

Panel Descriptions & Abstracts

Panel 1: Friday, 9:00-10:00 a. m.

Origins & Generation of Religious Concepts

Panelists: Stewart Guthrie

Discussant: Deb Kelemen, dkelemen@bu.edu

Gods, spirits, angels, ghosts, and devils populate the conceptual space of religions. People attribute states-of-affairs, tragedies, and triumphs to the actions of part-human chimeras, thinking and feeling mountains, shaman, witches, and magicians. How people come to conceptualize humans and human minds is a non-trivial psychological problem even given the advantages of (1) countless interactions with humans, (2) obvious physical entities for empirical investigations, and (3) living in a human body. Religious beings frequently are intangible and immaterial, or at least rarely encountered directly, and yet rich concepts of these beings arise and spread. How do these concepts arise? Where do they come from?

Such questions cannot be addressed by appealing to the falsity or veracity of particular religious beliefs. For instance, if spirits do exist, how did the concept SPIRIT become represented in human minds? What are the relevant environmental inputs and prerequisite cognitive structures that underpin these concepts? If spirits do not exist, what aspects of the world we live in and the bodies we occupy contribute to the emergence of the concept SPIRIT?

"Gods, Abominable Snowmen, and Chiquita Banana: Why Do We Generate the Humanlike Beings of Religion?"

Stewart Elliott Guthrie, Fordham University, guthrie@fordham.edu

ABSTRACT: The question facing our panel is classical: what are the origins of concepts such as "gods, spirits, angels, ghosts, and demons," which characterize most of what Westerners call religion? My answer, in brief, is that such concepts are the false positives of our necessary search, in an ambiguous environment, for all possible humanlike agents. That is, these concepts consist in anthropomorphizing the world--a claim with a long pedigree.

The difficult question of origins is more answerable if it is enlarged: What are the origins not only of gods, spirits, etc., but also of trolls, the California Raisins, and Bigfoot? Such enlargement is both possible and necessary because religion is not clearly distinguishable from other human thought and action but appears continuous with them (disembodied gods, for example, appear merely as an instance of the disembodied self of ordinary experience), and because seeing the whole set of humanlike agents, of which gods are a part, clarifies the gods' nature as a subset.

Many post-Darwinian scholars agree that explanations of particular human concepts must invoke not only cultural but also natural selection, which fits all features of organisms to relevant aspects of an environment. Aspects of our environment relevant to concepts of humanlike beings include the actual, known presence of humans and other animals; perceptual ambiguity; the potential presence of unknown living things, especially complex animals and other agents; and, most especially, the potential presence of unknown fellow humans. We cannot know whether a given environment contains or does not contain a significant agent, or the traces of such an agent, so, for safety's sake, we often must assume that it does.

In this environment, with its potential for purposive, symbol-using, and cryptic agents, we chronically, involuntarily, and mostly unconsciously seek answers for three questions: (a)

What is the *purpose* of phenomenon x ? (b) What *message* is conveyed by phenomenon x ?, and (c) *Who is it* that has caused phenomena x ? These three questions result in the continuous, though again mostly unconscious, false positives we call anthropomorphism; i.e., we see purpose, message, and agency where none really are. Simultaneously, we scrutinize phenomena, again unconsciously but more concretely, for signs of life, among which motion, bilateral symmetry, and eyespots are salient. This scrutiny often results in the false positives we call animism (i.e., we see things and events as alive when they are not).

Anthropomorphism and animism, and the varied conceptions of beings instantiating them, can be explained, then, as the result of a better-safe-than-sorry strategy of perception in an uncertain world. The searches that produce them are guided both by nature (e.g., by hardwired, template-like sensitivities to motion, symmetry, and eye spots, and by arguably hardwired searches for purpose, message, and agent) and by culture.

We generate models of the world that are based on humans, spontaneously and disproportionately. Such generation appears selectively advantageous, because these are the most powerful models we have, both pragmatically (because real humans and humanlike animals are the most powerful agents in our environments) and intellectually (because real humans are the most highly organized and complex prototypes we know). Hence they generate and account for an unparalleled wealth of phenomena.

