

General Syllabus
PRIMATOLOGY & HUMAN EVOLUTION
Anthropology 350

“Why is man man? As long as we have had minds to think with, stars to ponder upon, dreams to disturb us, curiosity to inspire us, hours free for meditation, words to place our thoughts in order, the question, like a restless ghost, has prowled the cellars of our consciousness.”

— Robert Ardrey¹

“Origin of Man proved—metaphysics must flourish—he who understands baboon would do more toward metaphysics than Locke.”

— Charles Darwin²

Instructor:	Dr. Ryne A. Palombit Office: BIO (Biological Sciences Bldg.) Room 209A (Douglass Campus) Phone: (848) 932-9275; palombit@rutgers.edu http://www.rci.rutgers.edu/~palombit/ Office Hours: Thursdays 2-4 pm pm or by appointment
Sakai Course Website:	This site (PRIMATOL HUM EVOL 01 Sp19) will have lecture outlines, readings, announcements, etc. You must use the Sakai site (not email) to submit questions about course material, schedule, etc. Post your question in the “Forums” area in the section of the area of the Sakai site (see below). You’ll also submit assignments on Sakai.
Meeting Time & Place:	Monday, Wednesday, 3:55 - 5:15 pm, BIO 206
Prerequisites:	Anthropology 212, Life of Primates
Textbook:	van Schaik, C.P. 2016. <i>The Primate Origins of Human Nature</i> . Wiley Blackwell, New York.
Optional Textbook:	Mitani, J.C., Call, J., Kappeler, P.M., Palombit, R.A. & Silk, J.B., eds. 2012. <i>The Evolution of Primate Societies</i> . University of Chicago Press, Chicago.

Course Description and Learning Goals:

In the course, we will explore the degree to which the field of primatology helps us to understand thinking about the evolution of *human* behavior. The objectives of the course are: (1) to survey recent data and ideas on nonhuman primate behavioral biology; (2) to appreciate the contributions and limits of such data for thinking about human behavior; (3) to develop skills in critical thinking and explanation of patterns of life from the “functional perspective” provided by Darwin’s concept of natural selection.

¹ Ardrey, R. 1976. *The Hunting Hypothesis*. Atheneum, New York.

² Darwin, C.R. A private note scribbled to himself, Notebook M.

Course Requirements

1. Midterm Exam: 25%
2. Term Paper Topic Assignment: 5%
3. Term Paper: 30%
4. Group Led Discussion: 10%
5. General Participation: 5%
6. Final Exam: 25%

Attendance of Lectures & Participation

Lecture attendance is crucial for success in the course.

General Participation (5% of course grade)

Participation is a very important component of core course responsibilities. This takes two forms, one informal and one more formal. Informally, with a few exceptions, class meetings will have limited “lecture presentations” by me, and will be more discussion oriented. You are encouraged to ask questions and make comments during these meetings. The second form is more structured as either the **Primate Family Presentation** or, as immediately below, the **“Group-Led Discussions.”**

Primate Family Presentation

As part of our review of the Order Primates early in the semester (see schedule below), you will do one 10-minute class presentation on a single primate Family. A hand-out will be distributed early in the semester with details. NOTE: those of you who are *not* presenting a primate family on a particular day will be assigned to ask a question of a presenter. So, *you must participate too*, but in a different way.

Group Led Discussions (10% of course grade)

More formally, you and a classmate partner will lead the discussion in at least one class meeting that focuses on a controversial issue concerning human behavior and the relevance (or irrelevance) of nonhuman primate data for clarifying our understanding. You’ll guide a debate and lead discussion with other students into the insights and limits of primatology. Here’s what you’ll do:

- you and your partner will do a peruse the scientific literature (see instructions below) and you will each find two scientific papers on your topic.
- you and your partner will also peruse the popular press, i.e., newspapers, magazines, blogs, but *not scientific* sources. each you’ll each find 3 new articles on your topic. It is fine to use news stories reporting some recent scientific study, but avoid the really brief news stories that simply provide a quick summary with no interpretation. You want some articles that actually try to make sense of data.
- work with your partner on the above!
- at least 10 days before the date for your group discussion, you will each email me your 2 scientific papers and 3 popular press stories (your partner is sending the same) with a recommendation whether or not these documents would be worth assigning as readings to help with the discussion you will lead: be sure to explain *why* you recommend or don’t recommend. Note: you do *not* have to keep searching until you find papers you recommend.
- then you and your partner will lead the discussion
- Note for the rest of you who are not “discussion leaders”: you have as much responsibility to participate in the discussion as the discussion leaders!

