WORKSHOP

EXPLAINING RELIGION

COGNITIVE SCIENCE OF RELIGION AND NATURALISM

DECEMBER 4th - 5th, 2015

VRIJE UNIVERSITEIT AMSTERDAM

KEYNOTE SPEAKERS

AKU VISALA | HELEN DE CRUZ | ROBERT MCCAULEY

Abraham Kuyper Center for Science and Religion

Date: December 4th-5th, 2015
Location: Vrije Universiteit Amsterdam, The Netherlands
Room: 2E-31

Friday December 4th
08:30 – 09:00 Registration and coffee

09:00 – 09:45 David Maij
“A Critical Empirical Perspective on the Naturalness of Religion Hypothesis”

09:45 – 10:45 Helen de Cruz
“Etiological challenges to religious practices”

10:45 – 11:15 Coffee Break

11:15 – 12:00 Thomas Coleman
“Can CSR explain atheism, using theory of mind?”

12:00 – 12:45 Hans van Eyghen
“What would a good naturalistic explanation of religion look like?”

12:45 – 13:30 Lunch Break

13:30 – 14:15 Paolo Mantovani
“Gods as Intuitive Regress-Blockers”

14:15 – 15:00 Michael Vlerick
“Explaining religion: the institutional approach”

15:00 – 15:30 Coffee Break

15:30 – 16:30 Robert McCauley
“The Cognitive By-Product Theory and Explanatory Pluralism in Science”

16:30 – 17:15 Joseph Jedwab
“The Cognitive Science of Religion and the Justification of Theistic Belief”

17:15 – 18:00 Nick Byrd
“Intuition, Philosophical Training, and Theism”

18:30 – Dinner at Valerius
**Saturday December 5th**

08:30 – 09:00  Registration and coffee

09:00 – 09:45  **Lluis Oviedo**
“Explanatory limits in the Cognitive Science of Religion: theoretical matrix and evidence levels”

09:45 – 10:45  **Aku Visala**
“Naturalism(s) in the Cognitive-Evolutionary Study of Religion”

10:45 – 11:15  Coffee Break

11:15 – 12:00  **Stephen Clarke**
“When the sacred is explained away”

12:00 – 12:45  **Justin McBrayer**
“Empirical Debunking Arguments and Second-Order Implications for Religious Belief”

12:45 – 13:30  Lunch Break

13:30 – 14:15  **Ronit Nikolsky**
“Explaining religion, but not away”

14:15 – 15:00  **Konrad Szocik**
“The critique of intuitiveness and naturalness of religious beliefs within CSR”

15:00 – 15:30  Coffee Break

15:30 – 16:15  **Christos Kyriacou**

16:15 – 17:00  **Neil Spurway**
“Religion Beyond Naturalism”

17:00 – 17:45  **Daniel Lim**
“Cognitive Science of Religion and Folk Theistic Belief”

17:45 –  Closing drinks
Abstracts Keynote Speakers

December 4th, 09:45 – 10:45

“Etiological challenges to religious practices”
Helen de Cruz (Vrije Universiteit Amsterdam)

There is a common assumption that evolutionary explanations of religion undermine religious beliefs. Do etiological accounts similarly affect the rationality of religious practices, such as liturgical actions, food taboos, and dress codes? To answer this question, this paper examines Cuneo’s account of ritual knowledge in the light of evolutionary accounts of rituals.

December 4th, 15.30 – 16.30

“The Cognitive By-Product Theory and Explanatory Pluralism in Science”
Robert N. McCauley (Center for Mind, Brain, and Culture - Emory University)

This presentation outlines responses to the first five (of the seven) questions, with which the organizers of this workshop concluded their “Call for Papers.” The talk has two parts. The first part focuses on the contents and the character of the explanations advanced by the most prominent theoretical framework in the cognitive science of religion (CSR). The second part examines a general model of cross-scientific relations, viz., explanatory pluralism, with the aim of providing grounds for dispelling the worries about and the resistance to CSR among practitioners of cultural and religious studies and theologians.

Although it is, by no means, the only theoretical approach in CSR, the by-product theory is the oldest and most widespread among the available contenders. All of the pioneering theorists in CSR agree that religions involve cultural arrangements that engage ordinary cognitive systems that are in place on the basis of considerations having nothing to do with religion or with one another and that their exercise in religious contexts are by-products of those systems’ normal functioning. Religions engage maturationally natural, domain-specific cognitive systems for handling problems fundamental to human survival that operate readily, unreflectively, and mostly below the level of consciousness. This information processing includes automatically and effortlessly pursuing any of a vast complement of default inferences appropriate to materials from the many domains in question.

The by-product theory fractionates religion in the sense that it looks to these diverse maturationally natural cognitive systems to account for particular features of the cultural complexes we count as religions. Because the by-product theory fractionates religion, it is probably the least controversial of the available theories in CSR. It is largely consistent with fractionating accounts of religion focusing on natural selection, and it is thoroughly consistent with accounts of religion that appeal to cultural selection. The explanations of the features of religions that the by-product theory offers, like all explanations in science, are partial.

Even taken collectively, the by-product theory’s partial explanations of various features of religions do not constitute a (comprehensive) naturalistic explanation of religion. Nor are such explanatory accounts at all likely to explain religion away. Such worries depend upon subscribing to coarse-grained and inadequate, unified models of intertheoretic relations in science, originally propagated by the logical empiricists and more recently advanced in a more sophisticated, but still unsatisfactory, form by the New Wave reductionists. Such models unhelpfully conflate the dynamics...
of successional and cross-scientific contexts, envisioning eliminations of theories and their concomitant ontologies where there are no grounds to expect to them.

Explanatory pluralism (and kindred mechanistic accounts of explanation in science) acclaim the multi-level approaches to research and explanation in cross-scientific settings. Research on the by-product theory is a parade case. The explanatory pluralist model of cross-scientific relations shows why the cognitive science of religion does not threaten the elimination of the religious or the cultural and why, if anything, it only serves to vindicate sound contributions that religious studies scholars make to our understanding of the phenomena at issue.

December 5th, 09:45 – 10:45

“Naturalism(s) in the Cognitive-Evolutionary Study of Religion”
Aku Visala (University of Helsinki)

The cognitive-evolutionary study of religion takes itself as “naturalizing” not only the study of religion, but the humanities as a whole as well. Apart from the obvious denial of non-supernatural causal factors, it is sometimes difficult to see whether this naturalization involves anything more than a general rhetorical strategy meant to play up the “science” part (and downplay other, “non-scientific” approaches). In my paper, I will seek to identify the basic philosophical assumptions of the naturalization project, present some critical points about them and suggest more plausible assumptions instead. The basic assumptions of the naturalization project include a commitment to a specific kind of unity of science, a commitment to a certain kind of inter-level reduction and explanatory fundamentalism and a deep suspicion towards causal factors above the cognitive/psychological level. I will suggest that these commitments suffer from a number of problems and the goals of the cognitive-evolutionary study can be achieved just as well, or even better, by adopting weaker and more plausible commitments. Here I will briefly discuss some new accounts of mechanistic explanation, Robert McCauley’s model of inter- and intra-level relationships and the idea of explanatory pluralism. My hope is that by loosening the “naturalistic” constraints of the cognitive-evolutionary study of religion will result in a more pluralistic (but nevertheless strict) approach to religion.
“A Critical Empirical Perspective on the Naturalness of Religion Hypothesis”
David Maij (University of Amsterdam)

Scholars endorsing the naturalness of religion hypothesis have proposed that supernatural beliefs and behaviors thrive on normal (i.e. natural) cognitive and psychological processes. Within the cognitive science of religion (CSR), it is generally accepted that the ability to mentalize or a hyperactive agency detection device (HADD) encourages belief in supernatural agents.

However, evidence for the link between these abilities and supernatural beliefs is tentative, influenced by publication bias and confounded by research methodologies that are not up to date with current standards in psychology. Therefore, we have investigated these hypotheses in two lines of work.

In one line of work we have investigated the link between mentalizing abilities (i.e. the capability to attribute intentions, beliefs, and desires to other minds) and supernatural beliefs, as mentalizing abilities are one of the key hypothesized cognitive mechanisms underlying supernatural beliefs. The logic underlying this prevailing hypothesis is that mentalizing abilities are necessary to attribute intentions to supernatural agents. Therefore, it has been proposed that people who have problems with attributing intentions, such as people with autism, may be characterized by reduced belief in supernatural agents compared to neurotypical people. The two studies in which such a link has been demonstrated (Caldwell, Harris, Murphy, Velazquez & McNamara 2011; Norenzayan, Gervais & Trzesniewski 2012) are in sharp contrast with the numerous studies and anecdotal reports of people with autism who frequently engage in religious beliefs and behaviors.

