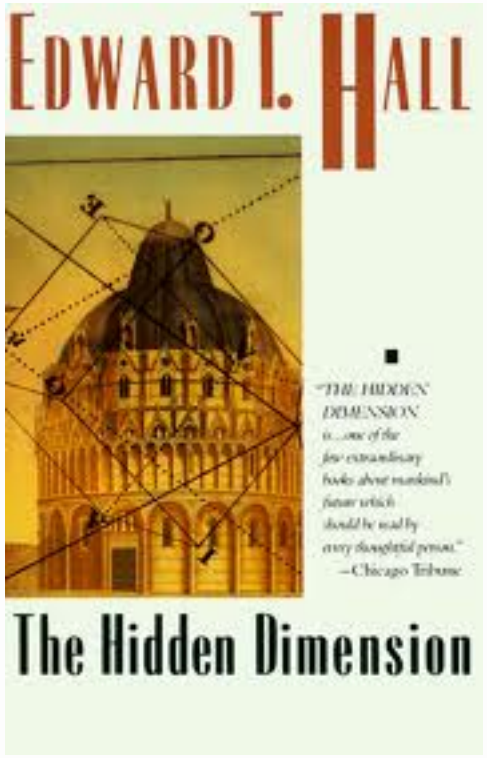
Lecture 17

Social Spacing

- Proxemics
- Interpersonal distance (or IPD)
    - Effects of gender and culture
    - Effects of gender identity
- Violations of personal space
    - Effects of gender and gaze
- Neural regulation of IPD
    - Another role for the amygdala

