



Laboratory for the Experimental Research of Religion (LEVYNA)  
 The Czech Association for the Study of Religions  
 and the Department for the Study of Religions, Masaryk University

# HOMO EXPERIMENTALIS

## EXPERIMENTAL APPROACHES IN THE STUDY OF RELIGION

25–27 October 2012, Brno, Czech Republic

Venue: Lecture hall of the Museum of Applied Arts, Husova 14, Brno

### Thursday, October 25

- 10:00-12:30 *Registration*
- 13:30-14:00 *Conference opening*
- 14:00-15:00 *Opening keynote lecture*

**Jesper Sørensen** (University of Aarhus)

#### ***The Experimental Study of Religion – or There and Back Again***

*Abstract:* In recent years we have witnessed a growing interest in experimental approaches to the study of religious, cultural phenomena. Research centers focusing on experimental studies have appeared in different countries; dedicated, peer-reviewed journals publishing resulting studies have emerged; and study programs dedicated to teaching experimental approaches are planned. This development raises a number of epistemological questions that will be addressed in this talk. Firstly, how does the introduction of new methods affect the theoretical object under investigation? This questions not only concerns methods of operationalization, but also underlying theoretical assumptions about the object of study.

Secondly, how does data produced through experimental methods relate to more traditional forms of data obtained through the study of text, through sociological surveys or by various forms of participant observation?

Thirdly, how do we 'get back' to the phenomena originally spurring our interest, namely the phenomenal observation of particular types of human behavior? That is, in what way do experimental data inform our understanding of behavior observed in 'natural' settings? Finally, how should experimental studies relate to already established approaches in the study of religion? Are we witnessing a radical re-orientation of the field or merely the introduction of a new method supplementing those already in place?

- 15:00-15:30 *Coffee break*

- 15:30-17:00 *Panel session I*

**Konrad Talmont Kaminski** (University of Finance & Management in Warsaw)

#### ***Causal Opaqueness and the Ritualisation of Behaviour***

*Abstract:* Recent work by Gyorgy Gergely, Andrew Whiten and others has explored the significance of causal opaqueness for human cultural evolution, the prevailing view being that humans must use imitation rather than emulation in order to learn from others how to operate causally opaque implements. This work offers insight into understanding the cultural learning of religious and magical behaviours. The primary reason is that learning by imitation can potentially maintain traditions of such behaviour through overimitation. The current methodological paradigm, which uses

a pair of boxes – one transparent, one opaque – is not up to the task, however. Bringing in earlier research by B.F. Skinner and Stuart Vyse, I will suggest that causal opaqueness has several different aspects, all of which need to be explored. This is because, as I will argue, each of these aspects is likely to produce different features of ritualised behaviour. Using the list of features identified by Pascal Boyer and Pierre Lienard, I will argue that most if not all features of ritualisation can be explained as behavioural responses caused by the human cognitive system's reaction to particular aspects of causal opaqueness. Thus, for example, internal repetition can be caused by lack of information as to the effectiveness or otherwise of the particular element of the overall behavioural sequence. This approach to explaining ritualised behaviour has both methodological and theoretical consequences. On the methodological side, it shows the need to develop a means to test the effect of independently varying the different aspects of causal opaqueness upon the ritualisation of the culturally learnt behaviour. One solution is to employ a computer-based method – the difficulty being that cultural learning has sometimes proved less effective in such set-ups. On the theoretical side, it suggests that ritualisation of behaviour is not dependent upon that behaviour being understood in a religious or magical context. Indeed, the supernatural beliefs may potentially merely serve as post-hoc explanations for the behaviour.

**Kristoffer L. Nielbo** (University of Aarhus)

***Modeling Ritualized Behavior: A Dual Approach to Perception of Non-functional Event Structure***

**Abstract:** Cognitive anthropology and ethology have studied non-functional event structure (i.e. events characterized by their lack of causal integration between sequence constituents and purported end states) for a long time; examples are ritualized behavior, displays, and ceremonies. The dominant models, however, are ultimate, that is, they explain why non-functional behavior recurs cross-culturally. The lack of proximate models is somewhat unsatisfying because an ultimate explanation presupposes an understanding of how a given phenomenon works.

