Theories of Human Uniqueness
CGSC xxx / PSYC xxx
DRAFT SYLLABUS
COMMENTS WELCOME

Instructor: Mark Sheskin
E-mail: mark.sheskin@yale.edu
Time/Location: TBD
Office Hour: Time TBD; SSS 205 H (inside "Panda Lab")
Course Website: on Canvas

General Information

In what ways, if any, are humans *categorically* different from other animals? A partial list of proposed answers might include: Speech. Culture. Cooperation. Morality. Religion. Cooking. Bipedalism. Opposable thumbs. Rationality.

Or perhaps humans are not unique in any important ways. The past few decades of research with nonhuman animals have revealed the deep evolutionary roots of many of our cherished cognitive abilities, surprising both scientists and lay observers with (e.g.,) sophisticated animal communication systems and prosocial behaviors.

Objectives

In this seminar, we will engage with several proposals for how human cognition differs from cognition in other animals. In doing so, we will touch on many areas in cognitive science (e.g., linguistics, ethics, modularity).

Importantly, the objective will *not* be to determine which of these proposals is correct to the exclusion of the others; instead, the objective will be to see how these proposals relate to each other, and to evaluate the extent to which each of them constitutes uniquely human cognition. Reflecting this, the organization of the course into distinct sections (e.g., "language") suggests a greater independence of the sections than exists in reality. Thus, the most important objective of the course is building to the last meeting, the "Capstone" day, when each student re-reads self-chosen articles from earlier in the semester to integrate information from later in the semester.

Prerequisites

This course is intended for advanced undergraduates and graduate students, and it is expected that each student will be comfortable reading, evaluating, and discussing articles in cognitive science. On the other hand, it is expected that the students will come from diverse academic backgrounds. Therefore, there are no specific prerequisites for this course. Students who wish to verify their preparation for this course should look through the readings provided in the week-by-week breakdown of the course, and should feel free to contact me for additional information.

Course Requirements and Evaluation

Twenty-four hours prior to each meeting of the course, you should submit a reading response of about 500 words. This will typically be split between two parts that are each about 250 words. One of the 250-word parts ("Part A: Initial Thoughts") should address the readings for the upcoming meeting, and should focus on a small number of criticisms, questions, or comments about the readings. These responses will help to structure the discussion of the upcoming meeting. The second 250-word part ("Part B: Update") should focus on the previous week, and should reference the response submitted for that week and the discussion during that week. How has your understanding of the material changed following discussion with your peers? Combined, the responses and participation in discussion will account for 50% of the final grade. On the course website, you can find an example of the reading response format, and instructions for submitting assignments.

The other 50% of the final grade will come from a final project submitted at the end of the semester. Typically, your paper will propose an experiment related to the course content. Your final paper should be between 12 and 15 pages (unless it is for the senior essay requirement, in which case it must be 20 pages). You will have the opportunity to receive feedback on both a one-page proposal (I will post an example on the course website) and a full-length rough draft.

Statement on Academic Integrity

Please do not violate academic integrity during this course. Most notably, do not plagiarize. Please see this website for more information: http://ctl.yale.edu/writing/wr-instructor-resources/addressing-academic-integrity-and-plagiarism

Here is a longer plagiarism warning from the above website:

The strength of the university depends on academic and personal integrity. In this course, you must be honest and truthful. Plagiarism is the use of someone else's work, words, or ideas as if they were your own. Here are three reasons not to do it:

- By far the deepest consequence to plagiarizing is the detriment to your intellectual and moral development: you won't learn anything, and your ethics will be corrupted.
- Giving credit where it's due but adding your own reflection will get you higher grades than putting your name on someone else's work. In an academic context, it counts more to show your ideas in conversation than to try to present them as *sui generis*.
- Finally, Yale punishes academic dishonesty severely. The most common penalty is suspension from the university, but students caught plagiarizing are also subject to lowered or failing grades as well as the possibility of expulsion. Please be sure to review **Yale's Academic Integrity Policy**.

Overview of Topics and Readings by Week

Week 1: Course Overview

- No readings today

Week 2: Introduction 1

- (A) Reading Guide
- (B) Marean. (2015). An evolutionary anthropological perspective on modern human origins. *Annual Review of Anthropology*.
- (C) Premack. (2010). Why Humans Are Unique: Three Theories. *Perspectives on Psychological Science*.
- (D) Bateson & Laland (2013). Tinbergen's four questions: an appreciation and an update. *Trends in ecology & evolution*.