Proxemics

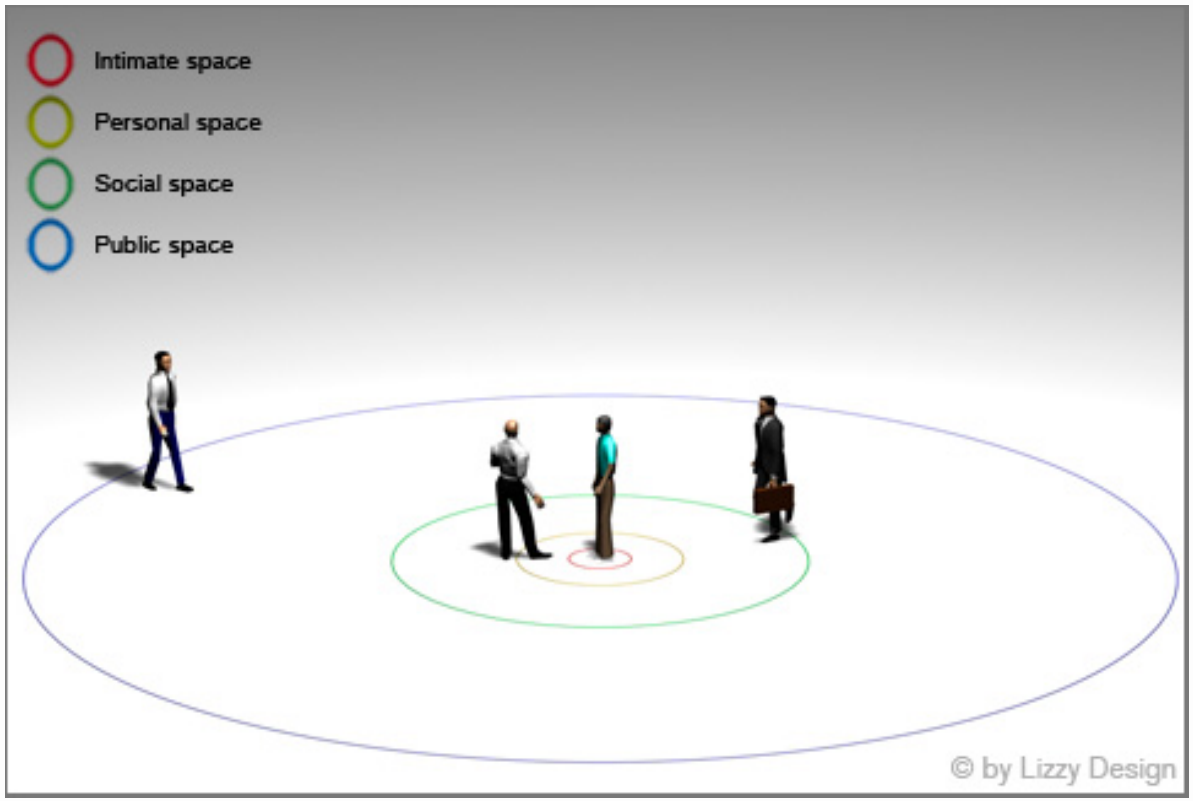
A definition



The study of the the spatial separation individuals naturally maintain in social and interpersonal situations, and how this separation relates to various environmental, personal, social, and cultural factors

Proxemics

The Zones of Personal Space



IPD and Gender/Culture

How do they affect IPD?

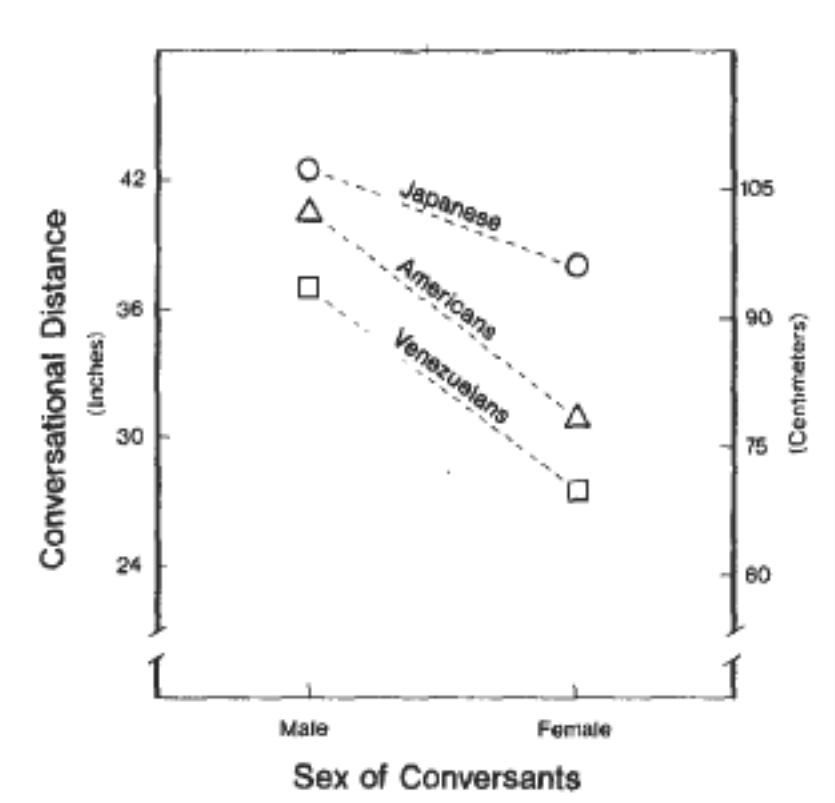
Proxemic theory emphasizes cultural uses of interpersonal distance (or IPD) to regulate intimacy via sensory exposure. However, research has not considered whether gender and language may also play a role in IPD. This study assessed interpersonal distance between seated conversants from each of three cultures varying in purported contact norms. Thirty-five Japanese, 31 Venezuelan foreign students (assigned to speak either their native language or English), and 39 Americans had a 5-minute conversation on a common topic with a same-sex, same-nationality confederate. We found: (a) When speaking their native languages, Japanese will sit farther apart than Venezuelans, with Americans at an intermediate distance; (b) females will sit closer than males; and (c) foreign subjects, when speaking English, will more closely approximate American conversational distance than when speaking their native languages.

Sussman (1982)

IPD and Gender/Culture

How do they affect IPD?

