

## **Anthropology 425 (Winter 2019)**

### **Primate Cognition**

Time: Mondays 6 - 8:45pm  
 Instructor: Dr. Hugh Notman  
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 Ph: 220 6516  
 Office hours: Tuesdays 11am -1pm  
 Location: ES 722

**Readings:** Text: Sara J. Shettleworth: "Cognition, Evolution and Behavior", 2<sup>nd</sup> edition (2010). Oxford University Press.

In addition to this text, you will be required to read journal articles relevant to the topic or theme being addressed on a given week. These journal articles are a mix of empirical (experimental) papers as well as review/theoretical essays. They include many original papers that offer theoretical foundations, as well as more recent review papers. This is why many of the papers appear 'older'; it is important that you understand the pioneering work upon which more recent studies have been built. All (or most) readings will be provided to you via your D2L portal, or you can access them using the UofC online journal library.

It should be noted that *this course requires substantial weekly readings and class attendance*. You must stay on schedule with the readings and be familiar enough with the material to make informed comments, when appropriate, and/or to ask questions.

### **Aims**

- 1 To introduce students to primary research and theoretical discussions on topics related to the mechanisms and function of primate cognition
- 2 To enhance scientific literacy as it pertains to evaluating empirical methods and interpretation
- 3 To develop critical evaluation skills as they relate to assessing research papers and the current state of primate cognition research in general

### **Learning Outcomes**

On successful completion of this course, students should be able to:

- 1 Demonstrate an understanding of the evidence as it pertains to specific domains of primate cognition. .
- 2 Critically evaluate primary research articles related to this and other scientific disciplines
- 3 Evaluate the strengths and weaknesses of particular theoretical views.

4 Demonstrate familiarity with both foundational and current research papers, and integrate knowledge from these different approaches and studies into an integrated argument as it pertains to a particular topic in animal cognition.

## Empirical Paper Report

This assignment is designed to introduce you to reading and critically evaluating empirical research papers that are typical of the behavioural sciences. The selection of research articles provided for this assignment are all relevant to one or more topics addressed in this course. Look through the selection of papers below and decide which one is of most interest to you.

Your assignment is to write a report on **one (1) original** research paper from the set of seven options provided below. In your report, *which is to be no more than 4 typed (double-spaced, 12 pt font) pages*, you are expected to demonstrate an understanding of the following:

1. the **theoretical framework** within which the research goal is articulated;
2. the **hypotheses** that the researchers are testing, and why, given the current state of knowledge, these hypotheses are the ones being tested;
3. the **predictions** stemming from those hypotheses;
4. the **methodological approaches** the researchers use, including a brief description of experimental design and protocol (if applicable), data collection and sampling methods, study subjects, study site (if applicable), and statistical methodology; and
5. the **interpretations and conclusions** of the data presented by the authors and their relevance to the initial hypotheses and theoretical framework.

You are *not* expected to provide exhaustive details about the sampling and statistical methodology used in the paper, as no prior experience in these areas is assumed. However, a brief description of the methods that indicates sample size and experimental protocol (with rationale) is required. You are also *not* required to state numerical values presented in the results section of the research article, such as P values (indicating statistical significance); however, you should state which test results were significant and which were not inasmuch as these are relevant to the overall goals of the study.

To summarize, your report should at minimum include the following:

1. A **rationale** for what the authors of the research are attempting to test or study, and why. In other words, what have the authors identified as the larger theoretical question(s) that require an experimental test to fill the current gap in knowledge?

