

Social Learning and Culture – Lecture course
Psychology 3850 B (CRN 11205) – Spring 2016

– Prerequisites: Psyc 2330 (Learning and Cognition) + 1 other 2000-level PSYC or NEUR course –

Instructor: Jean-Baptiste Leca

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Office: C880 (University Hall)

Office Hours: Tuesdays and Thursdays from 11:30 am to 12:30 pm or by appointment

Teaching Assistant: Amanda Pelletier (amanda.pelletier@uleth.ca)

Class Time: Tuesdays and Thursdays from 4:30 to 5:45 pm

Classroom: C756

General content and objectives:

In social science and humanities circles, culture is often considered a hallmark of humanity. This belief reflects a broader philosophical position that humans differ *in kind* from the rest of the natural world. But is this really so? Many highly complex human traits did not arise *ex nihilo* and, as such, have evolutionary histories that are amenable to comparative analysis. Numerous studies on animals demonstrate that culture is no different in this regard. Without question, human culture is distinctive, but a comparative approach to understanding its building blocks promises to illuminate how such an emergent trait links us to the rest of the animal kingdom as opposed to setting us apart.

The overarching goal of this course is to understand how and why humans and nonhuman animals innovate, learn in a social context, and generate culturally transmitted information, behaviour, and artefacts. This course will provide some elements of answers to the following questions (among others): How do we define and measure innovation, social learning, behavioural tradition, and culture? What are the determinants of behavioural innovation? What are the different forms of social learning? Are some of them unique to humans? How and why do human and nonhuman cumulative cultures differ? What can cultural learning tell us about the mechanisms and evolution of cognition? What is the adaptive significance of cultural learning? What is the source of the debate over animal culture, and how (at least some of) these controversial issues could be resolved? Why are these questions of any interest in our understanding of hominin evolution in general, and the emergence of modern human culture in particular?

The list of topics addressed in this course includes:

- Introduction to innovation, social learning, behavioural tradition, and culture
- Innovations: determinants and constraints on their diffusion and maintenance
- Social learning mechanisms
- Social learning strategies
- Methods for studying social learning and culture
- Social learning across animal taxa
- Cumulative culture
- Biological bases and cognitive implications of cultural learning
- Adaptive significance of cultural learning
- Theoretical approaches to cultural evolution

Lecture materials and recommended readings:

There is no textbook for this course. The lecture materials will consist of:

- (1) Powerpoint slides (one series per topic, available on Moodle) highlighting key theoretical concepts, methodological aspects, and providing detailed examples of selected case studies;
- (2) Several academic journal articles (either data-based papers or review articles). In general, the readings will be more conceptual, as opposed to empirical and data-rich, in scope;
- (3) I will also play several videos in class to illustrate specific points.

Evaluation: Each student will be evaluated on the basis of: (1) three exams, (2) one paper assignment, and (3) one oral group presentation.

(1) Exams (*format: the first two mid-terms will be in-class scantron-based exams with true/false and multiple choice questions; the final exam will be Moodle-based, with true/false, multiple choice questions, and short answers*):

- **Exam #1 – 20% of your final grade** (scheduled on Feb. 4th). This test will only include the lecture materials covered during the first 8 sessions (Jan. 7th – Feb. 2nd).
- **Exam #2 – 20% of your final grade** (scheduled on Mar. 15th). This test will only include the lecture materials covered during the next 8 sessions (Feb. 9th – Mar. 10th).
- **Exam #3 – 30% of your final grade** (scheduled during the week from Apr. 18th to 22nd). This exam will be more comprehensive, in that it will include about 60% of questions related to the lecture materials covered during the final 9 sessions (Mar. 17th – Apr. 14th) and about 40% of questions related to all the lecture materials covered during the term.

Lecture materials will include:

- Lectures (based on powerpoint slideshows that I will post on Moodle before each class)
- Recommended readings (i.e., academic journal articles; please see list below)
- Videos played in class (most of them will be available on Moodle)
- Possible in-class discussions (if/when applicable)

(2) Paper assignment – 20% of your final grade (*format: word-processed APA-style literature review due by email to Amanda and me on April 5th before midnight; length: 1,500-2,000 words, not including the Abstract and References section*):

This assignment is a good opportunity for you to go into the “social learning and culture” research in greater depth and to practice your writing skills.

First, you should select from the literature two original data-based articles (not literature reviews) that present two complementary/different approaches to answering a particular question about social learning and culture (e.g., two papers using different methods to present evidence for culture in the same species, or two papers showing consistent or contrasting results about social learning mechanisms in two different species, or two papers presenting complementary results on different forms of cultural contents (e.g., material culture, social culture, sexual culture) in two different species or two groups of the same species, or two papers presenting different data-based implications of “social learning and culture” research on cognition). If you have a doubt about whether the papers you selected are suitable or not, feel free to send them to Amanda or me for approval or further advice.

