

Cultural Organisms – Seminar course
Psychology 4850 A (CRN 10761) – Spring 2017
– Prerequisites: Psyc 3850 (Social Learning and Culture) –

Instructor: Jean-Baptiste Leca

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Office: C880 (University Hall)

Office Hours: Monday and Wednesday from 10:00 to 11:00 am, or by appointment

Class Time: Mondays and Wednesdays from 4:00 to 5:15 pm

(please note: Feb. 20th and 22nd are days off)

Classroom: W565 (University Hall)

Teaching Assistant: Tatjana Kaufmann (tatjana.kaufmann@uleth.ca)

General content:

We all have a sense of what culture is because we, humans, are surrounded by culture. According to the evolutionary biologist, Mark Pagel, humans are particularly well adapted to culture. As our ancestors gradually acquired the ability to speak, read others' minds, cooperate, share, and build on ideas, our species evolved a mind that is hardwired for culture, which in turns, made us unique. But what is culture? Here is a quite consensual definition: Culture is information, behavior, and their products acquired from conspecifics through some form of social learning. It was proposed by Robert Boyd and Peter Richerson (2005) in their book entitled "*Not by genes alone*". Another definition, much shorter, maybe provocative, but somewhat accurate was given by the primatologist Bill McGrew (2004): Culture is "the way we do things". It is more our cultures than our genes that influence which foods we eat, which languages we speak, which people we love and marry, and which people we kill in war.

During the course of the semester, we will document ancestral and contemporary human cultural practices, beliefs, and products (e.g., greetings, joking styles, fashion trends, religious and secular rituals, internet use). We will explore different forms of material and social culture. We will examine the psychological processes underlying innovation, cultural norms, ethnic markers, cultural universals, cultural taboos, cultural stereotypes, culture shock, enculturation, as well as so-called subcultures. We will tackle cross-cultural variation in human psychology. We will discuss some of the evolutionary implications of culture, including cumulative cultural evolution, cultural group selection, niche construction, biology-culture coevolution as a dual inheritance system, and the concept of memes. Importantly, we will address the debate on whether some of these characteristics have analogs or homologs in nonhuman animals.

Objectives and class organization:

In contrast to lecture-based courses, seminar classes emphasize student-led presentations, and group discussion involving active participation among students. As you will come to realize through our readings and some of the videos we will play in class, research on culture straddles different disciplines and some topics are hotly debated among (social) scientists. I would like our discussion to reflect these debates. As your instructors, Tatjana and I will provide you with the basic information necessary to understand the major concepts and methods related to the questions under study, and we will guide the discussion so that you can gain a broader

understanding of the subject. But ultimately, the more effort and critical thinking you put in, the more you will learn from this course. Therefore, it is very important that you come to class prepared. Adequate preparation implies that you are not only capable of summarizing, further explaining, and discussing the contents of the readings and videos, but that you are also willing to think critically and creatively beyond the concepts under study, and consider their broader implications.

To help you focus during your readings, and as a way to anticipate further discussion, we will provide "Food for Thought" types of questions related to some readings and videos. It is our expectation that you reflect on these questions in such way that we can call upon you to share your thoughts during class. Please be aware that there might not be a single "right" answer to most of these questions. We encourage you to focus on the questions asked by researchers, the detailed methods they use, and the interpretations of their findings, and to make up your own mind about human culture and animal behavioral traditions. Our main objective is that you come to class after having given yourself time to think deeply about such issues, and willing to participate in the discussion with any insight you might be able to provide or even further questions you might come up with.

Course materials:

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

- (1) Weekly readings and videos (either from the list of reading/video material provided on p. 5-8, or possibly, later during the course of the semester, from reading/video material directly proposed by the students) focusing on the what, hows and whys of cultural organisms;
- (2) Oral presentations by two students in relation to weekly readings on selected culture-related topics;
- (3) Powerpoint slideshows, prepared by the instructors and by the students, and highlighting key theoretical concepts, methodological aspects, and providing detailed examples of selected case studies of human culture and animal behavioral traditions;
- (4) Group discussions (which we hope lively and fruitful!).