2. **Hypotheses:** Hypotheses are possible answers to the research question of interest. For example, if the “question” is how chimpanzees navigate a competitive situation with a conspecific for food, hypotheses might include a) that they are using a form of theory of mind, and/or b) that they have learned to anticipate the behaviour of the conspecific through repeated interactions with that individual. Hypotheses need not be mutually exclusive.
3. **Predictions:** Predictions are “if/then” propositions that are generated by each hypothesis. Using the example of the hypotheses above, *if* chimpanzees are using a theory of mind, *then* we would expect to observe X in the experiment. If they are using some other mechanism, such as associative learning, then we would expect to observe Y.
4. **Methodology:** Here you are required to provide a brief description of how each hypothesis is being tested. Do not get too bogged down in intricate details of the experiment, but you should at the very least explain who/what the experimental subjects are (e.g., the species, how many subjects were used in the study, whether they were captive or wild), what kind of experiment is being used (i.e., what the animal subjects had to “do” to complete the experiment), and what the variables are being tested. Examples of variables could include direction of visual gaze as measure of attention, length of gaze toward a stimulus as measure of interest, or kin recognition as assessed by correct matching-to-samples. It is sufficient that you name the statistical test(s) used in the analyses; there is no need to evaluate them.  
**Note:** DO NOT cut and paste any images or pictures from the articles into your report by way of an explanation of experimental design. You must describe and explain this in your own words.
5. **Results and Discussion:** Here you are to report what the study found. Again, in reporting results, you are not required to provide actual values or alpha values of statistical significance, but you should state *which* tests were significant, and which were not, and how these support, or do not support, the predictions stemming from each hypothesis. In the discussion section of the paper, the authors provide their interpretations of their study within the larger context of the rationale laid out in the introduction. You should provide a summary of these, as well as suggested areas for future research.
6. **A brief paragraph** in which you provide your own evaluation of the experiment. Was the experiment persuasive in demonstrating what it was meant to demonstrate? What were its shortcomings? Did the researchers have an adequate sample size to make species-wide generalizations? Did the research generate more questions than it did answer them? Be sure to be specific in your statements.

Browse each of the seven<sup>7</sup> research articles below (available in D2L and the UofC journal library). Choose 1 (one) of the articles for your report.

Amici, F., Aureli, F., Visalberghi, E., & Call, J. (2009). Spider monkeys (*Ateles geoffroyi*) and capuchin monkeys (*Cebus apella*) follow gaze around barriers: Evidence for perspective taking?. *Journal of Comparative Psychology*, 123(4), 368–374.

Cheney, D., & Seyfarth, R. (1990). Attending to behaviour versus attending to knowledge: Examining monkeys' attribution of mental states. *Animal Behaviour*, 40(4), 742–753.

Visalberghi, E., & Limongelli, L. (1994). Lack of comprehension of cause effect relations in tool-using capuchin monkeys (*Cebus apella*). *Journal of Comparative Psychology*, 108(1), 15–22.

Greenberg, J. R., Hamann, K., Warneken, F., & Tomasello, M. (2010). Chimpanzee helping in collaborative and noncollaborative contexts. *Animal Behaviour*, 80(5), 873–880.

Dassser, V. (1988). A social concept in Java monkeys. *Animal Behaviour*, 1988, 36(1), 225–230.

Genty, E., & Roeder, J. J. (2006). Can lemurs learn to deceive? A study in the black lemur (*Eulemur macaco*). *Journal of Experimental Psychology: Animal Behavior Processes*, 32(2), 196–200.

Liszkowski, U., Schäfer, M., Carpenter, M., & Tomasello, M. (2009). Prelinguistic infants, but not chimpanzees, communicate about absent entities. *Psychological Science*, 20(5), 654–660.

## Evaluation

You will also be evaluated on a midterm exam and a final exam. The final will **not** be cumulative.

Midterm exam (Monday Feb. 11)	30%
Paper Report (due March 11)	35%
Final Exam (registrar scheduled)	35%

**Academic Accommodations** - It is the student's responsibility to request academic accommodations. If you are a student with a documented disability who may require academic accommodation and have not registered with the Disability Resource Centre, please contact their office at 220-8237. Students who have not registered with the Disability Resource Centre are not eligible for formal academic accommodation. You are also required to discuss your needs with your instructor no later than fourteen (14) days after the start of this course.