In this talk I will illustrate how a dual approach that combines rigorous behavioral experiments with computer simulations can be used to build formal proximate models of information processing during perception of non-functional events. Based on this approach we can conclude that non-functional event structure elicits a chronically high prediction error signal, which disrupts hierarchical event representation, focuses attention on the low level details and psycho-physics of the stimuli, and finally saturates, or depletes, working memory resources.

**Ulrik Lyngs** (University of Oxford)

***Effort, Loss Aversion, and Religious Behavior***

**Abstract:** For all organisms, energy and effort are finite and limited. Effort allocated to one activity must necessarily subtract from that allocated to others, rendering conservation of effort an immensely important concern for humans and other animals. As a result, humans use effort as a mental heuristic for value and find wasted efforts aversive, with corresponding behavioural effects in all domains: The value attributed to any object, regardless of function or intrinsic utility, is increased if more effort is invested in it or required to obtain it. Conversely, effort spent without outcome motivates people to identify alternative rewards to avoid the uncomfortable feelings of wasted efforts. These effects are particularly important in the religious domain because religious practices are characterised by excessive investments in behaviours that do not directly link to material goals. The more time and energy people invest in a ritual, for instance, the more value and significance they attribute to that ritual to avoid the unpleasant feelings of wasted effort. This basic mechanism enables religious systems to align subjects' value systems simply by making participants invest efforts in a specific set of shared practices. Religious practices also often involve reverence for objects that are rare or otherwise difficult to obtain, and whose value does not follow from their function or intrinsic value. Part of the explanation for this may be that objects that are perceived to require more effort to obtain are attributed greater value. Through narratives and conventions, the value of such objects are explained and secured and they are given concrete affordances, e.g. as symbols of social status or as promoters of physical and mental health. In situations where effort has been spent with no outcome, such objects may be particularly likely to be attributed high value, to avoid uncomfortable feelings of loss. Through the use of existing narratives and conventions, or through the creation of new ones, this may in effect enable people to recycle wasted efforts. This theoretical frame is broadly supported by theoretical and empirical research in areas such as cognitive dissonance theory, economic theory, and consumer research, and I will suggest that effort may often be an important confounding variable in experimental studies of religion.

17:00-17:30 *Coffee break*

**Jonathan Jong** (University of Oxford) and **Jamin B. Halberstadt** (University of Otago)  
**On Fear of Death and Religious Belief: Experimental Investigations of the Causal Connection**

**Abstract:** The fear of death has always played a prominent role in theories of religion, from the early speculations of Lucretius to the acerbic intimations of Hume to the astute observations of Malinowski to contemporary cognitive theorists, but it has only been in the last decade or so that the causal relationship between death anxiety and religious belief has been experimentally examined. The aim of this paper is to review recent and on-going developments in the experimental investigation of this connection, with a particular focus on research on Terror Management Theory and implicit cognition.

**Gordon Ingram** (Bath Spa University)

**Shifts in Religious Belief in Early Adolescence: Possibilities for a Neo-Piagetian Experimental Approach**

**Introduction:** The onset of adolescence is often marked by a shift in religious belief, which so far has eluded experimental investigation by cognitive scientists. From an early naïve acceptance of the local pattern of religious beliefs as simply constitutive of reality, adolescents must shift to an understanding of their beliefs as just one potential system of belief among many. This transition could be analysed in terms of a shift from intuitive to theologically correct beliefs (Barrett, 2000); but this paper argues that a better way to frame it is in Piagetian terms, as a shift from concrete-operational to formal-operational religious cognition.

**Theoretical Background:** In Piaget's concrete-operational stage, the child thinks only in terms of physical objects that can be apprehended in the here-and-now; whereas in the formal-operational stage, typically beginning around 11 years, the child engages in purely abstract reasoning about hypothetical or counterfactual entities. The relevance of Piaget's theoretical framework to modern cognitive science is outlined, along with its main weaknesses. Flaws in the theory can be corrected using a neo-Piagetian, dual-process model that is grounded in empirical neuroscience and incorporates roles for innate attentional biases and local cultural variation (Ingram, in press).

**Hypotheses:** This paper develops two hypotheses on how the transition between concrete-operational and formal-operational reasoning might be applied to religious cognition in early adolescence, along with an experimental paradigm for testing these hypotheses. Hypothesis 1 is that many children will acquire new religious beliefs between the ages of 11 and 18 that will have characteristics of formal-operational (as opposed to concrete-operational) thought. Hypothesis 2 is that these changes will correlate with performance on standard tests of formal-operational reasoning.