Plotted is IPD of conversants, as a function of male (left) vs. female (right) dyads, and Japanese (circles), American (triangles) and Venezualan (squares) dyads

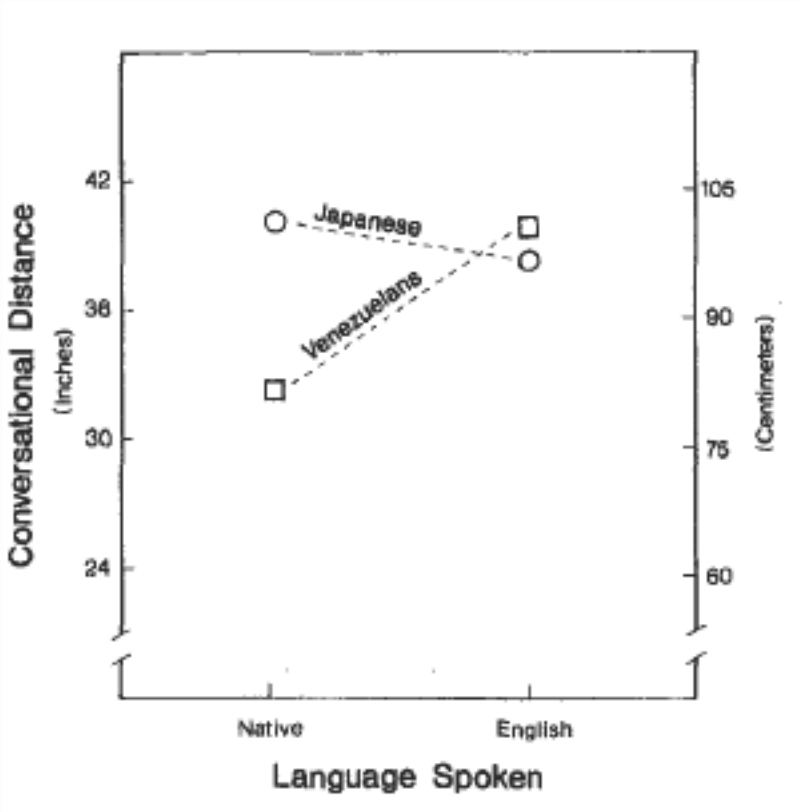


Sussman (1982)

IPD and Gender/Culture

How do they affect IPD?

Plotted is IPD of conversants, as a function of Japanese (circles), and Venezualan (squares) dyads, and whether the dyads were speaking their native langauge (left) vs. english (right).



Sussman (1982)

Gender Identity and IPD

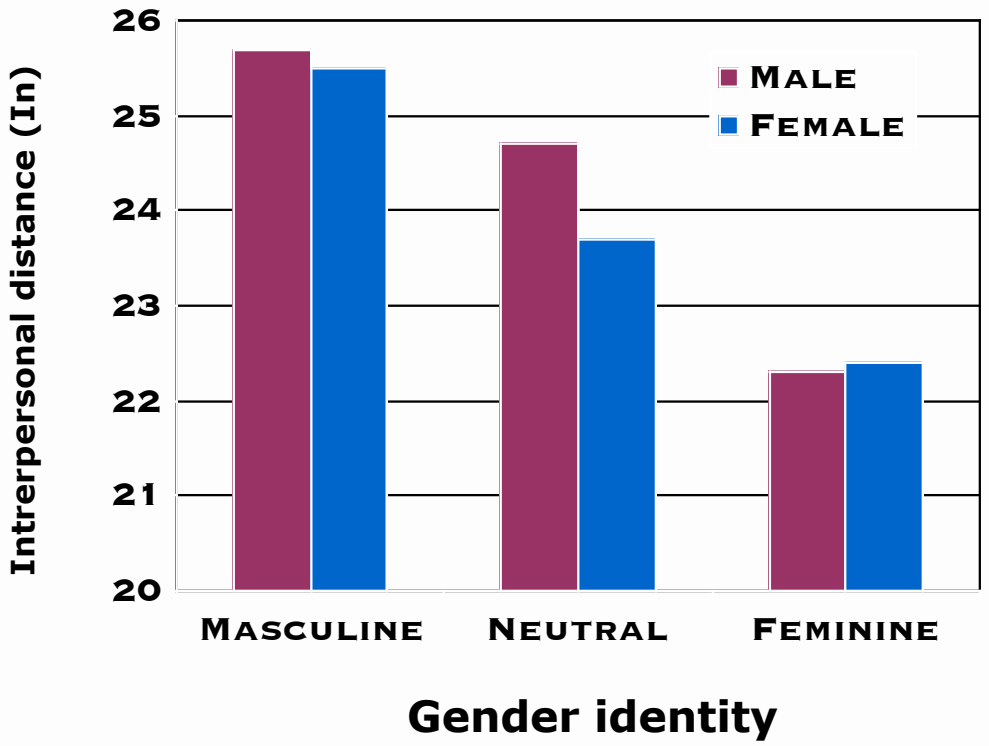
An important distinction between sex and identity

