

## **Psychobiology of Religious Behaviour – Lecture course Psychology 3850 A (CRN 31625) – Fall 2019**

(Prerequisites: Psyc 2330 – Learning and Cognition – **or** PSYC 2700 – Behaviour and Evolution –  
and one other 2000-level PSYC or NEUR course)

**Instructor:** Jean-Baptiste Leca, Ph.D. (Associate Professor, Department of Psychology)

**E-mail:** [jeanbaptiste.leca@uleth.ca](mailto:jeanbaptiste.leca@uleth.ca)

**Office:** SA8376 (Science and Academic Building)

**Office Hours:** Wednesday from 10:30 am to 12:30 pm, or by appointment

**Class Time:** Monday and Wednesday, from 9:00 to 10:15 am

(please note: Oct. 14<sup>th</sup>, Nov. 11<sup>th</sup>, and Nov. 13<sup>th</sup> are days off)

**Classroom:** TH 204 (Turcotte Hall)

**Teaching Assistant:** Christa Avram ([christa.avram@uleth.ca](mailto:christa.avram@uleth.ca))

### **General content and objectives:**

This course is not about (1) whether God exists or not, (2) how similar or different religious systems are, or (3) the detailed contents of specific religions. Instead, we will be focusing on the conditions in/under which our brains develop and evolved the capacity and strong tendency to believe in supernatural agents, and to what extent this belief influences our daily behaviours. This course will address a number of theoretical components, methodological approaches, and key findings drawn from a relatively new discipline called “Cognitive Science of Religion”, which explores the hows and whys of religious belief (or lack thereof) and practices. In other words, we will discuss the developmental processes, psychobiological mechanisms, (non-)functional aspects, and evolutionary origins of religious belief and behaviour.

From an ultimate perspective, what are the (fitness) benefits of religious beliefs and behaviours? What are the evolutionary bases of religion? Of principal concern is how religion became so pervasive when some of its associated thoughts are odd (i.e., religious mental representations appear to violate intuitive ontological expectations) and its associated behaviours are often costly (e.g., material sacrifices, emotional expenditure, cognitive effort), both at the individual and institutional levels. Would natural selection favour such seemingly counter-intuitive concepts and wasteful endeavours? Or is our tendency to religious devotion a functionless by-product of pre-existing human mental biases that were adaptive in non-religious contexts?

From a proximate perspective, why are young children considered “intuitive theists” or “born believers”? What are the psychobiological foundations of supernatural belief? What are the cognitive abilities, emotional components, neuroanatomical substrates, physiological correlates, personality traits, and social learning processes underlying religiosity? What is the genetic basis for spirituality? Why is intelligence negatively associated with religiousness? Does religion really make you a better person? Finally, are religious beliefs at odds with scientific knowledge, and if so, how can we reconcile them?

### **Lecture materials and recommended readings:**

There is no textbook for this course. The lecture materials (available on Moodle) will consist of:

- (1) Powerpoint slideshows (provided by the instructor, guest lecturers and by the students) highlighting key theoretical concepts, methodological aspects, and providing data-based evidence of the psychobiological underpinnings of religiosity;
- (2) Academic journal articles (either data-based papers or review articles);
- (3) Videos played in class to illustrate specific points.

**Evaluation:** Each student will be evaluated on the basis of: (1) two exams, (2) one term paper [individual project], and (3) one oral presentation [group project].

**(1) Exams** (*format: in-class written-format exams with multiple choice and/or short answers*):

- **Exam #1 – 25% of your final grade** (scheduled on Oct. 21<sup>st</sup>). This test will include the lecture materials covered during the first 12 sessions (Sept. 4<sup>th</sup> – Oct. 16<sup>th</sup>).
- **Exam #2 – 35% of your final grade** (scheduled during the final exam period between December 7<sup>th</sup> and 16<sup>th</sup>). This exam will be more comprehensive, in that it will include about 70% of questions related to the lecture materials covered during the final 11 sessions (Oct. 23<sup>rd</sup> – Dec. 4<sup>th</sup>) and about 30% of questions related to all the lecture materials covered during the term.

