

THE EVOLUTION OF HUMAN FAMILIES

Instructor

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OFFICE HOURS:

Tuesdays 2.00 – 3.00 PM and Wednesdays 3.45 – 4.45 PM or email to schedule

CLASS INFORMATION: Anthropology 3408
Monday & Wednesdays, 2.20 – 3.35 PM
Bell Hall, Room 105

Class Synopsis

As any parent can attest, raising human babies requires a lot of work! Across the mammalian taxa, our own species is one of the most dependent. We have evolved some unusual features that allow us to reproduce, including bi-parental care, extended family networks, and allocare by non-parents. In this class, we will explore parental behavior from an evolutionary perspective. We will review parental care across the mammalian taxa and general concepts in parental investment and parent-offspring conflict. We will then focus on parenting in the human lineage, from theories in early hominins to patterns in hunter-gatherers to the modern context. This is an upper level class so the format will be discussion-based and students are responsible for in-class presentations.

Class Objectives

By the end of the semester, students will be able to:

- 1) Place human parenting in a comparative perspective;
- 2) Be able to apply evolutionary theory to the evolution of human parenting;
- 3) Explain the physiological basis and outcomes of maternal and paternal behavior;
- 4) Write a mock proposal that is hypothesis-driven;
- 5) Present, discuss, and critique empirical studies on parental care;
- 6) Synthesize course content and draw from theory to answer questions in new contexts.

Class Prerequisites

This class requires that students have taken Biological Anthropology (ANTH 1001) or received permission. Despite not having strict requirements, the content is upper-level. We will draw from fields including animal behavior, physiology, and evolutionary psychology. We will cover the germane basic information but students must be prepared and willing to embrace a broad, scientific approach to our class.

Expected Out-of-Class Effort

Students are expected to read all assigned readings, work on their group projects, and complete all out-of-class discussion assignments each week. Students should expect to spend an average of 5 hours per week on the aforementioned activities and preparation for exams.

Required Texts and Reading

This course will draw from peer-reviewed publications that are assigned by your Instructor and colleagues. Assigned articles will be chosen **one week before the class period** in which they will be discussed. In addition, I recommend three texts that are optional but insightful!

Texts

1. Mothers and Others. 2009. S. Hrdy. Belknap Press. **(required)**
2. Fatherhood: Evolution and Human Paternal Behavior. 2010. P. Gray and K. Anderson. Harvard University Press. **(required)**

3. Building Babies. 2013. Edited by K. Clancy, K. Hinde, J. Rutherford. Springer Press. **(recommended)**

Class Assignments

Presentation (15%)

Class discussions will be led by 3-4 student moderators.

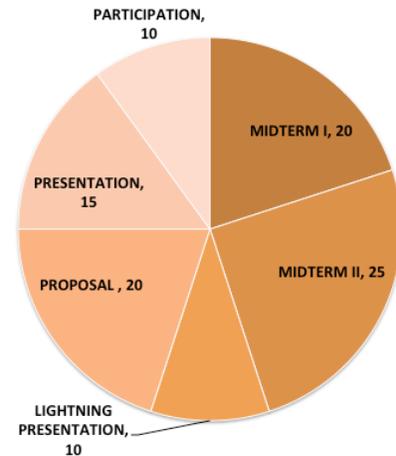
Students will sign up for their topic during the first class period.

Presentation topics and dates are indicated

in red on the class calendar. The students will:

- 1) Identify and circulate reading (s) or pertinent multi-media links one week before their class session. These assignments should provide background, empirical studies, and fodder for discussion.
- 2) Incorporate out-of-class activities as appropriate that keep us looking at and considering how class topics relate to modern human behavior.
- 3) Send the Instructor an outline for their presentation **at least one week** before class. The Instructor will provide feedback within 48 hours.

The presentations will fill the entire period but can be a mix of reading discussions, formal presentations, activities, interpretative dances, etc.



Research Proposal (20%)

In lieu of a final exam, you will work with your peers to develop a 5-page research proposal on your presentation topic. Research proposals take time and usually require multiple iterations until you develop a compelling idea and proposal. I therefore recommend that you begin working on these early in the semester, and develop a work timeline with your group in terms of first draft, feedback, etc. **Proposal ideas are due to me by 5 PM on 20 February 2016.** Each group should schedule an hour-long meeting with me between then and the due date to “pitch” your idea, get feedback, and work together to polish the proposal. Feel free to send your working draft in advance of this meeting. **Final proposals are due by 5 PM on the day when the final exam would be scheduled.** All group members will receive the same grade, so work together and assign tasks that take advantage of your various skillsets!

