

"I Don't Like William Touching My Belly": Gender Differences in Affective Responses to Mediated Social Touch

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*From behind the screen where I hid,
I advance personally, solely to you.
Camerado! This is no book,
Who touches this, touches a man,
(Is it night? Are we here alone?)*

- Walt Whitman (1819 - 1892)

Abstract

This poster presents a first exploration to investigate whether the gender differences generally found in unmediated same- and opposite-sex social touch are also present in mediated situations. Such response similarities between real and virtual touch will have implications for the design of haptic communication devices as well as for the study of touch itself. In an experiment, participants were led to believe that a (male or female) stranger was remotely touching them. We presented different types of tactile stimulus patterns to several loci of a participant's upper body through a vest equipped with vibrotactile actuators. Results indicated that affective responses varied with the stimulated body location ($\eta^2 = 9.0\%$; $p < .01$.) and the type (i.e., "stroke" or "poke"; $\eta^2 = 0.4\%$; $p = .06$.) of mediated touch. The effect of dyad composition (i.e., same- vs. opposite-sex), although non-significant, was larger for the male sample than for the female sample, explaining respectively 3.8% ($p = .16$) compared to 0.4% ($p = .67$) of the variance in the total sample. In separate ANOVAs for the male and female sample, the effect of dyad composition did not reach significance, with respectively $\eta^2 = 9.9\%$ ($p = .11$), and $\eta^2 = 0.1\%$ ($p = .73$).

In correspondence with research on unmediated social touch, the effect of dyad composition, although not significant, was about ten times larger for our male participants than for our female participants. Overall, the results contribute tentative evidence for the contention that mediated touch is being perceived in similar ways to unmediated touch, and that touch-like qualities may be attributed to stimulation from an array of vibrating electromechanical actuators.

Keywords--- physical contact, computer mediated communication, haptic feedback, social presence, human sex differences