Engineering Empathy: Building Satisfying Interactions with Less Empathy

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Are highly empathic individuals better at making the physically disabled feel more comfortable when talking with them?

Background

Artificial speech synthesizers enable face-to-face communication for their users but disrupt the natural rhythms that are the hallmark of emotionally satisfying interactions. Some people are likely to have an easier time compensating for this disability than others. Empathy (Davis, 1983), for example, is intuitively and theoretically associated with superior interpersonal behavior (Hall & Bernieri, 2001). Therefore, we predicted that highly empathic individuals would skillfully accommodate for a speech synthesizer user and achieve a higher state of rapport with them than would those low in trait empathy.

Hypothesis (see Graph 1)

Users of speech synthesizers who interacted with a person high in trait empathy would report feeling more rapport (more positive and engaged) with their partner than those interacting with a partner low empathy.

Method

Participants:

There were 120 participants, all were Oregon State University students (95 female and 25 male).

Procedure:

Participants were paired together for five-minute interactions. One participant was randomly assigned to use the speech synthesizer and the other was their conversational partner (Figure 1).

Figure 1: Speech input with joystick

Rapport, Positive Mood, and Engagement:

After their interactions, participants rated the rapport, positive mood, and engagement they experienced (Figure 2, Figure 3, Figure 4).

Figure 2: Rapport Ratings

Figure 3: Mood Ratings

MOODS: Below is a list of words describing different kinds of moods and psychological states. Please indicate how you feel right now.

1. Cheerful
2. Anxious
3. Relaxed
4. Frustrated

Figure 4: Engagement Ratings

ENGAGEMENT: During the last conversation to what extent were you:

1. Engaged Not at all
2. Engaged Not at all
3. Engaged Not at all
4. Engaged Not at all

Establishing Empathy:

Participants completed a multi-dimensional measure of empathy known as the Davis IRI (Davis, 1980). This measure breaks empathy into four separate components:

1. Perspective Taking
2. Empathetic Concern
3. Personal Distress
4. Fantasy

Expected Result

Surprisingly, users of the mechanical speech devices reported having worse interactions with a highly empathic partner.

Discussion

Contrary to what anyone would have expected, the conversations were more satisfying for people forced to use the mechanical speech device when they interacted with a partner who would be considered interpersonal insensitive according to current psychological theory.

One post-hoc interpretation we offer is that maybe, low-empathy individuals were less affected by the novelty of an interaction involving speech synthesizers whereas high-empathy individuals were so motivated to be nice that their normal strategies for achieving this (e.g., not staring) were exactly the wrong strategies to use in this unusual context.

A future investigation of the theorized components of rapport and their corresponding nonverbal cues in relation to the observed behavior of both the speech synthesizer user and their partner could reveal more about these findings (Tickle-Degnen & Rosenthal, 1990).

References


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Graph 1: Hypothetical Means of Low Empathy and High Empathy Subjects in Rapport, Mood, and Engagement Ratings by Speech-Synthesizer Users

Graph 2: Means of Low Empathy and High Empathy Subjects in Rapport Ratings by Speech-Synthesizer Users

Graph 3: Means of Low Empathy and High Empathy Subjects in Positive Mood Ratings by Speech-Synthesizer Users