Panel 2: Friday, 10:30-11:29 a.m.

Children's Receptivity to Religious Concepts

Panelists: Margaret Evans, Rebekah Richert

Discussant: Paul Harris, harrispa@gse.harvard.edu

When encountering an unfamiliar, alien religious concept, even religious adults often find the concept unintelligible, incredible, or downright absurd, and thus reject belief. Children appear to acquire many religious concepts with astonishing ease, requiring little convincing or even explicit tuition. Yet children do not believe just anything. More remarkable still is children's ability to discriminate religious concepts from fantasy and other "merely" imaginary representations. Are there some distinctive aspects of the child's world or the child's mind that facilitate acquisition of religious concepts? How does this receptivity to religion change with development? How does a developmental perspective uniquely inform our understanding of religion more generally?

"Constructing a Naïve Metaphysics"

E. Margaret Evans, University of Michigan, evansem@umich.edu

ABSTRACT: Why do some metaphysical beliefs rapidly fall by the wayside, while others persist? The crux of the argument presented here is that for beliefs to persist in a metaphysical form not only do they have to be counterintuitive or unnatural with respect to this world (Boyer, 1993), they should also reflect apparently real events and entities in a decoupled world. Evidence will be provided to support four claims: First, preschoolers initially adopt an undifferentiated magical stance, comprising both illusory and unnatural, impossible events. Unlike pretence, magic is considered real by these children. Second, that magical stance is the precursor to well-differentiated metaphysical beliefs, in which illusion is ultimately recognized to be the deceptive pretence act of others, while other unnatural events that continue to defy naturalistic inquiry are explained by religion. Third, that it is only when children grasp the idea that illusions are the creative acts of human ingenuity can they fully appreciate the nature of religious concepts, particularly the idea of God as grand designer. This insight undergirds the realization that Mickey Mouse and Santa Claus are cultural artifacts, whereas God is real. Fourth, both socio-cultural and cognitive factors promote this process of conceptual differentiation. Children's custom-complex must provide vital information regarding the reality status of impossible events, whereas children must be ready to entertain existential concepts. Most critical is the interchange between an emergence of a naïve metaphysics and children's naïve theories of the natural world, in particular children's naïve theory of mind. For example, as children become experts at reading others' beliefs and intentions, they use this understanding both to enhance and focus their metaphysical reasoning. This would explain why children appear to be most receptive to religious concepts from the late preschool to mid-school-age years.

"Children's openness to religious concepts"

Rebekah A. Richert, University of Virginia, rar8z@virginia.edu

ABSTRACT: Theorists have traditionally explained the development of a God concept in terms of an anthropomorphic hypothesis. In simplified form, this hypothesis claims that children understand God as a human in the sky with "superhuman" attributes. Recent research in cognitive development on children's developing theory of mind is offering support for a new

“preparedness hypothesis” that claims young children are conceptually receptive to religious concepts and not limited to thinking about God in strictly human terms. Findings indicate that even young children can differentiate God from humans in false belief, perspective-taking, and background knowledge tasks. Furthermore, when children do make mistakes, they err toward being wrong about humans, not God. Thus, there appear to be some aspects of the God concept that at least are not especially conceptually burdensome, and may be intuitive for children.

Panel 3: 11:30 a.m. – 12:30 p.m.
Transmission of Religious Concepts

Panelists: Karl Rosengren, Harvey Whitehouse
Discussant: Melanie Nyhof, men19+@pitt.edu

For a concept or set of concepts to become part of a religion, they must be shared. If I discover that my socks are actually powerful sentient beings worthy of devotion, my cognition is not religious, just peculiar. For my ideas to become part of something we might call a “religion,” they must successfully spread to others. The spread of religious concepts, as with any other concepts, could occur by parallel spontaneous generation: given similar experiences, more than one person might generate comparable concepts. A second way in which religious concepts spread is through transmission from one person to another. Are there special features of religious concepts that impact their successful transmission? Do conditions of religious transmission impact the sorts of concepts that get transmitted and their consequent role in a religious system?