Lightning Presentations (10%)

Each person will pick on primary article to present in class. You will have 5-7 minutes to summarize your article and field questions; you are welcome (and probably should use a couple of slides with the major take home messages demonstrated in a figure, compelling picture, or a few words). We will have three Lightning Presentations days: **13 Feb 2016** (Maternal Effects), **6 March 2016** (Paternal Effects), and **29 March 2016** (Development of Sex Differences). **You should send your slides and articles to me by 5 PM the day before your talk.**

Midterm Exams (20% and 25%)

The final exam will be short answer and essay-based. Essays will be focused on how well students can take the course concepts and apply them to theoretical or new situations. The first mid-term is on **1 March 2016** and the second mid-term is **3 May 2016; the second mid-term is comprehensive.**

Participation (10%)

Your participation grade is determined by both your attendance and active participation in class. I will keep track of attendance, conversational participation, and participation in group assignments by your colleagues.

The most fundamental class ethic is one of respect. You will receive an automatic zero for any comment that fails to maintain the highest level of respect and collegiality.

Class Policies

Attendance

You are expected to attend each class. If the absence is un-planned, you should write your instructor on the day of the absence. More than one missed session without notification will result in a point deducted from your participation grade.

Office Hours

I am here as a resource both in and outside of class! Come see me if you have questions, during my regularly scheduled office hours. If you cannot make them, please write me in advance to schedule another time, but please understand that we all have busy schedules so I may not be as flexible as you would like.

Make-up Exams and Presentations

No regular make-up exams or presentations will be given. Rescheduling will be considered on an individual basis **prior** to the exam or presentation date. The dates for the exams are posted on the course schedule, below. Please make travel plans accordingly. If you miss an exam, documentation verifying a medical or other emergency is required.

Religious Observance

It is completely acceptable for you to miss class meeting(s) due to observance of a religious holiday, without penalty. However, it is your responsibility to look ahead on the calendar, and notify me no later than **Jan 30** of your intention to be absent from class on the day(s) of religious observance. Please also schedule your presentations around any days on which you have religious holidays.

Academic Integrity

I personally support the GW Code of Academic Integrity, and will address violations of this code accordingly. It states: "Academic dishonesty is defined as cheating of any kind, including misrepresenting one's own work, taking credit for the work of others without crediting them and without appropriate authorization, and the fabrication of information." It is your responsibility to read and understand this and other stipulations of GW's Code of Academic Integrity, and complete all class work in accordance with this code. For the remainder of the code, see: <http://www.gwu.edu/~ntegrity/code.html>

SUPPORT FOR STUDENTS OUTSIDE OF THE CLASSROOM

Disability Support Services (DSS)

Any student who may need an accommodation based on the potential impact of a disability should contact the Disability Support Services office at 202-994-8250 in the Marvin Center, Suite 242, to establish eligibility and to coordinate reasonable accommodations. For additional information, please refer to <http://gwired.gwu.edu/dss/>

University Counseling Center (UCC)

The Counseling Center (UCC) offers 24/7 assistance and referral to address students' personal, social, career, and study skills problems. Services for students include: crisis and emergency mental health consultations; and confidential assessment, counseling services (individual and small group), and referrals. You can reach the UCC at 202-994-5300. For additional information, please refer to <http://gwired.gwu.edu/counsel/CounselingServices/AcademicSupportServices>

SECURITY

In the case of emergency, if at all possible, the class should shelter in place. If the building that the class is in is affected, follow the evacuation procedures for the building. After the evacuation, seek shelter at a predetermined rendezvous location.

Class Topics and Schedule

I reserve the right to change the schedule as dictated by our class so that we have the most informative and thought-provoking semester possible. I look forward to the semester and learning from each other!