In considering the effect of gender on interpersonal distance, we argue for an important distinction to be made between biological sex vs. gender identity. In this study, we found that gender identity accounts for more of the variation in IPD than the conventionally reported gender variable, sex. Our findings suggest that a more sophisticated conceptualization of the impact of gender on IPD is warranted than can be accounted for by biological sex differences alone.

Uzzell (2006)

Gender Identity and IPD

IPD of conversants varied more as a function of gender identity than of actual sex of participants



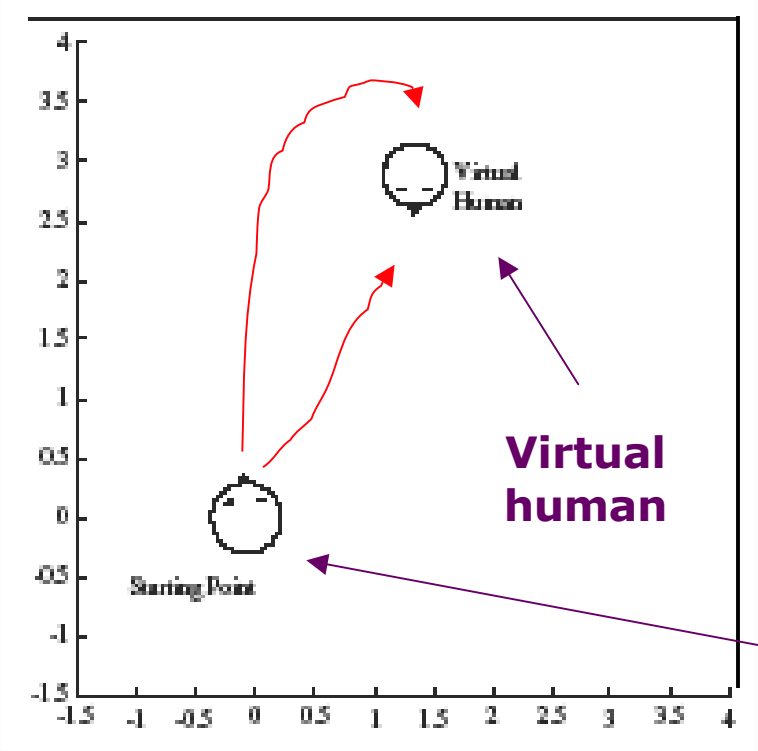
Uzzell (2006)

