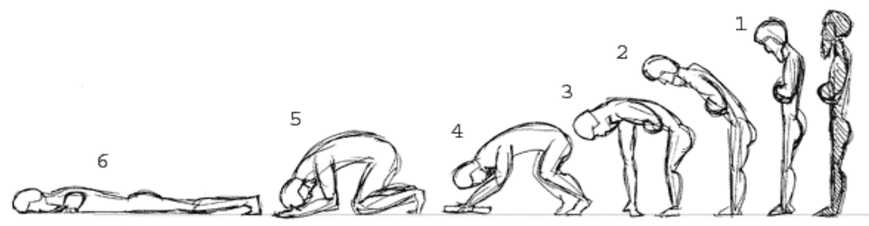
FEELING THE KNEELING: THE POWER OF THE BODY

EVA KUNDTOVÁ KLOCOVÁ



In different religious rituals a variety of bodily postures is observed, some ritual-specific. When accentuating the importance of embodiedness and extendedness of the cognitive system, those postures have to be considered as crucial elements for understanding how participants perceive and process rituals and their own role in them.

One of those above mentioned postures is kneeling – socially and symbolically this position is associated with submission, respect, reverence and obeisance. In some religions, kneeling is explicitly used as a position for prayer – a position of submission to deity or other superhuman agent.

Theoretical goal of the project:

The main aim of this project is to show how bodily positions can influence human perceptions and emotional states. The experiment focuses on the bodily position of kneeling and subsequent emotional experience of this bodily setting.

The maximum effect of the kneeling can be expected when connected to the social setting and context, this experiment focuses solely on the bodily posture.

Hypothesis:

Kneeling/prostrating positions induce a greater feeling of subordination compared with standing position.

Methods:

Participants:

	Standing	Kneeling	Prostration	total
n	22 (14 females)	17 (12 females)	20 (10 females)	59 (36 females)
Mean age (years)	21,8	22,0	23,1	22,3
Mean height (cm)	176,1	175,4	177,3	176,3

Manipulation:

Randomly assigned - one of three positions:

* standing (control)
* kneeling
* prostrating

assumed for 3 minutes, without social interaction or control (alone in the experimental room)

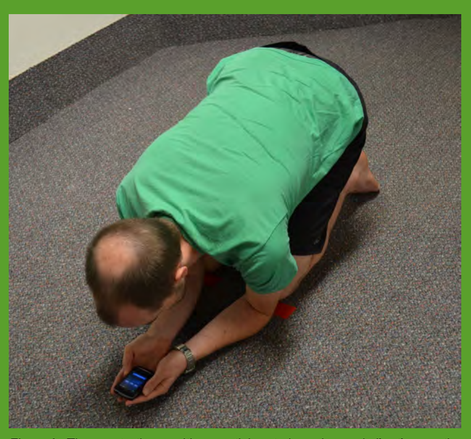


Figure I.: The prostration position: participant observing and silently counting down with an alarm-clock.

Measurements:

- Levels of testosterone and cortisol - pre and post task, detracted from saliva samples
- Estimation of body height - marked in the projection on the wall, compared with real height
- Mood questionnaire - adjectives describing momentary mood, visual analog scale, pre and post

- Dual-hormone hypothesis suggests that the neuroendocrine reproductive (HPG) and stress (HPA) axes interact to regulate dominance - the interaction of testosterone and cortisol is key component of dominant and submissive behavior (Mehta & Josephs, 2010).
- Dominant and powerful people tend to over-estimate thei own height (Duguid & Goncalo, 2012). The divergence in estimation of body height is thus seen as possible proxy of feelings of dominance and subission.
- Adapted from Matthews, Jones & Chamberlain, 1990.

Results:

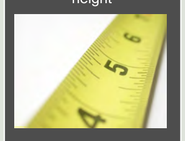
Testosterone & Cortisol levels

Hypothesis:
H1: Prostration and kneeling position condition will show decrease in the testosterone level and increase in cortisol level, while staying unchanged for the control condition.
H2: Decrease in testosterone level and increase in cortisol level will be bigger in the prostration position.

The saliva samples are currently being analyzed in an endocrinology laboratory - the results are not available yet.

loading...

Estimation of body height



Hypothesis:
H3: Participants in prostration and kneeling condition will underestimate their height in comparison with the standing position.

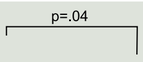


Figure II.: Mean perceived height difference by condition. Error bars are +/- Standard error.

Mood questionnaire

Hypothesis:
H4: Participants in prostration and kneeling condition will score higher on subordinance scale and lower on dominance scale after manipulation.

Possible conclusions:

- the main measurement data still missing (only partial conclusions possible)
- the effect is probably quite subtle
- the subtility could be a reason for non-significant results of the questionnaire - the effect too small to be cognitively captured

References:

• Abbott, D. H., Keverne, E. B., Bercovitch, F. B., Shively, C. A., Mendoza, S. P., Saltzman, W., et al. (2003). Are subordinates always stressed? A comparative analysis of rank differences in cortisol levels among primates. Hormones and Behavior, 43, 67–82.
• Carney, D. R., Cuddy, A. J. C. & Yap, A. J. (2010). Power Posing: Brief Nonverbal Displays Affect Neuroendocrine Levels and Risk Tolerance. Psychological Science, 21, 1363-1368.
• Duguid, M. M., & Goncalo, J. A. (2012). Living large: The powerful overestimate their own height. Psychological Science, 23, 36–40.
• Eisenegger, C., Haushofer, J., & Fehr, E. (2011). The role of testosterone in social interaction. Trends in cognitive sciences, 15(6), 263–71.
• Mazur, A., & Booth, A. (1998). Testosterone and dominance in men. Behavioral & Brain Sciences, 21, 353–397.
• Matthews, G., Jones, D.M., & Chamberlain, A.G. (1990). Refining the measurement of mood: The UWIST Mood Adjective Checklist. British Journal of Psychology, 81, 17-42.
• Mehta, P. H., & Josephs, R. a. (2010). Testosterone and cortisol jointly regulate dominance: evidence for a dual-hormone hypothesis. Hormones and behavior, 58(5), 898–906.

Planned future research:

- Subordination induced by bodily position in social context – kneeling alone vs. kneeling before someone (human/superhuman agent) or something
- Hierarchy and religious priming – are religious primes perceived differently by dominant and submissive people?
- Dominance/submission and conformity – can bodily induced subordination lead to higher conformity?

LEVYNA LABORATORY FOR THE EXPERIMENTAL RESEARCH OF RELIGION

WWW.LEVYNA.CZ

esf european social fund in the czech republic
EUROPEAN UNION
MINISTRY OF EDUCATION, YOUTH AND SPORTS
OP Education for Competitivness
INVESTMENTS IN EDUCATION DEVELOPMENT