When considering religious transmission, it is tempting to focus exclusively on “horizontal” transmission: how concepts are spread within or across communities living in the same time. Examples of such horizontal transmissive episodes include preaching and evangelizing. However, the form of transmission most crucial for the survival of a religion is “vertical” transmission, or spreading ideas and beliefs to future generations. Might there be important cognitive differences between horizontal and vertical religion transmission? How might differences in conceptual structures of the audience or in the transmissive relationship contribute to the successful spread of religious ideas?

“Exploring the dimensionality and transmission of parental beliefs about religion, fantasy and science”

Karl S. Rosengren & Howard Berenbaum, Univ. of Illinois, Urbana-Champaign,
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ABSTRACT: In order to explore the socialization of knowledge and beliefs concerning religious, fantasy and scientific concepts a survey was administered to 173 parents of children between the ages of 3 and 6 years. The survey assessed parental characteristics, current parental beliefs, parental views of their children’s current beliefs, and parental encouragement of their children’s beliefs. In addition, parents were asked how they would respond to their child’s questions concerning the reality of god, reality of the specific fantasy figures (the tooth fairy and Santa Claus), and the causality of specific natural phenomena. The dimensionality of parental beliefs and encouragement was examined using principle component analyses. The analysis of parental characteristics yielded a three-factor solution capturing religious, intuitive, and scientific orientations. Children’s beliefs were best captured by a four factor solution described by beliefs in religious entities, scary fantasy figures (witches, ghosts, and monsters), beliefs in aliens, and beliefs in positive fantasy figures (tooth fairy and Santa Claus). Parental encouragement of children’s beliefs was also best captured by a four factor solution described by encouragement of belief in religious entities, belief in the efficacy of scientific concepts, and belief in magic. The majority of parents responded that they would tell their child that there is god (74%) or would provide a somewhat evasive response (“what do you think?” 22%). In contrast the majority of parents said they would explain natural phenomena (why the sky is blue?) using scientific (57%) rather than religious explanations (34%). Although many parents said they would confirm the reality of specific fantasy characters (tooth fairy, 41%), many parents said they would provide somewhat evasive responses (32%).

“Transmission of Religious Concepts”

Harvey Whitehouse, Queen’s University of Belfast, h.whitehouse@qub.ac.uk

ABSTRACT:

Justin Barrett’s blurb for this panel highlights two distinctions:

Parallel spontaneous generation *versus* direct person-to-person transmission.

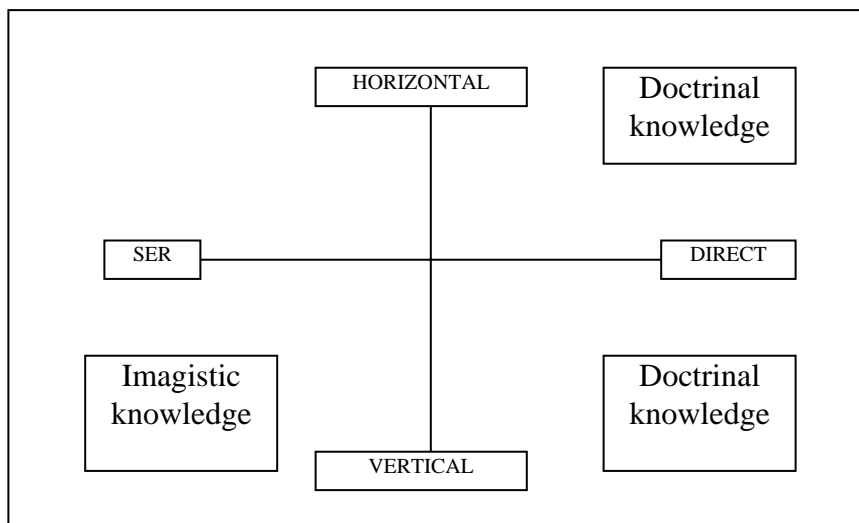
Horizontal (within or across communities) *versus* vertical (across generations).