Exams (each 25% of course grades)

The questions for each exam will be handed out in lecture one week before the exam date. They will not be emailed or posted on the internet. You will then have the intervening week to prepare your answers. You'll write them in a blue book. You can bring one sheet of paper with notes on one side to assist you in writing the essays. You'll hand that sheet in with your blue books.

Policy Regarding Missed Exams

Makeup assignments for missed exams are not provided except under highly unusual circumstances such as illness or family emergency. Having exams or coursework for other courses due on the same day or same week is not a valid reason for a make-up (except with respect to University rules regarding the final exam). If you would like to be considered for a makeup assignment for a missed exam, you must fulfill the following two conditions:

1. You must notify me about the missed exam using the University-wide Absence Reporting System (<https://sims.rutgers.edu/ssra/>) **within 48 hours** of the missed exam.

2. Within **one week** of the missed exam, you must provide me a valid excuse, documented in writing and signed by an appropriate authority (e.g., physician or your **Dean of Students**). This document *must refer explicitly to the date of the exam*.

If **both** conditions are met and if I judge that the excuse was reasonable, then you will be allowed to do a makeup assignment. Note: if you fail to fulfill either condition above, you are ineligible for a makeup assignment. The makeup assignment will be either: 1) taking a make-up examination (either oral, written, or both); or 2) writing a major term paper on a topic assigned to you.

It is **your responsibility to note the date and time of all exams, including the final, and to plan accordingly**. If you miss the exam, or any part of it, because you thought it was on a different day or at a different time, you can *not* receive extra time or a make-up exam. So, **take note now** & mark your calendar, iPod, mobile phone, etc. The dates & times of exams are below, and on the University webpage for Schedule of Final Exams (<https://finalexams.rutgers.edu>) for the third exam. If you think you have an "exam conflict" situation for the final exam and the final in another course, consult the University Rules about what constitutes "a conflict" at: <https://www.sas.rutgers.edu/cms/sasoue/policies-resources/exams/15-policies-resources/policies/65-final-exams-policies>. The University has specific rules about this. If your conflict situation fits one of the criteria given, then **inform me of this situation well before the exam** (*not after the exam*).

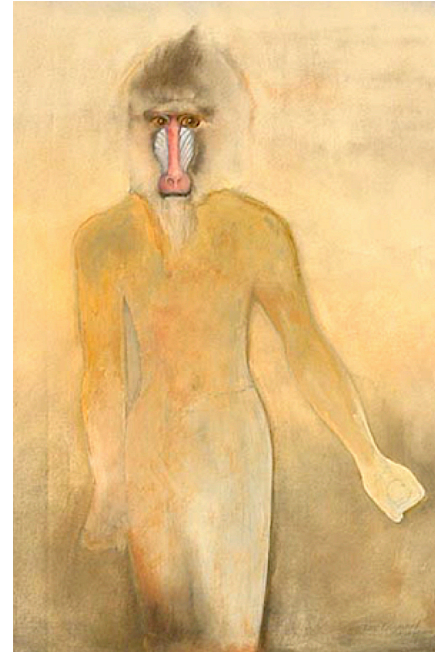
Classroom Etiquette: Respect Your Fellow Students

You have responsibilities to fellow students to minimize disruptions to their concentration and attention to lectures and *to their discussions*:

- **no texting or e-messaging or phone use** of any kind **during lectures**
- **no packing up to leave** before class is dismissed
- If you arrive late, sit in one of the two rows in the back, by the door
- If you know you'll need to leave the lecture early, let me know beforehand and please sit in the back row near the door