Second, you should prepare a short (1,500-2,000 words) essay (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 paper assignments will be available on Moodle.

(3) Oral presentation – 10% of you final grade

In this exercise, you are required to form a small group of students to prepare and give a short oral presentation about one data-based article taken from a list of 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 “social learning and culture” research.

The ideal presentation will consist of a short Powerpoint/Prezi slideshow 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 (5 minutes) in-class discussion may follow, depending on whether the class has questions or not.

The ideal group size is 4 students per group. However, I may allow groups ranging from 3 to 5 students. All group members will receive the same grade (whether you share the presentation time among group members or you select one member to present on behalf of the rest of the group), based on the assumption that you all equally participated in the preparation of the talk.

From Jan. 8th at 10 am, an oral presentation schedule sheet will be pinned up next to my office door (C880, University Hall). Once your group is settled and you agreed on a presentation date, please come to my office and clearly write down the names of your group members and the reference number of the article you selected in one of the 17 options available, from Jan. 19th to Apr. 7th on a first come first served basis. Also, please make sure that the article you selected is not already mentioned on the schedule sheet. If so, please select another one. The deadline to have all the names and reference numbers written down on the schedule sheet is: Jan. 15th (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 an additional 2% (maximum) 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 studies: You will receive an email with your Login name and password. It is IMPORTANT that you keep this information. You will use your user name and password [psyc3850b], once you have signed in you may change your password. Please go to <http://psychleth.sona-systems.com> and sign in.

NB: Studies for the Spring semester will be running from January 14 to April 15, 2016 (please mark these dates on your calendar). Further studies and timeslots may be added. So please keep checking, but remember this is on a first come first served basis. Note that there is no guarantee that all students will be able to achieve the maximum credit.

There will be NO transfer of credits between courses. If you are registered in another course that offers credits, a second email will be sent to you with a different email and password. Sign up in the course to which you want your credits to be assigned. If you complete the same study twice, your credits in both courses will be taken away and your Sona accounts deactivated.

If you are experiencing problems, please contact Leanne Wehlage-Ellis at wehlage@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 University of Lethbridge 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, 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) Exams #1 and #2 will be returned to you and corrected versions of the exams will be posted on Moodle. Exam #3 will not be returned because it will be Moodle-based. 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) **BEFORE** the exam
- b) They must provide an appropriate documentation (i.e. a medical certificate). Non-medical reasons for missed exams (e.g., a death in the family) must also be supported with appropriate documentation.

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:

- Brosnan SF, Hopper LM. 2014. Psychological limits on animal innovation. *Animal Behaviour* 92: 325-332.
- Coussi-Korbel S, Frigaszy DM. 1995. On the relation between social dynamics and social learning. *Animal Behaviour* 50: 1441-1453.
- Fragaszy D. 2003. Making space for traditions. *Evolutionary Anthropology* 12: 61-70.
- Holzhaider JC, Hunt GR, Gray RD. 2010. Social learning in New Caledonian crows. *Learning & Behavior* 38: 206-219.
- Kendal RL, Galef BG, van Schaik CP. 2010. Social learning research outside the laboratory: How and why? *Learning & Behavior* 38: 187-194.
- Laland KN, Janik VM. 2006. The animal cultures debate. *Trend in Ecology and Evolution* 21: 542-547.
- Leca JB, Gunst N, Huffman MA. 2012. Thirty years of stone handling tradition in Arashiyama-Kyoto macaques: implications for cumulative culture and tool use in non-human primates. In: Leca JB, Huffman MA, Vasey PL (eds). *The Monkeys of Stormy Mountain: 60 Years of Primatological Research on the Japanese Macaques of Arashiyama*. Cambridge University Press, Cambridge, pp. 223-257.
- Lonsdorf EV, Bonnie KE. 2010. Opportunities and constraints when studying social learning: Developmental approaches and social factors. *Learning & Behavior* 38: 195-205.
- Perry S, Manson JH. 2003. Traditions in monkeys. *Evolutionary Anthropology* 12: 71-81.
- Perry S. 2006. What cultural primatology can tell anthropologists about the evolution of culture. *Annual Review of Anthropology* 35: 171-190.
- Reader SM, Biro D. 2010. Experimental identification of social learning in wild animals. *Learning & Behavior* 38: 265-283.
- Tennie C, Call J, Tomasello M. 2009. Ratcheting up the ratchet: on the evolution of cumulative culture. *Philosophical Transactions of the Royal Society B* 364: 2405-2415.
- Tomasello M. 1999. The human adaptation for culture. *Annual Review of Anthropology* 28: 509-529.