Evaluation: Each student will be evaluated on the basis of: (1) his/her participation during in-class discussions, (2) occasional in-class quizzes, (3) oral presentations [group projects], (4) a term paper assignment [individual project], and (5) a final exam.

(1) In-class participation (30% of your final grade): Quality participation elements are well-articulated pieces of argumentation that contribute insightful and well-reasoned perspectives and foster group discussion. If you say something relevant to the discussion in each class (including raising an insightful question, regardless of whether you know the answer), you will receive participation marks. Even though some food-for-thought questions will serve as a starting point for discussion, we encourage students to think (and discuss) broadly about the issues under investigation. We will follow the discussion and step in if it runs off-board. Students who relate seminar material to other readings that they have made the effort to search out will be viewed very favorably.

The basic structure for this part of your grade will be: 30% = always participated and always provided a quality response; 23% – 29% = almost always participated and almost always provided a quality response; 15% – 22% = often participated and often provided a quality response; 9% – 14% = participated sometimes, but not often, and often provided a poor-quality response; 0% – 8% = little to no participation and almost always provided a poor-quality response. Occasionally, participation in Moodle may also count toward participation marks.

(2) In-class quizzes (20% of your final grade): You will take short and occasional quizzes (approximately once a week or every other week) at the beginning of class to assess your comprehension of the previous session's materials. The format of the quizzes will be true/false, multiple choice, matching questions, and/or short answers.

(3) Oral presentations (20% of your final grade): In this exercise, you are required to form a dyad with another student, prepare and give short oral presentations about data-based or review articles. Each pair of students should select two articles from the list of 49 suitable articles provided on p. 7-8 (with a reference number for each article) and prepare two presentations (one for each article).

The ideal presentation will consist of a Powerpoint slideshow summarizing the Introduction, Methods, Results, and Discussion sections of the article in about 15 minutes (timing will also be part of the evaluation). Each presentation will lead to an in-class group discussion.

In each dyad, both students will receive the same grade (whether you share the presentation time or you select one member of the dyad to present on behalf of the other), based on the assumption that you both equally participated in the preparation of the talk.

On Jan. 10th at 10 am, an oral presentation schedule sheet will be pinned up next to my office door (C880, University Hall). Once you selected two articles and two presentation dates, you should come to my office and clearly write down your name(s) and the two reference numbers of the articles you selected in two of the 20 options available, from Jan. 23rd to Mar. 13th on a first come first served basis. Also, please make sure that the articles you selected are not already listed on the schedule sheet. If so, please select different ones. The deadline to have all the names and reference numbers written down on the schedule sheet is: Jan. 16th (Monday) at 6 pm. The itemized evaluation sheet for oral presentations will be available on Moodle.

(4) Term paper assignment (20% of your final grade): This assignment is a good opportunity for you to go into the culture-related 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, such as 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 Tatjana and/or me for approval or further advice.

Second, you should prepare a short essay (2,000 ± 200 words, not including the Abstract and the 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. In terms of format, this essay should be a word-processed APA-style literature review due by email to me (jeanbaptiste.leca@uleth.ca) AND Tatjana (tatjana.kaufmann@uleth.ca) on March 27th in the evening, before midnight. The itemized evaluation sheet for paper assignments will be available on Moodle.

(5) Final exam (10% of your final grade): A written in-class end-of-term test is scheduled on April 19th from 6:00 to 8:00 pm. This exam will be comprehensive, in that it will include questions related to all the course materials covered during the term (but mainly based on the slideshows posted 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 [psyc4850a], 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 17th to April 8th (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

Course regulations:

Classroom regulations:

- (1) A register of attendance at seminars will be kept. It is expected that you attend each class.
- (2) Please arrive to class on time. If you are late, sit at the back to minimize disruption. The instructors will be careful not to run overtime so please remain seated until the end of class.
- (3) If you are disrespectful to other members of the class, you will be asked to leave.
- (4) Please turn off your cell phones while in class (this falls under being disrespectful).
- (5) Class participation is most welcomed (actually, it is wished!), but please raise your hand in order to ask questions or to make comments. Questions that are emailed may also be discussed in class.