Examples:

- Maurice Bloch’s account of the re-emergence of double burials in Madagascar, over a thousand years after the break with populations in Borneo.
- Missionary Christianity in Melanesia

	Route to transmission	Kind of transmission
Malagasy double burials	Parallel spontaneous generation	Vertical
Missionary Christianity	Direct person-to-person transmission	Horizontal

This paper argues that doctrinal knowledge is acquired mainly via direct person-to-person transmission, operating on both horizontal and vertical planes. Imagistic knowledge is acquired mainly via a lifelong process of ‘spontaneous exegetical reflection’ (SER), operating only on a vertical plane. The difficulties of horizontal transmission in the imagistic mode contribute to its distinctive social morphology.



Panel 4: 2:30-3:30 p.m.

Cognition and religious actions

Panelists: Bob McCauley, Brian Malley

Discussant: Paulo Sousa, psousa@umich.edu

If religions merely consisted of sets of ideas and beliefs that had no behavioral consequences, they would be worthy of little attention. However, religions are as striking for the actions they motivate as they are for the thoughts adherents entertain. From Baptism to burial, from prayer to penance, from altruism to aggression, religions prompt a broad diversity of individual and collective behaviors. Might this pageantry be informed by cognitive regularities? Is there discernable structure in this diversity? As making sense of actions and the motivations for actions is a fundamental conceptual enterprise, the cognitive science of religion is making valuable contributions in this domain.

“The Cognitive Foundations of Religious Ritual”

Robert N. McCauley, Emory University, philrnm@emory.edu

ABSTRACT: Cognitive theories about religious phenomena concur that religion relies on perfectly ordinary cognitive equipment. For more than a century scholars have detected numerous recurrent patterns among religious behaviors and among rituals, in particular. A natural aim for a cognitive theory would be to show how the everyday cognitive resources humans deploy in their representation of religious rituals offer a framework for explaining at least some of these recurrent patterns. Psychologists have provided evidence that cognitive machinery devoted to the representation of actions is operative early in human development. Whatever its precise shape, that machinery minimally involves commitments about agents, their acts, and those acts' patients. Standard features of religion include presumptions about agents with counter-intuitive properties. How participants conceive of such agents figuring in their religious rituals suffices to account for many of those recurrent ritual patterns. Considerations of religious ritual form contribute fundamentally to the explanation of, among other things, (1) why participants perform some rituals time and time again while performing others only once and (2) why some rituals include high levels of sensory pageantry while others are routine, boring, and dull. These same considerations constitute important variables contributing to the explanation of various properties of religious ritual systems, including the positions of the principal attractors within an abstract space of religious ritual possibilities.

“Order in Ritual Systems: A Test of the Lawson-McCauley Predictions”

Brian Malley, University of Michigan, bmalley@umich.edu

ABSTRACT: Does myth inform ritual? E. Thomas Lawson and Robert N. McCauley (1990, 2002) have proposed a cognitive theory of religious ritual according to which the way in which superhuman agents are implicated in the ritual's action structure has consequences for the repeatability, reversibility, relative sensory pageantry and relative importance of the ritual in a religious system. We tested their predictions by systematic interviews of participants in the Hindu, Jewish, and Islamic traditions as represented on the campus of a large Midwestern university. The Lawson-McCauley predictions were strongly supported by our findings, but our research also raised questions about the causal mechanism they propose, as few of our informants seemed to have clear ideas about the way in which superhuman agents were connected to their rituals.

Panel 5: 4:00-5:00 p.m.

Evolution, Cognition, and Religion

Panelists: Scott Atran, Jesse Bering

Discussant: Bob McCauley, philrnm@emory.edu

Much work in the cognitive science of religion is informed by evolutionary insights and perspectives concerning adaptive cognitive capacities that undergird religious thought, but the evident “naturalness” of religion raises a number of questions that are especially “evolutionary.” For example, some primatologists suggest great apes might be religious. Is this possible or are the cognitive capacities required for religion uniquely human?

Evolutionary psychologists argue that some features of human minds and behavior evolved because of their direct contribution to survival and reproduction, whereas other aspects of behavior and mentation are epiphenomenal by-products of other capacities. How might religious thought and action be analyzed in this regard? How much of religion is an outshoot of other fitness-enhancing human properties and how much of religion contributes to survival and reproduction in and of itself?