Furthermore, in large surveys in the Netherlands (N > 100,000) and Swiss (N > 300), we have failed to replicate the hypothesis that mentalizing deficits are related to reduced supernatural beliefs. Our findings are in line with three other very recent studies in which researchers could not find the supposed relationship between theory of mind and supernatural beliefs. In another line of work we have investigated a fundamental assumption of the HADD: that ambiguous threatening situations (e.g. a dark forest) lead people to over detect the presence of intentional agents, which in turn encourages supernatural beliefs. In six threat inducing experiments (N = 245) we failed to find evidential support for the existence of such a HADD. Even the strongest threat manipulation (virtual reality) did not lead to over detection of agents. Importantly, we did not find that agency over attribution was related to supernatural beliefs in any of the experiments, arguing against the idea that agency detection encourages supernatural beliefs. These findings are in line with two other recent studies in which no relationship was found between agency detection and supernatural beliefs (Van Elk et al., 2014; Hoskin, Hunter & Woodruff 2014).

In sum, two intuitive theories that are widely accepted within the CSR are not supported by data. At best, these cognitive mechanisms are necessary but insufficient to give rise to supernatural beliefs (Gervais, Willard, Norenzayan & Henrich 2011). What is more, we note the emergence of two recent lines of evidence in support of a cultural learning account of supernatural beliefs. In one domain, convincing evidence is provided by developmental studies that it takes quite some time for children to acquire supernatural beliefs because children first have to

---

1 Please note that we are currently directly replicating the study of Norenzayan and Gervais (2013) in the US in collaboration with Will Gervais. We expect to have gathered and analyzed the data by the time of the workshop. The study is already discussed on the Open Science Framework: www.osf.io/6vrne.

2 In fact, it was the only relationship that did not reach significance despite the large number of participants.
overrule more naturalistic cause-and-effect forms of reasoning\(^3\). This is in apparent contrast to the proposition that children naturally acquire supernatural beliefs and that these beliefs are later overruled by more scientific forms of reasoning. In other domains, the working mechanism through which such supernatural beliefs are transmitted from caregiver to child are exposed. Credibility enhancing displays (i.e. displays of an instructor that would seem costly if the instructor held beliefs different from those expressed verbally) have been shown to be the strongest predictor of whether people come to acquire supernatural beliefs, whilst memenetics (i.e. the evolutionary models of information transfer) explain which beliefs are likely to go ‘viral’ (e.g. Blackmore 1999; Dawkins 1976; Dennett 1995). Of course, supernatural beliefs are, like all psychological processes, the result of an inextricable connection between genes and environment (Geertz, 2010; Geertz & Markússon 2010; Lanman 2012). Nevertheless, we want to stress that despite the intuitiveness of the naturalness of religion hypothesis, we should not accept these hypotheses until they have been severely scrutinized and tested under acceptable research practices.

---

**December 4\(^{th}\), 11:15 – 12:00**

**“Can CSR explain atheism, using theory of mind?”**

Thomas Coleman (University of Tennessee Chattanooga)

The cognitive science of religion (CSR) explains human belief in God as due in part to mentalizing ability. Recently, low or impaired mentalizing has been argued to underlie nonbelief. We argue that both the theoretical and empirical grounds for this claim are problematic.

There has been a tendency in CSR to conflate explanandum with the explanans, as can be seen in the case of using ToM as a mechanism to explain religiosity. Researchers have equated a properly functioning ToM with the ability to represent supernatural concepts (e.g., Barrett, 2012; Bering, 2002; Gervais, 2013). However, supernatural belief pertains to content, not the psychological mechanisms that may process this content (Beit-Hallahmi 2015). Rather than “religious cognition” being assumed as a separate type of cognition, it may be more useful to investigate cognitions deemed religious (c.f., Taves 2009).

Despite arguments that atheism can be explained by the diminished mentalizing capabilities associated with the autism spectrum (e.g. Barrett 2012; Bering 2002; Norenzayan & Gervais 2013), evidence is weak. The studies that address the role of mentalizing in supernatural belief contain too few atheists to make empirical claims (e.g. Norenzayan, Gervais & Trzesniewski 2012). Studies also fail to directly measure how atheists vary in mentalizing ability (e.g. Lindeman, Svedholm-Hakkinen & Lipsanen 2015; Rosenkranz & Charlton 2013). Whether CSR can explain atheism through deficiencies in mentalizing thus remains an open question.

In response to this gap in the literature, 2718 participants were recruited from an atheist blog on the Patheos website. Participants responded to “Which of the following best describes your belief in God?” by choosing one of seven nominal categories ranging from “strong theist” to “strong atheist.” To assess mentalizing, we used Baron-Cohen’s Reading the Mind in the Eyes Task, which is an advanced test of mental state attribution. As a secondary measure of ToM (the intentionality component), we used the Rosset Intentional Bias test. To detect the presence of characteristics associated with the autism spectrum at subclinical levels, the Broader Autism Phenotype Questionnaire (BAPQ) was employed.

---

\(^3\) Please note, this is even evident from the data of advocates of the naturalness of religion hypothesis (e.g. Bering & Parker 2006).
For analysis, the nominal belief categories were collapsed to form three groups (theists N = 152; agnostics N = 46; atheists N = 2520). All tests met normality assumptions; ANOVAs were conducted with bonferroni post-hoc comparisons for all measures. Two scales required non-parametric analyses but significance remained. For the Eyes Task, only agnostics differed from theists and atheists, with agnostics having lower scores on this task. The BAPQ subscales revealed atheists scored higher on “Aloof personality” than theists, consistent with lower sociality and less social conformity. Theists scored higher on “Rigid personality” than atheists. All scores were below the cutoff for the presence of the broader autism phenotype (BAP). On the Rosset test, atheists outperformed theists and agnostics on three of the four subscales for which significance differences were found. Effect sizes for all measures were small.

In sum, these results suggest that the relationship between ToM and belief/nonbelief is more complex than past research has indicated. Contra existing theories in CSR explaining atheism via mentalizing deficits associated with the autism spectrum, our research finds that this large sample of atheists had no deficits in the domain of ToM when compared to theists. Moreover, atheists were below cutoff levels for the BAP. Additionally, atheists were able to appropriately attribute intentionality when compared to theists, who over- and under-attributed in conditions where it was not appropriate to do so. Our research supports other recent findings which concluded that differences in mentalizing lack adequate explanatory power for supernatural belief, and instead locate the over-extension of normal psychological capabilities as the probable cause of supernatural belief (e.g. Lindeman, Svedholm-Hakkinen, & Lipsanen 2015; van-Elk, unpublished [in Van Eyghen, 2015]). As suggested by Geertz and Markússon (2010), CSR has likely built a research foundation partly misinformed about the psychological characteristics of nonbelievers. In terms of ToM, the mentalizing capabilities of atheists appears to be on par with that of theists. The cognitive science of religion thus fails to explain atheism using deficits in theory of mind.

December 4th, 12:00 – 12:45

“What would a good naturalistic explanation of religion look like?”
Hans van Eyghen (Vrije Universiteit Amsterdam)

Scientific naturalistic explanations of religion have a history going back at least to Charles Darwin and Sigmund Freud. Since then, the scientific study of religion has evolved. The most promising research program for explaining religion today is the cognitive science of religion (CSR). Though the aims of CSR are broader than explaining religion, it is one of its main focuses. ‘Religion’ is of course a broad term but many CSR-theories have focused on supernatural beliefs and I will do the same in this paper. In this paper, I discuss criteria a naturalistic explanation must meet in order to be considered a good naturalistic explanation. In doing so, I discuss where existing explanations fall short. The existing explanations I will discuss are Justin Barrett’s Hyperactive Agency Detection Device, which argues that supernatural beliefs arise because humans are prone to detect agents where in fact there are none (Barrett 2004), Kurt Gray’s Moral Dyad, which argues that belief in God as an ultimate moral agent arises because humans intuitively conclude to it when confronted with morally significant natural events (Gray and Wegner 2010), Jesse Bering’s Existential Theory of Mind, which attributes supernatural beliefs to overdetection of meaning (Bering 2002), evolutionary supernatural surveillance theories, which claim that supernatural beliefs are evolutionary beneficial because they make people follow social norms (c.f. Atran 2002; Boyer 2002; Norenzayan 2013; Tremlin 2010), the Attachment Theory, which considers supernatural beings as surrogate attachment.
figures (Kirkpatrick 2005) and the Costly Signaling Theory, which considers religious rituals as means of signaling honesty (c.f. Sosis 2006; Sosis and Bressler 2003).

Above all, an explanation should be accurate; meaning that it must adequately target the phenomenon to be explained. Many CSR-theories suffer from inaccuracy. Justin Barrett’s Hyperactive Agency Detection Device explains beliefs about spirits or ghosts but does not explain many other supernatural beliefs people hold. Kurt Gray’s Moral Dyad only explains why people believe in moralizing supernatural beings and therefore leaves many beliefs about supernatural beings that lack interest in morality (e.g. Hindu gods or Buddhist bodhisattva’s) unexplained. Evolutionary theories that explain supernatural beliefs by claiming beliefs in an all-seeing, punishing God fostered adherence to social norms, only explain moralizing, punishing gods and thus only explain the gods from Abrahamic religions. The same holds for the costly signaling theory.