**Experimental Design:** To test the hypotheses, an experimental design is proposed that might be run with three groups of participants, with mean ages of c. 8, 12 and 16 years. Each participant would complete four tests of formal-operational reasoning: two tests of creative reasoning and two of logico-scientific reasoning. Two tests would be standard neo-Piagetian tasks from the literature—e.g., asking children to draw where they would place a third eye, or how they would find out which liquid would make another one colourless (Inhelder & Piaget, 1955). The other two tasks would be designed to test religious thinking: one would test young people's ability to creatively imagine what God is like; the other, their ability to logically reason about particular attributes of God (similar to Barrett and Keil's, 1996, tasks).

**Conclusions** If these hypotheses are not rejected they will provide a way of integrating findings from the cognitive science of religion on theologically correct beliefs with an influential tradition in developmental psychology. The point of analysing religious beliefs in formal-operational terms is to utilise a powerful existing framework for understanding how such beliefs are not always understood in terms of naïve folk psychology, but sometimes come to be seen as possessing a theological logic of their own. This transition has potential adaptive benefit in terms of preparing young people for a world in which social norms are negotiable and the value of holding certain beliefs, or performing certain practices, can be rationally calculated (Krebs, 2005).

**Karolina Prochownik** (Jagellonian University)

**Experimental Psychological Approaches in the Study of Moral Reasoning and Religious Beliefs: Implications for Evolutionary Religious Studies**

**Abstract:** My speech has two goals. I would like to: examine experimental psychological literature on mutual relations of religion and morality (1) and consider implications that experimental moral psychology may have for the evolutionary theories of religion (in particular, theories that assume religion has evolved as an adaptation to solve the problem of cooperation among genetically unrelated others) (2). At this point I will undertake propositions made by Ilkka Pyysiäinen and Marc Hauser (2010) and examine an issue on concrete, selected experimental data.

Moral psychology may supply important insights into functioning of moral intuitive reasoning and its overlapping with religious beliefs (intuitive and explicit). An idea that studying human's ontogeny may shed a light on the process of phylogeny (broadly understood) is quite old, though still inspiring: contemporary experimental developmental psychology supplies us with data concerning processes that may contribute to cooperative attitudes and moral reasoning in children. On these bases (both, experimental moral

and developmental psychology) we may hypothesize about plausible scenarios of religion's influence on ancestral humans' minds in domain of moral behavior (cooperation) and reevaluate two main types of evolutionary theories of religion's origin: "religion as a by-product" theory and "religion as an adaptation" theory.

Experimental results are various: from pointing at domains of overlapping between religion and morality to revealing lack of dependency. In the study of relation between some aspects of religious thinking and moral reasoning it seems helpful to distinguish "explicitly held religious beliefs" from (implicit) "religious intuitions" ( e.g. Pyysiäinen & Hauser, 2010, Boyer 1994, Barrett 1998), and strictly define aspects of moral reasoning we want to examine. Some of possible configurations of these aspects will be demonstrated on selected case studies.

Due to the fact that I am not an experimental psychologist myself, my speech will be theoretical. I will scrutinize selected data and results, afterwards examine their implications for evolutionary religious studies. At the end I would like to address more freely and generally an old issue: is religion really needed for morality? Is it true that "If there is no God, everything is permitted"? Experimental psychology in companionship of CSR and evolutionary religious studies seems to contribute to new possible responses to this old but still up-to-date question.

19:30 *Social event*

Welcome reception at the Moravian gallery (Governor's Palace), Moravské náměstí 1a

## Friday, October 26

09:00-10:00 *Keynote lecture*

**Andreas Roepstorff** (University of Aarhus)

***Going Experimental: As Method, As Style and As Object of Study***

*Abstract:* The current move to go experimental in anthropology and related disciplines is often understood as an import of a particular method. However, there may be more to the experimental than acting like a cognitive psychologist on another turf. The experimental may also point to a particular style of research, an aesthetics of working on the margins of the known, as in the experimental in experimental arts. Finally, the experimental, as a particular set of practices that organize materiality, agency and ideas, can be an object of study in its own right. Which of these notions of the experimental are relevant when the humanities go experimental?