WEEK	TOPIC	ASSIGNMENTS	READINGS
1 (1/18)	INTRODUCTION; DARWINIAN EVOLUTION		
2 (1/23 & 1/25)	HUMAN EVOLUTION; SOCIO-ECOLOGY; PARENTAL INVESTMENT THEORY		Quinlan 2007; Marean 2016; Fokkema et al.2016; Hrdy Chapter 1
3 (1/30 & 2/1)	COMPARATIVE LIFE HISTORY; MATERNAL EFFECTS; PROGRAMMING		TO BE ASSIGNED BY THE INSTRUCTOR OR YOUR PEERS <u>ONE WEEK BEFORE REQUIRED</u> ; READINGS WILL BE POSTED ON BLACKBOARD
4 (2/6 & 2/8)	CORRELATES OF MATERNAL CARE; MICROBIOME DEVELOPMENT AND OUTCOMES		
5 (2/13 & 2/15)	SEXUAL SELECTION & MATE CHOICE	LIGHTNING TALKS – Maternal Effects (2/13)	
6 (2/20 & 2/22)	NO CLASS ON 2/20; MODERN MATCHMAKING – HUMAN MATE SELECTION	Research Proposal Topics due by 5 PM on 2/20	
7 (2/27 & 3/1)	PATTERNS AND PREDICTORS OF PATERNAL CARE	MIDTERM I (3/1)	
8 (3/6 & 3/8)	HORMONAL CORRELATES OF PATERNAL CARE; MALE SEXUALITY AND AGE	LIGHTNING TALKS – Paternal Effects (3/6)	
9 (3/13 & 3/15)	SPRING BREAK		
10 (3/20 & 3/22)	RELIGION AND FAMILY STRUCTURE ; FAMILY PLANNING		
11 (3/27 & 3/29)	PARENT-OFFSPRING CONFLICT; SIBLING COMPETITION; GENDERIFICATION	LIGHTNING TALKS – Development of Sex Differences (3/29)	
12 (4/3 & 4/5)	STEP-PARENTING; HOMOSEXUALITY		
13 (4/10 & 4/12)	COOPERATIVE BREEDING; ALLOPARENTAL CARE; ADOPTION; EVOLUTIONARY THEORIES OF ADOPTION		
14 (4/17 & 4/19)	GRANDMOTHER HYPOTHESIS; MENOPAUSE AND REPRODUCTIVE SENESENCE IN NATURE		
15 (4/24 & 4/26)	ALLOPARENTING AND SOCIO-COGNTITION; EMPATHY		
16 (5/1 & 5/3)	Wrap-up	MIDTERM II (5/3)	

RESEARCH PROPOSALS ARE DUE AT 5 PM ON THE DAY OF THE SCHEDULED FINAL

Evolution of Human Families Presentation Rubric:

TOPIC: _____

GROUP MEMBERS: _____

INDIVIDUAL: _____

TOTAL SCORE _____/100

Content _____/50 pts total

- Assign at least one peer-reviewed articles _____ **out of 10**
- Topic fits into the larger scheme of the week and class _____ **out of 10**
- Topic is well researched and primary studies incorporated _____ **out of 10**
- Clear definitions and good use of examples _____ **out of 10**
- Provide insightful questions and effectively lead class discussion _____ **out of 10**

Presentation _____/30 pts total

- Presentation is well timed (including time for discussion) _____ **out of 6**
- Clear articulation and eye contact _____ **out of 6**
- Enthusiastic and engaging presentation _____ **out of 6**
- Aesthetically pleasing (number of words on the slides, etc.) _____ **out of 6**
- Equal participation from all group members _____ **out of 6**

Creativity _____/20 pts total

- Creative topic and overarching question _____ **out of 10**
- Unique/creative way of engaging the class (game, media, etc.) _____ **out of 10**

INSTRUCTOR COMMENTS

Synopsis:

Strengths:

Areas for Improvement:

RESEARCH PROPOSAL GUIDELINES

Your research proposals are due by **5 PM on the day of the final exam**, via email. Points will be deducted for any lateness in submitting your proposal.

Proposals should be **single-spaced, in 11 or 12-point font, with 1-inch margins**. Usually people end up needing more space and so opt for the smaller font size, but I leave this to you. The text of the proposal, including any tables or figures that you want to include, should be **no more than 5 pages in length** (again, my feeling is that you will need all this space and likely wish you had more; this is pretty standard in proposal preparation). References are not included in the page total and should be in APA style. An example of this style is provided below.

In Text of Proposal: A recent study demonstrated that Filipino fathers have lower testosterone than non-fathers (Gettler et al. 2011).

