Interpersonal distance in field-theorethical terms JGU



Robin Welsch, Christoph von Castell and Heiko Hecht Johannes Gutenberg-Universität Mainz, Department of Psychology, Section Experimental Psychology

Motivation

JOHANNES GUTENBERG UNIVERSITÄT MAINZ

Psychological fields are constructed through individually scaled vectors of approach and avoidance that link the person to the environemnt (Lewin, 1939). In this vein, Hayduk (1978) defines Personal space (PS) as the area around the individual into which intrusion causes discomfort and arousal. Thus, we conceived four different response models that predict the relationship between interpersonal distance (IPD) and discomfort.

Competing models of IPD and discomfort:





Results

PSsize in stop-distance task: M = 88.31 cm , SD = 17.39 cm Shortest distance without discomfort: M = 88.33cm , SD = 16.08cm; r(22) = .64Four linear mixed models: **Discomfort** ~ **IPD-PS**SIZE+ **Block** (AIC= 2279.2) **Discomfort** ~ IPD- PSsize*in- vs extrusion + Block (AIC= 1881.6) Discomfort ~ (IPD- PSsize)^{2*}in- vs extrusion + Block (AIC= 2032.0) Discomfort ~ (IPD- PSsize)/PSsize*in- vs extrusion + Block (AIC= 1834.7)

Method

- N = 24, 6 (M_{age} = 21.66, SD_{age} = 6.92)
 placed at 15 interpersonal distances from 40cm to 250cm in steps of 15 cm to a female confederate
- verbal rating of discromofort: -100 (maximum discomfort, too close) to +100 (maximum discomfort, too far)
- manual rating of discomfort: tilt of a joystick
- 3 repitions of all 15 distances in three blocks: verbal active rating, verbal passive rating, manual passive rating
- PSsize estimated by stop-distance task
- 2 female confederates

Mear 100 200 0 Relative deviation from the edge of PS in percent (%)

Discussion

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- Intrusion of PS elicits a rapid and immediate increase in discomfort
- IPDs exceeding the limits of PS cause a moderate increase in discomfort
- Consistent with field-theory (Lewin, 1939), the function of IPD and discomfort is scaled individually on the size of Ps
- The tolerance previously observed in other studies (Thompson et al., 1979), may merely be an artifact of aggregation across subjects that has resulted in a U-shaped function of IPD and discomfort.
- We cannot rule out a tolerance for violations of PS smaller than 15 cm

Conclusion

The data favor the fast asymmetric response model

Hayduk, L. A. (1978). Personal space An evaluative and orienting overview. Psychological Bulletin, 1985(1), 117-134. Hayduk, L. A. (1981). The permeability of personal-space. Canadian Journal of Behavioural Science-Revue Canadienne Des Sciences Du Comportement, 13(3), 274-287. doi:DOI 10.1037/h0081182 Thompson, D. E., Aiello, J. R., & Epstein, Y. M. (1979). Interpersonal distance preferences. Journal of Nonverbal Behavior, 4(2), 113-118. doi:Doi 10.1007/Bf01006355 Lewin, K. (1939). Field theory and experiments in social psychology: Concepts and methods. American Journal of Sociology, 44(6), 868-896. doi:10.1086/218177 Contact: welsch@uni-mainz.de