Lecture materials will include:

- Lectures (based on powerpoint slideshows posted on Moodle and presented by instructor and guest lecturers)
- Videos played in class (also available on Moodle)
- Students' oral presentations (including selected articles, slideshows, and subsequent in-class discussions)
- Recommended readings (please see below: list and corresponding weblinks)

**(2) Term paper assignment – 20% of your final grade** (*format: word-processed APA-style short literature review due by email to Christa and me on November 25<sup>th</sup> in the evening, before midnight, length: 2,000 ± 200 words*):

This assignment is a good opportunity for you to go into the field of Cognitive Science of Religion in greater depth and to practice your writing skills.

First, you should select from the literature two original data-based articles that present two complementary/different approaches to answering a particular question about the psychobiology of religious behaviour (e.g., two papers presenting contrasting results on the relationships between religiosity and morality, or two papers using different methods to examine the personality traits underlying religious beliefs, or two papers offering diverging views on the developmental processes underlying religious behaviour). If you have any doubts about whether the papers you selected are suitable or not, feel free to send them to Christa or me for approval or further advice.

Second, you should prepare a short essay (2,000 ± 200 words, not including the required Abstract and References sections) (a) providing some background information on the question being addressed, (b) explaining how these two approaches are complementary/different, and (c) suggesting future research directions to further investigate this question.

The itemized evaluation sheet for term paper assignments will be available on Moodle.

### **Oral presentation – 20% of your final grade**

In this exercise, you will be alphabetically assigned to a small group of students to prepare and give a short oral presentation about one data-based article taken from a list of 58 suitable articles available on Moodle (with a reference number for each article). I made this list to provide you with a wide array of possible implications of the Cognitive Science of Religion.

The ideal presentation will consist of a short Powerpoint slideshow (rather than Prezi, Google Slides, or any other softwares) summarizing the Introduction, Methods, Results, and Discussion sections of the article in about 12 minutes (timing will also be part of the evaluation!). A brief (3-5 minutes) in-class discussion may follow, depending on whether the class has questions or not. The group size will be 3 or 4 students per group, depending on class size. All group members will receive the same grade – whether you share the presentation time among group members or you select one group member to present on behalf of the rest of the group – based on the assumption that you all participated the same way in the preparation of the presentation.

On September 11<sup>th</sup> (i.e., after the add/drop deadline), I will email each of you (1) your group number and (2) your group composition, so that you can coordinate and agree on the selection of a preferred presentation date and paper. On September 13<sup>th</sup> at 9 am, I will share with you a Google Sheet. One assigned member of each group should write down their group member and the reference number of the paper they chose in one of the 15 date options available, on a first come first served basis. Please make sure that the article you selected is not already entered on the schedule sheet. If so, please select another one. The deadline to have all paper reference numbers written down on the schedule sheet is: Sept. 20<sup>th</sup> (Friday) at 6 pm.

The itemized evaluation sheet for oral presentations will be available on Moodle.

### **Bonus – Participation in studies in the Department of Psychology:**

After your final grade has been calculated, you can have a bonus (maximum 2%) added onto your final grade if you have participated in the research studies in the Department of Psychology. This will give you an opportunity to experience how psychological research is conducted.

Directions for participation in studies: Studies will become available on September 16, 2019 by going to <https://psychleth.sona-systems.com> and signing in with your U of L username and password. Sign up in the course to which you want your credits (i.e., a maximum of 2% for this course) to be assigned. If you are enrolled more than one course that offers credits, you must register for it separately. There will be NO transfer of credits between courses.