Violations of Personal Space

From *Borat*

Maintaining Interpersonal Distance

walk to the front or back of the virtual human



Virtual human

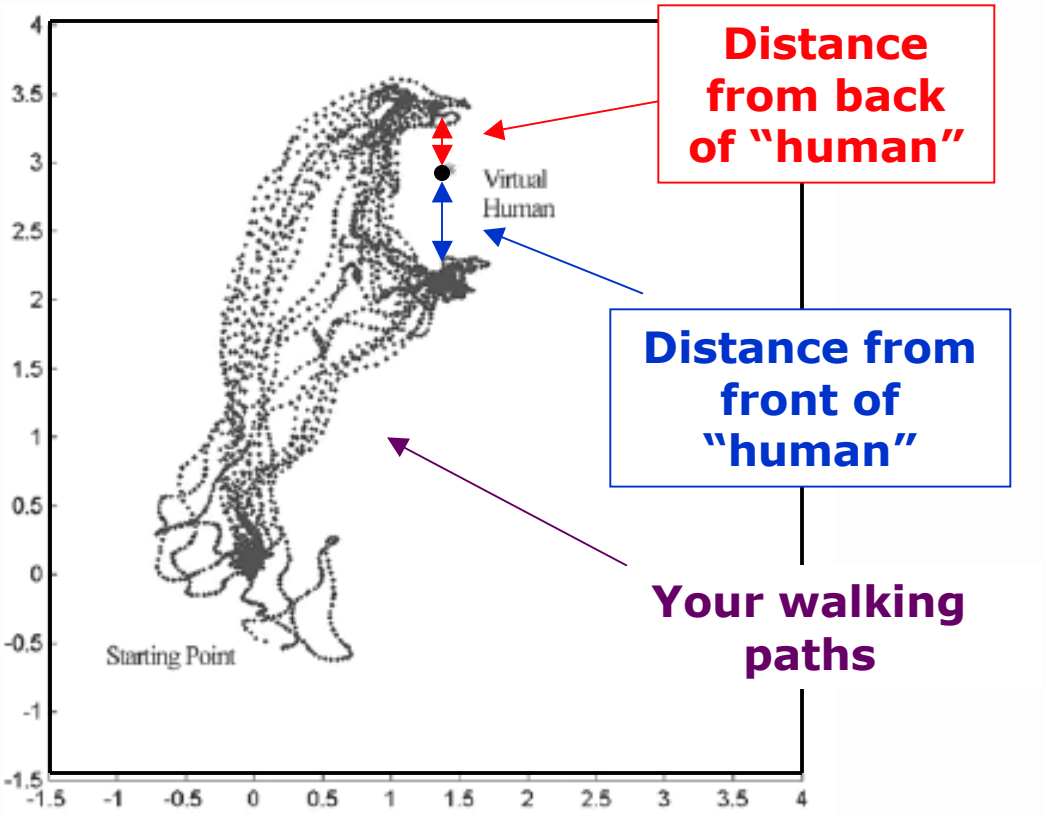
Shown is top down view of actual room you walk in, with location of the virtual human you need to walk towards/around

Your starting position

Bailenson (2003)

Maintaining Interpersonal Distance

walk to the front or back of the virtual human



We keep greater interpersonal distance when facing vs. behind a person

Bailenson (2003)