The **Term Paper** (30% of course grade) essentially encapsulates in miniature the basic goals of the entire course. You will choose one kind of behavior in human behavior ecology and then evaluate critically the extent to which primatology help us understand it. Some examples: warfare and aggression, sexual coercion, cultural transmission, cognition and thinking, altruism, care of infants by individuals who aren't the infants' parents. You will want to present an argument that both highlights the insights and limits of nonhuman primate data for understanding a particular type or instance of human behavior. A handout providing more details about the term paper will be distributed. The paper should be **10 pages, double-spaced**.



Term Paper Topic Approval: Your term paper topic must be approved by me **before** you commence work on it. You must it to me **in the Assignments area of Sakai site on or before 11:55 pm on February 26** (5% of your course grade is for this; for full credit, you must submit by the deadline). I will provide feedback and, ultimately, approval. You are welcome to discuss the question with me verbally, but you *must later email* it to me. Because students cannot duplicate topics & taxa, they are *allocated on "first come, first serve" basis* (so email as soon as you have your topic, but be prepared to switch if someone else has already chosen it: date of email is considered date of submission).

The term paper is to be submitted on Sakai before **11:55 pm on May 4**.

You are expected to use the library's reference tools to read and use the recent literature & also to learn to do scholarly work.

Here are a few tips for conducting literature searches.

1. One useful approach is to search the literature for particularly key words of interest. To do this:
 - Go to <http://www.libraries.rutgers.edu/>
 - enter the key words of interest in the "Search library resources" box & hit return
 - try searching different sets of key words
2. One useful source is PrimateLit. To access:
 - Go to <http://www.libraries.rutgers.edu/>
 - click on "Database" on the left side of the screen
 - click on the letter "P"
 - scroll down and click on "PrimateLit"
 - click the "connect" button
 - you can then browse or search different keywords
3. You can also use Google Scholar (<https://scholar.google.com>) to conduct searches of key words in professional journals.

NOTE: do *not* have the attitude that you'll use *only* electronically available papers! If a particularly compelling or valuable resource is physically in the library but unavailable online, *be willing to go there!* It's worth it!

Academic Integrity

Rutgers has *zero tolerance* for cheating, plagiarism and other infringements of academic integrity.

Consult <http://academicintegrity.rutgers.edu/> and <http://academicintegrity.rutgers.edu/resources-for->

[students/](#) to review what constitutes a violation of academic integrity and what sanctions are taken against violators. Students may be assigned randomly to seats prior to the exam. Plagiarism is particularly relevant for the term paper and extra credit. Just as during lectures, cell phones must be turned off and stowed during exams.

Students agree that by taking this course all required papers may be subject to submission for textual similarity review to [Turnitin.com](#) (directly or via learning management system, i.e. Sakai, Blackboard, Canvas, Moodle) for the detection of plagiarism. All submitted papers will be included as source documents in the [Turnitin.com](#) reference database solely for the purpose of detecting plagiarism of such papers. Use of the [Turnitin.com](#) service is subject to the Usage Policy posted on the [Turnitin.com](#) site.

Students who do not agree should contact the course instructor immediately.