Quizzes and Exam regulations:

- (1) Quizzes and final exam will be returned to you and corrected versions of the exams will be posted on Moodle. 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 quizzes and final exam. Additional work will not be assigned for those who wish to improve their grades.

(3) Students can write missed tests (quizzes or final exam) **only on two conditions:**

- a) They must notify at least one of the instructors (jeanbaptiste.leca@uleth.ca or tatjana.kaufmann@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.

Video materials (likely to be played and discussed in class):

Videos on human culture will include (but might not be limited to):

- "Guns, Germs and Steel" (J. Diamond): The theory of "geographic luck" on the roots of global inequality.
- "Evolution of the human population through time" (American Museum of Natural History).
- "Generation Like" (Frontline, PBS): Teen's interactions with their culture (artists, celebrities, movies, brands, and one another) through social media.
- "Butter Battle Book" (Dr. Seuss): The mechanisms of a hypothetical cultural arms race.
- "The angry eye" (J. Elliott): The psychological processes underlying the existence of in-group, out-group, arbitrary discrimination, and cultural/racial stereotypes.
- "Catching fire: how cooking made us humans" (R. Wrangham): Examining the hypothesis that cooking food was an essential element in the physiological and cultural evolution of human beings.
- "What makes us humans?" (Nova Science Now, PBS): Examining the hypothesis that tool-making and language coevolved in early humans.
- "What makes us humans?" (Nova Science Now, PBS): Examining the links between pointing gesture, teaching, and cumulative culture in humans.
- "Sound and Fury" (J. Aronson): The "hearing world" versus a so-called "deaf subculture"?

Videos on social learning and behavioral traditions in animals will include (but might not be limited to):

- “Selective copying versus blind imitation” (V. Horner): The roots of cultural learning in chimpanzees and human children.
- “Pacific social culture in baboons” (R. Sapolsky).
- “Helping Hands training program”: Inter-specific social learning and operant conditioning in brown capuchin monkeys.
- Artificial language training in encultured great apes.
- Cultured birds: Tool-making and tool-use traditions in New Caledonian crows.
- “Conversations with dolphins”, The Nature of Things, CBC.

Reading material (will be selected and presented by students, and discussed in class):

