



PS 504 Evolutionary Psychology and Religion

(Listed as “Contemporary Trends in Psychology”)

Time: Tuesday 12:30-3:30 *Location:* PSY 150 for Jan 16, 23; thereafter TBD

Instructors: Dr. Catherine Caldwell-Harris, Associate Professor of Psychology, charris@bu.edu and Dr. Brian McCorkle, Director, Center for the Study of Religion and Psychology. (This course is co-listed with the School of Theology as STH TY804.)

Course Description. Some form of religious belief is present in every human culture. Recent theorists have proposed that the tendency to have religious beliefs may have been adaptive during human evolution; others propose that religion was not itself shaped by natural selection, but is a by-product of other human characteristics that are adaptations. This course will examine these questions and additionally investigate evidence from psychology and neuroscience on the brain and cognitive processing underlying beliefs. Why (and when and how much) do religious beliefs correlate with well-being and health? We will examine the behavioral genetics of religious belief and finally, ask what explains individual variation in belief.

Prerequisites. Graduate standing or 4 prior courses in psychology, including statistics and a course in experimental psychology (methods class). Visitors and auditors welcome.

Overview of class structure. The course will be run as a graduate seminar, with a combination of lecture and discussion and class activities. We will meet with the graduate students who are enrolled in STH TY804 from 12:30 to 1:45 for the “main class time” and then from 2pm to 3pm students in PS504 and TY804 will meet separately (TY 804 meeting with Dr. McCorkle). For PS504, this supplemental hour will be used for a detailed examination of evolutionary psychology (Barrett, Dunbar & Lycett text) during the first half of the semester. This will provide the foundation for examining how evolutionary theory is relevant to the origins and nature of cross-cultural religious beliefs and practices. In the second half of the semester, we will use the supplemental hour for hands-on exercises and additional topics determined by class members.

Readings. Patrick McNamara, *Where God and Science Meet*; Justin Barrett, *Why would anyone believe in God*; Dennett, *Breaking the spell*; Barrett, Dunbar and Lycett, *Human Evolutionary Psychology*. Selected chapters from McNamara (3 vols) and journal articles can be downloaded from our site on courseinfo.bu.edu. The other books are available at Barnes and Noble or you may order them on your own.

Class requirements

1. Attendance and participation in discussion (80% of the grade). Students are expected to have read all of the assigned readings. Students will have name cards in front of them so that we can get to know each other. The name cards will also assist us in keeping track of your participation.

2. Students will make a short presentation to the class OR will assist in preparing an activity for the class during the supplemental hour (20% of the grade). You decide which of these you would like to do. Each of these two choices are detailed below.

3. Tests? Papers? We will discuss as a class what other formal effort, if any, should be required as part of final grade calculation.

Choice 1: Short presentation to the class during main class meeting time

Students will choose a class meeting date with a topic of interest to them. You will sign up on the [courseinfo](http://courseinfo.bu.edu) site (Discussion Board) for one of these slots. You will then choose one of three options for short presentations during the main class meeting time.

- “10 minute overview” of the reading. Prepare powerpoint slides that review the main points of the

reading. This is not a presentation of the articles, since everyone is required to read the articles. Instead, it is a short summary to remind people of the general points and to prepare the class for discussion. Because there are frequently 2-3 articles for meeting, you will note similarities and differences across the articles. You will also prepare discussion questions for the class.

- “In-depth supporting material”. Many of the articles review decades of work. Interesting and important studies may be summarized in a sentence or two. You will carefully read the articles and obtain supporting studies of high interest and high relevance. You will prepare a few powerpoint slides to summarize the studies, including graphs and tables wherever possible so that class members can grapple with the original data in the study. You may prepare a handout instead of powerpoint if you want.

The students in charge of these two job may also collaborate and divide the jobs as they see fit. If you divide the articles between you, the final “10 minute overview” powerpoint should still be a well-integrated whole.

- “Discussant.” This role is mainly for the graduate students. You will prepare critical comments or an alternative viewpoint. You may also add supplemental material that is not mentioned by the authors. Your role is to challenge the rest of the class or to share a perspective that the class would otherwise not know about. Powerpoint slides are not necessary for this.