An explanation is broad of scope if it is applicable to a broad number of observations, laws, or subtheories. The observations many CSR-theories are applicable to are often limited. Justin Barrett’s Hyperactive Agency Detection Device relies on older empirical evidence like the Heider-Simmel study (Heider and Simmel 1944). The theory has not been backed up by more recent empirical data and some even seems to contradict it (e.g. Van Elk 2013). Jesse Bering’s Existential Theory of Mind (Bering 2002) and Gray’s Moral Dyad also have not been sufficiently supported by empirical data.

Depth of scope means that an explanation should be on a sufficiently deep level of explanation. Evolutionary explanations relying on an all-seeing, punishing God, are on the level of group behavior rather than the level of supernatural beliefs. The same holds for the Costly Signaling theory.

The Attachment Theory and Bering’s Existential Theory of Mind score better on the criteria mentioned above but questions can be raised about their naturalness. An explanation of supernatural beliefs is natural when it can explain supernatural beliefs on strictly natural grounds. The Attachment Theory claims that supernatural beliefs arise as a by-product of attachment mechanisms. It does not give sufficient reasons to believe that attachment goes astray when aimed at supernatural beings. Bering’s Existential Theory of Mind also does not specify why attributing meaningful events to supernatural beings is not warranted. Nonetheless both theories could be mended to make them more natural. I conclude by giving suggestions how this can be done.
agents in order to explain phenomena that are not readily explainable in other more mundane ways, e.g. by appealing to observable causes. This paper looks at some ideas present in the latter frameworks, revisiting them within the perspective of the CSR.

Generally, I argue that while dismissing some ideas and assumptions in the 'intellectualist' tradition for good reasons (e.g. the assumption that humans have an entrenched generalized urge to explain everything), the CSR underestimates, overall, the role that explanation plays in shaping many religious ideas and in supporting many religious beliefs. I demonstrate how reasons for pursuing further theorizing in this respect are found in some of the core theories grounding the CSR itself. I emphasize certain cognitively appealing features of religion-based explanation, and particularly how such features make explanations involving gods and other supernatural agents highly intuitive candidate for 'ultimate' explanations of phenomena, making them less vulnerable, at the level of intuitive cognition, to regress problems than other types of explanations (chiefly, explanations appealing to inanimate causes). The perspective proposed in this paper sits well with recent 'inclusive' stances taken in the CSR and neighbouring frameworks, which emphasize the need to integrate the core theories of the CSR into a more comprehensive cognitive and evolutionary science of religion that, among other things, can reshape and to some extent vindicate ideas present in traditional theories of religion (cfr. recent works by Norenzayan and Henrich, among others, revisiting the moralizing role of religious beliefs within a cognitive and evolutionary perspective).

I begin by discussing some arguments proposed by Pascal Boyer against intellectualist theories of religion, showing that some of these arguments only partially go through. I then emphasise how explanatory reasoning - broadly construed - featuring gods and other supernatural agents is found cross-culturally and targets recurring types of *explananda* - e.g. large-scale natural phenomena, natural disasters, the origin of the universe, the origin of morality, the origin of fortunate and misfortunate events. Even if, as Boyer argues, there is no evidence of a generalized human urge to understand/explain all phenomena, nor of humans possessing some sort of 'explanation-seeking' cognitive module, similar kinds of 'big questions' do seem to arise 'naturally' in all human societies - e.g. what is the origin of the world? What is the origin of our people? Why this misfortunate event occurred? Many humans across many different societies give answers to such questions that ultimately appeal to the will and actions of gods and other supernatural agents.

This is no surprise, I argue, if one considers certain features of our entrenched cognitive machinery as these are described in the CSR and related frameworks. Particularly with respect to 'big questions' concerning the origins or ultimate 'cause' of some phenomenon (e.g. the universe), I argue that explanations involving the will and actions of (supernatural) minded agents bear a substantial intuitive advantage compared to other kinds of explanations, e.g. mechanistic/causal explanations. Explanations involving gods and other supernatural agents are a brand of folk psychological explanations, i.e. they use the mental properties ('will', 'desires', 'beliefs' etc.) and actions of a minded agent as the main explanatory factors. Crucially, folk psychological explanations come not only generally natural to us (we make use of them all the time) but they are also intuitively understood in such a way that regress problems do not apply to them in the same way as they do to other kinds of explanation, and particularly causal explanations. The cognitive anthropology and psychology that grounds the CSR holds that humans 'naturally' conceive the basic ontological kind 'minded agent' as attributed with the fundamental capability for *self-propelled, goal-directed action*. This attribute makes anything that is understood as a minded agent a far better candidate for use in 'ultimate explanations' (that is, roughly, answers to 'origins big questions') than anything that is conceived as an inanimate physical object. Since inanimate physical objects are 'naturally' understood as not being capable of self-propelled action, and as not having a self-generated will/goals, explanations only appealing to causation among inanimate objects easily faces problems concerning potentially infinite chains of cause and effects. Ultimate explanations only appealing to inanimate causation will in fact hardly be intuitively understood as genuinely *ultimate*. On the contrary, in-built in the 'natural' concept of a minded agent are the features that make the latter
ontological kind an intuitively far better regress-blocker. And this is one crucial reason why, I argue, ultimate explanations involving (supernatural) minded agents are so cross-culturally widespread. Some exploratory evidence in support to the above point may be found in the appeal, throughout the history of philosophy, of the cosmological argument for the existence of a supreme creator. The core idea underlying this argument, or at least some classic interpretations of it (e.g. Aquinas), is that postulating a creator minded agent, a creator will, ‘solves’ problems of infinite regress of various kinds - and most typically the ones concerning potentially infinite chains of causes and effects. But why not go on and demand explanation for the origin of the creator himself, and for the origin of the creator god, and so on (rephrasing a well-known line of counterargument to this brand of cosmological argument)? I suggest that the appeal of the cosmological argument has more to do with our entrenched cognitive intuitions - concerning the nature of ‘minded agent’, on one hand, and ‘inanimate object’, on the other – than with the strength of the argument itself.

“Explaining religion: the institutional approach”
Michael Vlerick (University of Johannesburg)

Wherever there are humans, there is religion. When anthropologists encounter one of the few remaining isolated tribes in remote regions of the Amazonian forest or New Guinea, you can be sure that these isolated people will possess language and religion. Religion is a human universal par excellence. Moreover, even in the age of science which has witnessed the demystification of the world by identifying the basic building blocks of matter, explaining design in the natural world in purely mechanistic terms and dating the birth of the universe, the great majority of people today are still deeply religious. This requires explanation.

Over the last 25 years, cognitive scientists have risen to the occasion. They set out to explain religion in naturalistic terms. The central debate in what is now called ‘the cognitive science of religion’ has opposed explanations of religion as a cognitive byproduct and religion as a prosocial adaptation. While both accounts have made convincing arguments and supported their case with an impressive set of important and relevant empirical findings, there is a deplorable vagueness as to what exactly is being explained throughout the literature. It is not always clear whether the universality of supernatural beliefs or ritual behavior, shared features of content across different religions, or the success of some religions is being explained.

Related to this vagueness, it is often falsely assumed that a single theoretical framework will fit all of those aspects. The goal is often framed as ‘explaining religion’ (e.g. Boyer 2001) or ‘the evolution of religion’ (e.g. Rossano 2010) rather than addressing a particular question related to religion. This, I will argue, is mistaken. Therefore, while both byproduct and adaptive accounts are true in some respect, they are incomplete at best. This incompleteness is partly caused by the failure to appreciate the institutional nature of religion. Most religious beliefs and practices are bound up in institutions, they are not mere expressions of human psychological nature (either adaptive or as a byproduct). Viewing it as such and applying some important findings in social ontology, throws a new light on some key issues in explaining religion.

The aim of this paper is threefold. Firstly, I set out to make explicit and distinguish the different facets of religion requiring explanation. In order to do so, I formulate a series of questions. While these questions have all been addressed in the literature, listing them – I hope – will add clarity to the debate. Secondly, I add a new perspective in the mix by viewing religion as a universal social institution and analyzing it in terms of theoretical frameworks developed in social ontology. Finally, I outline a unified model of religion, addressing the various aspects requiring explanation,
building both on the empirical findings yielded by the cognitive science of religion and the institutional perspective developed in this paper.

December 4\textsuperscript{th}, 16:30 – 17:15

“The Cognitive Science of Religion and the Justification of Theistic Belief”
Joseph Jedwab (Kutztown University)

Folk often see the cognitive science of religion (CSR) as a source of defeat for theistic belief’s justification. And this may well be so. But I argue that this science also shows us that theistic belief is \textit{prima facie} justified in the first place.