## Classroom Expectations/Regulations

- Try to arrive on time to prevent disruption to the class. If you are late please take a seat at the back of the room to minimize disruption. Likewise please stay seated until class is concluded. We will not run overtime.
- **Do not converse with classmates during lectures.** This is unfair to students sitting nearby who may miss lecture material that will subsequently appear on exams. If you are discussing lecture material please raise your hand to share the comment or question as that will benefit the whole class. Relevant interruptions are welcome. You may also email questions which will be answered in the next lecture.
- All email enquiries about term tests or exams will be answered in class.
- **Use of laptops in class is NOT permitted unless you have express permission from SAS. It has proven to be too disruptive during class as many people end up surfing the net.**
- **Please turn off cell phones during class.**

Missed tests or presentations automatically receive a score of zero. In the event of an emergency or illness, the Anthropology office (220-6516) or the instructor **MUST** be notified **BEFORE** the exam, and documentation **MUST** be provided before a make-up test will be scheduled. Performance on make up exams is typically lower than those taken with the class.

**The midterm is NOT returned to students.** I will go over the test IN CLASS the week after the test, by which time marks will be available on Blackboard. If you would like to consult your test, you may come to our posted office hours, or make an appointment. If, after consulting the key, your notes, and the text you have concerns about the marking of your exam, you will be asked to provide a detailed written statement of your concern. Your exam will then be re-graded in its entirety, and marks will be raised, lowered or left unchanged as is warranted. Deadline for the submission of written statement is one week after results of an examination have been posted.

***No special arrangements will be made following a poor test performance.*** For example, we cannot change the weighting of the tests, allow retakes, or accept alternate assignments in lieu of the test. Prepare in advance to ensure a good test performance – this is your opportunity to perform well, not later. After the test no changes will be made.

**Final course grades** will be calculated as follows:

A+	100 - 94.9%
A	94.8 - 89.9%
A-	89.8 - 84.9%
B+	84.8 – 79.9%
B	79.8 - 74.9%
B-	74.8 – 70.9%
C+	70.8– 66.9%
C	66.8 – 62.9%
C-	62.8 – 58.9%

D+	58.8 – 54.9%
D	54.8 – 49.9%
F	49.8% and below

### **PLAGIARISM AND CHEATING**

Plagiarism: “to steal and pass off the ideas or words of another as one’s own” (Webster’s). Plagiarism will not be tolerated and will automatically result in a failing grade for the submission. Any student caught plagiarizing will also be subject to additional University sanctions. Students are expected to be familiar with the Department of Anthropology and Archaeology’s policy on intellectual honesty

### **DEFERRED EXAMS:**

A student who is absent from a test for legitimate reasons must discuss an alternative course of action with the instructor. The instructor at their discretion may transfer the percentage weight for the test to the final examination, if there is a final examination in the course, set another test, etc. An instructor will normally make this decision on the basis of verbal information provided by the student. In the event that an instructor feels that they cannot judge the veracity of the information provided, Students must be aware that they are responsible for payment of any charge associated with the medical assessment and documentation as this service falls outside the realm of services provided by the Provincial Health Care Plan. Deferral of the final exam requires Registrar approval.

### **ACADEMIC ACCOMMODATIONS**

<http://www.ucalgary.ca/access/accommodations/policy>

Students needing an Accommodation because of a Disability or medical condition should communicate this need to Student Accessibility Services in accordance with the Procedure for Accommodations for Students with Disabilities

Students needing an Accommodation based on a Protected Ground other than Disability, should communicate this need, preferably in writing, to the instructor of this course.

### **ACADEMIC INTEGRITY**

Academic integrity is essential to the pursuit of learning and scholarship in a university, and to ensuring that a degree from the University of Calgary is a strong signal of each student’s individual academic achievements. As a result, the University treats cases of cheating and plagiarism very seriously. Non-academic integrity also constitutes an important component of this program.

For detailed information on what constitutes academic and non-academic misconduct, please refer to the following link: <http://www.ucalgary.ca/pubs/calendar/current/k-2-1.html>

All suspected cases of academic and non-academic misconduct will be investigated following procedures outlined in the University Calendar. If you have questions or concerns about what constitutes appropriate academic behavior or appropriate research and citation methods, you are expected to seek out additional information on academic integrity from your instructor or from other institutional resources.

