KNEELING TO FEEL SMALL

Effects of Submissive Position on Perception and Behaviour

EVA KUNDTOVÁ KLOCOVÁ & MARTIN LANG

Most religious traditions are built upon strict power distinctions between humans and the superhuman/divine. While superhuman entities are often described as omnipotent or having supernatural powers, humans are presented as weak humble and powerless.

Some traditions accentuate this distinction not only in teachings, but also in visual representations and demands of visible submissive behaviour during ritual activities. Apart from culturally grounded cues of power and dominance verticality is often used as a basis to distinguish the powerful from the subordinate, both visually and as a bodily expression.

Recent research in perception and metaphor shows a direct connection between the placement and size of a stimulus (semantic or visual) and the estimation of its importance and power. Stimuli placed high in a vertical space are perceived as more powerful and as more dominant, whereas those placed on lower positions as inferior (Meier, Hauser Robinson, Friesen, & Schjeldahl, 2007; Robinson, Zabelina, Ode & Moeller, 2008; Meier, & Dionne, 2009; Giessner Ryan, Quaquebeke, & Schubert, 2011). Similarly, open and expansive bodily positions (standing) are connected to dominant behaviour, while closed, collapsed and lowered postures are perceived as expressing submission and obedience.

Current theorizing in the area of embodied cognition claims that bodily positions and environmental settings (Joye 8 Verpooten, 2013) play an important role in the composition of **specific embodied states.** Thus, bodily positions are not just the result of some antecedent emotional state; they are a necessary part of the emergence and shaping or emotional states. Experimental evidence supports this assertion for many bodily postures; however, to date there has yet to be a research program focusing on submissive positions and dominance cues in religious rituals. In the light of existing research, I argue that submissive bodily positions in religious rituals are not mere expressions of subordination but that they establish and modulate the submissive attitude and behaviour towards superhuman agents.

Participants in a kneeling position will perceptually underestimate their own height while verestimating the height of others compared to participants in a standing position. I. Participants in a kneeling position will ascribe higher dominance, leading abilities and ecisiveness to others compared to participants in a standing position.

articipants in a kneeling position will perceptually underestimate their own height pared to participants in a standing position.







. Participants in a kneeling position will perceptually overestimate the height of lhouette of a person.

Experiment I

Methods

Participants	Total	Kneeling	Standing
n	89 (66 females)	45 (32 females)	45 (34 females)
Mean age (yea	rs) 22,0	22,4	21,6

Participants were recruited from a university course and obtained a credit for their participation.

Manipulation

While assuming the assigned position (standing/kneeling), participants were asked to watch timer and count down in their mind. Participants assumed the position (alone in the testing space) for 5 minutes.

Afterwards, they were asked to visually estimate their height and to decide whether a projected human silhouette is higher or smaller than them.

Results

Own height estimation



There was significant difference in height estimation between kneeling (M =-8.54, SD = 11.17) and standing (M = -4.10, SD = 8.96) conditions [t (87) = -2.063, p = .042].

Silhouette height rating



same as person 5 (11,1%) 3 (6,8%) higher than person 6 (13,3%) 1 (2.3%)

There was marginally significant difference in ratings of height of the silhouette between kneeling and standing conditions.

Experiment II a

Manipulation

While assuming assigned positions - standing and kneeling, participants in dyads will be asked to watch timer and count down in their minds. Being together in the testing space they will stay in the positions for 5 minutes.

Afterwards, they will be asked to visually estimate their height and the height of the other participant. Personality trait perception questionnaire rating the other participant will be administered after the height estimation.

Participants will be matched on height and gender.

ts in a kneeling position will be giving way more often compared to participants in a standing position when passing through a narrow corridor. II. Participants in a kneeling position will be choosing a follower role more often compared to participants in a standing position.

Experiment II b

Manipulation

While assuming assigned positions - standing and kneeling, participants in dyads will be asked to watch timer and count down in their minds. Being together in the testing space they will stay in the positions for 5 minutes.

Afterwards, they will be asked to proceed to another testing area for another task. To reach the area, participants will have to pass through a narrow corridor, passable only one by one.

In the task participants will have an option to choose either a *leader* or a *follower* role. The *leader* will then choose an object (unknown to the *follower*) from a set of different pictures and give geometrical and spatial directions to the *follower* whose task it will be to draw the object on a board, while trying to guess the object. The task will be pilot-tested with/without blinfold for the follower role.

Participants will be matched on height and gender.

Findings

Questions & Future directions

Literature

- Effect of specific body posture on perception of own height

- Effect of specific body posture on perception of another person's height

- No gender effect



Is there a reason why some religions use kneeling posture and other do not?

Is there a connection between moralizing high gods and use of kneeling/prostration postures in rituals?

Do bodily postures enforce attitudes?

Basic biological and psychological mechanisms same in modern and ancient – can different interpretations/contexts change the effectes?

Does the effect vary across the lifespan?

Meier, B. P., Hauser, D. J., Robinson, M. D., Friesen, C. K., & Schjeldahl, K. (2007). What's "up" with God? Vertical space as a representation of the divine. Journal of Personality and Social Psychology, 93(5), 699–710. doi:10.1037/0022-3514.93.5.699

Robinson, M. D., Zabelina, D. L., Ode, S., & Moeller, S. K. (2008). The vertical nature of dominance-submission: Individual differences in vertical attention. *Journal of Research in Personality*, 42(4), 933–948. doi:10.1016/j.jrp.2007.12.002

Meier, B. P., & Dionne, S. (2009). Downright Sexy: Verticality, Implicit Power, and Perceived Physical Attractiveness. *Social Cognition*, 27(6), 883–892. doi:10.1521/soco.2009.27.6.883

Giessner, S. R., Ryan, M. K., Quaquebeke, N. Van, & Schubert, T. W. (2011). The Power of Pictures : Vertical Picture Angles in Power Pictures. *Media Psychology*, 14(4), 442–464. doi:10.1080/15213269.2011.620541

Zanolie, K., Dantzig, S. Van, Boot, I., Wijnen, J., Schubert, T. W., Giessner, S. R., & Pecher, D. (2012). Mighty metaphors: behavioral and ERP evidence that power shifts attention on a vertical dimension. *Brain and Cognition*, 78(1), 50–8. doi:10.1016/ j.bandc.2011.10.006

Jiang, M., & Henley, T. B. (2012). Power and spatial relations. *Journal of Cognitive Psychology*, 24(7), 829–835. doi:10.1080/20445911.2012.702749

Joye, Y., & Verpooten, J. (2013). An exploration of the functions of religious monumental architecture from a Darwinian perspective. *Review of General Psychology*, 17(1), 53–68. doi:10.1037/a0029920

Watkins, C. D., Debruine, L. M., Feinberg, D. R., & Jones, B. C. (2013). A sex difference in the context-sensitivity of dominance perceptions. *Evolution and Human Behavior*, 34(5), 366–372. doi:10.1016/j.evolhumbehav.2013.06.004

Acknowledgements

We would like to thank Radim Chvaja, Dimitris Xygalatas, and Radek Kundt for their help in different stages of the research.







INVESTMENTS IN EDUCATION DEVELOPMENT