Though still somewhat controversial, evolutionary scientists sometimes distinguish between those beliefs and behaviors that are beneficial for individual selection versus those that enhance the fitness of a group. Again, might elements of religious beliefs and practices contribute to group selection or individual selection or both?

“The Evolutionary Landscape of Religion”

Scott Atran, University of Michigan, satran@umich.edu

ABSTRACT: Religion makes extraordinary use of ordinary cognitive processes to passionately display costly devotion to counterintuitive worlds governed by supernatural agents. Religion’s conceptual foundations are intuitively given by naturally-selected domains, like folkmechanics, folkbiology and folkpsychology. Supernatural-agent concepts involve hair-triggering an "Innate Releasing Mechanism" for predator-protector-prey detection – an evolutionary endowment whose proper (naturally-selected) domain encompasses animate objects but which actually extends to dots moving across screens, voices in wind, faces on clouds.

Fully developed cognitions of folkpsychology and agency involve metarepresentation, which makes deception possible. This threatens any social order. But these same metacognitive capacities provide the hope and promise of open-ended solutions through representations of counterintuitive supernatural worlds that cannot be logically or empirically verified or falsified. Core religious beliefs minimally violate ordinary intuitions about how the world is, with all of its inescapable problems, thus enabling people to imagine minimally impossible worlds that appear to solve existential problems, including death and deception. Because religious beliefs and experiences cannot be deductively or inductively validated, validation occurs only by assuaging the very emotions that motivate religion. Through movement, sound, smell, touch and sight, religious rituals affectively coordinate actors’ minds and bodies into convergent expressions of public sentiment – a sort of N-person courtship that communicates moral consensus.

“The phylogeny of religious thinking (*Or God through the eyes of a chimpanzee*)”
Jesse Bering, Florida Atlantic University, jmbering@juno.com

ABSTRACT: In recent years, a serious empirical attempt has been made to identify the basic cognitive mechanisms involved in religious thought. Emphasizing the role of native representational constraints and the means by which culturally acquired religious concepts map onto and exploit psychological systems, children’s thinking has played an important role in illuminating the operations of supernatural explication. In order for researchers to advance their understanding of the ultimate origins of religion, however, a broader perspective on the emergence of these processes that emphasizes not only ontogeny, but also phylogeny, must be adopted. A comparative-inferential approach to religious origins is possible to the extent that the cognitive mechanisms underlying (but not unique to) religious thought in humans are identified and then empirically assessed in other species. Because chimpanzees share a relatively recent common ancestor with modern humans and have likely retained the same general neuroanatomical configuration of this ancestor, scholars interested in religious origins can be particularly well-served by studying the cognitive abilities of *Pan troglodytes*. Fortunately, there is a large and growing empirical database on chimpanzee cognition, much of which deals with aspects of cognition (e.g., secondary representation, theory of mind, causal explanation) that are of direct relevance to the cognitive study of religion. The successful marriage of evolutionary and developmental perspectives can allow researchers to tackle questions about the adaptiveness of religious thinking, and also to identify the extent to which religion is subserved by cognitive specializations of the human species or whether it builds on an assemblage of precursor competencies.

Panel 6: 5:01-6:01 p.m.

Implications for Historical and Comparative Studies of Religion

Panelists: Luther Martin, Ted Vial

Discussant: Benson Saler, B4saler@aol.com

Historians of religion study such issues as how and why religions change or spread over time, why particular religions emerge in particular contexts, and what happens when different religions are introduced. Similarly, comparative religionists attempt to discern meaningful similarities and differences between religious traditions and to account for those patterns. Given the explanatory power and empirical tractability of many claims generated by the cognitive science of religion, it seems that this new field could contribute to more traditional study of religion in a number of ways. But where does the greatest promise lie? The greatest difficulties? Given that historians of religion are not (typically) cognitive scientists, what unique resources might they contribute to the cognitive science of religion?