Further studies and timeslots will be added throughout the semester. So please keep checking, but remember that participation is on a first-come basis. Please note, there is no guarantee that all students will be able to achieve the maximum credit. The last date to participate in studies is December 4, 2019. If you experience problems with the Sona System, or you have inquiries regarding participation in studies, please DO NOT CONTACT the instructor of this course. All questions regarding research participation should be directed to [psychology@uleth.ca](mailto:psychology@uleth.ca).

**Grading:** The following ranges will be employed in assigning grades in this course:

A+:	93.1 – 100	B:	77.1 – 81.0	C-:	61.1 – 65.0
A:	89.1 – 93.0	B-:	73.1 – 77.0	D+:	57.1 – 61.0
A-:	85.1 – 89.0	C+:	69.1 – 73.0	D:	50.0 – 57.0
B+:	81.1 – 85.0	C:	65.1 – 69.0	F:	< 49.9

In accordance with the U of L Calendar: A = Excellent, B = Good, C = Satisfactory, D = Poor, F = Fail

### **Lecture organization:**

#### *Classroom regulations:*

- (1) Please arrive to class on time. If you are late, please sit at the back to minimize disruption. The instructor will be careful not to run overtime so please remain seated until the end of class.
- (2) If you are disrespectful to other members of the class, you will be asked to leave.
- (3) Please turn off your cell phones while in class (this falls under being disrespectful).
- (4) Relevant interruptions and class participation are welcomed but please raise your hand in order to ask questions or to make comments. Questions that are emailed may also be discussed in class.

#### *Exam regulations:*

- (1) Exam #1 will be returned to you and corrected versions of the exams will be posted on Moodle. Exam #2 will not be returned but may be reviewed during office hours or by appointment. If you feel that you were marked unfairly or that marks were missed on your exam, please prepare a short statement explaining the problem. The question will then be re-graded and marks adjusted (up or down as is warranted) at the instructor's discretion.
- (2) No accommodation will be made for poor performance on exams. Additional work will not be assigned for those who wish to improve their grades.
- (3) Students can write missed exams **only on two conditions:**
  - a) They must notify the instructor ([jeanbaptiste.leca@uleth.ca](mailto:jeanbaptiste.leca@uleth.ca)) **BEFORE** the exam
  - b) They must provide an appropriate and official documentation to support any extenuating circumstances, which are beyond their control and make it impossible to write the exam.These two conditions must be met before a make-up test can be scheduled. If not, missed exams automatically receive a score of zero.

#### *Academic accommodations:*

It is the students' responsibility to request academic accommodations. If you are a student with a documented disability who may require academic accommodations and have not registered with the Accommodated Learning Centre, please contact them at 403-329-2766. Students who have not registered with the Accommodated Learning Centre are not eligible for formal academic accommodations. You are also required to discuss your need with your instructor no more than 14 days after the start of the course.

### **Recommended readings:**

Barret JL (2011). Cognitive Science of Religion: Looking back, looking forward. *Journal for the Scientific Study of Religion*, 50, 229-239.

<http://onlinelibrary.wiley.com.ezproxy.uleth.ca/doi/10.1111/j.1468-5906.2011.01564.x/epdf>

Barrett JL, Richert RA (2003). Anthropomorphism or preparedness? Exploring children's God concepts. *Review of Religious Research*, 44, 300-312.

<http://www.jstor.org.ezproxy.uleth.ca/stable/pdf/3512389.pdf>

Boyer P (2008). Religion: Bound to believe? *Nature*, 455, 1038-1039.

<http://www.nature.com.ezproxy.uleth.ca/nature/journal/v455/n7216/pdf/4551038a.pdf>

Sosis R (2009). The adaptationist-byproduct debate on the evolution of religion: Five misunderstandings of the adaptationist program. *Journal of Cognition and Culture*, 9, 315-332.

<http://web.b.ebscohost.com.ezproxy.uleth.ca/ehost/pdfviewer/pdfviewer?vid=2&sid=e5166939-b5ab-4749-a446-a6661b5b43f2%40sessionmgr101>