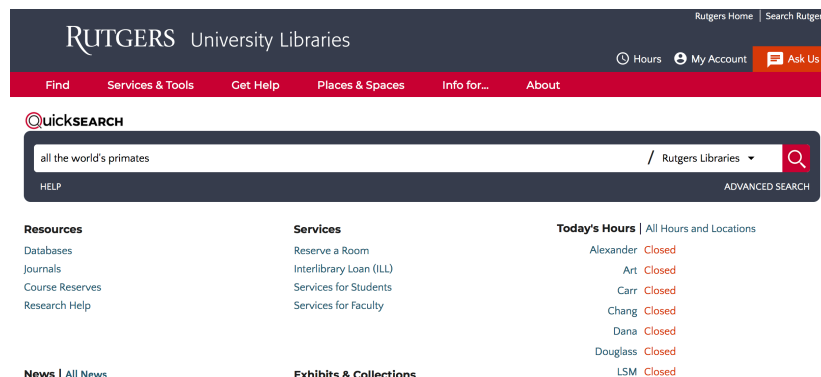
Bill Gates Ate My Homework

Computer glitches (such as computers that die, hard disks that crash, flash drives that freeze, etc.) will not be accepted as excuses for failure to do assignments on time, to study for exams, etc. It is your responsibility to ensure that everything you do on a computer is **properly & frequently backed up** so that failure of a computer or drive has *no effect* on your academic performance.

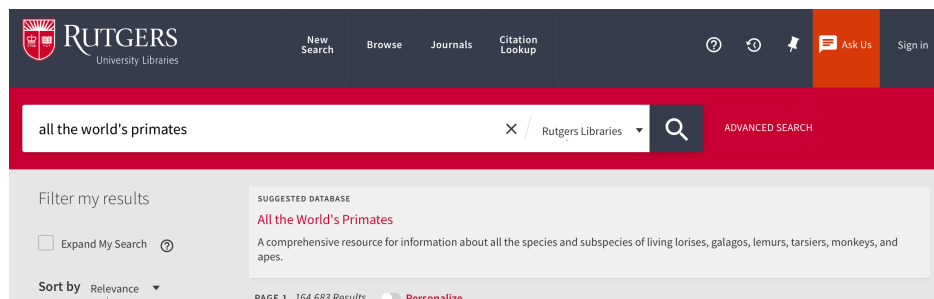
Extremely Useful Online Database: *All the World's Primates*

All the World's Primates is a huge data base of information on primates from the scientists who are actually studying them. It is continuously updated. Fortunately, Rutgers University subscribes to it, so you are able to take advantage of this great source. Here's how to access:

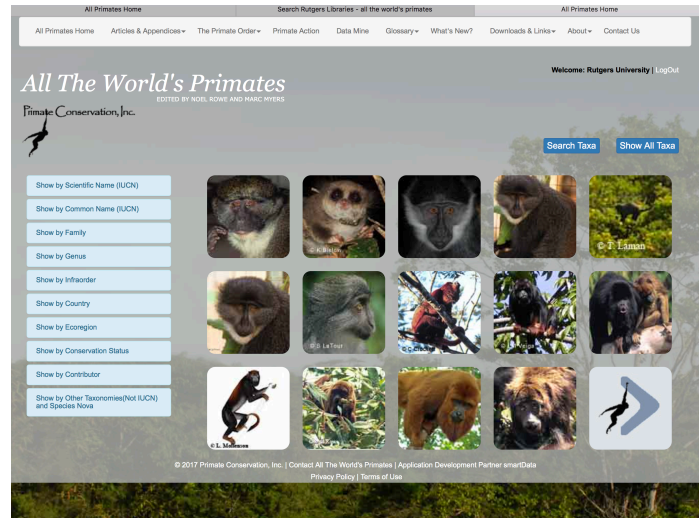
1. Go to <http://www.libraries.rutgers.edu/>
2. You'll be taken to this page, where you should type "All the World's Primates" into the Quicksearch box:



3. You'll be taken to this page, which indicates the "SUGGESTED DATABASE":



4. Click on the “**All the World’s Primates**” above, and you may then need to log in with your NetID, after which you’ll be taken to the *All the World’s Primates* page:



You can use the buttons on the left to navigate to different primate groups and you can do searches.

Another Interesting Resource: Robert Martin’s Blog

Robert Martin is an evolutionary primatologist who maintains a fascinating blog entitled *How We Do It* on human behavior from a primatological perspective. It thus may be of interest as you think about topics in the course and as you do research for Group-Led Discussion and your term paper. Go to: <https://www.psychologytoday.com/intl/blog/how-we-do-it/>.