10:00-10:30 *Coffee break*

10:30-12:00 *Panel session III*

**Daniel J. Shaw** (Masaryk University)

***It's Like Looking in a Mirror***

*Abstract:* Operating within the field of social neuroscience, my research generally concerns the neural mechanisms supporting social cognition; more specifically, I investigate how the brain represents the actions of others, and the way in which these share representations influence social behaviour. Within the context of cognitive science of religion (CSR), I hope to develop our understanding of the neural mechanisms through which collective ritualised actions promote prosocial behaviour among participating members. By applying a paradigm used in social neuroscience, I have conducted a behavioural study to explore the well-documented relationship between synchronised actions and increased prosocial behaviour. Specifically, I used a behavioural index of mirror neuron system activity to investigate whether or not this brain network underlies this relationship by generating shared self-other representations at the neural level. This talk presents the results of this behavioural study and introduces subsequent neuroimaging experiments I hope will identify the neural correlates underlying these interesting findings.

**Justin E. Lane** (University of Oxford)

***Methods, Madness, and Multi-Agent AI***

*Abstract:* The construction of computer models has become an increasingly useful, and popular, way of testing theories and simulating data. This paper intends to give a brief overview of the methods for testing computer models for not only efficiency, but also for appropriateness. Examples will focus on theoretical continuity, stress testing, and data replication. Special focus will be given to its application to data gathered in the field and when social multi-agent AI may be less appropriate than other forms of computer modeling within the sub-field of the cognitive science of religion. Of particular interest will be how to spot and combat "garbage in-garbage out" modeling and what measures should be taken to negotiate the inverse relationship between specificity and ecological validity of computer models. This paper will present critiques of models that have already been developed as well as those still in development and how close attention to both method and theory allow for computer modeling to supplement the toolbox of cognitive scientists interested in human social phenomena.

**Marc Andersen** (University of Aarhus)

***Maximizing Expectations: A New Experimental Approach to the Study of Religious and Spiritual Experiences***

**Abstract:** In the first part of my paper I wish to propose a new theoretical framework, which draws on insights from the cognitive sciences and perceptual and social psychology. The framework explains how the human brain produces experience in the human mind during perception. The human brain is best seen as a prediction-machine which use learned expectations to form experience in the human consciousness. According to this framework, the brain can be manipulated into producing spectacular sensory experiences if the circumstances are right, e.g. hallucinations, pain relief, non-voluntary movements and temporary paralysis. I propose that this phenomenon can account for a vast number of religious and spiritual experiences. In the second part of my paper I present an experiment designed to explore this theoretical framework. This experiment was conducted in collaboration with a team of researchers from the research unit Religion, Cognition and Culture and Aarhus University Hospital. In this experiment, we attempted to produce spiritual experiences in volunteer subject by manipulating with certain cognitive factors. In our study, we used a sham magnetic stimulus helmet and a deprivation chamber to manipulate factors like expectancy and access to sensory information to increase the probability of participants reporting mystical, spiritual and unusual experiences. Overall, the experiment was successful given that almost 50% of our participants reported a spiritual experience. However, further research and optimising of the experimental paradigm is needed to confirm our preliminary results. In conclusion, I will encourage the scientific study of religion to endorse the theoretical framework presented in this paper, and I will argue that the presented experimental paradigm has the potential to significantly impact the future study of religious and spiritual experiences due to the fact, that we now might be able to produce religious and spiritual experiences in a controlled lab environment.

12:00-14:00 *Lunch break*

14:00-15:00 *Lecture of invited speaker*

**Emma Cohen** (University of Oxford / Max Planck Institute)

***Religion, Synchrony and Cooperation: A Study with Brazilian Drummers***

**Abstract:** Shared beliefs about supernatural agents and joint engagement in ritual activities are often proposed to engender cohesion and cooperation within religious communities. Despite the importance of this claim for explanatory accounts of uniquely human sociality and cooperation, the psychological mechanisms underpinning such group bonding phenomena have remained obscure. How do religious ceremonies cement social bonds, if at all? What features engender the hypothesized effects? Can these phenomena be rigorously measured?

