

BIOL-ANTH 4660, Section 001  
EVOLUTION OF HUMAN BEHAVIOR  
Fall 2018

INSTRUCTOR: DR. LISA RAPAPORT  
TIME: Tues, Thurs 11:00 – 12:15PM  
ROOM: 216 Long Hall  
Office Hours: T/Th 3:20-4:20 and by appointment  
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SEXUAL JEALOUSY

**Required Reading:**

Article pdf's provided in Blackboard  
(see also "Schedule" below)

**Textbook:**

Barrett L, Dunbar RI, Lycett J (2002) Human Evolutionary Psychology. Princeton: Princeton University Press. (available used starting at \$1.99 through Amazon.com and AbeBooks.com)

**Suggested Reading:**

See "Key Readings in Human Behavioral Ecology" file to be posted on Blackboard midway through semester

CHEATING

SHARING



PARENTING  
CHILD ABUSE



HUNTING

**1. Course Description and Objectives:**

Get ready for a course that may forever change the way you view your own behavior and the behavior of those around you. The underlying premise of this course is that human behavior, like our physiology and genetics, has been molded by the environmental and social forces in our evolutionary past. Thus, social constructs – such as concepts of fairness, generosity and attractiveness – have been shaped by natural selection. Furthermore, because evolution is an on-going process, your own behavioral predispositions may represent adaptive responses to modern environments. Although there are many ways to view human behavior, we will explore three complementary approaches:

- human behavioral ecology - examines how survival and reproductive success of individuals may vary according to the behavioral strategies they follow
- evolutionary psychology - examines how our psychological predispositions may act as mechanisms that support fitness-enhancing behavior
- dual inheritance theory – pursues the concept that human genetics and culture have evolved

together and are inextricably intertwined

This course is a Critical Thinking Seminar and as such is designed to help you to develop critical thinking skills as part of the Clemson Thinks<sup>2</sup> (CT<sup>2</sup>) program. A primary goal of a critical thinking seminar is for you to gain a deeper understanding of how knowledge is constructed and to hone your ability to carefully evaluate the assumptions and logic underlying that knowledge. This is a different type of learning than that required to memorize facts and definitions, and to which you may not be as familiar or adept. As part of the CT<sup>2</sup> program, we will measure critical thinking skills through the California Critical Thinking Skills Test (CCTST) given at the start and end of the course. Although the CCTST will not influence your grade, it will be used in the overall assessment of Clemson CT<sup>2</sup> program and to help me to tailor this course to optimize your learning experience. Please complete the test carefully and thoughtfully. You can find more information on the CT<sup>2</sup> program at <http://www.clemson.edu/assessment/thinks2/>. If you have already taken this test for another course, please let me know so that I can link your test results to this course, too.

## 2. Learning Outcomes:

- Develop and hone the ability to ask good questions, identify underlying assumptions, recognize reliable and pertinent data, and to reason out answers
- Evaluate scientific hypotheses, especially those regarding the influence of natural selection in past and current environments on human behavior and behavioral predispositions
- Integrate ideas from multiple scholarly sources and effectively communicate your understanding of these concepts, both in writing and verbally
- Analyze and interpret historical and contemporary data regarding human behavioral adaptations and extrapolate to new situations in order to generate new questions

## 3. Course Format:

This course places a strong emphasis on active student participation in discussion. This means that students will play an important role in creating a class that is thought provoking and that supports a free exchange of ideas. It also means that all students are *required* to read the assigned articles *before* the first class of the week, and must be *prepared to discuss* them in class. Students will be called on and asked to demonstrate preparation for all discussions. Although showing up—on time—to class and taking notes is strongly advised, it will not count toward class-participation credit. Informed verbal participation is what comprises the “active class participation” portion of the grade.

I will post questions on article readings before each article is to be discussed. Use these questions to guide your reading, test your comprehension and formulate your own questions. We will use them during class to jumpstart our discussions. They will be graded on a scale of 0-4.

Lectures often will provide background and explanation of general theories, derived loosely from material in the textbook. In other words, the material in the textbook will serve as a springboard from which to dive into deeper analysis with other related information, such as that found in the required readings, other related studies, video, current events, etc. You may find yourself challenged to understand the lectures unless you read the assigned chapters in the textbook before coming to class, particularly if you haven't taken Behavioral Ecology.

Please understand: consistent class attendance, reading the assignments, and contributing to class discussion on a regular basis are *all* vital to a good grade.

### Lecture Notes

Taking good notes will be vital to your success in the class, particularly since only a few lectures will be accompanied by Powerpoint slides. In order to encourage effective note-taking, I will post outlines of each lecture on Blackboard before class. You may find them very useful to guide your notes of the lecture material.