Preparing glossary items. The three people who are preparing material for a given class day should be prepared to read the assigned articles a week before the target day. Decide if there are “glossary items” -- concepts which not everyone in the class may know and which are not explained in the articles. Draw on your own knowledge: if you are not familiar with the concept, others may not be either. Or, for example, the theology students may not be familiar with a psychological term like “fundamental attribution error”. Bring your candidate glossary items to the professor on the class day the week before your target day and these items can then be reviewed at the end of the class period.

Choice 2: Preparing an activity for the supplemental hour

You will discuss your idea with the professor to determine whether your idea is practical. You can join forces with another class mate if your ideas is ambitious. Your idea may involve the class meeting in small groups or even doing an activity outside of the classroom. Ideas include:

- Obtain questionnaire materials used in one of the studies. Administer to the class and analyze and present the results.
- Read about an experiment discussed or relevant to the reading and prepare it for the class to perform (e.g., prisoner’s dilemma, ultimatum game). Analyze and present the results.
- Obtain raw data relevant to a class topic and prepare it in a manner that allows class members to analyze it or work with it.
- Obtain a video relevant to class topics and organize discussion questions.
- Find an internet discussion group relevant to class topics. Participate in the group and learn about it. Organize a class activity where class members visit the internet site in pairs and discuss it together.
- Visit a real-life discussion group (Atheists association meeting, meditation group, church group) and bring a group member to our class to discuss issues.

Additional activities as part of class membership. An additional requirement of class membership is to volunteer for one of two rotating jobs. We will ask for volunteers at the start of each class meeting and expect class members to volunteer for one of these during the semester.

- *Discussion Summarizer.* Students need to volunteer to be the note-taker once during the semester. This is not a write-up of everything the class discussed. Instead, make note of the really interesting or important or useful points that came up. Strive to make it as short as possible. Post to the discussion board in the week after the class by posting a thread in the forum that was set up for the class meeting.

- *Contributions note-taker.* You will be given a class roster. Give a check mark to each person who contributes to discussion.

Using the courseinfo site: http://courseinfo.bu.edu/courses/07sprgcasps504_a1/

Obtaining articles. Each class meeting is a folder in Course Documents containing all articles in pdf.

Choosing your presentation slot. Finally an improvement on passing a sign-up sheet around the room. Each class meeting is a forum on the Discussion Board. To reserve your slot, start a new thread with title “10 minute overview” or “In-depth supporting material” or “Discussant”. Your name on the thread identifies you as the person who has volunteered for that activity and thus you don’t need to write any more unless you choose to add some comments about your perspective as “Discussant” or about possible in-depth supporting materials. You may also ask advice from class members.

Reserving your presentation opportunity is on first-come basis. If you change your mind, you can simply delete your thread and choose any open time slot/role. If you really want a slot that has already been reserved, discuss with whoever has reserved the slot.

Optional questions for the presenters: Any one in the class can ask a question of one or all of the presenters by responding to the thread with their question.

Optional feedback for the presenters: Any one in the class can reply to a presenter’s thread to give feedback after the presentation.

Topics and Readings

Rationale for the order of the topics. The theoretical meat of the class is Part II: Theories of how religion evolved. This is also the most difficult material as it draws on technically sophisticated developments in evolutionary theory. We thus want to wait to review this material until students have had a chance to read, discuss and assimilate background material on Evolutionary Psychology. Chapters will be assigned from *Human Evolutionary Psychology* text (HEP) in the supplemental hour during the first month of class. During the first month, the main class meeting will review other important develops in the connection between religion and psychology: work on genes and the brain.

Part 1: Why connect religion to evolution, genes and the brain?

Jan 16 Class introduction

Jan 23 The last ten years of popular press on God and the Brain

Read popular articles. Student will find and read 2-3 popular magazine articles. If desired, we may spend the first 20 minutes of class time discussing these in small groups and then report to class. Decide if there are scientific articles you want to read for Jan 30 in addition to the ones listed.