SCHEDULE

Topics and the dates for which they occur in schedule below may be modified slightly as the semester progresses. Readings will be announced and posted a week before the meeting for which they are assigned. Any reference to “van Schaik” with a chapter number, e.g. “van Schaik, Chapter 12,” is a reading from your textbook.

IMPORTANT: You should *download* all the readings and lecture outlines onto your personal computer as they become available during the semester. Why? Because it is not at all uncommon for Sakai to get so much traffic during finals week that it slows way down, and is practically useless at times! That means you may not have consistent/reliable access to Sakai when you need to prepare for the second exam. Thus, inability to access Sakai during finals week will ***not*** be a reason to request taking the second exam at another time.

DATE	TOPIC	READINGS
Jan. 23	Organization of Course	
Jan. 28	“Asking Questions” I	van Schaik, Chapter 2 (sections 2.1 through 2.4 only, pp. 21-32). Bateson, P. & Laland, K.N. 2013. Tinbergen’s four questions: An appreciation and an update. <i>Trends in Ecology & Evolution</i> , 28:712-718.
Jan. 30	“Asking Questions” II	<i>Ditto above</i>

Feb. 4	Basic Evolutionary Concepts: Natural Selection, Group Selection, Social Evolution	Mayr, E. 1974. Behavior programs and evolutionary strategies. <i>American Scientist</i> , 62 (6): 650-659. Strier, K.B. 2011. Evolution and social behavior, Chapter 4 from: Strier, K.B. 2011. <i>Primate Behavioral Ecology</i> , 4th ed. Prentice Hall, Boston. van Schaik, Chapter 1, Chapter 2 (sections 2.5 through 2.8, pp. 32-40).
Feb. 6	<u>Student Presentations</u> Review of the Primates I: Cheirogaleidae, Lemuridae, Tarsiidae, Callitrichidae, Cebidae, Aotidae	Roos, C. & Zinner, D. 2017. Primate phylogeny. In: <i>The International Encyclopedia of Primatology</i> , (A. Fuentes, ed.) pp. John Wiley & Sons, Inc., New York. Groves, C.P. 2017. Primates (Taxonomy). In: <i>The International Encyclopedia of Primatology</i> , (A. Fuentes, ed.) pp. John Wiley & Sons, Inc., New York. Masters, J.C., Pozzi, L. & Godfrey, L.R. 2017. Evolution of modern strepsirrhines. In: <i>The International Encyclopedia of Primatology</i> , (A. Fuentes, ed.) pp. John Wiley & Sons, Inc., New York.
Feb. 11	<u>Student Presentations</u> Review of Primates II: Pitheciidae, Atelidae, Cercopithecinae, Colobinae, Hylobatidae, Hominidae	
Feb. 13	Primate Models: Comparative Approaches	Strier, K.B. 2001. Beyond the apes: Reasons to consider the entire primate order. In: <i>Tree of Origin</i> (F.B.M. de Waal, ed.), pp. 69-93. Harvard University Press, Cambridge, Massachusetts. Martin, R.D. 2002. Primatology as an essential basis for biological anthropology. <i>Evolutionary Anthropology</i> , 11, Supplement 1:3-6. Chapais, B. 2008. The question of the origin of human society. Chapter 1 from: <i>Primeval Kinship</i> . Harvard University Press, Cambridge, Massachusetts. Kappeler, P.M., Silk, J.S., Burkart, J.M., and van Schaik, C.P. 2010. Primate behavior and human universals: Exploring the gap. In: <i>Mind the Gap: Tracing the Origin of Human Universals</i> (P.M. Kappeler & J.B. Silk, eds.), pp. 53-84. Springer, Berlin.
Feb. 18	Movie: David Attenborough's <i>Food for Thought</i> (viewing)	Wrangham, R.W. & Pilbeam, D. 2001. African apes as time machines. In: <i>All Apes Great and Small</i> vol. 1. <i>African Apes</i> (B.M.F. Galdikas, N.E. Briggs, L.K. Sheeran, G.L. Shapiro & J. Goodall, eds.), pp. 5-17. Kluwer, New York.
Feb. 20	Movie: David Attenborough's <i>Food for Thought</i> (discussion)	<i>Ditto above</i>
Feb. 25	Sexual Selection Basics	van Schaik, Chapter 10. Petersdorf, M. & Higham, J.P. 2017. Mating systems. In: <i>The International Encyclopedia of Primatology</i> , (A. Fuentes, ed.) pp. John Wiley & Sons, Inc., New York.
Feb. 26	Last day to submit Term Paper Topic on Sakai by 11:55 pm	