Week 3: Introduction 2

- (A) Reading Guide
- (B) Silk (2016). Evolution: Taxonomies of cognition. *Nature*.
- (C) Rosati & Warneken (2016). How comparative psychology can shed light on human evolution: Response to Beran et al.'s discussion of "Cognitive capacities for cooking in chimpanzees". *Learning & behavior*.
- (D) Richerson et al. (2010). Gene-culture coevolution in the age of genomics. *Proceedings of the National Academy of Sciences*.

Week 4: Language 1

- (A) Reading Guide
- (B) Berwick et al. (2013). Evolution, brain, and the nature of language. *Trends in Cognitive Sciences*.
- (C) Bolhuis et al. (2014). How Could Language Have Evolved? PLoS Biology.
- (D) Kershenbaum et al. (2016). Acoustic sequences in non-human animals: a tutorial review and prospectus. *Biological Reviews*.

Week 5: Language 2

- (A) Reading Guide
- (B) Preuss (2012). Human brain evolution: from gene discovery to phenotype discovery. *Proceedings of the National Academy of Sciences*.
- (C) Schlenker et al. (2017). Titi semantics: Context and meaning in Titi monkey call sequences. *Natural Language & Linguistic Theory*.

Week 6: Culture 1

- (A) Reading Guide
- (B) West et al. (2015). Major evolutionary transitions in individuality. *Proceedings of the National Academy of Sciences*.
- (C) Robson et al. (2016). Division of labor in complex societies: a new age of conceptual expansion and integrative analysis. *Behavioral Ecology and Sociobiology*.
- (D) Boyd et al. (2011). The cultural niche: Why social learning is essential for human adaptation. *Proceedings of the National Academy of Sciences*.

Week 7: Culture 2

- (A) Reading Guide
- (B) Csibra & Gergely (2011). Natural pedagogy as evolutionary adaptation. *Philosophical Transactions of the Royal Society B: Biological Sciences*.
- (C) Powers et al. (2016). How institutions shaped the last major evolutionary transition to large-scale human societies. *Phil. Trans. R. Soc. B*.
- (D) Heyes. (2012). Grist and mills: On the cultural origins of cultural learning. *Philosophical Transactions: Biological Sciences.*

Week 8: Cooperation 1

- (A) Reading Guide
- (B) Burkart et al. (2014). The evolutionary origin of human hyper-cooperation. *Nature Communications*.
- (C) McAuliffe & Thornton. (2015). The psychology of cooperation in animals: An ecological approach. *Journal of Zoology*.
- (D) Hare. (2017). Survival of the friendliest: Homo sapiens evolved via selection for prosociality. *Annual review of psychology*.

Week 9: Cooperation 2

- (A) Reading Guide
- (B) MacLean et al. (2017). Individual differences in cooperative communicative skills are more similar between dogs and humans than chimpanzees. *Animal Behaviour*.
- (C) Tomasello & Vaish. (2013). Origins of human cooperation and morality. *Annual Review of Psychology*.
- (D) Sheskin et al. (2014). Life-history theory explains childhood moral development. *Trends in Cognitive Science*.

Week 10: Modularity 1

- (A) Reading Guide
- (B) Barrett. (2015). Modularity. In book *Evolutionary Perspectives on Social Psychology*.
- (C) Shettleworth. (2012). Modularity, comparative cognition and human uniqueness. *Phil. Trans. R. Soc. B*.

Week 11: Modularity 2

- (A) Reading Guide
- (B) Burkart et al. (2016). The evolution of general intelligence. *Behavioral and Brain Sciences*.

Week 12: Beliefs about Human Uniqueness

- (A) Reading Guide
- (B) Bilewicz, et al. (2011). The humanity of what we eat: Conceptions of human uniqueness among vegetarians and omnivores. *European Journal of Social Psychology*.
- (C) Gray et al. (2007). Dimensions of mind perception. *Science*.
- (D) Epley et al. (2013). Motivated mind perception: Treating pets as people and people as animals. In book *Objectification and (De) Humanization*.

Week 13: Capstone Day

- (A) Reading Guide
- (B) First reading you choose to re-read from earlier in the semester
- (C) Second reading you choose to re-read from earlier in the semester