Maintaining Interpersonal Distance

Gender and Gaze manipulated

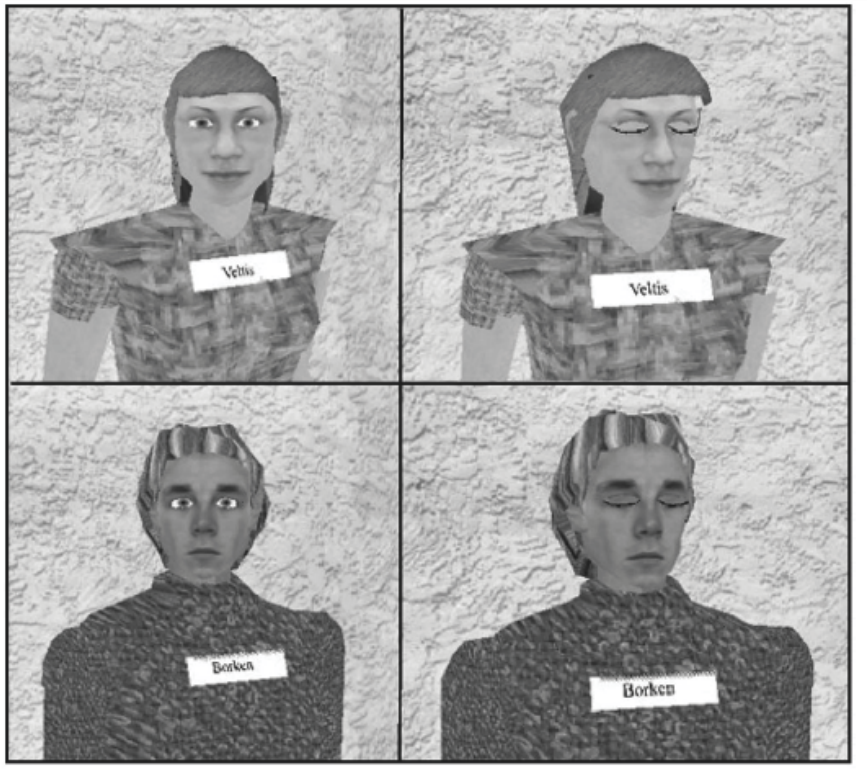


Figure 2 Pictures of the male and female virtual humans.
NOTE: Pictures on the left depict the high gaze condition and pictures on the right depict the low gaze condition.

Bailenson (2003)

Maintaining Interpersonal Distance

Gender, Gaze, and stepping aside

Avoidance magnitude: how much do you move over to let the "avatar" or "agent" pass, and is that distance affected by the A/A's gender and gaze?!

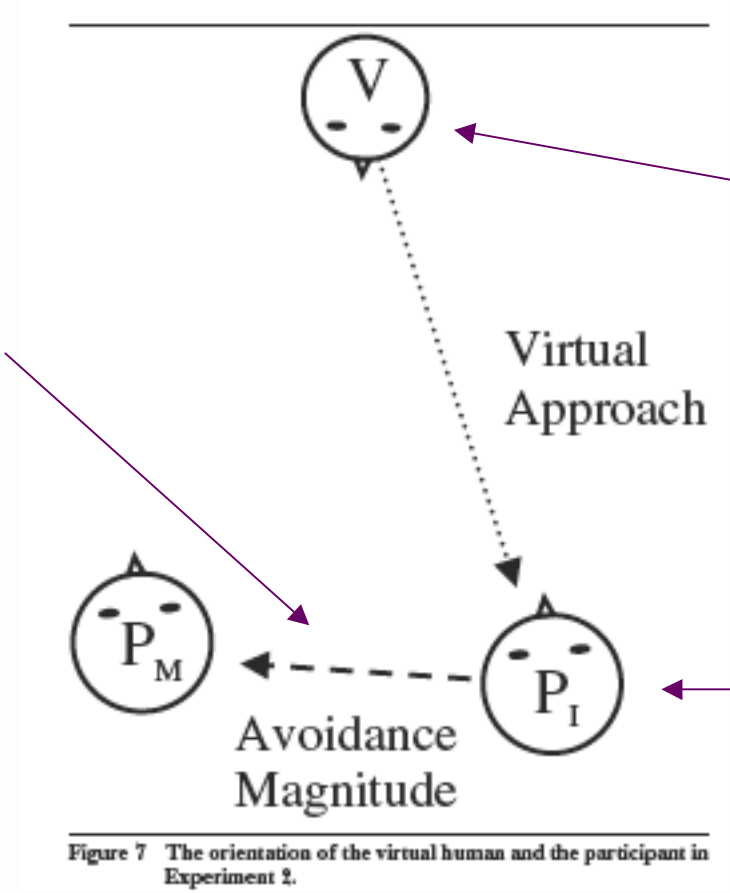


Figure 7 The orientation of the virtual human and the participant in Experiment 2.

