

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.

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.

### Hypothesis:

Kneeling position induces a greater feeling of subordination compared with standing position.

### Positions

"Muslim" kneeling with elbows on floor.



"Christian" kneeling with straight back.



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Prolonged kneeling has also been used as a form of punishment; as an act of authority on a subordinate person.



While the maximum effect of the kneeling is probably connected to the social setting and context, this project focuses solely on the bodily posture.





Standing



### **Measurements**

- Testosterone and Cortisol levels
- Detracted from saliva samples.



Testosterone levels both reflect and reinforce dispositional and situational status and dominance

(Archer, 2006; Mazur &

Booth, 1998; Carney,

Cuddy & Yap, 2010)



Power holders show lower basal cortisol levels than powerless people do. When power is achieved cortisol drops (Abbott et al., 2003; Coe, Mendoza & Levine, 1979; Sapolsky, Alberts, & Altmann, 1997; Carney, Cuddy & Yap, 2010).

Prediction: In experimental condition (kneeling) the level of testosterone decreases, while cortisol level increases.

### "Height estimation task"



The height of the participant is measured at the onset of the experiment by standing them in front of a wall, marking their height on the wall and measuring it with a tape. After filling up the mood-questionnaire,the participant is asked to estimate their height on a vertical line projected on the wall. As the line is projected in graphic program, the participant provides the estimation of their height by clicking on the computer and making a mark in the projection on the wall. When leaving the examination room, the participant is asked to estimate their height in the same manner a second time.

Prediction

# References

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Based upon recent results of Michelle M. Duguid and Jack A. Goncalo (2012), showing that feeling powerful leads to overestimates in self-reported height. Positive or negative divergence in participants' estimate of their own height can therefore be used as measure of which bodily position provokes more powerful/dominant feelings.



#### Heart rate

#### • Measured by Polar Team System.

winner with the prover

#### **Prediction:** There is no clear prediction for heart

rate.

There is no clear or simple connection between heart rate and feeling of subordination. Still, the heart rate measure and analysis give us much broader picture of physiological processes during the assumed position. Self-report + Mood questionnaire • Actual mood measuring questionnaire adapted from Matthews, Jones & Chamberlain (1990) scale with additional items measuring dominance/submission feeling. **Prediction:** In experimental condition (kneeling) participants score higher on dominance



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