Recently, some researchers have begun to explore the particular influence of coordinated synchronous movement on cooperative behaviour. In this talk, I will present data from a study in which we investigated the effects of both religious-concept priming and synchronous activity among Brazilian drummers. We found higher cooperation in the religiously primed group compared to the secularly primed group. We did not find an effect of synchrony or any synchrony-priming interaction effect. Our results suggest that synchronous behaviour alone is insufficient to increase cooperation – in light of previous findings, we propose that high levels of physical exertion or social-cognitive mechanisms, such as overlapping task-representation or intentional coordination, are required also.

15:30-17:00 *Panel session IV*

**Travis Chilcott** (Iowa State University)

***Religious Culture, Religious Practices, and Implicit Anthropomorphic Reasoning about Divine Agents: A Quasi-Experimental Ethnographic Study on the Cognitive Effects of Gaudiya Vaishnava Religious Practices***

**Abstract:** Are frequencies of religious practice correlated with or do they have an influence on the extent to which people explicitly and implicitly anthropomorphize divine agents? This study builds on Justin Barrett's and Frank Keil's research, which presents evidence that perceptions of divine beings that are represented as intentional agents are subject to the same cognitive intuitions that govern all other perceptions of intentional agents. These include intuitive anthropomorphic psychological and physical attributions that may not be endorsed by a respective theological tradition. This paper reports the results of quasi-experimental ethnographic research measuring whether or not frequencies of engagement in a particular set of religious practices that are aimed at establishing and cultivating a personal relationship with Krsna, a highly anthropomorphized Hindu deity, is associated with an increased tendency to explicitly and/or implicitly attribute anthropomorphic properties to the deity. The study focuses on indigenous Bengali practitioners of the Gaudiya Vaishnava tradition, a theistic Hindu devotional tradition originating in the Bengal region of India, for whom Krsna is the supreme deity and object of devotion. 184 participants completed an expli-

cit beliefs survey for measuring the extent to which an individual explicitly attributes anthropomorphic properties to the deity Krsna and a set of narrative comprehension tasks for measuring the extent to which an individual implicitly reasons about Krsna in anthropomorphic terms. Not only did multiple regression procedures indicate that frequencies of engagement in these practices loaded as a primary predictor, such that higher frequencies of engagement predicted a decreased tendency to explicitly conceptualize Krsna in anthropomorphic terms ( $\beta = .293, p < .000$ ), but contrary to our hypothesis, higher frequencies of engagement also loaded as a tertiary predictor after education and age, such that higher frequencies of engagement predicted a decrease in implicit anthropomorphic reasoning about Krsna ( $\beta = .16, p < .03$ ). We theorize that these results are due to the tradition's doctrinal emphasis on presenting Krsna's non-anthropomorphic dimensions to neophyte practitioners and the non-Gaudiya Vaishnava public precisely because Krsna appears so anthropomorphic in both form and scripturally described activities. These results suggest that religious cultures and engagement in religious practices can significantly impact the human cognitive tendency to implicitly reason about divine beings in anthropomorphic terms.

**Martin Kanovský** (Comenius University)

***Cognition and Ethnography: Integrating Experimental and Ethnographic Evidence***

**Abstract:** This paper will try to show how experimental and ethnographic techniques might be fruitfully combined in order to explain particular cultural phenomenon: namely, the distribution of supernatural representations in a Slovak region on the one hand, and their maintenance and stabilization by means of concrete social practices on the other. The paper purports to show that cognitive constraints on memory (i.e. minimal violation of intuitive expectations in the sense explained by Boyer's theory) are necessary, but not sufficient for an explanation of the distribution of supernatural representations. Since representations must be not only memorized, but also transmitted, and since the (social) causes for their transmission might differ from the (cognitive) causes of their memorability, we need not only to declare the necessity of ethnographic information, but also to provide the positive integration of our experimental data with particular, well-specified ethnographic evidence (not vague „ethnographic/cultural context“). The paper will present quantitative and ethnographic data from Slovakia concerning various types of supernatural representations (from „evil eye“ to „revelation of Virgin Mary“) showing how intricate is the integration of cognitive and social aspects in explaining cultural phenomena.