Feb. 27	Mating Systems / Sexual Conflict I	van Schaik, Chapter 11. Palombit, R.A. 2010. Conflict and bonding between the sexes. In: <i>Mind the Gap: Tracing the Origin of Human Universals</i> (P.M. Kappeler & J.B. Silk, eds.), pp. 53-84. Springer, Berlin.
Mar. 4	Sexual Conflict II	Palombit, R.A. 2015. Infanticide. In: <i>The International Encyclopedia of Human Sexuality</i> , 1st ed. (P. Whelehan & A. Bolin, eds.), DOI: 10.1002/9781118896877.wbiehs232. John Wiley & Sons, New York.
Mar. 6	Discussion of sexual selection in nonhuman & human primates	van Schaik, Chapter 12.
Mar. 11	Aggression & Warfare	van Schaik, Chapter 21. Mitani, J.C. 2017. Boundary patrols. In: <i>The International Encyclopedia of Primatology</i> (A. Fuentes, ed.), DOI: 10.1002/9781119179313.wbprim0024. John Wiley & Sons, Inc., New York.
Mar. 13	Exam 1	
Mar. 18	<i>Spring Break</i>	
Mar. 20	<i>Spring Break</i>	
Mar. 25	Sociality, Altruism, Morality	van Schaik, Chapters 17, 20, and 22.
Mar. 27	Student-led Discussion: <i>Aggression & War</i>	Wilson, M.L. 2017. Demonic male theory. In: <i>The International Encyclopedia of Primatology</i> , (A. Fuentes, ed.) pp. John Wiley & Sons, Inc., New York. Ferguson, R.B. 2009. Born to live: Challenging killer myths. In: <i>Origins of Altruism and Cooperation</i> , (R.W. Sussman & C.R. Cloninger, eds.), pp. 249-270. Springer, New York. Wilson, M.L., Boesch, C., Fruth, B., Furuichi, T., Gilby, I.C., et al. 2014. Lethal aggression in <i>Pan</i> is better explained by adaptive strategies than human impacts. <i>Nature</i> , 513:414-417. Wrangham, R.W. & Glowacki, L. 2012. Intergroup aggression in chimpanzees and war in nomadic hunter-gatherers. <i>Human Nature</i> , 23:5-29.
Apr. 1	Primate Minds I	van Schaik, Chapter 24. Völter, C.J. & Call, J. 2017. Cognition. In: <i>The International Encyclopedia of Primatology</i> , (A. Fuentes, ed.) pp. John Wiley & Sons, Inc., New York. Call, J. & Santos, L.R. 2012. Understanding other minds. In: <i>The Evolution of Primate Societies</i> (J.C. Mitani, J. Call, P.M. Kappeler, R.A. Palombit & J.B. Silk, eds.), pp. 664-681. University of Chicago Press, Chicago.
Apr. 3	Primate Minds II	van Schaik, Chapter 25. Dufour, V. 2017. Theory of Mind. In: <i>The International Encyclopedia of Primatology</i> , (A. Fuentes, ed.) pp. John Wiley & Sons, Inc., New York.

