

# EXCITATION TRANSFER AND RELIGIOUS RITUALS: THE EFFECTS OF AROUSAL ON SOCIAL BEHAVIOUR

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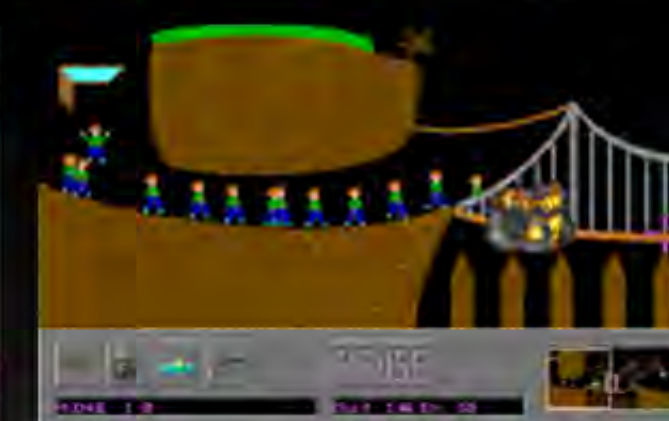
## RATIONALE

- Religious rituals have been theorized to help produce *social solidarity* amongst group members (Durkheim, 2001 [1912]; Whitehouse, 2004; Norenzayan & Shariff, 2008), as well as *hostility* towards out-groups (Swann, Gomez, Whitehouse, & Bastian, 2012).
- Recent empirical research has started to examine specific aspects of collective rituals (e.g. *synchronous movement* (Reddish et al, 2013)) that might be important in modulating attitudes and behaviour towards the in-groups and the out-groups.
- Here I concentrate on one such potential aspect, namely the role of *physiological arousal* in influencing social behaviour.
- Many religious rituals involve *highly arousing stimuli* and literature suggests that arousal can alter (mainly amplify) various emotions. For example, it has been shown that at the *individual level* arousal can produce *residual excitement* that serves to intensify later emotional states like aggression (Zillmann, 1971), sexual attraction (Dutton & Aron, 1974) or humour appreciation (Cantor et al, 1974).
- Recent field studies, concentrating with greater ecological validity on the *collective dimension* of arousal, show that participants as well as spectators of religious rituals can share arousal to a great extent (Xygalatas et al, 2011), and that highly arousing rituals can promote pro-social behaviour (Xygalatas et al, 2013).
- However, it has yet to be established how arousal may influence prosociality and under what conditions arousal may produce pro-social effects.
- My rationale is based on the *Excitation transfer theory* from previous psychological research which states that, if certain conditions are met, arousal elicited by one stimulus can be mistakenly attributed to another (Zillmann, 1971).
- Key research question:** Can autonomic arousal alter (amplify) even more complex states, be they pro-social or anti-social?



## HYPOTHESIS

Increase in physiological arousal (given the right conditions for excitation transfer to occur) will result in increased pro-social or anti-social behaviour (given the right prime).



## PROCEDURE

Experiment takes place in controlled *laboratory conditions*. Participants are randomly assigned to one of two *physical exercise conditions* (*highly arousing squatting* vs. *Neutral finger tapping*) and to either a *pro-social* or *anti-social prime* (*pro-social video game* vs. *anti-social video game*). *Heart rate monitors*, as well as *self-reports*, are being used to quantify arousal.

Physical exercise condition is followed by 10 min playing of either pro-social video game *Lemmings* or anti-social version of the video game *Lamers* which were used as pro-social or anti-social primes in previous research (Greitemeyer & Osswald, 2010). Many rituals use various pro-social cues and primes and the fact of rehearsing and awarding the concepts makes video games adept primes for simulating and controlling such conditions.

Participants then answer a questionnaire (PANAS) and are led to believe that experiment has ended. Subsequently they are offered an opportunity to anonymously help another student, who is not present, with his/her project without any compensation provided (*pro-social measurement*). Help consists of easy but tedious and time consuming task of choosing the odd-one out (one picture out of three with total of 260 triads). Participants are left to spend with this task as much time as they are willing to with the possibility to leave unnoticed whenever they like.

## PROJECT STATUS

The Study is in the *piloting* stage. The period of collecting data is planned for May/June 2013, the analysis to be conducted by the end of June 2013.

## FUTURE DIRECTIONS

- In order to compare the laboratory results to *real-life ritual context* a *field experiment* is going to be run in early 2014 in Mauritius with participants from local *Hindu communities*.
- Differences between *bare physiological arousal* and *complex physiologically arousing stimuli* to be addressed.
- Two groups will be created according to what physical condition they will go through (either highly arousing *squatting* or highly arousing *fire-walking ritual*).

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