

Draft Syllabus:
Sociology 421-01
Social and Cultural Organization in Animals
Instructor: John Levi Martin
Fall 2002
MW6 (4:30-5:50), Lucy Stone Hall B205
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In recent years, there has been an explosion of rigorous work in ethology regarding social organization, cultural patterns, and cognition in non-human animals; the results challenge and inspire sociological theory to encompass formations observed in non-humans. This course surveys the current state of knowledge about animal social organization, communication, and culture.

NOTE: This is **not** a course in sociobiology, or the attempt to generate supposedly biological explanations for human behavior.

Requirements: This is an advanced seminar, which means that students are expected to come to class prepared to discuss the readings. In addition, a research paper will be written over the course of the semester. Some of the readings are books that will be available at New Jersey Books in New Brunswick (it is on Somerset). (Sorry for making you schlep there but I **know** they will actually have the books by the first day of class.) Other readings will be on reserve (sometimes electronic reserve as well); with only 20 students we should be able to work it out.

The **paper** can be based on library research or (in part) on observational research; you will need to discuss your ideas with me by the end of the fourth week and have a firm topic by the end of the sixth week. It is due December 18th. Your paper will need to be an original paper; we will discuss appropriate use of appropriate sources in class.

Grades will be based on attendance, participation, and the final paper. Excellence in all 3 leads to an A, excellence in 2 a B, in 1 a C, and in none a D (assuming all the areas sub-excellent are minimally satisfactory).

Required Books

- 1) *The Insect Societies*, by Edward O. Wilson. Harvard, 1974, paper, 26.95.
- 2) *Chimpanzee Politics*, by Frans de Waal. Johns Hopkins, second edition, paper.
- 3) *Sex and Friendship in Baboons*, by Barbara Smuts, Harvard 1999, paper (new edition), \$20.95
- 4) Lesley Rogers and Gisela Kaplan, *Songs, Roars and Rituals*. Harvard, 2000 paper, \$29.95

Below is the list of topics and required readings (those not in the four books above will be available on reserve at the Livingston Library; most will be electronically available as well).

Note: This is a new course and I reserve the right to add readings should I come across some real nice ones.

I. THEORETICAL ORIENTATIONS

Week #1 (Wednesday, September 4; Monday, September 9): Symbolic Interactionism

Reading: Mead, Mind, Self and Society, selections; Wilson and Jackson, “Cognitive Abilities of Araneophagic Jumping Spiders” (from *Animal Cognition in Nature*).

We begin by using Mead’s vocabulary to think about issues of cognition and communication in animals; I will also briefly discuss the work of Piaget in so far as it is relevant, as well as what is now called “theory of mind.” Also, discussion of class format, issues in research paper writing, expectations, who we are and our interests, etc....

II. PRINCIPLES OF SOCIAL ORGANIZATION AND THEIR COGNITIVE CORRELATES

Week #2 (Wednesday, September 11; Monday, September 16): Introduction to Animal Organizations

Reading: *The Insect Societies*, by Edward O. Wilson.

The first animals to be seen as social were the bees. And by golly, they are interesting. We read a classic to get oriented to the possibility of social organization divorced from anything we would recognize as consciousness. I then lay out some of the principle divisions that we will use to study birds and mammals. In essence, there are distinctions between species that have breeding pairs, and those that do not. The latter are frequently divided into single-male and multi-male species.

Other readings drawn upon: Keller & Ross, “Phenotypic plasticity of bees.”

Week #3 (Wednesday, September 18; Monday, September 23): Matrilineal and Fission-Fusion Societies

Reading: Cheney and Seyfarth, *How Monkeys See the World*, 19-42; Connor, Wells, Mann and Read, “The Bottlenose Dolphin: Social Relationships in a Fission-Fusion Society,” (from *Cetacean Societies*, edited by Mann, Connor, Tyack and Whitehead).

- You need to discuss a paper topic with me by this week!

Week #4 (Wednesday, September 25, Monday, September 30): Dominance Orders

Reading: Schjelderup-Ebbe, “Contributions to the Social Psychology of the Domestic Chicken,” translated version in *Social Hierarchy and Dominance*, edited by Martin Schein; DeWaal, *Chimpanzee Politics*, selections.