Apr. 8	Student-led Discussion: <i>Altruism & Morality</i>	Fehr, E. & Fischbacher, U. 2003. The nature of human altruism. <i>Nature</i> , 425:785-791. Warneken, F. & Tomasello, M. 2006. Altruistic helping in human infants and young chimpanzees. <i>Science</i> , 311. Hare, B. 2017. Survival of the friendliest: <i>Homo sapiens</i> evolved via selection for prosociality. <i>Annual Review of Psychology</i> , 68:155-186. Burkart, J.M., Brügger, R.K. & van Schaik, C.P. 2018. Evolutionary origins of morality: Insights from non-human primates. <i>Frontiers in Sociology</i> , 3:17DOI 10.3389/fsoc.2018.00017.
Apr. 10	Review of Hominin Evolution <i>Guest Lecture by Fred Foster, PhC</i>	van Schaik, Chapter 6. Wood, B. & K. Boyle, E. 2016. Hominin taxic diversity: Fact or fantasy? <i>American Journal of Physical Anthropology</i> , 159:37-78.
Apr. 15	Review Primate Ecology	van Schaik, Chapter 7.
Apr. 17	Student-led Discussion: <i>Theory of Mind</i>	Povinelli, D.J. & Vonk, J. 2003. Chimpanzee minds: Suspiciously human? <i>Trends in Cognitive Sciences</i> , 7:157-160. Tomasello, M., Call, J. & Hare, B. 2003. Chimpanzee versus humans: It's not that simple. <i>Trends in Cognitive Sciences</i> , 7:239-240. Call, J. & Tomasello, M. 2008. Does the chimpanzee have a theory of mind? 30 years later. <i>Trends in Cognitive Science</i> , 12:187-192.
Apr. 22	Student-led Discussion: <i>Intelligence: Social or Dietary Strategy?</i>	Shultz, S. & Dunbar, R.I.M. 2007. The evolution of the social brain: Anthropoid primates contrast with other vertebrates. <i>Proceedings of the Royal Society of London Series B</i> , 274:2429-2436. Bissonnette, A., Franz, M., Schülke, O. & Ostner, J. 2014. Socioecology, but not cognition, predicts male coalitions across primates. <i>Behavioral Ecology</i> , DOI: 10.1093/beheco/aru054. Schuppli, C., Graber, S.M., Isler, K. & van Schaik, C.P. 2016. Life history, cognition and the evolution of complex foraging niches. <i>Journal of Human Evolution</i> , 92:91-100.
Apr. 24	Modular (Multi-Level) Societies	Stammbach, E. 1987. Desert, forest and montane baboons: Multilevel-societies. In: <i>Primate Societies</i> , (B.B. Smuts, D.L. Cheney, R.M. Seyfarth, R.W. Wrangham & T.T. Struhsaker, eds.), pp. 112-120. University of Chicago Press, Chicago: sections on social behavior. Palombit, R.A. 2017. Baboon (<i>Papio</i>). In: <i>The International Encyclopedia of Primatology</i> (A. Fuentes, ed.), DOI: 10.1002/9781119179313.wbprim0425. John Wiley & Sons, Inc., New York: section on social behavior.

Apr. 29	Student-led Discussion: <i>Reconstructing Hominin Social Behavior</i>	Van Schaik, Chapter 19. Plavcan, J.M. 2000. Inferring social behavior from sexual dimorphism in the fossil record. <i>Journal of Human Evolution</i> , 39:327-344. Nelson, E., Rolian, C., Cashmore, L. & Shultz, S. 2011. Digit ratios predict polygyny in early apes, <i>Ardipithecus</i> , Neanderthals, and early modern humans, but not in <i>Australopithecus</i> . <i>Proceedings of the Royal Society of London Series B</i> , 278:1556-1563. Godinho, R.M., Spikins, P. & O'Higgins, P. 2018. Supraorbital morphology and social dynamics in human evolution. <i>Nature Ecology & Evolution</i> , 2:956-961. Swedell, L. & Plummer, T. 2012. A papionin multilevel society as a model for hominin social evolution. <i>International Journal of Primatology</i> , 33:1165-1193.
May 1	Q&A about term paper Movie, <i>The New Chimpanzees</i> (viewing)	
May 4	Last day to submit term paper on Sakai by 11:55 pm	
May 6	Movie, <i>The New Chimpanzees</i> (discussion) Go over questions for Final Exam	
May 15	Final Exam: 12 - 3 pm	

