Intergroup Contact via Robotic Telepresence

Avner Peled

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ABSTRACT

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Introduction

The Contact Hypothesis

- History of the four condition[17]

- Advancements since Allport. [13, 3]

  - **Contact should focus on the combination between forming a personal connection and maintaining group salience and representation**.
  - anxiety and other emotions play an important role.
  - Long-term effects, meta-analytics [18]
  - Different types of contact (Direct/indirect, structured/unstructured, extended/vicarious..?).

  [1, 28]

Robotic telepresence

- History and current uses of robotic telepresence [27].

  - Social robots: health, education, day-to-day communication
  - Industry robots: surgical, factory.
  - Examples from Japan and my MA.

- Terminology and the asymmetry of telepresence Telepresence communication is by nature asymmetrical, in a sense that the experience of signal transmission is very different than that of reception. Transmission is mediated through a control interface but reception immediate in a shared physical space. Terminology:

  - Controller: controller of the robot.
  - Interlocutor: Person interacting with the robot.

- About the senses of presence, agency, and ownership.

  - From my MA

- About intercorporeality

  - From my MA

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Robotic telepresence as a medium for contact

Mediatization of politics

- Mediatization of the lifeworld changes the nature of politics and political discussion [9, 26]

Online and virtual mediation

- Review of online and virtual contact attempts, advantages and disadvantages [10, 22, 8, 20, 8, 19, 2]

- Mention immersive environments

Telepresence as a midway

- On the controller side, telepresence provides the benefits of online communication: accessibility, anonymity, re-embodiment, along with disadvantages regarding the dis-association of ownership.
- On the interlocutor side there are some of the benefits of face-to-face conversation, intercorporeality

Intergroup power relations

Strategies of status

- Does the contact situation need to:

  - reflect existing power relations (to avoid subtyping)?
  - 'normalize' them, to increase friendship and reduce anxiety?
  - reverse the power relations for empowerment and empathy?

  [14; @ 23; 21]

Different conformations of telepresence contact:

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* Person <-> Robot <-> Robot <-> Person
* Person -> Robot <-> Person
* Person, Person -> Robot
* Person <-> Person with Robot.
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Group salience: how to increase via telepresence robots?

Group markers via custom robot design.

- Include group-identifying markers in the robot design, or encourage group members to include them in their own custom design. [25]

Interaction content

- Anonymity vs self-disclosure? *Is the real person behind the robot is perceived as a protoypical palestinian or not and what is revealed about the person*

- Encourage conflict related interaction?

Emotional and personal connection with telepresence robots.

On the controller side: Reduction of anxiety via anonymity and imagery

- Same from online interaction [8, 19, 22].

- Addition of re-embodied avatar imagery

- Therapeutic material engagement if you make your own avatar [15, 24]

- Bodily Expression

On the interlocutor side: Physical interaction and intimacy

- Touch and cognition [12, 6, 7]

- Uncanny valley and anxiety [16]

Design considerations

Appearance: Human vs nonhuman

- More about the uncanny?

Materiality and movement

- Importance of movement [11]
- Soft robotics

The importance of feedback

- Audio and visual feedback for actions [4, 5]

Autonomous vs controlled functions

* AI and Augmentation vs Expressiveness and intentionality

Real-world conflict considerations

Empowerment via education in robotics
Legal and ethical considerations
Israel-Palestine test case
Conclusions
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