**Jonathan Lanman** (Queen's University Belfast)

***The Promise and Peril of Experiments on Ritual***

**Abstract:** Two common criticisms of experimental approaches to religion are that 1) the objects of study are mere social constructions and that 2) experimental studies are irrelevant in understanding particular religious traditions. Both of these criticisms present important challenges to experimental work on religion. These challenges, however, can be adequately addressed through interdisciplinary collaboration. The ongoing Ritual, Community, and Conflict project presents a case study in such collaboration, demonstrating the value of experimental approaches to ritual and addressing the above criticisms. Through the strategy of fractionation and the combination of experiments, field studies, and historical database analysis, we can significantly improve our understanding of religion.

17:00-18:00 *Poster session*

**Saturday, October 27**

09:00-10:00 *Keynote lecture*

**Pierre Liénard** (University of Nevada)

***The Glorious Trinity: Cooperation, Commitment, and the Collective***  
(in collaboration with M. Martinez and M. Moncrieff).

**Abstract:** Early on social scientists conceived of religion as a particularly efficient cultural enhancer that would facilitate, among other things, extensive cooperation within large populations of unrelated individuals. Coreligionists would share similar norms and values increasing prosocial behavior and coordination within the confines of religious groups. And typical religious behaviors would help in resolving recurrent social dilemmas and thus ease the creation of larger social communities. In our presentation we review some of the experimental evidence provided in support of the three claims that 1) religious beliefs and behaviors enhance cooperation, 2) religious commitment signals facilitate larger social groups, and 3) religious affiliation is a mean to build social capital. We will offer new avenues of research to tackle those central questions.

10:00-10:30 *Coffee break*

10:30-12:00 *Panel session V*

**Esther Eidinow** (University of Nottingham) and **Tom Harrison** (University of Liverpool)  
***Colliding Cultures: An Experimental Approach to the Study of Ancient and Modern Religions***

**Abstract:** This paper will present a new project in cognitive historiography: based in the UK, at the universities of Liverpool and Nottingham, it aims to build an international network of scholars engaged in the cognitive study of religions, both ancient and modern. The project will bring together scholars working in various disciplines with a cognitive focus with those who study ancient ritual practices and belief, offering both sets of scholars the opportunity to investigate, compare and contrast their approaches, bringing one to bear upon the other in systematic and in-depth study.

The 'colliding cultures' of our title include the different cultures of scholarship and approaches to research that this will involve, as well as the diverse historical cultures of different times and places, ancient and modern. The variety of specialisms is integral to the proposed programme: participants engaged in the cognitive study of religion will include scholars of social anthropology, cognitive anthropology, history of religion, comparative religion, philosophy of religion, cognitive archaeology, evolutionary psychology, neuroscience, and others concerned primarily with the interface between science and religion or between cognition and culture. Participants with expertise in ancient belief and ritual practice will include leading specialists in ancient Greek and Roman cultures, Biblical Studies, Egyptology, Near Eastern Studies, and Classical, Near Eastern, or Iron Age Archaeology. Our intention is that 'collisions' between these scholars, their disciplines and research, will prompt examination and reflection on current approaches, ancient and modern, exposing scholarship on ancient religious belief and practice to new cognitive approaches, and, in turn, enabling exploration of the analytical possibilities and limits of cognitive approaches to religion through detailed analysis of data from diverse ancient cultures. In addition, we anticipate that scholars within each of the larger disciplinary fields of 'cognitive approaches' and 'ancient history' will take the opportunity to compare and contrast the similarities and differences of their particular approaches. Finally, we hope that this work may prompt the development of new approaches to the study of ancient religion, and innovative cognitive methodologies.

The network's research programme will begin with two international workshops, bringing established researchers from the disciplines involved together with early career academics and postgraduates. The topics of the workshops have been chosen to reflect areas of common concern. They are: i) 'Authority', examining ways in which authority may be imposed in ritual beliefs and practice, and by what means it is maintained; and ii) 'Transmission', exploring how ideas and concepts of religious belief and ritual practice move across time, and/or between generations and over space.

Our paper describes the premise of the project, the initial workshops currently being planned, and the larger programme of research to which they belong. We will explore how we think our project may offer a useful challenge to the current conclusions of cognitive scholarship, building on previous examples of cognitive historiographical research that has employed data from the ancient world. As well as advertising the project, we hope to prompt discussion of methodologies, exploring ways to run interdisciplinary workshops focused on experimental research; and to learn of other relevant projects planned or in process, to enable future collaborations.