There is a spectrum of beliefs. At one end, there are the more intuitive (or non-reflective) beliefs. At the other end, there are the more reflective beliefs. According to many theorists, belief in a god (i.e. theistic belief) is intuitive for many. I present an outline of this account, which refers to, among other things, the roles of minimally counter-intuitive concepts, their inferential potential, the hypersensitive agency detection device, the theory of mind, and the role of god-concepts in our thought about social interaction, fortune and misfortune, and life after death.

My argument has three steps. First, I argue that intuitive belief that is based on epistemic appearance enjoys \textit{prima facie} justification. This makes use of the principle of credulity (or of phenomenal conservatism), on which if it epistemically appears to one that P, then one is \textit{prima facie} justified in believing that P. Many contemporary epistemologists argue for or defend such a principle, including Richard Swinburne, William Lycan, Michael Huemer, and Christopher Tucker. If this is right, then different and indeed inconsistent intuitive theistic beliefs are each severally \textit{prima facie} justified. And if this is right, it shows that such belief is already \textit{prima facie} justified independently of whether one has the second-order belief that such belief is so justified.

Secondly, I argue that if one starts from such intuitive theistic belief, one may rationally infer to the hypothesis that there is a supreme god, the conception of which is more specific than the conception with which one starts. Intuitive theistic belief involves a conception of a god that is more or less generic and lacks specific detail. But one may fill in the detail by considering the various ways to fill it in as so many alternative hypotheses and then selecting the hypotheses that have the best balance of theoretical virtues, which includes explanatory power and simplicity. I show how one may do this by adapting Swinburne’s arguments for the explanatory power and simplicity of theism. According to Swinburne, the hypothesis of an intentional agent is able to provide an intentional explanation in terms of an agent that has reasons to do what it does. Such an intentional explanation can go beyond what, in principle, it is possible for science to explain in inanimate terms: for example, it can explain any fundamental laws there may be or any first events of the physical world there may be. Moreover, according to Swinburne, the hypothesis of only one intentional agent who is unlimited in power, knowledge, and goodness, and is also unlimited in space and time is a simpler hypothesis than any alternative hypothesis that concerns an intentional agent.

Third, I provide a recipe for what to do if and when different intuitive theistic beliefs that are equally well justified conflict with each other, either within the same individual or among different individuals. Consider the intuitive theistic beliefs that conflict with each other. Retreat to a more generic conception of a god: one that abandons any detail that conflicts with other intuitive theistic beliefs, but one that retains enough detail for the conception still to qualify as being of a god. As before, fill in the detail and select the hypotheses that manifest the best balance of theoretical virtues. The problem of religious diversity, which for the most part involves the inconsistency of various theistic beliefs, is often taken to be a problem for the justification of theistic belief. On the contrary, however, if I am right about the above recipe, such diversity may attest to multiple and independent sources of \textit{prima facie} justification for a theoretically virtuous belief in a supreme god.
In passing, I address what role CSR plays here. Principally, it can tell us what intuitive beliefs we have. Introspection may not always be a reliable guide to our intuitive beliefs. Introspection, of course, tells us what we can introspect. We may not, however, be able to introspect all our intuitive beliefs. Finally, it can tell us about the diversity of intuitive theistic belief within the same individual and among different individuals.

December 4\textsuperscript{th}, 17.15 – 18.00

“Intuition, Philosophical Training, and Theism”
Nick Byrd (Florida State University)

1. Introduction
It is not uncommon hear that philosophers are generally better reasoners than non-philosophers. This is some evidence for this claim. For example, philosophy majors tend to outperform other majors on the GRE, GMAT, LSAT (see here). Also, people with training in philosophy perform better on the Cognitive Reflection Test (Livengood et al 2010). Also, studies have found that people with advanced training in philosophy seem to be better reasoners (Livengood et al 2010). That is, people with training in philosophy were less likely to make was the error of responding intuitively on the Cognitive Reflection Test (CRT) (Frederick 2005). This paper will summarize a study that replicates this finding as well as present a novel finding: that the “intuitive” — as opposed to “reflective” — cognitive style is associated with leaning towards theism ([redacted]). Previously, this result had only been found among non-philosophers (Shenhav, Rand & Greene 2012). The present paper presents a study that replicates this result in a sample that includes participants that have — or are candidates for — a PhD in philosophy.

First, consider the finding that training in philosophy is associated with better performance on the CRT. I found that people who had — or were candidates for — a PhD in philosophy were significantly less likely than others to make a certain kind of reasoning error. To get a feel for the CRT, answer the question below.

A bat and a ball cost $1.10 in total. The bat costs $1.00 more than the ball. How much does the ball cost?

This question is designed to elicit an intuitively appealing response. The answer which strikes many people as intuitively correct is 10 cents. Curiously, 10 cents is not the correct answer. So responding intuitively to this question indicates some sort of reasoning error. This is the error philosophers are less likely to make.

Some philosophers perform perfectly on the CRT — even after controlling for previous familiarity with the CRT. However, many philosophers do not perform perfectly. Many philosophers make the error of responding intuitively on one or two of the CRT questions. And, interestingly, it seems that making this error on the CRT is associated with holding certain philosophical views.

2. Are Philosophers’ Views Related To Reasoning Errors?

There is some evidence showing that people who tend to make this reasoning error are more likely to be theists who believe in immortal souls and the like (Shenhav Rand & Greene 2012). This makes sense given that intuitive reasoning styles are widely shown to predict paranormal and religious beliefs (Aarnio & Lindeman 2005; Bouvet & Bonnefon 2015; Giannotti et al 2001; Pennycook et al 2012; Pennycook et al 2013; Pennycook et al 2014a; 2014b). One might wonder if these results would generalize to philosophers.
It seems that they do. That is, philosophers who make this reasoning error on the CRT are prone to certain views. Like lay reasoners, philosophers who make an error on the CRT are more likely to lean towards or accept theism ([redacted]). Specifically, we find that each “intuitive” response on the CRT was significantly related to being more likely to report either leaning toward or accepting theism; $F(1, 559) = 7.3, p < 0.01, d = 0.16, b = 0.12$ — this comparison controls for whether one has a PhD in philosophy.* The intuitive style was also significantly related to philosophers’ judgments about personal identity, science, language, and the trolley problem ([redacted]).

- Model 1: $\text{THEISM/ATHIESM} = b_0 + b_1(\text{PHDquestion}) + b_2(\text{INTUITIONscore}) + \epsilon$
- Model 2: $\text{THEISM/ATHEISM} = b_0 + b_1(\text{PHDquestion}) + \epsilon$

This finding provides further support for the idea that theist inclinations might be motivated, at least in part, by some sort of intuitive cognitive process (Kelemen 2004; Barrett & Lanman 2008).

---

**December 5th, 09:00 – 09:45**

“Explanatory limits in the Cognitive Science of Religion: theoretical matrix and evidence levels”
Lluis Oviedo (Antonianum University)

Cognitive Science of Religion (CSR) has developed for almost twenty years naturalistic explanations on religious mind and behavior, opening that field to scientific scrutiny. Scholars used to study religion from a more humanistic tradition or a hermeneutic approach could feel surprised by the application of biological-evolutionary, cognitive and neurological means to better explain religion. Not too confident with the new approach, many traditional students of religion, like theologians, religion philosophers, phenomenologists, and even psychologists, were often dazzled by the exhibition of new terms, concepts and ways to understand religion, beyond the traditional frames. Time for reception and to assess the value of all this research body is ripe and several attempts have already dared a critical valuation (Laidlaw 2007; Day 2007; N. Barrett 2010; Visala 2011; Van Slyke 2011; Schüler 2012; Türk 2013; Watts & Turner 2014; Smith 2014). The ongoing discussion offers the opportunity to better discern merits and flaws in the published material, and as a result, to deepen in the interdisciplinary dialogue with alternative or more traditional ways to study religion.

The present paper intends to review two aspects that could rise some doubts regarding the explanatory capacity of CSR. The first concerns its theoretical matrix, or frameworks. Two cases deserve more detailed scrutiny: the cognitive models applied in the first generation in these studies; and the anthropological models that guided most theory building in that field. The point is clear: if the theoretical frameworks that served as foundation for the new developments in the study of religion are subject to strong criticism, then the derived theories will seriously suffer in their explanatory capacity. This is evident for connectionist views of mind and its neurological structure, a model broadly overcome by more complex and recent views on human mind. Scientific anthropology has developed in the last ten years multi-level models that offer more plausible views on human nature and its complexity (Jablonka & Lamb 2005). From these developments former reductive proposals, like those born from evolutionary psychology, genetics or neurology appear as unsatisfactory when not rightly contextualized inside a more holistic model, where every dimension may find its own place and function.

