

RATIONALE

- Religion has been theorized to help produce social solidarity amongst a group (Durkheim, 2001 [1912]).
- A number of empirical studies have supported this theory with cross-cultural evidence (e.g. Norenzayan & Shariff, 2008; Sosis & Ruffle, 2003).
- How does religion increase group cohesion? A number of mechanisms have been highlighted: e.g. costly signaling (Sosis, 2003), supernatural punishment (Irons, 1996) synchrony (Reddish et al, submitted).
- Here I concentrate on the potential role of arousal as a number of religious traditions involve high arousal rituals.
- Key research question:** does arousal play an important role in the development of group cohesion?
- Results from experimental field research suggest that there is a correlation between higher arousal and higher pro-social behavioural traits (Xygalatas et al, 2011).
- Here I experimentally test the arousal-cohesion link in the laboratory to help establish causation.
- I operationalize arousal as an increase in heart rate.
- I operationalize cohesion as a perceived entitativity ["The degree to which a collective of people (aggregate of persons/individuals) are perceived as a group." (Campbell, 1958)].



HYPOTHESIS

Increase in an autonomic arousal induced through physical exercise elevating heart rate will enhance perceived entitativity.



PROCEDURE

In the experiment a minimal group of three is created in an artificial laboratory environment. Individual participants do not know each other prior to the study. The group performs a simple joint task of completing a jigsaw puzzle and is being recorded/videotaped while doing so. To avoid social loafing all participants get equal number of puzzle pieces that need to be properly placed to complete the task. Once the task is finished individuals are separated and the independent variable - autonomic arousal - manipulated. One participant is presented with high arousal stimuli, one with stimuli lowering arousal and the last one as a control performs a simple cognitive task. Still separated participants are confronted with their video recording to be reminded of the group activity and then asked to rate the entitativity of the group.



Independent variable

Autonomic arousal

Non-invasive heart rate monitor is fastened to every participant's chest upon their arrival to obtain baseline measurement during the introduction period.

High arousal stimuli

Participant is asked to squat repeatedly for a period of two minutes every time he/she hears the signal sound (beep). Interval between signal sounds is two seconds resulting in substantial elevation in participant's heart rate.

Low arousal stimuli

Participant is asked to lie down on the sofa and is presented with relaxation exercise (slowing down breathing, calming music) for two minutes lowering his/her heart rate.

Control

Participant is seated and performs simple cognitive task of circling certain letters in a row of random letters for two minutes resulting in no substantial change in his/her heart rate.

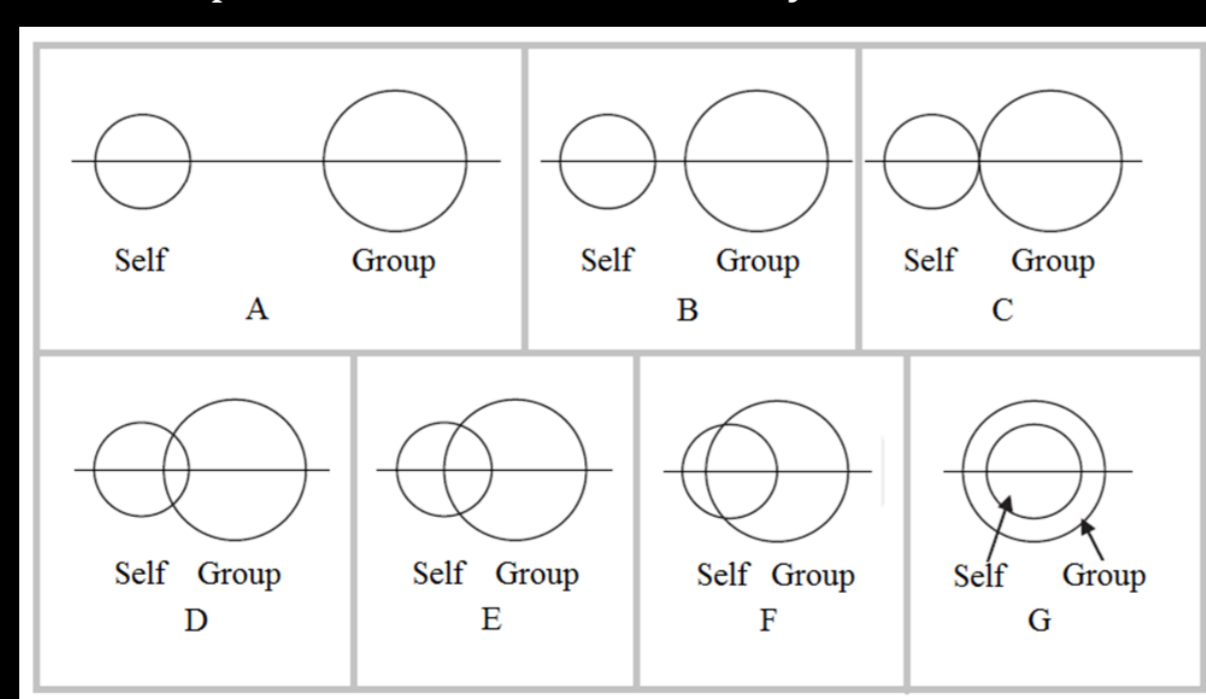
Dependent variable

Perceived entitativity

Participants fill in questionnaire.

Example of types of questions being asked:

1. Please circle the letter that best represents how close you currently feel to the group of people you just did the activity with. Adapted from Swann, Gómez, Seyle, Morales & Huici (2009):



2. Adapted from Lakens & Stel (2011):

	Not at all		Moderately		Very much so		
Do you experience a feeling of togetherness with your fellow group members?	1	2	3	4	5	6	7
Do you feel on the same team with the other participants?	1	2	3	4	5	6	7
Do you feel different to the other participants?	1	2	3	4	5	6	7
Do you feel you and the other participants were a unit?	1	2	3	4	5	6	7
Do you feel disconnected from the other participants?	1	2	3	4	5	6	7
Do you feel similar to the other participants?	1	2	3	4	5	6	7

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