

## Supernatural Beliefs Impact Pattern Perception

**Authors :** Silvia Boschetti, Jakub Binter, Robin Kopecký, Lenka Přítatová, Jaroslav Flegr

**Abstract :** A strict dichotomy was present between religion and science, but recently, cognitive science focusses on the impact of supernatural beliefs on cognitive processes such as pattern recognition. It has been hypothesized that cognitive and perceptual processes have been under evolutionary pressures that ensured amplified perception of patterns, especially when in stressful and harsh conditions. The pattern detection in religious and non-religious individuals after induction of negative, anxious mood shall constitute a cornerstone of the general role of anxiety, cognitive bias, leading towards or against the by-product hypothesis, one of the main theories on the evolutionary studies of religion. The apophenia (tendencies to perceive connection and meaning on unrelated events) and perception of visual patterns (or pateidolia) are of utmost interest. To capture the impact of culture and upbringing, a comparative study of two European countries, the Czech Republic (low organized religion participation, high esoteric belief) and Italy (high organized religion participation, low esoteric belief), are currently in the data collection phase. Outcomes will be presented at the conference. A battery of standardized questionnaires followed by pattern recognition tasks (the patterns involve color, shape, and are of artificial and natural origin) using an experimental method involving the conditioning of (controlled, laboratory-induced) stress is taking place. We hypothesize to find a difference between organized religious belief and personal (esoteric) belief that will be alike in both of the cultural environments.

**Keywords :** culture, esoteric belief, pattern perception, religiosity

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