The described developments mean a lot for current CSR: new understanding of human cognition and the complexity of human evolution and constitution entails a deep revision on former paradigms that were built on the scientific knowledge characteristic of the second half of the nineties or first years in the new millennia.
A second source of concern regards levels of evidence gathered by the new proposals in CSR. This point affects the credibility or explanatory power purported by these theories. Even if a part in the current theoretical construction can avoid empirical or experimental evidence, there are some points that might be tested or can provide predictions that would be subject to assessment. In this case, two central tenets in the so called ‘standard model’ deserve critical scrutiny: the first regards the idea that religions evolved because of their capacity to enhance pro-social behavior; and the second links religious ideas to ‘theory of mind’. In the first case, the available evidence is rather inconclusive and the current discussion could not settle the question. A recent extensive systematic review on published studies has shown that religion becomes pro-social only in some cases and not for everybody (Oviedo 2015).

The issue about how much religion and ‘theory of mind’ are related is quite thorny. Thus far, we lack evidence showing that persons with impairments in that capacity – like those in the autism spectrum disorder (ASD) – could be, on average, less religious. Probably these people manage to develop an own form of religious cognition, or learn a different way to become religious, but they are not rendered ‘religiously impaired’. Recent data on correlations between levels of empathy in a standardized scale and indicators of religiosity show moderate figures, but in any case they can be understood in both senses: more religious subjects in some traditions emphasizing compassion, could grow more sensitive towards others in distress.

The former criticism does not mean that CSR has nothing to deliver to scholars moving in parallel fields on religious study. The proposed discernment should try to distinguish those contributions really useful to better understand religious faith – and there are many! – and those that would better be left aside. The real problem, from my point of view, is the reductive stance that often hold the new students of religion. This is a shame, since their contributions have explanatory value inside the framework where they move, but do not nullify complementary explanations and hermeneutic views that move in a broader scenario.

December 5th, 11:15 – 12:00

“When the sacred is explained away”
Stephen Clarke (University of Oxford)

The sacred was the central explanatory term in Durkheim’s (1912) account of religion. Its explanatory importance is again being appreciated, both in neo-Durkheimian accounts of the evolution of religion and morality, such as the account offered by Haidt (2012), and in accounts of religious conflict, such as Atran’s (2010) account. The vast majority of religions recognise a distinction between the sacred and the profane. Particular places, buildings, relics, rituals, texts and/or people are considered by the religious to be sacred or holy. Religions stipulate rules regarding the treatment of the sacred and the failure to obey these rules, both by followers of the religion in question, and by those who do not follow that religion is liable to lead to expressions of outrage and to violent reactions (Clarke 2014, pp. 134-7). Similar responses can be provoked by failures to respect the distinction between the sacred and the profane. In particular, attempts to persuade the religious to compromise their sacred values by offering them material incentives are liable to backfire and cause outrage (Atran 2012, p.373-401).

Increasingly influential group selectionist accounts of the evolution of religion have it that religion evolved primarily to strengthen the cohesion of groups and to enable them to out-compete other less cohesive groups (Haidt 2012). Shared sacred values have played a key role in this process, by providing foci for expressions of group solidarity, and by helping to keep ingroup members separate from outgroup members. Religious traditions provide narratives that explain why particular places, items, processes and people came to be sacred. Acceptance of these explanations further strengthens group cohesion, providing additional reasons for individuals to commit themselves to particular religions and adding an extra dimension to the shared experience of participation in a
According to Durkheim (1912) these traditional explanations follow a common pattern: places, items, processes and people come to be considered sacred as a result of coming into contact with supernatural beings, entities and processes and being infused with supernatural powers as a result (Clarke 2014, p.137-41). Because these traditional religious explanations of the sacred appeal to supernatural intervention in the natural world they are inconsistent with mainstream science; and in a world in which science provides the dominant model for well-formed explanations, religious believers are increasingly likely to become sceptical of traditional explanations of sacredness. The development of scientific explanations of sacred values makes it all the harder for religious adherents to maintain belief in traditional explanations of sacred values.

In this paper I consider the consequences for religions of having significant numbers of their adherents ceasing to believe traditional explanations of their religion’s sacred values and accepting that these have been ‘explained away’ by science. I’ll understand this to involve the abandonment of the belief that supernatural beings, entities and processes intervene in the natural world and the abandonment of the belief that anything in the natural world is infused with supernatural power, and so is sacred, in the traditional sense of the term. For some religious traditions it may be theologically acceptable to substitute belief in supernatural beings that intervene in the natural world with belief in supernatural beings that do not intervene in the natural world. It may also be acceptable to substitute belief that particular places, items, processes and people are invested with supernatural powers, as a result of supernatural intervention in the natural world, with a concession that this has not happened, alongside a defence of the historical and cultural significance of the particular places, items, processes and people that have traditionally been considered sacred.

Those religious adherents who come to consider the places, items, processes and people formerly considered sacred in their religious tradition to be merely of historical and cultural significance are more likely to be able to compromise over these than religious adherents who treat the same places, items, processes and people as sacred. This may benefit the religious in some ways. The fact that Jerusalem/Al-Quds is considered a sacred place both by devout Jews and by devout Muslims has prevented lasting compromises being reached over the control of this city (Atran 2012, p.373-401). If enough Jews and Muslims were to cease believing that Jerusalem/Al-Quds was a sacred place and came to consider that it was merely a place of cultural and historical significance, then it would be much easier to create a lasting compromise regarding control of this city, which would be good for the long term security of both Jews and Muslims. However, the abandonment of belief in sacred values may also have the effect of weakening group cohesion. Religious adherents who cease to believe that the places, items, processes and people that they have formerly believed to have been sacred really are sacred are liable to feel less reverential attitudes to these foci for expressions of group solidarity than they had hitherto felt. As a result, their sense of being bonded to other followers of their religion is liable to be weakened and group cohesion is liable to be weakened. A related problem is the increased likelihood of schism. Large-scale religions face the ongoing problem of trying to prevent schism and a weakening of group cohesion in a religion may make it more likely that a religious group will split into smaller religious groups.

December 5th, 12:00 – 12:45

“Empirical Debunking Arguments and Second-Order Implications for Religious Belief”
Justin McBrayer (Fort Lewis College)

Scientists have made important advances in our explanations of religion and religious belief. These advances have come largely from the cognitive science of religion and evolutionary accounts of religion. It’s an open question whether these explanations of religion have any implications for
philosophy or theology. However, one of the main purported implications comes in the form of empirical debunking arguments.

An empirical debunking argument (EDA) is an argument that starts with an empirical premise about a belief and draws a conclusion about the epistemic status of the belief (Kahane 2011). Typically, EDA’s attempt to show that since a certain belief is the result of a process that is not truth-tracking (sometimes called an ‘off-track process’), the belief is epistemically deficient (e.g. false, unjustified, etc.). The targets of EDA’s are typically moral beliefs or religious beliefs. For example, Richard Joyce (2006) has argued that since our moral beliefs are formed by cognitive modules that resulted from evolutionary pressures for group coordination, our moral beliefs are unjustified.

There are two standard responses to EDA’s in the contemporary literature. The first is to deny the explanatory/cause premise and attempt to show that our moral or religious faculties do, in fact, track the truth after all (Swinburne 2004). The second is to accept the explanatory/cause premise but insist that our moral or religious beliefs are epistemically acceptable on independent evidential grounds (e.g. FitzPatrick 2014; Jong & Visala 2014). This latter strategy grants that EDA’s would leave moral or religious beliefs unjustified if we had no independent reasons for endorsing them. But since there is independent evidence for the truth of our moral or religious beliefs, we have nothing to fear from EDA’s.

In this talk, I question the viability of this second strategy when it comes to religious beliefs. There is good reason to think that empirical explanations of our religious beliefs can “infect” our ability to recognize and appreciate independent evidence. For example, suppose researchers working in the cognitive science of religion can show definitively that my belief that God exists was caused by an off-track process. This discovery lends itself to an EDA for the conclusion that my belief in God is unjustified. However, my belief in God might be justified despite this empirical discovery so long as I can marshal independent evidence for the truth of that belief. But—as I shall argue—my believing that God exists biases my search for independent evidence. Hence, the empirical discovery about the origins of my religious belief indirectly impacts my justification for this belief by rendering my search for independent evidence biased. Hence, the crucial point of this paper is that explanations of beliefs have important, second-order implications for the propriety of religious beliefs.

My conclusion depends on the idea that an explanation for a belief or a belief-forming module might interfere with the collection of evidence. In a sense, I am arguing that there is no evidence that is truly independent of the epistemic influence of the explanation for the belief or the belief-forming module. Why should we think this is true in the religious case?

I offer two reasons. The first is an analogy to EDA’s as applied to the moral case. Suppose researchers working in the cognitive science of morality can show definitively that my belief that I ought to feed my children was caused by an off-track process (say, a module selected for in evolution for its ability to get genes to the next generation). This explanation of my moral belief will form the first premise in an EDA that concludes that my moral belief is unjustified. However, if I can marshal independent evidence for my belief that I ought to feed my children, the EDA is rendered innocuous.

