issue, object, or action”

“Mehrabian argued that people’s perceptions of an individual is shaped 7% by verbal cues (what the individual says), 38% by the tone of their voice, and 55% by their bodily cues, highlighting the role of nonverbal cues in how people evaluate others in social settings.”

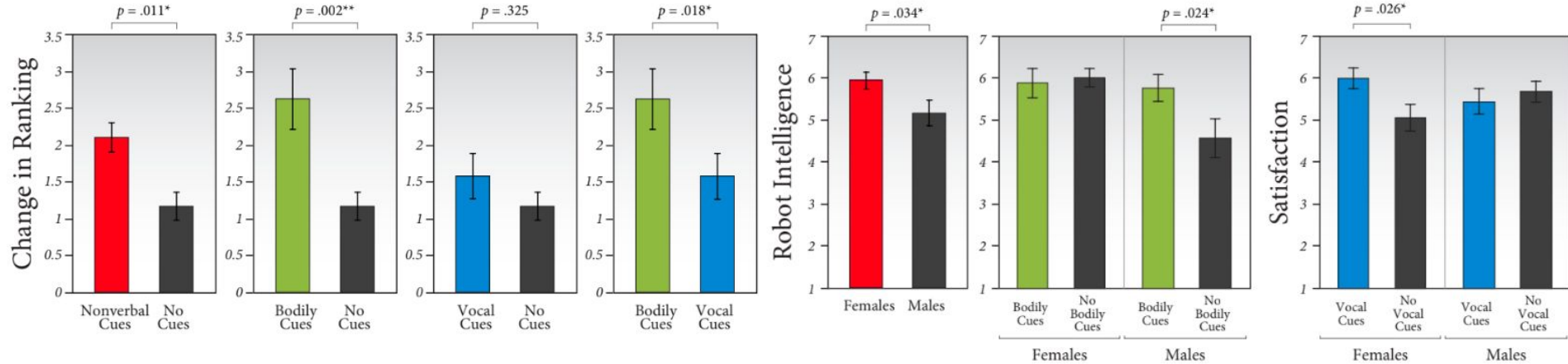
Hypotheses

Hypothesis 1: Participants' perceptions of the persuasiveness of the robot and compliance with the robot's suggestions will be higher when the robot displays nonverbal cues (verbal and/or bodily cues) than when it does not display nonverbal cues to communicate with the participant. CHECK

Hypothesis 2: Participants' perceptions of the persuasiveness of the robot and compliance with the robot's suggestions will be higher when the robot displays only bodily cues than when it displays only vocal cues. CHECK

Hypothesis 3: Women's perceptions of the persuasiveness of the robot and compliance with the robot's suggestions will be higher than those of men in the presence of nonverbal cues. This hypothesis builds on the finding that women are more adept than men at reading nonverbal cues. NO SUPPORT

Results



- Small number of participants per condition (8) → Representativeness of the sample, sensitivity to outliers, normality assumption for ANOVA, ...

What are other factors that may influence robot persuasiveness?

Controllable on robot side

- Perceived authority (for authority, persuasiveness becomes compliance)
- Perceived trust
- Group identification
- Appearance
- Prosody, vocabulary, ...

Human-related

- Personality trait
- People's characteristics (e.g., gender, personality)

Domains to acquire knowledge about persuasiveness:

- Politics
- Art of argumentation
- Marketing, sales, management, consumer psychology
- Ancient Greek: Ethos, Pathos, Logos
- Pick-up artists

Group exercise

Based on one of your previous projects/scenarios, discuss the following questions to relate persuasiveness to your own investigation:

- Was there any persuasion involved?
- Could the project/scenario benefit from any (additional) persuasion?
- How would you implement/design it?

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Meeting #6 (26 Nov 2018)