

## UN3450/4450 Syllabus FALL, 2021

Professor Herb Terrace  
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Seminar meets on TUESDAY afternoons (2:10-4) in 352 SCHERMERHORN HALL  
Office hour: Tuesday 10-11 AM and other times tba.

This seminar will systematically review the implications of Darwin's theory of evolution for contemporary studies of animal and human cognition, with particular emphasis on the evolution of language.

Format of course: Each student will lead a seminar on a topic of his/her choice that will be selected from the following list.

1. September 14 INTRODUCTION
2. September 21 READING PERIOD (Preparation for October 12 seminar)
3. September 28 READING PERIOD (Preparation for October 12 seminar)
4. October 5 READING PERIOD (Preparation for October 12 seminar)
5. October 12 THEORY OF EVOLUTION
6. October 19 CLASSICAL & OPERANT CONDITIONING
7. October 26 ANIMAL COGNITION & ANIMAL COMMUNICATION
8. November 9 PRIMATE COGNITION & APE LANGUAGE
9. November 16 HUMAN COGNITION & ARTIFICIAL INTELLIGENCE
10. November 23 INFANT COGNITION
11. November 30 HUMAN ANCESTORS AND WALLACE'S PROBLEM
12. December 7 JOINT ATTENTION & INTERSUBJECTIVITY

Grades, on a 100-point scale, will be calculated as follows:

Seminar presentation: 40 points  
Seminar participation: 20 points  
Take home exam: 40 points

To ensure that students have an adequate amount of time to prepare their seminars, I will meet as much as needed with students who chose one of the earlier topics during the first three weeks of the semester. The purpose of those meetings is to provide a basis for the preparation of the seminar. I will, of course, also meet with all students prior to their seminars. I envision at least 3 meetings with each student. Please make an appointment to meet with me at least 3 weeks before your topic is scheduled.

All of the above topics covered but, in some cases, two students will be assigned to lead a seminar on a particular date. How this works will be determined by individual preferences that will be discussed during the first meeting of the seminar on January 14 and by the number of students that actually take the course.

**Background reading.** Depending on the extent to which a student is familiar with a particular topic, I will assign that student enough background material to ensure that he/she will be able to lead a discussion of that topic.

**Selection of assigned readings for seminar.** These readings will be circulated at least one week before each seminar.

**Preparation of outline for talk.** After discussing those aspects of a particular topic that are to be highlighted during a seminar, the student will prepare a 1-2 page outline of his/her seminar.

**Annotated bibliography.** Each student should select 2-3 readings that were especially helpful for his/her talk and summarize in a short paragraph what was special about that reading. The annotated bibliography should **NOT** be in the format of a book report. Instead, it should provide commentary about the innovation, incisiveness, brilliance, etc. of a particular reading. These bibliographies will be helpful for each student while they work on a take-home exam.

**Seminar:** The leader(s) of each topic will distribute his/her outline at the seminar and be prepared to cover the main points and to also lead the discussion.

**Circulation of Annotated Bibliographies and PowerPoint Presentations:** Be sure to circulate an annotated bibliography for your talk on the day on which you present it. These are usually helpful for students

preparing their take home exams. For the same reason, it would be helpful to circulate your PowerPoint presentation if you used one.

**Take home exam:** About 3 weeks before the end of the seminar I will distribute an essay exam about the topics that were discussed in this seminar. The exam will be due one week after final exams begin.

**Copy of last take home exam (Fall, 2019):**

Write a critical essay on the evolution of intelligence and language that addresses the following issues.

- How do animal species differ qualitatively with respect to their intelligence?
- What evidence is there that animals think without language?
- Are computers conscious and/or intelligent?
- What are the roles of dyadic and triadic interactions on the development of language?
- How did changes in social pressure influence the evolution of language?
- How did language evolve from animal communication? Your answer should comment on the significance of Wallace's problem.

Your paper should be ~10-15 double-spaced pages. When I grade it, I will be concerned with:

1. The clarity of your arguments about the positions you take on each issue rather than on the degree with which you agree with my position (or with anyone else's).
2. Your ability to include information from your own reading and from seminar discussions

Please be sure to attach both a bibliography and an annotated bibliography. Your bibliography should document each point you make, where relevant. Your annotated bibliography should contain approximately 6 references that you thought were particularly helpful.

Please peruse the topics that will be covered before we meet on January 14 to make sure that they are what you were expecting.

**During your work for this course, please keep in mind the following Faculty Rules regarding academic integrity.**

The intellectual venture in which we are all engaged requires of faculty and students alike the highest level of personal and academic integrity. As members of an academic community, each one of us bears the responsibility to participate in scholarly discourse and research in a manner characterized by intellectual honesty and scholarly integrity.

Scholarship, by its very nature, is an iterative process, with ideas and insights building one upon the other. Collaborative scholarship requires the

study of other scholars' work, the free discussion of such work, and the explicit acknowledgement of those ideas in any work that inform our own. This exchange of ideas relies upon a mutual trust that sources, opinions, facts, and insights will be properly noted and carefully credited.

In practical terms, this means that, as students, you must be responsible for the full citations of others' ideas in all of your research papers and projects; you must be scrupulously honest when taking your examinations; you must always submit your own work and not that of another student, scholar, or internet agent.

Any breach of this intellectual responsibility is a breach of faith with the rest of our academic community. It undermines our shared intellectual culture, and it cannot be tolerated. Students failing to meet these responsibilities should anticipate being asked to leave Columbia.