But here’s the rub. Independent evidence for a moral claim can only come from other moral claims. As Hume taught us, oughts can never be defended by mere claims to what is. Hence, a search for independent evidence for my belief that I ought to feed my children will only result in locating more beliefs about what I ought to do, what is permissible for me to do, etc. And the worry is this: if my moral belief that I ought to feed my kids is suspicious because of the empirical origins of my moral faculties, then any other moral belief that I might appeal to will have the same suspicious origin. So there will be no available moral beliefs that can function as independent evidence for my belief that I ought to feed my children. By analogy, the same goes for religious beliefs. Religious claims can never be defended by mere non-religious claims. Hence the same problem arises for religious belief.

The second reason for thinking that an off-track religious belief might impair one’s ability to marshal independent evidence for religious beliefs turns on the connection between holding
religious beliefs and the appreciation of putative religious evidence. It is widely conceded that how humans grasp and appreciate evidence is at least partly a function of the cognitive assumptions we bring to the table. For example, a trained medical doctor will grasp and appreciate evidence that a neophyte will not. The same applies in religious cases. The person who antecedently believes in God is very likely to grasp and appreciate evidence that her non-theistic counterpart will fail to acknowledge. To put it simply, when the theist and non-theist watch the same sunset, only one of them sees it as evidence for the existence of a divine creator.

But here’s the rub. If one’s ability to grasp and appreciate religious evidence depends in significant part to whether we antecedently hold religious beliefs and we know that the antecedently held religious beliefs are questionable (as per EDA’s), then we are in no position to gather independent evidence to support our religious beliefs. Hence explanations of religion have important and yet unrecognized implications for the justification of religious beliefs.

“Explaining religion, but not away”
Ronit Nikolsky (University of Groningen)

Our starting point will be a theory (the ‘Decoupling Theory’) of human culture conceived as being generated by, and dependent on a specific way of processing information, in which incoming information is doubled, thus creating the characteristically human experience of recognition: what is new (the ‘here and now’ of actuality) is necessarily recognized as similar to, yet different from what is known already (what is stored in personal and collective memory). This theory of culture as a ‘dealing with difference’-process was initiated and is being developed in Groningen. It has as its background Merlin Donald's work on the origins of culture and stages in the evolution of human cognition.

The differences that emerge in perception are dealt with in four related but distinct ways: Through the perception of similarities, through imagination (or mimesis), through conceptualization, and through analysis. These basic cognitive strategies, which build upon each other cumulatively, underlie different types of culture, labeled by Donald as mimetic, mythic, and theoretic. In mimetic culture, the past transforms into the present (metamorphosis), and these transformations can also be actively created - through play, for instance, and through imitation. Here we find the experience of change as well as the concrete images of religions. In mythic culture, linguistic concepts create communities of value through shared (mainly oral) narratives. Here we find the narrative aspects of religion such as religious history, mythology, and the presentation of the divine in a human form such as a person, a family, or emotional agents. Theoretic culture is based upon the knowledge of necessity - the necessity of the underlying structures of reality and thought (logic). Systematic theology is a product of this cognition in religion.

The theory of the specific ways in which humans deal with difference not only allows us to explain the various aspects of the phenomena which we term ‘religion’, it also explains their necessity. The diversity, as well as the similarity between religions appears to be the result of a combination of stable underlying cognitive patterns with contingent historical content. Using the types of cognition as an analytical tool, we can explain the occurrence of both ritual and myth in religion.

Combining the Decoupling Theory with the theory of cognitive evolution allows us to explain the incentive behind religion as such (answering the question Why?), as well as the historical changes that occur in religions (the How?-question).

In our presentation we will offer a detailed overview of the Decoupling Theory and provide some case studies to demonstrate its potential for analyzing religious culture.
“The critique of intuitiveness and naturalness of religious beliefs within CSR”
Konrad Szocik (University of Information Technology and Management in Rzeszow)

CSR overestimates the leading role of the natural cognitive mechanisms. However, it seems that development of religious beliefs requires cultural inputs. The only natural cognitive mechanisms may generate theistic and atheistic beliefs dependently on cultural environment. This topic involves the question of dominant human capacities in the acquisition of religious beliefs. It seems that rational beliefs are more important than intuitive beliefs for the development of religion. Everyone usually assumes that his beliefs are true and correspond to reality. Beliefs are “context-dependent and come in degrees” (Buchak 2012). This variability and context-dependence depends more on reasoning than intuition. Religious beliefs do not work under “perception action mechanism” but they are the result of perception aimed at truth. Their aim is interpretation, understanding and explanation of the world. This is why they are connected with actions. It seems that „phenomenological experience is always the result of the interaction between expectation, cultural invitation, spiritual practice, and bodily responsiveness” (Cassaniti & Luhrmann 2014). Here I would like to underline that religious beliefs are the domain of rationality and culture. Their role can be explained by broader methodology which should include non-reductive naturalism, explanatory pluralism and the idea of multiple realisation (Visala 2014).

These suggestions show that the term naturalness of religion within CSR is context-dependent. This term may mean that religious beliefs are non-supernatural, intuitive, cognitively effortless and evolved by natural selection. It appears that religious beliefs by their counterintuitive nature, rational and cultural background are less intuitive and cognitively effortless than CSR claims. Folk arguments referred to cosmology or to the fitness for life also require reasoning and reflection which exclude intuitiveness and cognitive effortless.

Reasoning route to action operates in situations beyond direct emotional responses. The concept of punish and reward and the concept of supernatural judge are based on reasoning. Computational mechanism “if...then” which supports these concepts is not intuitive, but is a rational tool for planning. HADD requires the controlling rational activity which can verify incorrect intuitive, automatic decisions. Religious beliefs may exist beside the incorrect inputs of HADD. This rationality is associated with consciousness which seems underestimated within CSR. Consciousness creates a worldview which shapes plans and choices. Beliefs are the basic operational units which are used to planning and predicting of actions. Religious beliefs are also operational units of consciousness which can play organizing and explanatory role.

Individual decisions can be influenced by long-term planning. Acquisition of religious beliefs may be a result of their psychological, ethical or social utility influenced by rational decision. Reference to the first person experience is used to discover an individual origin of religious beliefs. This topic involves the difference between gene and individual selection because religious beliefs may evolve by intuitive mechanisms or rational decisions. Religious beliefs may involve these two decision-making systems. It appears that humans treat religious beliefs rather as a domain of reasoning than blind gene-like automatic processes. The mind decides every time about participation in short or long term actions. Religious beliefs seem a domain of long term planning based on rational route to action. Conscious mechanisms associated with planning and prediction are important controlling factors. It is worth to bear in mind the hard problem of consciousness and the question of qualia. Religious beliefs like qualia may denote conscious states which go beyond intuitive knowledge, cognitive tool box and implicit mechanisms.

Humans evaluate the importance of religious beliefs and their impact on decision-making and behaviors. This process includes strong connections between beliefs and actions. Religious beliefs denote particular life strategies. Planning processes are based on propositions and mental languages which work in the conscious way. Planning requires knowledge about past events and
comparing past and current factors. This is why we should not separate totally rationality from intuitiveness in the case of religious beliefs.

Religious beliefs are associated with reasoning and explaining in the context of the following concepts as the future life, feeling of justice, prediction of the future or meaning of life (the third Kantian question: “what may I hope?”). This pragmatic function of religious beliefs is linked to looking for sense and reducing feeling of uncertainty. Human usually needs an evolutionary guarantee of the continuity of consciousness which can be provided by religious beliefs. This usefulness of religious beliefs is accidental and is not intuitive because the role of religion may be successfully replaced by other cultural phenomena. Religious beliefs may affect well-being and take an advantage over anxiety or fear. However, cultural inputs decide about the leading content biases. Finally, it is worth to remember about the reference to faith. Religious beliefs involve three kinds of relations: agent-proposition, agent-action, and proposition-evidence (Buchak 2012). Religious beliefs generate a disposition to act which is based on a faith that these beliefs manage in correct way a personal life. This faith linked to action is rational because person can stop behave according to religious beliefs. The phenomenon of theological (in)correctness is an example of this ability. Someone may have an act of faith when there are at least two possible ways of actions. Faith is a conviction that one way of action is better than an alternative one.

Mentioned above points suggest that religious beliefs are the domain of culture and rationality more than the domain of nature and intuition.

December 5th, 15:30 – 16:15

Christos Kyriacou (University of Cyprus)

Cognition is realized upon biochemical processes in the brain that support organic life. Organic life evolved, hence, cognition evolved. Thus cognition is, in principle, evolutionarily explainable. As part of cognition, religious cognition is, therefore, evolutionarily explainable. Indeed, recent work in cognitive science of religion (CSR) offers various such evolutionary explanations of the phenomenon of religion (adaptation, by-product, gene-culture co-evolution and etc.)

A pertinent question, however, is what is the epistemological limits of CSR are. In other words, what could CSR justify and what could not justify and is beyond its ken. First, we should note that CSR aspires to offer a plausible evolutionary story about the emergence of the cognitive processes that licensed the emergence of religious beliefs and concomitantly the religious phenomenon. As a goal per se, this does not imply anything substantial about the epistemic status of religious beliefs for the plain reason that such a naturalistic story would in principle be available to both (at least sophisticated) religious and irreligious perspectives. That is, in principle it allows for competing coherent theoretical alternatives that may either be religious or irreligious.