Reference: Gettler, L. T., McDade, T. W., Feranil, A. B., & Kuzawa, C. W. (2011). Longitudinal evidence that fatherhood decreases testosterone in human males. *Proceedings of the National Academy of Sciences*, 108(39), 16194-16199.

A successful proposal must contain the following components: Specific Aims, Study Rationale, Study Significance, and Study Design & Methodology. You can organize these components as behooves your proposal but I expect that the order above, or Specific Aims, Study Rationale, Study Design & Methodology, and Study Significance will be most compelling. I provide additional information and tips on each below.

Specific Aims: This section gives a short justification for your study and lists your specific aims or research objectives. If you have an over-arching hypothesis, it sometimes works well to include it here. In a sense, this is a short abstract or synopsis for your research that will be expanded upon in the sections below.

Study Rationale or Research Background: This section provides an overview of pertinent literature. Be judicious about what topics are included in this section; space is limited and you need to make sure that every sentence counts and goes directly toward your research questions. However, it is equally important that this section is robust enough to justify your study, place it in a broader context (i.e. what is the theoretical background for the study), review pertinent work in other species, and justify your hypothesis. If your hypotheses and predictions come out of left field, your audience will be puzzled. Some researchers use sub-headers in this section if it makes the proposal more cogent.

Study Significance: This section is usually just 1-2 paragraphs, but often the most important part of the proposal. Why is your study critical? What gap does it fill in our knowledge? What would a funding agency want to fund your proposal above others, especially since funds are limited? Researchers often highlight the broader impacts of their work here, and note aspects of their study that are novel.

Study Design and Methodology: You should outline your questions and approach in this section. It often works best to first describe your study system (Where will you conduct this research? Why is the study site and population appropriate for your questions?). This is the place where many researchers give more specific predictions for each question, drawing from the literature that they reviewed in the sections above and provided additional information as necessary. Describe how you will collect and analyze data for each question or aim in your proposal. Feel free to play with the order in this section; it sometimes works best to organize by question such that the methods are given under each but it can also work well to give all the questions and predictions first, followed by the methods. It really depends upon if each question has a unique dataset or one dataset will be used for all of them. Make sure you justify your metrics here by reference theory or other studies that demonstrate they are appropriate. For example, if you are using infant birth weight as a measure

of offspring fitness, you should include some detail like “Numerous have demonstrated that offspring with low birth weight have a higher risk of mortality and developing diabetes later in life (REFS)”

TIPS FOR SUCCESS

1. Draw on the strength of your team members. If some students write more quickly and fluidly, then perhaps they should be charged with writing all the text while others outline sections and provide them with pertinent references. Remember that you will be assigned a group grade so works as efficiently as possible and take advantage of different skillsets.
2. Writing proposals is an iterative process. You should have a full draft early and circulate it to all group members. Think critically about the framing and ensure that each point of the proposal is well justified. Edit. Circulate again. I would be surprised if you did not have very heavy edits to your first version. Do not take it personally if one of your members makes big suggestions; this is part of the process which ultimately leads to a nice tight proposal.
3. It sometimes works well to use (REF) as a placeholder if you are writing quickly and know you need to go back and find the most appropriate references.
4. Because space is limited, it often works best to have several references that demonstrate a point but give 1-2 examples in more detail. For example, you might write something like: “Studies have now demonstrated that fathers bias their behavior towards their offspring in several promiscuous primate species (baboons: Buchan et al 2003; Charpentier et al. 2008; Moscovice et al. 2010; Huchard et al. 2012, mandrills: Charpentier et al. 2007; macaques: Ostner et al. 2013; Langos et al. 2013; capuchins: Muniz et al. 2006; langurs: Borries et al. 1999). For example, fathers intervened on behalf of their offspring in conflicts (Buchan et al. 2008), and father presence during the immature period predicted accelerated offspring maturation (Charpentier et al. 2007) in yellow baboons.” This demonstrates that the pattern is well supported without using too much space. Remember that your hypotheses usually come from patterns in other species and/or theoretical reasons to expect your species to be the same or different.
5. If the sections above do not work well for you, you can adopt another format so long as each of the components is covered.
6. Feel free to ask your peers for a friendly review. It may help to have a fresh pair of eyes on your proposal.