“Towards a Cognitive Historiography of Religion”

Luther Martin, University of Vermont, lhmartin@zoo.uvm.edu

ABSTRACT: Cognitive studies of religion have appealed more to anthropologists than to historians. There is, however, no reason in principle why historians cannot assess cognitivist predictions as productively as have anthropologists. Although historians must contend with an incomplete and biased record of the past, anthropologists are also impeded by guarded informants and by ethnographic data that, while more detailed, is nevertheless of uneven quality. A more interesting question for historians is the extent to which they might employ cognitivist models to supplement or to correct their historiographic reconstructions, a possibility supported in preliminary studies.

“Ritual Studies: Case Studies in the Application and Testing of the Cognitive Science of Religion in the History of Religions”

Ted Vial, Virginia Wesleyan College, tvial@vwc.edu

ABSTRACT: The two obvious reasons for historians of religion to dabble in the cognitive sciences are 1. to see if these theories, which have the advantage of being empirically verifiable (a rare treat in this field not to be passed up!), throw light on historical data and the structure of actual religious behavior; and 2. to see if the theories work. (Most of the best articles and books in the field are data-lite.) I have found cognitive theories to be extremely useful in my own work in ritual studies, and so will briefly describe three projects that I have undertaken/are underway, and offer reflections on 1. the usefulness of cognitive science for such historical work; 2. support for cognitive theories offered by my historical data; and 3. gaps, problems, or what scientists might call need for further research.

1. Rite of Passage in Zurich, 1864-68. In examining the links between theology, politics, and social structure as they played out in a most public debate over revising the baptism liturgy (and thus affecting the way theology was embodied, and the construction of the community into which every citizen of Zurich was initiated), I found that the structure of the ritual of baptism simply could not be accounted for on the model of binary oppositions so popular in ritual studies (e.g., Pierre Bourdieu, Catherine Bell). Lawson and McCauley's *Rethinking Religion*, in contrast, offered useful tools for organizing the data and modeling the participants' representations of their ritual in such a way that it was easy to pinpoint

the critical theological and social issues at stake. Furthermore, certain historical developments in Zurich offer support for the predictions made by Lawson and McCauley.

2. Eating the Body. In trying to understand some of the debates surrounding the Eucharist at the time of the Reformation, and in particular in trying to understand why some theologies caught on better than others (theological merits aside), cognitive science has proved very useful. Justin Barrett's work on "theological correctness," Dan Sperber's and Pascal Boyer's arguments about counter-intuitive ideas (what Boyer call the "cognitive optimum") are useful in sorting through the debates and aspects of the appeals of the various positions. Sperber and Boyer also help describe what might be happening when Lawson and McCauley describe the "penetration" of the action representation system by the religious conceptual schemes of a ritual participant. The radical development in the Mass/Eucharist seems to contradict Lawson and McCauley's claim that the most central rituals in a tradition are the least susceptible to change (a contradiction that is rumored to be modified or accounted for in their latest book).

3. Popular Ritual at Time of Reformation. I am currently working on Harvey Whitehouse's project to see if his idea of modes of religiosity applies in contexts far from Papua New Guinea. Specifically, do popular religious practices at the time of the Reformation exhibit doctrinal and imagistic modes, and is there a change in the relationship between these modes in popular practices? There is a gap in the study of Reformation history between a kind of intellectual history, and using religious evidence as data for pure social history. Whitehouse's theory promises to be useful in examining systems of religious behavior, their stability, "selection" for certain factors, and ritual structures that contribute to their change. This is a work in progress.

Saturday's Presentations

9:00 a.m. – 1:46 p.m.

Poster

Available for viewing from 9:00 – Noon on Saturday.

“Natural Perception and the Power of God Images.”

Stewart E. Guthrie, Fordham University, guthrie@fordham.edu

ABSTRACT: Scholars of religion commonly attribute the power of images of deities to their divergences from naturalistic images and to the symbolism of these divergences. In contrast, I suggest their power depends first on their possession of certain natural features central to everyday perception, particularly those by which we identify humans and other complex animals. Such features include paired eyes, bilateral symmetry and self-initiated motion. The presence of any of these suggests the presence of an agent.