**Eva Kundtová Klocová** (Masaryk University)

***Feeling the Kneeling: The Power of Body***

**Abstract:** Emphasis on the influence of body posture and body processes on emotional reactions is found in psychology as early as the works of Charles Darwin and William James. Contemporary theory concerning embodied cognition can be regarded as an heir to this tradition. From this perspective, the body is studied as an important mediator of emotions. Body posture, in particular its change, influences the subjective experience of emotion. Individuals induced to assume postures characteristic to certain emotions reported feelings correspondent with those postures; those who slumped tended to feel sad, and those who sat more forward with clenched fists tended to feel anger. Clues to the relationship between the body and emotions can also be observed in metaphorical language describing emotional states, e.g. "feeling down" or "feeling great". My research is based on those notions. The main field of interest is the manipulation of body posture during religious ritual. The usage of specific postures may imply a particular function of such postures in ritual behavior and the perception of ritual. More generally, I am interested in exploring whether and how bodily positions influence feelings, emotional states and self-perceptions. The first bodily position examined is kneeling. This posture appears in many forms in different rituals and a great variety of other contexts and situations. On the symbolic level, kneeling is usually linked with subordination, humility and submission. Considering those assumptions, my hypothesis asserts that kneeling induces higher feelings of subordination.

**Michaela Porubanová-Norquist** (Masaryk University)

***What's So Special about Minimally Counter-intuitive Concepts?***

**Abstract:** Minimally counter-intuitive concepts (MCI) have been a focus of research attention in cognitive science of religion due to the belief that their capacity of attracting attention and being memorable. Those mechanisms are deemed to underlay the spread of religious beliefs, since those are frequently counter-intuitive. However,

research focused on the memorability of MCI has provided very contradictory results. Our study concerned resolving the issue of memorability of MCI concepts while controlling for confounding variables (i.e., word length, word frequency, processing time). Participants were instructed to study a list of concepts (SOA= 1500 ms, ISI= 500 ms). After a filler task, they were asked to recall the presented concepts. This was repeated a second time in order to see the memorability of concepts due to repeated exposure to them. The concept categories that were manipulated included intuitive, minimally counter-intuitive and counter-factual concepts. Moreover, four different ontological categories (human, animal, plant and substance) were included. One-way analysis of variance revealed a significant effect of concept category on the recall  $F(2,45) = 3.688, p < .05, \eta^2 = .38$ . The post-hoc comparisons demonstrate that the recall of MCI concepts is not significantly different from the recall of intuitive concepts at  $p < .05$ . Interestingly, the memorability of counter-factual concepts ( $M = 4.00, SD = 3.25$ ) was superior to that of MCI ( $M = 2.06, SD = 1.29$ ) and intuitive ( $M = 2.12, SD = 2.42$ ) concepts. The same trend was perceived in the second recall. The effect of concept category on the recall of the concepts was significant  $F(2,45) = 4.247, p < .05, \eta^2 = .40$ . The recall of EVC concepts was greater ( $M = 5.39, SD = 3.16$ ) than the number of MCI ( $M = 3.25, SD = 2.08$ ) or INT concepts ( $M = 3.06, SD = 2.08$ ). Again, the recall of INT and MCI concepts was not significantly different at  $p < .05$ . Results showed the main effect of concept category, the recall number and ontological category on the memorability of the concepts. More detailed results, as well as interpretations of the results are discussed in the presented talk.

12:00-14:00 *Lunch break*

14:00-14:30 *Lecture of plenary speaker*

**Dimitris Xygalatas** (University of Aarhus/Masaryk University)

***The Experimental Study of Religion: Are we There Yet? And Now What?***

14:30-15:00 *Coffee break*

15:00-17:00 *"Summit" on experimental paradigms by representatives of all the leading centres/institutes*

Professor **Armin Geertz** (University of Aarhus), **Dr. William W. McCorkle Jr.** (LEVYNA), **Professor Ted Slingerland** (University of British Columbia), **Dr. Paulo Sousa** (Queen's University, Belfast), **Professor Harvey Whitehouse** (University of Oxford), and **Dr. Dimitris Xygalatas** (University of Aarhus / LEVYNA).

Respondents will be professors **E. Thomas Lawson** (Western Michigan University), **Luther H. Martin** (University of Vermont) and **Donald Wiebe** (University of Toronto).