### 4. Assessment Grading

Assessment	Percentage of Total
Discussion Questions checks (1.5% each of 10) =	15%
First Midterm =	10%
Second Midterm =	15%
Bibliography Exercise* =	10%
Review/Critique of Selected Articles* =	10%
Presentation Outline	5%
Presentation + Summary* =	20%
Active Class Participation =	15%

### Exams

There will be two written exams. They will cover lectures, video, discussions, supplemental information and presentations. The second (final) exam will not be cumulative. Make-up exams will only be allowed in cases in which the student has a documented valid excuse *and* contacts me within 24hr before the exam *and* schedules a make-up no later than 4 days after exam. Exams will be open book and will consist primarily of essay questions but also may include fill-in-the-blank, short answer, and graphing.

**First Midterm: Thursday, October 11<sup>th</sup>**

**Second Midterm: Wednesday, December 12<sup>th</sup>**

### Bibliography Exercise and Outline

Using the Internet to look up information, each student will explore two topics in human behavioral ecology. I will select one, the student the other. You may choose the same topic for this assignment as the one that most interests you for your presentation, as this will give you a head start on the literature search for your project. The primary goal of this assignment is to gain experience in searching out and selecting relevant scientific literature. Please note: another important goal of this exercise is to familiarize students with journal formatting requirements; therefore, points will be deducted for not following instructions and for using incorrect formatting. I will post detailed instructions on Canvas for this assignment.

**Part 1: Topic and article selections: October 18<sup>th</sup>**  
**Part 2: Web research and Formatted Articles: October 25<sup>th</sup>**

### **Critique Essay**

You will be required to write a short (3-4 page) critique comparing two articles from the bibliography you will have prepared for your presentation. No late papers will be accepted. Specific essay guidelines and rubrics to evaluate how well you have demonstrated critical thinking will be posted on Canvas.

The essays are to be written as *informed* opinion pieces and must be written in your own words. Learning to assess the research and ideas of others (not to mention one's own work) with a discriminating eye is important, not only in science, but in order to be a discerning world citizen. It is a primary goal of the course. These essays will encourage you to integrate information from multiple sources and to use critical reasoning to advocate for your own position.

### **Presentation**

Each student will be required to give a 15-minute presentation of original material (i.e., not from a paper or present that has been written for another class and not just a regurgitation of information provided in lecture). Students are encouraged to use Powerpoint or Prezi for visual aids. The essential goal is to find information from multiple scientific sources and integrate them into a cohesive, well-organized presentation. Detailed guidelines are posted on Blackboard. In general, though, the presentation must be in one of three formats:

#### **1. Review of a Theoretical Topic**

Provide a scholarly review of a topic, either one that was covered in class, or preferably, something new to the class. Either way, you must focus on information from articles that were not discussed in class.

#### **2. Report of Empirical Data**

Present your own data, or synthesize data from other sources, using the behavioral ecology/evolutionary psychology paradigms.

#### **3. Analysis of Art, a Music Genre or Other Popular Media from an Adaptive Perspective**

Interpret a literature, art, or music genre such as:

- Movie plotlines
- Plots, character types or interactions in a number of novels by a particular writer
- Plots and/or characters of folktales or ancient texts

Your analysis must be put in the context of key issues in human evolutionary ecology/psychology that we will have discussed in class (e.g., parental investment, kin selection, mating strategies, adaptive value of cultural norms, reciprocity, costly signaling, mate choice, etc.).

### **Written Summary of Presentation**

A 2-page written summary (in 11 or 12 point font) of one's presentation must be submitted to me and handed out to the class *no later than the time of the presentation*.

The summary is basically an expanded abstract with references. We will discuss expectations for the presentation & summary in greater detail in class approximately mid-semester. Students are also encouraged to talk to me about potential topics while working on the bibliography assignment and well before the date of one's presentation. Do not leave work on the presentation

until the last moment.

Please email your presentation material (such as the Powerpoint file – or the outline for any presentation without accompanying graphics) to me via email before your presentation.

### CT2 Artifact Assignments\*

As part of the Clemson Thinks<sup>2</sup> program, some assignments from each class will be submitted as artifacts for evaluation of Clemson University's Quality Enhancement Plan (QEP). The Clemson Thinks<sup>2</sup> Assessment Committee will carry out the evaluation and provide feedback to university administrators and to me about how well this course's assignments encourage critical thinking. Should your work be selected for assessment, it will in no way affect your grade in this class or your progress at Clemson University. Your FERPA rights are not violated in this process because the assessment is not connected to your scholastic record and is carried out by persons with a legitimate educational interest in our program. The assignments to be sampled and submitted as artifacts are marked with asterisks in the "Grading" table above.