- [1]. Barr R, Muentener P, Garcia A. 2007. Age-related changes in deferred imitation from television by 6- to 18-month-olds. *Developmental Science* 10: 910-921.
- [2]. Bateson P. 2014. Play, playfulness, creativity and innovation. *Animal Behavior and Cognition* 1: 99-112.
- [3]. Boesch C. 2012. From material to symbolic cultures: Culture in primates. In: Valsiner J. (ed), *The Oxford Handbook of Culture and Psychology*. Oxford University Press, Oxford, pp. 677-692.
- [4]. Brosnan SF, Hopper LM. 2014. Psychological limits on animal innovation. *Animal Behaviour* 92: 325-332.
- [5]. Bruckner TA, Subbaraman M, Catalano RA. 2011. Transient cultural influences on infant mortality: Fire-horse daughters in Japan. *American Journal of Human Biology* 23: 586-591.
- [6]. Buttelmann D, Carpenter M, Call J, Tomasello M. 2013. Chimpanzees, *Pan troglodytes*, recognize successful actions, but fail to imitate them. *Animal Behaviour* 86: 755-761.
- [7]. Buttelmann D, Zmyj N, Daum M, Carpenter M. 2013. Selective imitation of in-group over out-group members in 14-month-old infants. *Child Development* 84: 422-428.
- [8]. Byrne RW, Barnard PJ, Davidson I, Janik VM, McGrew WC, Miklósi A, Wiessner P. 2004. Understanding culture across species. *TRENDS in Cognitive Sciences* 8: 341-346.
- [9]. Coussi-Korbel S, Fragaszy DM. 1995. On the relation between social dynamics and social learning. *Animal Behaviour* 50: 1441-1453.
- [10]. Csibra G, Gergely G. 2011. Natural pedagogy as evolutionary adaptation. *Philosophical Transactions of the Royal Society B* 366: 1149-1157.
- [11]. Fragaszy D. 2003. Making space for traditions. *Evolutionary Anthropology* 12: 61-70.
- [12]. Gergely G, Csibra G. 2006. Sylvia's recipe: The role of imitation and pedagogy in the transmission of cultural knowledge. In: Enfield NJ, Levenson SC (eds), *Roots of Human Sociality: Culture, Cognition, and Human Interaction*. Berg Publishers, Oxford, pp. 229-255.
- [13]. Haidle MN, Bolus M, Collard M, Conard NJ, Garofoli D, Lombard M, Nowell A, Tennie C, Whiten A. 2015. The nature of culture: an eight-grade model for the evolution and expansion of cultural capacities in hominins and other animals. *Journal of Anthropological Sciences* 93: 43-70.
- [14]. Henrich J, Heine SJ, Norenzayan A. 2010. The weirdest people in the world? *Behavioral and Brain Sciences* 33: 61-83.
- [15]. Holzhaider JC, Hunt GR, Gray RD. 2010. Social learning in New Caledonian crows. *Learning & Behavior* 38: 206-219.
- [16]. Howard LH, Henderson AME, Carrazza C, Woodward AL. 2015. Infants' and young children's imitation of linguistic in-group and out-group informants. *Child Development* 86: 259-275.
- [17]. Jankowiak WR, Volsche SL, Garcia JR. 2015. Is the romantic-sexual kiss a near human universal? *American Anthropologist* 117: 535-539.
- [18]. Josens R, Mattiacci A, Lois-Milevich J, Giacometti A. 2016. Food information acquired socially overrides individual food assessment in ants. *Behavioral Ecology and Sociobiology* 70: 2127-2138
- [19]. Kendal RL, Galef BG, van Schaik CP. 2010. Social learning research outside the laboratory: How and why? *Learning & Behavior* 38: 187-194.
- [20]. Kinzler KD, Spelke, ES. 2011. Do infants show social preferences for people differing in race? *Cognition* 119: 1-9.
- [21]. Kinzler KD, Corriveau KH, Harris PL. 2011. Children's selective trust in native-accented speakers. *Developmental Science* 14: 106-111.
- [22]. Király I, Csibra G, Gergely G. 2013. Beyond rational imitation: Learning arbitrary means actions from communicative demonstrations. *Journal of Experimental Child Psychology* 116: 471-486.
- [23]. Kirby KR, Gray RD, Greenhill SJ, Jordan FM, Gomes-Ng S, Bibiko H-J, et al. (2016). D-PLACE: A global database of cultural, linguistic and environmental diversity. *PLoS ONE*, 11: e0158391.
- [24]. Kline MA. 2015. How to learn about teaching: An evolutionary framework for the study of teaching behaviour in humans and other animals. *Behavioral and Brain Sciences* e31: 1-17.
- [25]. Laland KN, Janik VM. 2006. The animal cultures debate. *Trend in Ecology and Evolution* 21: 542-547.
- [26]. Lamba H, Bharadhwaj V, Vachher M, Agarwal D, Arora M., Kumaraguru P. 2016. Me, myself and my killfie: Characterizing and preventing selfie deaths. *ACM*. DOI: 10:475/123_4
https://www.researchgate.net/publication/309738417_Me_Myself_and_My_Killfie_Characterizing_and_Preventing_Selfie_Deaths