Where there is a criminal act involved in plagiarism, cheating or other academic misconduct, e.g., theft (taking another student's paper from their possession, or from the possession of a faculty member without permission), breaking and entering (forcibly entering an office to gain access to papers, grades or records), forgery, personation and conspiracy (impersonating another student by agreement and writing their paper) and other such offences under the Criminal Code of Canada, the University may take legal advice on the appropriate response and, where appropriate, refer the matter to the police, in addition to or in substitution for any action taken under these regulations by the University

### **TEACHING EVALUATIONS / USRI (Universal Student Ratings of Instruction)**

At the University of Calgary, feedback provided by students through the Universal Student Ratings of Instruction (USRI) survey provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses. **Your responses make a difference, please participate!**

Website: <http://www.ucalgary.ca/usri/>

### **Writing Across the Curriculum**

Writing skills are not exclusive to English courses and, in fact, should cross all disciplines. The University supports the belief that throughout their University careers, students should be taught how to write well so that when they graduate their writing abilities will be far above the minimal standards required at entrance. Consistent with this belief, students are expected to do a substantial amount of writing in their University courses and, where appropriate, members of faculty can and should use writing and the grading thereof as a factor in the evaluation of student work. The services provided by the Writing Support, part of the Student Success Centre, can be utilized by all undergraduate and graduate students who feel they require further assistance

**Emergency Evacuation Assembly Points:** In the event of an emergency that requires evacuation, please refer to the following link to become familiar with the assembly points for the class:

<http://www.ucalgary.ca/emergencyplan/assemblypoints>

### **Freedom of Information and Protection of Privacy Act: Freedom of Information and Protection of Privacy Act**

The University of Calgary is committed to protecting the privacy of individuals who work and study at the University or who otherwise interact with the University in accordance with the standards set out in the Freedom of Information and Protection of Privacy Act. Please refer to the following link for detailed information: <http://www.ucalgary.ca/legalservices/foip>

The Department of Anthropology and Archaeology's FOIP (Freedom of Information and Privacy) policy requires all reports/examinations to be returned to students during class time or the instructor's office hours. Any term work not picked up will be placed in the Anthropology and Archaeology Office (ES620) for distribution. Any student not wishing to have their work placed in the office must make alternative arrangements with the course instructor early in the term.

**Safewalk Information:** Campus Security, in partnership with the Students' Union, provides the Safewalk service, 24 hours a day to any location on Campus including the LRT, parking lots, bus zones and University residences. Contact Campus Security at (403) 220-5333 or use a help phone, and Safewalkers or a Campus Security Officer will accompany you to your campus destination.

**Faculty of Arts Program Advising and Student Information Resources:** Have a question, but not sure where to start? Arts Students' Centre

The Faculty of Arts Students' Centre is the overall headquarters for undergraduate programs in the Faculty of Arts. The key objective of this office is to connect students with whatever academic assistance that they require.

In addition to housing the Associate Dean, Undergraduate Programs and Student Affairs and the Associate Dean for Teaching and Learning, the Arts Students' Centre is the specific home to:

- program advising
- the Faculty's Co-operative Education Program
- the Arts and Science Honours Academy
- the Faculty's Interdisciplinary Programs
- a Student Help Desk

Location: Social Sciences Room 102

Phone: 403.220.3580

Email: [ascarts@ucalgary.ca](mailto:ascarts@ucalgary.ca)

Website: [arts.ucalgary.ca/undergraduate/](http://arts.ucalgary.ca/undergraduate/)

For registration (add/drop/swap), paying fees and assistance with your Student Centre, contact Enrolment Services at (403) 210-ROCK [7625] or visit them at the MacKimmie Library Block.

Contacts for Students Union Representatives for the Faculty of Arts:

[arts1@su.ucalgary.ca](mailto:arts1@su.ucalgary.ca)

[arts2@su.ucalgary.ca](mailto:arts2@su.ucalgary.ca)

[arts3@su.ucalgary.ca](mailto:arts3@su.ucalgary.ca)

[arts4@su.ucalgary.ca](mailto:arts4@su.ucalgary.ca)

**Ombudsman's office:** <http://www.ucalgary.ca/ombuds/>