An "avatar" or "agent", who starts to walk towards you

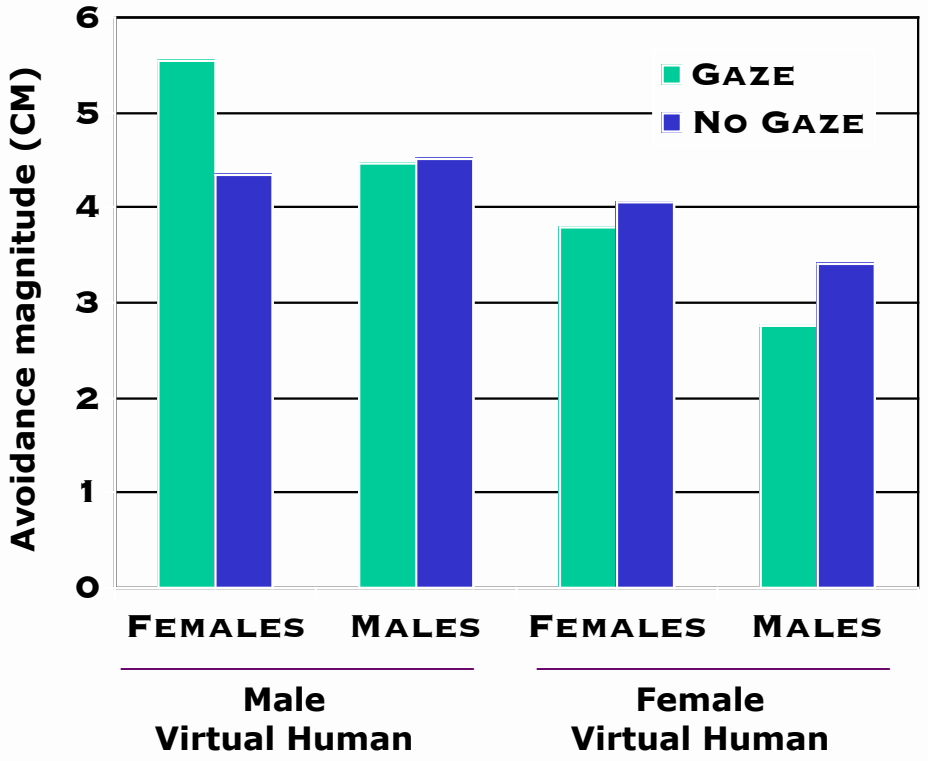
Your starting point

Bailenson (2003)

Maintaining Interpersonal Distance

Gender, Gaze, and stepping aside

Direct gaze from virtual males increased the avoidance magnitude in female participants. In contrast, direct gaze from female virtual humans decreased avoidance magnitude in males



Bailenson (2003)

Neural Regulation of IPD

Another role for the amygdala

The amygdala plays key roles in emotion and social cognition, but how this translates to face-to-face interactions involving real people remains unknown. We found that an individual with complete amygdala lesions lacked any sense of personal space. Furthermore, healthy individuals showed amygdala activation upon close personal proximity. The amygdala may be required to trigger the strong emotional reactions normally following personal space violations, thus regulating interpersonal distance in humans.

Adolphs (2009)