To legitimately claim that the evolutionary perspective supports the irreligious theory is to make the epistemically normative claim that the irreligious perspective is explanatorily more powerful than the religious, which is something to be shown independently and does not solely rely on the results of CSR per se. Thus, we have arrived at the first epistemological limitation of CSR. At best, it can be part of a broader theory that takes a stance on the religious phenomenon, but it cannot decide the matter on its own. It needs to do normative epistemological theorizing and weigh more holistically the evidential reasons for and against.

Second, there are also worries about the meta-epistemological limits of the cognitive science of religion. That is, questions about questions concerning the epistemological status of the cognitive science of religion. For example, think of the first-order normative question: ‘Does CSR evolutionarily debunk the existence of God as unjustified?’ As we have noted above, not on its own. But one may ponder on this question and ask the related meta-questions: ‘Are CSR evolutionarily debunking
explanations themselves justified?’ or ‘In virtue of what norms of epistemic justification are evolutionary debunking explanations to be carried out?’

These are pertinent meta-questions because there is a lurking worry about the fact that, typically, evolutionary debunking debunks the (realistically-construed) property, norms and facts of justification and thereby is coupled with epistemic antirealism about the justification property, norms and facts. This result, however, seems to be debunking too much because, arguably, it seems to debunk debunking explanations themselves, which is obviously self-defeating. This is the case because if there is no property, norms and facts of justification, then evolutionary debunking explanations cannot rationally operate and explain away as unjustified a certain (category of) belief. That is, if there are no justified beliefs at all then evolutionary debunking is unjustified and therefore it is self-debunked. Indeed, evolutionary theory itself is rendered unjustified and debunked.

The resultant self-defeating self-debunking problem seems to arise because typically evolutionary debunking explanations are conjoined with an antirealist take on normative properties, norms and facts (moral, epistemic, aesthetic etc.). One basic argument for this is that evolutionary theory renders the existence of realist normative properties, norms and facts explanatorily redundant and therefore unnecessary to postulate. But if there are no norms in virtue of which evolutionary debunking works, it is a legitimate question in virtue of what norms evolutionary debunking operates. Thus, evolutionary debunking seems self-defeating. Thus, we have a second possible meta-epistemological limitation of CSR. I am more circumspect about this second limitation of CSR and only say ‘possible’ because there might be a plausible response on behalf of evolutionary debunking to this worry. I conclude that, therefore, CSR needs to at least clarify the meta-epistemological foundations upon which it is supposed to operate.

Note also that if CSR is required to rely on non-reductive normative truths, norms and facts then this would cause trouble for irreligious CSR because it would indicate that not everything is reducible to naturalistic facts and properties. Hence, logical space would open for non-reductive facts and thereby, by parity of reasoning, for non-reductive entities like God and other religious paraphernalia. Hence, it would be more coherent for CSR put to irreligious use to explain the meta-epistemological foundations upon which it relies in antirealist fashion (if possible).

Third, there is a related meta-epistemological worry regarding the evolutionary criterion in virtue of which beliefs are rendered justified or unjustified and debunked. Surely, mere adaptation won’t do because adaptive misbeliefs may be intuitively found as justified or unjustified (e.g. belief in God, self-deception etc.). Adaptive reliability for truth won’t do either because, for one thing, there are adaptive reliable processes that produce truths that do not, strictly speaking, correspond to facts in nature (like maths, logic, modals). Adaptive reliability for truth of processes that the existence their truth-making facts the evolutionary theory itself justifies won’t do either because, for one thing, it seems to rely on truths of logic, maths and meta-epistemic truths that the theory itself does not prima facie justify.

For example, by the lights of evolutionary theory we accept that the theory itself is justified and that we arrived at its justification via abidance by the Humean norm of ‘proportionating belief to evidence’. Yet, such justified beliefs and norms are not typically realistically construed, which seems to undercut the evolutionary debunking of normative realism. It undermines it because if there are no really justified beliefs and norms, then evolutionary theory is itself unjustified and no evolutionary debunking should take place. I conclude once more that, therefore, CSR needs to clarify the meta-epistemological foundations upon which it is supposed to operate.

To recap, first, CSR at best can be part of a broader theory that takes a stance on the religious phenomenon, but it cannot decide the matter on its own. Second, CSR needs to clarify the meta-epistemological framework upon the operation of evolutionary debunking relies on. As we have indicated, it would be coherent for irreligious CSR to explain how evolutionary debunking operates on the basis of antirealist meta-epistemological foundations (if possible).
“Religion Beyond Naturalism”
Neil Spurway (University of Glasgow)

I believe that none of us – biologists, psychologists, philosophers, theologians – have yet sufficiently grasped the implications of mind’s evolution for our concept of truth. As was recognized particularly by the radical Evolutionary Epistemologists* of the late 20th C, there is every biological ground for regarding mind as an evolved function – evolved under natural selection. Given that position, one must conclude that those capacities of mind which contribute positively to survival and reproduction are our most certain inheritance.

The classic case is spatial judgement. “The monkey which could not accurately assess the distance to the next branch would have fallen to earth, and thus not become one of our ancestors” (Simpson, 1963). Of course, not all behavior has such direct survival consequences (though many other perceptions are based upon the spatial). Behaviours which are more weakly adaptive will also have been selected, albeit less strongly. But my focus here is upon those aspects of our mental processes which have to concord with the external world, for us to exist.

On a closely similar basis we must surely accept that the basic axioms of logic have also been strenuously tested in the evolutionary fire. It follows that axiomatic structures, notably mathematics, which we build by applying the rules of logic to basic experiential concepts, can be similarly trusted. By contrast, none of the claims of religions concerning divine revelation, or states of being outside this world, can carry any credence. They are not even false – they’re meaningless (Spurway 2009). Nor should we confine censure to religious speculations: are cosmological ideas about Multiverses, or what came before the Big Bang, any better placed? The human tendency to imagine beyond mind’s purview is incorrigible! In reality, Man is not “the measure of all things”, Nature is. That is to say, the range of energies and entities to which our senses can relate – our Umwelt, in von Uexküll’s* term – plus those natural forces which have selective effects, whether we are aware of them or not.

It is thus the credo of evolutionary epistemology [EE] that, as Donald Campbell* put it, “At no stage has there been any transfusion of knowledge from the outside, nor of mechanisms of knowing, nor of fundamental certainties.” Instead, “From the perspective of biology, knowledge ... is a form of self-reference.... The knower is part of the known, and has been shaped by what is known. The reflector reflects, more or less adequately, because it is itself part of what is being reflected.” (Munz, 1993). So what we mean by Truth, by validity for us, derives inexorably from the lives of our ancestors within the natural world for maybe a million generations – and from no other source. Our concepts, subjective or objective, have an inexorably self-referential aspect. It should have been obvious since the time of Darwin* that philosophers must grasp this nettle, but how radically have they done so? Herbert Spencer* made an attempt; so did William James*; but in recent generations the endeavour seems to have become less, not more, acceptable. Patricia Churchland*, Thomas Nagel (2012), and Alvin Plantinga writing more as philosopher than theologian (2011), have even persuaded themselves that the evolutionary account of mind is incorrect – and probably incompatible with Naturalism!

Within my reading, recent theologians have made braver stabs than philosophers. In particular Van Huyssteen (2006) stresses that: “… it would be a serious mistake to think that ... one could conceive of an epistemology independently of biology.” Yet in fact, “EE has been almost totally neglected by contemporary theology”, a blindness which has “reinforced esoteric, disembodied and overly abstract notions of human uniqueness”. Van Huysteen’s endeavour is to rewrite theology, not dismiss it as the crusading Naturalist would do. But the specific modifications at which he himself hints are modest. Gordon Kaufman* and Wesley Wildman (2009) have proposed the possibility of naturalistic theologies at much greater length, though with less explicit reference to EE.
Simplifying and generalizing, in my own thinking those for whom “religion is not about God” (Loyal Rue*), but is about “ultimate concern” (Paul Tillich*), can certainly work within the constraints of EE. Related to the latter, indeed a form of it, is the following of a human exemplar – the Buddha, Jesus, Mahomet, Gandhi. And those who wish to remain theists can surely maintain a concept on the “First cause”/“Ground of being” spectrum in tandem with the foregoing? Such a God-concept clearly lacks the psychological force of traditional ideas, but is it not precisely what is appropriate to Bonhoeffer’s* aspiration for religion “come of age”?

However I contend that EE-compatibility is not a matter only of the content of theological claims, but of the viewpoint they imagine they can adopt. Traditional theology was not only unhesitating in making dogmatic assertions about states of being which are biologically unknowable; it redoubled the illogicality by adopting the stance of a detached observer of God’s interactions with the world. (The opening chapters of Genesis provide an instant example.) An EE-compatible theology – even if, like Kaufman’s or Wildman’s, more ambitious than my own previous paragraph – will strive to express the interiority of the human commentator within whatever systems and relationships it proclaims.