Finding popular articles on God and the Brain. You can start with the famous Time Magazine cover story, which is already on the courseinfo site. Students should use internet search engines to find popular articles. The Discussion Board has a forum for posting articles that you find. Post their urls (or attach pdfs if you are not certain if your site is accessible to all students) to the discussion forum set up for this (look for Jan 23 forum). You may want to look here first to see what has already been found by other students.

Advice: search widely. Look for book reviews of the major books that have emerged on God and the Brain.

Guest discussant Wayne Dinn: Temporal lobe epilepsy and religiosity (Dostoevsky, hypergraphia etc)

Dennett, Chapter 1. Discusses: Why we should study religion.

2pm Supplemental Hour: Read Chapters 1 and 2 of *Human Evolutionary Psychology* (HEP; Barrett, Dunbar & Lycett). Ch 1 The evolutionary approach; Ch 2 Basics of evolutionary theory

Jan 30 The science behind God and the Brain

Wildman, Wesley J.; Brothers, Leslie A. 2000. "A Neuropsychological-Semiotic Theory of Religious Experiences." In Robert Russell et al., eds., *Neuroscience and the Person*

Nina Azari et al., Neural correlates of religious experience. *European Journal of Neuroscience*, 13, 1649-1642, 2001.

Guest discussant of the Wildman & Brothers paper: Professor Robert Neville, BU School of Theology
Dennett, Chapter 2. Discusses: Why we should use science to study religion.

2pm: Ch 3 HEP "Cooperation among kin"

Feb 6 Where do beliefs in Gods come from? also: Motivation for the evolutionary approach

Justin Barrett, Chapters 1-3, up through "Where do beliefs in God come from? Finding agents everywhere?" and Dennett, Chapters 3-5.

These authors draw on earlier proposals, including Guthrie's 1993 book, *Faces in the Clouds: A New Theory of Religion*, in Boyer's, 2001 book, *Religion Explained: The Evolutionary Origins of Religious Thought*. The main idea is summarized by Dennett, p. 114: "The false alarms generated by our overactive disposition to look for agents wherever the action is are the irritants around which the pearls of religion grow" (p. 114). Our plan is that the material in these two books will complement each other.

Dennett also addresses the question of, if we are going to use science to study religion, how an evolutionary approach is helpful. His chapter 3 may also complement this one:

Optional reading: Lee Kirkpatrick, Evolutionary Psychology: An emerging new foundation for the psychology of religion. In RF Paloutzian and CL Park (Eds., 2005), *Handbook of the Psychology of Religion and Spirituality*

2pm: Ch 4 HEP "Reciprocity and sharing"

Feb 13 Religion, personality and genes

Michael J. Donahue and Michael Nielsen, Religion, attitudes and social behavior. In RF Paloutzian and CL Park (Eds., 2005), *Handbook of the Psychology of Religion and Spirituality*

Laura Koenig and Thomas Bouchard, Genetic and environmental influences on religion

The first article is on personality, attitudes and behavior, the second is about genes. It is useful to review what personality traits and social behaviors are correlated with religiosity as a background to reading about behavioral genetics.

2pm: Ch 9 HEP "The individual in society"

Feb 20: No class, Monday schedule

Part II. Theories of how religion evolved

Feb 27. Signalling theory

Rebecca Bliege Bird and Eric Alden Smith, 2005. Signaling Theory, Strategic Interaction, and Symbolic Capital. *Current Anthropology*, 46, 221-248.

This is a difficult, rich article and there may be enough here to discuss for the entire main class time. However, we can also use this time to review earlier topics if there was insufficient discussion time in a prior meeting.

2pm: Ch 10 HEP "Cognition and the modular brain"

Mar 6: Costly signalling and religion

Barrett, Chapters 4 and 5, Additional Factors that Contribute to Gods' Credibility and How Religious Actions Enhance Belief in Gods

Richard Sosis, Religious behaviors, badges, and bans: Signaling theory and the evolution of religion.