- [27]. Leca JB, Gunst N, Huffman MA. 2010. The first case of dental flossing by a Japanese macaque (*Macaca fuscata*): implications for the determinants of behavioral innovation and the constraints on social transmission. *Primates* 51: 13-22.
- [28]. 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.
- [29]. Leca JB, Gunst N, Ottenheimer Carrier L, Vasey PL. 2014. Inter-group variation in non-conceptive sexual activity in female Japanese macaques: could it be cultural? *Animal Behavior and Cognition* 1: 387-409.
- [30]. Lonsdorf EV, Bonnie KE. 2010. Opportunities and constraints when studying social learning: Developmental approaches and social factors. *Learning & Behavior* 38: 195-205.
- [31]. Lycett SJ, Collard M, McGrew WC. 2007. Phylogenetic analyses of behaviour support existence of culture among wild chimpanzees. *Proceedings of the National Academy of Sciences* 104: 17588-17592.
- [32]. MacDonald K. 2007. Cross-cultural comparison of learning in human hunting: Implications for life history evolution. *Human Nature* 18: 386-402.
- [33]. Marno H, Guellai B, Vidal Y, Franzoï J, Nespôr M, Mehler J. 2016. Infants' selectively pay attention to the information they receive from a native speaker of their language. *Frontiers in Psychology* 7: 1150.
- [34]. Morgan TJH, Uomini NT, Rendell LE, Chouinard-Thuly L, Street SE, Lewis HM, Cross CP, Evans C, Kearney R, de la Torre I, Whiten A, Laland KN. 2015. Experimental evidence for the co-evolution of hominin tool-making teaching and language. *Nature Communications* 6: 6029 (1-8).
- [35]. Ng AH, Steele JR, Sasaki JY. 2016. Will you remember me? Cultural differences in own-group face recognition biases. *Journal of Experimental Psychology* 64: 21-26.
- + Kaspar K. 2016. Culture, group membership, and face recognition. Commentary: Will you remember me? Cultural differences in own-group face recognition biases. *Frontiers in Psychology* 7: 1101.
- [36]. Nielsen M, Mushin I, Tomaselli K, Whiten A. 2014. Where culture takes hold: "Overimitation and its flexible deployment in Western, Aboriginal, and Bushmen children. *Child Development* 85: 2169-2184.
- [37]. Perry S, Manson JH. 2003. Traditions in monkeys. *Evolutionary Anthropology* 12: 71-81.
- [38]. Perry S. 2006. What cultural primatology can tell anthropologists about the evolution of culture. *Annual Review of Anthropology* 35: 171-190.
- [39]. Purzycki BG, Sosis R. 2013. The extended religious phenotype and the adaptive coupling of ritual and belief. *Israel Journal of Ecology & Evolution* 59: 99-108.
- [40]. Reader SM, Biro D. 2010. Experimental identification of social learning in wild animals. *Learning & Behavior* 38: 265-283.
- [41]. Savage S, Liht J. 2008. Mapping fundamentalisms: The psychology of religion as a sub-discipline in the understanding of religiously motivated violence. *Archive for the Psychology of Religion* 30: 75-91.
- [42]. 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.
- [43]. Tomasello M. 1999. The human adaptation for culture. *Annual Review of Anthropology* 28: 509-529.
- [44]. VanderBorghst M, Jaswal VK. 2009. Who knows best? Preschoolers sometimes prefer child informants over adult informants. *Infant and Child Development* 18: 61-71.
- [45]. van Schaik CP, Burkart JM. 2011. Social learning and evolution: the cultural intelligence hypothesis. *Philosophical Transactions of the Royal Society B* 366: 1008-1016.
- [46]. Wilks M, Collier-Baker E, Nielsen M. 2015. Preschool children favour copying a successful individual over an unsuccessful group. *Developmental Science* 18: 1014-1024.
- [47]. White LT, Valk R, Dialmy A. 2011. What is the meaning of "on time"? The sociocultural nature of punctuality. *Journal of Cross-Cultural Psychology* 42: 482-493.
- [48]. Yue X, Jiang F, Lu S, Hiranandani N. 2016. To be or not to be humorous? Cross-cultural perspectives on humor. *Frontiers in Psychology* 7: 1495.
- [49]. Zmyj N, Seehagen S. 2013. The role of a model's age for young children's imitation: A research review. *Infant and Child Development* 22: 622-641.