December 5th, 17:00 – 17:45

“Cognitive science of religion and folk theistic belief”
Daniel Lim (Renmin University of China)

Some of those involved in the cognitive science of religion (CSR) have been led to the conclusion that naturalistic explanations debunk the beliefs they set out to explain.4 The basic idea, following Guy Kahane (2011), can be regimented as follows:

1. S’s belief that p is explained by X. (causal premise)
2. X is an off-track process. (epistemic premise)
3. S’s belief that p is unjustified. (conclusion)

As stated Kahane’s argument is a generalized debunking argument. The belief under scrutiny, namely p, can be a belief in any domain.

I will use Clark and Barrett’s (2011) response to this type of debunking argument against religious belief as a foil for my discussion because their response is representative of the way others have responded to the threat posed by the CSR. Clark and Barrett’s response to the debunking argument against religious belief can be interpreted as an attack on the epistemic premise. Their response turns on a distinction between proximate and ultimate causes. They write:

“While God himself may not have been the [proximate] cause of God beliefs, God may nonetheless be the ultimate cause of those beliefs.” (Clark and Barrett 2011, p. 660)

So long as God remains the ultimate cause for the generation of these religious beliefs then we can no longer say that the cognitive mechanisms of the CSR are off-track.5 The potential problem with this move, if one were to accept the causal premise of the debunking argument, is that it precludes God from being the direct cause of any religious beliefs.

Many theists, I think, would be unhappy with this result because they believe God can, and often does, interact directly with human beings. Let’s call this view folk theism.6 A natural way of

---

4 For example, see Boyer (2001).
6 See Nola (2013) for more on this.
responding to the debunking argument that remains consistent with folk theism is to attack the causal premise. One might argue that the CSR does not provide a sufficient causal explanation for the formation of religious beliefs. Clark and Barrett suggest a way of arguing in this manner by making a distinction between the general and specific contents of religious beliefs. They write:

*But perhaps HADD and ToM are not spiritually unreliable; they are simply spiritually imprecise or coarse-grained. Perhaps the function of the god faculty is simply to make humans aware of the broad divine / moral dimension of reality... so while the god faculty may be unreliable in securing rational belief in, say, Yahweh and Yahweh alone, the god faculty is reliable in producing true beliefs about a divinity, that is, some kind of supernatural agency.* (Clark and Barrett 2011, p.667)

The CSR may be able to explain why humans have a predisposition to form general religious beliefs but the CSR is inadequate in explaining the specific religious beliefs that individual people hold – there are other factors involved¹.

This is not a promising move for at least two reasons. First, the ‘other’ factors involved can either be fully explained by other natural causes or be explained by the CSR itself. Second, this way of defending folk theism encourages one to search for holes in the ever evolving cognitive scientific story of religion and could easily become, to oversimplify, a variety of the God-of-the-Gaps approach to scientific progress.

Is there a way to secure folk theism without rejecting the causal premise? I think that there is and I take my cue from a comment made by Leech and Visala (2011b, p.304). Somewhat in passing they assert that ‘personal explanations’ based on intentional states and ‘natural explanations’ based on physical causal processes are not mutually exclusive. The problem is, they never go on to defend this view. I believe that this claim can be defended in the present context by probing the intersection of the philosophy of mind (regarding mental causation) and the philosophy of religion (regarding divine action).

To see how this might be done I take an all-too-brief detour into the philosophy of mind. Jaegwon Kim (1993, 1998, 2005) has done significant work on the problems associated with mental causation. One of his contributions to this area of research is via the so-called Causal Exclusion Argument, which is formulated as an attack against non-reductive physicalism. His worry is that non-reductive physicalists, being committed to (i) the causal efficacy of mental properties, (ii) the distinctness of mental and physical properties, and (iii) the causal closure of the physical domain, are forced to choose between epiphenomenalism and reduction.

The defender of folk theism who refrains from rejecting the causal premise is in a position similar to that of the non-reductive physicalist. The defender of folk theism is committed to (i) the direct causal efficacy of supernatural agents, (ii) the distinctness of supernatural agents and natural mechanisms, and (iii) the causal closure of the natural domain. Evidently there are important structural similarities between the problem posed by Kim for non-reductive physicalists and the problem posed by the CSR for folk theists. Given these similarities, my suggestion is that fans of folk theism should engage non-reductive physicalist solutions to Kim’s Causal Exclusion Argument and adapt the most promising solutions as ways of developing a response to the debunking argument that avoids rejecting the causal premise.

---

¹ For a sampling of similar responses see Murray (2009, p. 172), Leech and Visala (2011, p.312), and Thurow (2013, p.94).
Route description Amsterdam

Venue Address
Vrije Universiteit Amsterdam
Van der Boechorststraat 7
1081 BT Amsterdam

Dinner Address
Valerius
Banstraat 14
1071 JZ Amsterdam

See the next pages for a route description on the VU Campus and a route description to the dinner location.

Route to the Vrije Universiteit Amsterdam

Vrije Universiteit Amsterdam (VU Amsterdam) is located close to the railroad station Amsterdam Zuid – WTC. From the city center you can reach VU with tram line 5, 16 and 24 or metro line 51.

Transportation
Travellers arriving at Schiphol can take the train to Station Amsterdam Zuid. There are direct intercity trains from Schiphol that go straight to this station. The journey takes approximately 15 minutes. You can buy a ticket:

- At the yellow self-service ticket machines. Payment can be done by debit card (Maestro) or coins. Unfortunately, not all ticket machines accept credit cards.
- At a service desk at a larger railway station. There is an €0.50 charge for using this service.
- Information on (bus/train) schedules can be found on the NS website or at www.9292ov.nl/en.

From Station Amsterdam Zuid
It is a ten-minute walk to the VU, and there are signs to the VU on the Southern exit of the station. However, if you want to take public transport, it is one stop on either:

- metro 51 (1 minute), direction Amstelveen Westwijk
- tram 5 (1 minute), direction Amstelveen Binnenhof

From Station Amsterdam Centraal:

- metro 51 to De Boelelaan/VU. Enter in the subway station under the main train station
- tram 5 to De Boelelaan/VU. Enter on the West side of the station square.
- tram 16 or 24 to De Boelelaan/VU. Enter on the East side of the station square.

Travelling by car
The A-10 Amsterdam ring road can be reached from all directions. Follow the A-10 to the Zuid/Amstelveen exit S 108. Turn left at the end of the slip road onto Amstelveenseweg: after about three hundred yards (at the VU University hospital building) turn left again onto De Boelelaan. VU University Amsterdam can be reached via city routes S 108 and S 109.
Route description Vrije Universiteit Amsterdam

Vrije Universiteit Amsterdam
Main Building
De Boelelaan 1105
1081 HV Amsterdam

Workshop room: 2E-31 ‘Senaatszaal’
Main Building, Second Floor, Wing E, Room 31

Route description Workshoproom

ROOM 2E-31
Due to renovations, this room is not easy to find. Our apologies for the inconvenience.
Please note that this room is on the 2nd floor, but only accessible via the 1st floor.
Follow the signs in the VU and the following description:

Vrije Universiteit Main Building:
- Enter the VU through the Main Entrance
- Follow the signs to Protestant Theological University:
  - Walk straight ahead and take the stairs on the left, to the 1st floor  (see picture 1)
  - Go to the left and then to the right: enter the E-wing  (see picture 2)
  - Walk through to hallway as far as possible  (see picture 3)
- Enter the doors and take the stairs to the 2nd floor
- Enter the faculty
- Go left, you will find us at the end of the hallway.
Route description Workshoproom

ROOM KERKZAAL [CHURCHHALL]
15th floor

Please follow the signs in the VU and the following description:

Vrije Universiteit Main Building:
- Enter the VU through the Main Entrance
- Go left, take the elevator at the far end of the hall
- Go to the 15th floor
- Walk into the hallway
- Go left
- Go left and take the stairs to the Kerkzaal

Route description to dinner location

From Vrije Universiteit Amsterdam:
- Walk to the tramstop in front of the VU
- Tram 16, direction Central Station, stop: Jacob Obrechtstraat
- 3 minute walk to Valerius (Banstraat 14)
Organizers

Organizing committee
Gijsbert van den Brink
Hans van Eyghen
Rik Peels
Irma Verlaan

Visiting address
Vrije Universiteit Amsterdam
De Boelelaan 1105
1081 HV Amsterdam

Contactpersons
Irma Verlaan
E. g.h.verlaan@vu.nl
T. (+31) 020 59 85283
M. (+31) 06 14605154

Hans van Eyghen
E. h.m.r.a.van.eyghen@vu.nl
T. (+31) 020 59 87341
M. (+31) 06 11292108

This conference is part of the Science Beyond Scientism Project, funded by the Templeton World Charity Foundation.