Neural Regulation of IPD

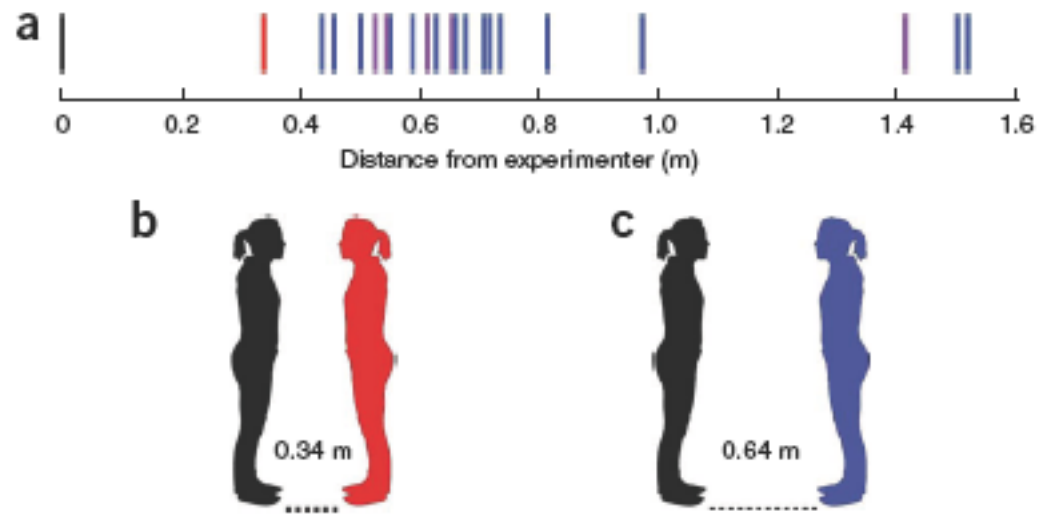


Figure 1 Lesion study: mean preferred distances from the experimenter. (**a**) Preference of S.M. (red) was the closest distance to the experimenter (black), among age-, gender-, race- and education-matched controls (purple, $n = 5$), as well as general comparison subjects (blue, $n = 15$). (**b**) S.M.'s mean preferred distance from the experimenter (image drawn to scale). (**c**) Control participants' mean preferred distance from the experimenter, excluding the three largest outliers (image drawn to scale).

Adolphs (2009)

Neural Regulation of IPD

Synopsis of patient

Throughout the experiment, S.M. demonstrated a notable lack of discomfort at close distances. For example, on one trial, she walked all the way toward the experimenter to the point of touching, and she repeatedly stated that any distance felt comfortable. We quantified this by asking her to rate her degree of discomfort (1, perfectly comfortable; 10, extremely uncomfortable) while one of us stood facing her at various distances. Even when nose-to-nose with direct eye contact, S.M. rated the experience a 1. In a more natural and unexpected context, a completely unfamiliar male confederate stood abnormally close to her while engaging in conversation; S.M. again rated the experience a 1. By contrast, the confederate rated his experience a 7. Although S.M. indicated afterward that she knew we were "up to something," awareness that this was an experiment cannot explain her lack of discomfort, since the confederate had complete awareness yet still found the experience to be highly uncomfortable.

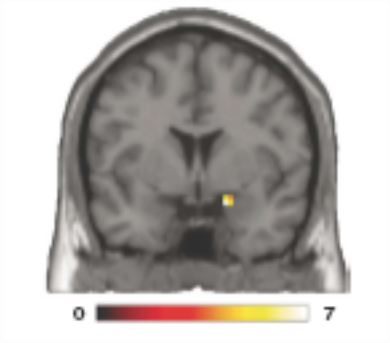
Adolphs (2009)

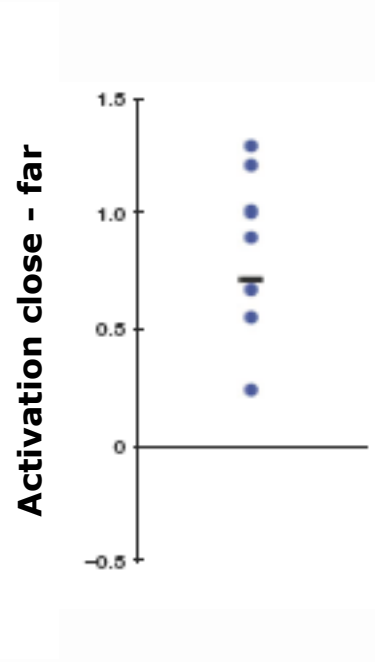
Neural Regulation of IPD

Amygdala response in "normals"

"normal" participants were placed in an fMRI scanner, and an experimenter was either standing close next to them, or on the far side of the scanner room. Amygdala activation increased for the "close" condition (plotted is amydala activation in "close" condition minus "far condition)

Right Amygdala





Adolphs (2009)