Week #5 (Wednesday, October 2; Monday, October 7): Friendship and Alliance

Reading: Smuts, *Sex and Friendship*, selections; DeWaal, *Chimpanzee Politics*, selections; Reinhardt and Reinhardt, “Cohesive Relationships in a Cattle Herd (*Bos Indicus*),” *Behaviour* 76(1981):121-151.

- You need to be decided on your paper topic by this week! Which means that you must hand in by **Wednesday October 9th at the LATEST** a one paragraph statement of what you want to do; I will give you comments and we’ll nail down something by **Monday!**

Week #6 (Wednesday, October 9; Monday, October 14): Reconciliation

Reading: DeWaal, *Peacemaking Among Primates*, selections; Marjolijn Das, “Conflict Management via Third Parties,” from *Natural Conflict Resolution* edited by Aureli and de Waal.

Week #7 (Wednesday, October 16; Monday, October 21): Triadic Awareness

Reading: Ivan D. Chase, Craig Tovey, Debra Spangler-Martin and Michael Manfredonia, “Individual differences versus social dynamics in the formation of animal dominance hierarchies,” *Proc. Natl. Acad. Sci. USA*, Vol. 99, Issue 8, 5744-5749; DeWaal, Chimpanzee Politics, selections; Hans Kummer, “Tripartite Relations in Hamadryas Baboons” (from *Social Communication among Primates* edited by Stuart A. Altmann)..

III. CULTURE AND SYMBOLIC THOUGHT

Week #8 (Wednesday, October 23; Monday, October 28): Communication

Reading: Lesley Rogers and Gisela Kaplan, *Songs, Roars and Rituals*, selections; Allison Jolly, *The Evolution of Primate Behavior*, selections.

Week #9 (Wednesday, October 30; Monday, November 4): Ritual Actions

Reading: Lesley Rogers and Gisela Kaplan, *Songs, Roars and Rituals*, selections; Darwin, *Expression of Emotions in Man and Animals*, chapters 1, 2, 4, 5.

Week #10 (Wednesday, November 6; Monday, November 11): Theory of Mind: Deceit

Reading: Savage-Rumbaugh, Sue and Kelly McDonald. 1988. “Deception and Social Manipulation in Symbol-Using Apes.” Pp. 224-237 in Machiavellian Intelligence II, edited by Richard W. Byrne and Andrew Whiten (Cambridge: Cambridge University Press); DeWaal “Deception in Chimpanzees,” (1980); Menzel, “A Group of Young Monkeys in a 1-Acre Field.”

Week #11 (Wednesday, November 13; Monday, November 18): Imitation, Instruction and Culture

Reading: Bennett G. Galef, “Tradition in Animals: Field Observations and Laboratory Analyses,” Dugatkin, “Imitation in Mate Choice among Guppies” (which article chosen TBA); Hauser, selection on Vervet monkeys; Allison Jolly, *The Evolution of Primate Behavior*, selections; W. C. McGrew, “Tools Compared” (from *Chimpanzee Cultures*, edited by Wrangham, McGrew, de Waal and Heltne); Huffman and Wrangham, “Diversity of Medicinal Plant Use by Chimpanzees in the Wild,” (from *Chimpanzee Cultures*, edited by Wrangham, McGrew, de Waal and Heltne).

A number of animals clearly learn through imitation of conspecifics. Recent work suggests that geographical isolation can lead to behavioral differences among chimpanzees within an extremely short period of time; these must be seen as “cultural” differences.

Week #12 (Wednesday, November 20; Monday, November 25): Language and Symbolic Representations

Reading: Cheney and Seyfarth, *How Monkeys See the World*, 98-175; Pepperberg, *The Alex Studies*, pp. 1-35, 52-79, 197-248; Premack and Premack, “Teaching Language to an Ape.”

Does symbolic representation combined with communication equal language? If so, how do we interpret the communicative ability of trained grey parrots? What about the calls of vervet monkeys?

[**Thanksgiving break** rears its ugly head]

IV. NORMATIVE ORIENTATIONS AND PEDAGOGICAL ACTIONS

Week #13 (Monday December 2; Wednesday, December 4): Expectations and their violations

Reading: DeWaal, Good Natured: The Origins of Right and Wrong in Humans and Other Animals, pp. 40-62, 133-162.

Week #14 (Monday, December 9; Wednesday, December 11): Presentations.

Everyone will read a short version of her or his research paper (15 minutes), and we will all give comments.

Papers are due in my box by 1:00 PM December 18 (Wednesday). Late papers will go down 1/3 grade point for every 24 hours late.