Richard Sosis and Eric Bressler, 2003. Cooperation and Commune Longevity: A Test of the Costly Signaling Theory of Religion. *Cross-Cultural Research*, 37, 211-239.

Dennett, Chapter 6. Dennett discusses: "New answers to the question cui bono" (who benefits).

2pm: Ch 13 HEP "Cultural Evolution"

Mar 13 Spring Break

Mar 20 Gratitude, emotion, attachment

Robert Emmons and Patrick McNamara, Sacred Emotions and Affective Neuroscience: Gratitude, Costly-Signalling, and the Brain

Patrick McNamara, 2002. The motivational origins of religious practices. *Zygon*, 37, 143-160.

Pehr Granqvist, Religion as a by-product of evolved psychology: The case of attachment, and implications for brain and religion research

Dennett, Chapter 7. Dennett discusses: "The human propensity for groupishness..."

2pm: Ch 11 HEP "Social Cognition and Its Development"

Mar 27 Rituals and shamanism

Carl Seaquist, Mind design and the capacity for ritual performance

James McClenon, The ritual healing theory: Therapeutic suggestion and the origin of religion.

Joel Robbins, Ritual Communication and Linguistic Ideology: A Reading and Partial Reformulation of Rappaport's Theory of Ritual, *Current Anthropology*, 46, 2001

2pm: Ch 11 HEP "Language"

Apr 3 Religion and the teen years

Candace S. Alcorta and Richard Sosis Ritual, Emotion, and Sacred Symbols: The Evolution of Religion as an Adaptive Complex. *Human Nature*, 16, 323-359, 2005.

Candace S. Alcorta, Religion and Life Course: Is Adolescence an "Experience Expectant" Period for Religious Transmission?

2pm: Debate I on theories of how religion evolved

Possible Questions

- Is religion an adaptation or a by-product?
- Why is religion a human universal?

Three debates, 15 min each, followed by questions and votes.

Debate format: Team of 2X2 sides = 4 per debate. Three debates x 4 = 12 students participating this date. The remaining students will present their debates at the Debate 2 time (see below). An additional source for debates to read is Wildman's critique of many of the authors we have read. See:

Wesley Wildman, The Significance of the Evolution of Religious Belief and Behavior for Religious Studies and Theology (In McNamara volume, on courseinfo site).

Boyer, P. (2003). Religious thought and behaviour as by-products of brain function. *Trends in Cognitive Sciences*, 7, 119-124.

Part III Psychology, Personality and Health

Apr 10 Meditation, Buddhism and Mental Health

Brian McCorkle: The effects of Buddhist meditation on negative thoughts and hostility

Antoine Lutz and colleagues, Long-term meditators self-induce high-amplitude synchrony during mental practice.

McCorkle's paper on Harvey Whitehouse's "modes of religion"

2pm: Hands-on meditation / gratitude

Apr 17 How should we understand atheism?

Benjamin Beit-Hallahmi. Atheists: A Psychological Profile.

2pm: Small groups. Your own psychological questions about the belief continuum

Guest discussant: Michael Lyons, Genetics, religiosity and atheism: Results from the Vietnam Era twin registry

Apr 24 Is believing in God natural?

Barrett, Chapters 6-8. Discusses the naturalness of belief in God, and builds towards the question of "Why would anyone NOT believe in God?"

Dennett, Chapter 8 "The stewardship of religion creates a powerful phenomenon: belief in belief."

Dennett argues that this makes rational investigation of beliefs difficult and has led the devout to protect their beliefs by making them incomprehensible even to themselves.

2pm: Open

May 1 The darker side of religion

Gina Magyar-Russell and Kenneth Pargament, The Darker Side of Religion: Risk Factors for Poorer Health and Well-Being.

Ara Norenzayan and Ian Hansen, Untangling the complex relationship between religion and intolerance.

Dennett, Chapters 9 and 10. (Discusses: are religions helpful to believers? Do they provide a foundation for morality?)

2pm: Open

Final Exam Slot: Monday May 7, 2-4pm.

If no tests: Debate II. Possible Topics:

- Is religion helpful to individual happiness and wellbeing?
- Evaluate Dennett's book.