## Venues for the Homo Experimentalis conference

All keynotes and panel sessions take place in the Lecture Hall of the *Museum of Applied Arts at 14 Husova st.* Designed by Johann G. Schön and constructed in 1882, it is the oldest museum of applied arts in the country. Husova street replaced the town's walls in the second half of the 19th century and runs from the obelisk in Denis Gardens, commemorating the Napoleon Wars, to the Church of John Amos Comenius, with the Museum of Applied Arts halfway between.

Built by Mořic Grim in the 1730s and having hosted local government for two centuries, the Baroque Governor's Palace is now a home to a gallery, too. Don't miss three new art works located right in front of the building at Moravské náměstí sq.: the Statue of Justice by Marius Kotrba, a fountain, and a model of 17th century Brno. The Governor's Palace hosts the welcome party on Thursday, October 25, at 7:30 p.m.

The Governor's Palace is just five minutes and one turn away from the Museum of Applied Arts. Use the attached map to get there via Solniční street.

*Both buildings host the 25th International Biennial of Graphic Design*, Brno. Attendants of the Homo Experimentalis conference can see a beautiful exhibition of books, posters, magazines, brochures and postcards free of charge.

## Popular new downtown spots

If you would need a bit of peace during the conference, get inspired by the attached guide – or visit one of these brand new places:

\* **Bar, který neexistuje** (1 Dvořákova st.) opened four weeks ago and is almost always crowded. Its Prohibition-era style bar and excellent service has been missed in Brno up until now.

\* **Coffee Fussion** (25 Jánská st.) has gained a reputation as the place to go for the best coffee in Brno – be it espresso, vacuum pot, cold brew or drip.

\* **Pivárium pub** (3 Dvořákova st.) offers a nice selection of beers from small Czech breweries.

What's going on in Brno from October 25 to October 28

On Thursday evening, **Metro Music Bar** hosts „*Slet bubebíků*“, collaborative project of seven Czech percussionists. 8:30 p.m., 6 Poštovská st., CZK 300

British musician John B will be the main star of the DNB party „*Break4Beats*“ at Fléda club on Friday night. 8 p.m., 24 Štefánikova st., CZK 220

On Saturday, three popular local rock'n'roll revival bands will perform at „*Rock And Roll Cirkus party*“ at Fléda club. 8 p.m., 24 Štefánikova st., CZK 190

The „*Brno Gospel Days*“ festival starts on Friday. It closes with the program „*Gospel Evening*“ on Saturday afternoon. 5 p.m., 6 Žerotínovo sq., CZK 180.

See [brnonow.com/calendar](http://brnonow.com/calendar) for more events and suggestions.

Please mind that...

...the Czech republic switches to daylight saving time on Saturday night. You'll get one extra hour of sleep, as the clock will go back to 2 a.m. at 3 a.m on Sunday.

...although the attached guide suggests visiting Vietnamese market for a dinner, the place is now recovering after a fire and there is only one small restaurant running.

# Brno



## City Centre Plan

### CONFERENCE VENUES

**1** The Moravian Gallery  
(Museum of Applied Arts)  
Husova 14 • 602 00 • Brno

### UNIVERSITY BUILDINGS

**2** Rector's Office  
Žerotínovo nám. 9 • 601 77 • Brno

**3** Faculty of Arts – main building  
Arna Nováka 1 • 602 00 • Brno

**4** Faculty of Arts – buildings G & J  
(Department for the Study of Religions)  
Gorkého 7 • 602 00 • Brno

**5** Levyna  
Jaselská 16 • 602 00 • Brno

### ACCOMMODATION

**6** Continental Hotel  
Kounicova 6 • 602 00 • Brno

**7** Garni Hotel  
Vinařská 5 • 603 00 • Brno

### TRAVEL

**8** Central train station  
**9** Grand Hotel bus station  
**10** Šilingrovo náměstí stop

### WELCOME RECEPTION VENUE

**11** The Moravian Gallery  
(Governor's Palace)  
Moravské náměstí 1a • 602 00 • Brno

HOMO EXPERIMENTALIS: EXPERIMENTAL APPROACHES IN THE STUDY OF RELIGION, 25–27 OCTOBER 2012, BRNO, CZECH REPUBLIC