### 5. Classroom Etiquette:

- a. Please be seated *before* class begins and stay for the entire class period.
- b. When class is in session, do *not* use your electronic devices for anything other than taking notes; do not read anything not assigned for the course during class and do not sleep, disrupt the class verbally or physically, or engage in text messaging. Any time that you violate this rule, you will be subject to expulsion from the class for the day.
- c. Silence cell phone ringers and put phones away during class. If you need to be able to answer your phone during class due to an emergency or critical personal issue, please let me know before class begins for the day.
- d. Please wait 15 minutes should I be late for class.
- e. Help create a positive class atmosphere by being attentive and responsive to the instructor during lecture and by being polite and respectful during class discussions.
- f. If class should be cancelled for any reason, all readings/assignments/exams for both missed day(s) and the current day will be due on the day that classes resume.

### SCHEDULE \*

WEEK 1 (Aug 23):

**Course Introduction and Overview and Introduction to Critical Thinking**

Readings: none

WEEK 2 (Aug 28 & 30): **Evolutionary Approaches to Studying Behavior**

Sutherland J, Spiegelhalter D, Burgman MA (2013) Policy: Twenty tips for interpreting scientific claims. *Nature* 503: 335–337

Bateson P, Laland KN (2013) Tinbergen's four questions: an appreciation and an update. *Trends in Ecology and Evolution* 28(12):712-718. <http://dx.doi.org/10.1016/j.tree.2013.09.013>

**Take California Critical Thinking Skills Test online**

Text Chapters 1 (p. 1-14) & 2 (p. 22-36)

**WEEK 3 (Sept 04 & 06): Inclusive Fitness & Kin Selection**

Fox M *et al.* (2010) Grandma plays favourites: X-chromosome relatedness and sex-specific childhood mortality. *Proceedings of the Royal Society B* 277: 567-573

Text Chapter 3

**WEEK 4 (Sept 11 & 13): Altruism, Reciprocity and Food Sharing**

Tomasello M (2018) How we learned to put our fate in one another's hands: The origins of morality. *Scientific American* 319(3):70-75. DOI: [10.1038/scientificamerican0918-70](https://doi.org/10.1038/scientificamerican0918-70)

Willer R, Sharkey A, Frey S (2012) Reciprocity on the hardwood: Passing patterns among professional basketball players. *PLOS One* 7:e49807

<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0049807>

Text Chapter 4

**WEEK 5 (Sept 18 & 20): Sexual Selection**

Smith EA, Bliege Bird R, Bird DW (2003) The benefits of costly signaling: Meriam turtle hunters. *Behavioral Ecology* 14: 116-126

Puts DA (2016) Human sexual selection. *Current Opinion in Psychology* 7: 28-32

Text Chapter 2 (p. 37-44)

**WEEK 6 (Sept 25 & 27): Mate Choice**

Cashdan E (2008) Waist-to-hip ratio across cultures: trade-offs between androgen- and estrogen-dependent traits. *Current Anthropology* 49: 1099-1107

Alvergne A, Lummaa V. (2009) Does the contraceptive pill alter mate choice in humans? *Trends in Ecology and Evolution* 25: 171-179

Text Chapter 5

**WEEK 7 (Oct 02 & 04): Female & Male Mating Strategies**

Scelza BA (2011) Female choice and extra-pair paternity in a traditional human population. *Biology Letters* 7: 889-891

Larmuseau MHD, Matthijs K, Wenseleers T (2016) Cuckolded fathers rare in human populations. *Trends in Ecology and Evolution* 31:327-329. DOI: [10.1016/j.tree.2016.03.004](https://doi.org/10.1016/j.tree.2016.03.004)

Text Chapter 5

**WEEK 8 (Oct 09 & 11): Male Mating Strategies**

Muller MN, Marlowe FW, Bugumba R, Ellison PT (2009) Testosterone and paternal care in East African foragers and pastoralists. *Proceedings of the Royal Society, B* 276: 347-354.

Thurs: Midterm 1: open book & articles; no notes, no electronics

**WEEK 9 (Oct 16 & 18): Cooperative Breeding and the Evolution of the Family**

Hrdy, S. B. (2016) Variable postpartum responsiveness among humans and other primates with "cooperative breeding": A comparative and evolutionary perspective. *Hormones and Behavior*, 77, 272–283. doi:[10.1016/j.yhbeh.2015.10.016](https://doi.org/10.1016/j.yhbeh.2015.10.016)

Thurs: Bibliography exercise part 1 is due

**WEEK 10 (Oct 23 & 25): Evolution of Human Life History Strategies**

Pringle H (2013) Long live the humans. *Scientific American* 309:48-55

Nettle D (2010) Dying young and living fast: variation in life history across English neighborhoods. *Behavioral Ecology* 21:387-395

Text Chapter 6

Thurs: Part 2 of Bibliography exercise is due

**WEEK 11 (Oct 30 & Nov 01): Parent-Offspring Conflict**

Cameron EZ, Dalerum F (2009) A Trivers-Willard effect in contemporary humans: Male-biased sex ratios among billionaires. *PLoS ONE* 4: e4195.