Although god images often are highly anthropomorphic or theriomorphic, they may also be more abstract. One instance is the t'ao-t'ieh motif, common on the ritual bronzes of the Shang Dynasty of China (ca 1750-1027 BCE). The t'ao-t'ieh is a vaguely animate set of swirls and curlicues, usually in a bilaterally symmetrical band centered on a pair of dark, eye-like spots. An effect of this design is the sensation of being looked at by an unseen agent, plausibly a deity. Similar images occur in other cultures as well. That such indefinite representations, whose constants are eye spots, bilateral symmetry, and an ambiguous suggestion of motion, are so common suggests innate sensitivities to these features. Indeed, an inborn attentiveness to paired eye spots, for example, has been documented not only in humans but also in birds, snakes, and fishes. Thus the anthropomorphism and theriomorphism of god images, no matter how incomplete or how symbolic, apparently owe part of their power to deep-seated perceptual schemata. Oral

Oral Presentations

9:00 – 9:29, presentation; 9:30 - 9:44, discussion

“True Fiction: Psychology and Philosophy of Religious Belief”

Ilkka Pyysiäinen, University of Helsinki, ilkka.pyysiainen@pp.inet.fi

ABSTRACT: This paper explicates the evolved microprocesses of cognition and emotion related to religious belief. Instead of asking whether believing is rational, it is asked how religious belief is cognitively possible. Combining Boyer's evolutionary account of religion, Sperber's and Cosmides & Tooby's theory of metarepresentation, as well as neuropsychological theories of emotion, we get the sort of conceptual tool kit needed to specify those cognitive mechanisms and operations that make religious belief possible. Religious belief requires a unique combination of these mechanisms and operations.

9:45 – 10:07, presentation; 10:08 – 10:19, discussion

“The immortal mind: How human cognitive systems breed ghosts”

Jesse Bering & D. F. Bjorklund, Florida Atlantic University, jmbering@juno.com

ABSTRACT: We investigated the divergence of children's reasoning about biological and psychological death, postulating that simulation constraints (i.e., inability to imagine what it is “like” to be dead) play a central role in the formation of afterlife beliefs. In Experiment 1,

4-6-year-olds (younger group) and 6-8-year-olds (older group) were asked a series of biological questions about death (e.g., “Now that x is not alive, does his brain still work?”). Even the youngest children were likely to reason that such biological processes cease at death. In Experiment 2, different, similarly-aged children and also a group of 10-12-year-olds were asked a series of psychological questions about death (e.g., “Now that x is not alive, does he *know* that he’s not alive?”). The youngest group of children from the second experiment were equally likely to reason that both epistemic-type faculties (e.g., knowing) and psychobiological states (e.g., hunger) continue to function after death. The oldest children distinguished between these two psychological categories, and were more likely to reason that epistemic-type faculties continue to function despite death. The results suggest that inherent, developmentally based, cognitive biases are exploited by secular accounts of the afterlife and religious indoctrination and lead to species-typical accounts of deceased agents’ minds.

10:20-10:44 Break

10:45 – 11: 05, presentation; 11:06 – 11:19, discussion

"Children's inference about human and non-human agents: cross-cultural evidence"

Nicola Knight & Paulo Sousa, University of Michigan, knightn@umich.edu

ABSTRACT: The ontogenesis of theory of mind seems to follow a similar course across human societies. In every society, however, humans routinely make inferences not only about what other humans think and know, but also about what non-human agents (such as gods, ghosts, and spirits) think and know. In this presentation, we offer evidence for an early developmental difference in children's reasoning about the mind of religious entities and the minds of humans. Experiments in a Protestant community in the US and in a Maya village in the Yucatan peninsula show that children do not reason about all agents in the same way; rather, they will use what they know to infer what different agents know and think. Secondly, even before children have a stable understanding of human minds, they are already able to discriminate between properties of human and superhuman minds.

11:20 – 11:59, Informal discussion and poster viewing

12:00 - 1:00, Lunch

1:01 – 1:46 Featured Lecture, E. Thomas Lawson:

“The Cognitive Science of Religion: Past, Present, and Future.”

2:00 - 6:00 Open discussion