Tooley GA, Karakis M, Stokes M, Ozanne-Smith J (2006) Generalising the Cinderella Effect to unintentional childhood fatalities. *Evolution and Human Behavior* 27: 224-230

Text Chapter 7

**WEEK 12 (Nov 06 & 08): Marriage & Inheritance**

Text Chapter 8 (p. 204-221)

\*\*\*\*\* Tue Fall Break \*\*\*\*\*

Thurs: Critique Essay is due

**WEEK 13 (Nov 13 & 15): Language**

Kenneally C (2018) What makes language distinctly human: Talking through time. *Scientific American* 319(3):54-59. DOI: [10.1038/scientificamerican0918-54](https://doi.org/10.1038/scientificamerican0918-54)

Smith EO (2010) Communication and collective action: Language and the evolution of human cooperation. *Evolution and Human Behavior* 31:231-245

Text Chapter 12 (p. 323-344)

**WEEK 14 (Nov 20 & 22): Cultural Evolution**

\*\*\*\*\* Thurs Thanksgiving Break \*\*\*\*\*

Text Chapter 13

**WEEK 15 (Nov 27 & 29): Cultural Evolution (continued)**

Laland KN, Brown GR (2006) Niche construction, human behavior, and the adaptive-lag hypothesis. *Evolutionary Anthropology* 15: 95-104

Text Chapter 13

Thurs: Presentations

**WEEK 16 (Dec 04 & 06): Presentations**

Readings: none

**Final Exam: Wednesday, Dec 12, 3:00-5:30PM**

\*\* The schedule of topics is approximate. However, as long as you complete the readings by the dates on the schedule you will come to class prepared. Midterm exam, critique and presentation



dates are fixed. Students have the option of giving a presentation to the class or individually to the instructor. I reserve the right to modify the article reading assignments during the semester.

### **University Academic Integrity Policy**

"As members of the Clemson University community, we have inherited Thomas Green Clemson's vision of this institution as a 'high seminary of learning'. Fundamental to this vision is a mutual commitment to truthfulness, honor, and responsibility, without which we cannot earn the trust and respect of others. Furthermore, we recognize that academic dishonesty detracts from the value of a Clemson degree. Therefore, we shall not tolerate lying, cheating, or stealing in any form."

Academic dishonesty is defined as:

- Giving, receiving, or using unauthorized aid on any academic work;
- Plagiarism, which includes the intentional or unintentional copying of language, structure, or ideas of another and attributing the work to one's own efforts;
- Copying, editing, or deleting computer files that belong to another person or attempting to do so, or use of Computer Center account numbers that belong to another person without the permission of the file owner, account owner, or file number owner.

Clemson's **Office of Academic Integrity** provides extensive resources regarding academic integrity and can help you to comply with standards for avoiding plagiarism, giving credit where credit is due, etc.: <http://www.clemson.edu/academics/academic-integrity/integrityplagiarism.html>

I use **TurnItIn** to check your written assignments for originality. Clemson's TurnItIn feature can help you analyze the level of similarity of your document with other sources:

[http://www.clemson.edu/ccit/learning\\_tech/computer\\_training/ott/turnitin/index.html](http://www.clemson.edu/ccit/learning_tech/computer_training/ott/turnitin/index.html)

Using work that you already have completed or are currently working on for another course or purpose is self-plagiarism. Assignments handed in to this course are to be done for this course only.

### **Students with Disabilities**

Students with disabilities who need accommodations should make an appointment with me to discuss specific needs within the first month of classes. Students should present a Faculty Accommodation Letter from Student Disability Services when we meet. Student Disability Services is located in G-20 Redfern (telephone number: 656-6848; e-mail: [sds-l@clemson.edu](mailto:sds-l@clemson.edu)). Please be aware that accommodations are not retroactive and new Faculty Accommodation Letters must be presented each semester.

### **Title IX Policy**

Clemson University is committed to creating and maintaining an environment that is free from sexual harassment. Clemson University's Title IX (Sexual Harassment) Policy is located at:

[http://www.clemson.edu/campus-life/campus\\_services/access/documents/policies/harassment.pdf](http://www.clemson.edu/campus-life/campus_services/access/documents/policies/harassment.pdf)

Jerry Knighton serves as Clemson's Title IX coordinator.