

Mark E. Bouton
Fall, 2006

Animal Minds (Psych 380)
9:30 – 12:15 Tuesdays, Dewey 306

This course will survey research and writing on the subject of cognition and the “mental lives” of animals. We will first look at the fascinating history of thinking about this question; in the late 1800s, the theory of evolution led many scientists to try to trace the evolution of the mind by studying the behavior of animals, and in the early twentieth century, this interest in turn led to the birth of behaviorism. We will next examine some of the more recent research literature on animal cognition and eventually look at some popular ideas about “thinking” and consciousness in animals. I hope the course will deepen our understanding of how psychological processes can be validly inferred from the behavior of animals (including humans). In the process, I hope to arrive at a better appreciation of behaviorism, cognitive psychology, animal behavior, and what it takes to be scientific about behavior and the “mind.”

Organization and student responsibilities

The first five class meetings will focus on the Boakes book (on Darwin and the history of behaviorism) and will follow a discussion format. You will write a short “thought paper” (maximum two pages) before each class. In these papers I ask that you simply react to the readings in any way you wish. You may agree with, reject, explore implications of, etc., any aspect of the reading that interests you. The papers are mostly designed to get your discussion juices flowing; I will read them (and react to them) but will not evaluate them. I will also provide some “thought questions” a week before each class; your thought papers may or may not address these questions.

The next six class meetings (on animal behavior and cognition) will each focus on two 50-min student presentations and 40 minutes of additional discussion (20 minutes after each presentation). Each student will be responsible for about two presentations during the semester, depending on final enrollment. These classes will each cover two chapters in the excellent book by Shettleworth; each student will present a chapter (I may occasionally provide some additional primary references). I would like to meet with each presenter two weeks ahead of time to plan things a bit. In addition to putting more material on the table for discussion, this part of the course will give everyone experience with preparing lectures that fit the common 50-min class format. I will give you feedback as soon as possible after your presentation.

The final two classes will return to a discussion format. In the penultimate class, we will read a book from the popular literature on thinking in animals (e.g., Bekoff, 2002). The goal of the class will be to evaluate a popularized treatment of animal mind in light of what we have learned in the course. I will require a short paper reviewing the book. The final class will then discuss some final readings that will, I hope, put a final

wrap on the course. The readings listed for the final two class meetings are tentative at this point—perhaps students in the class will have ideas.

Books

Boakes, R. A. (1984). *From Darwin to behaviourism: Psychology and the minds of animals*. Cambridge: Cambridge University Press (Code = B)

Shettleworth, S. J. (1998). *Cognition, evolution, and behavior*. New York: Oxford University Press. (Code = S)

Bekoff, M. (2002). *Minding animals: Awareness, emotions, and heart*. New York: Oxford University Press. (tentative)

Class meetings

8/29 Organizational meeting

Discussion

9/5 B1. Mental evolution
 B2. Intelligence and instinct

9/12 B3. Experimental psychology and habits
 B4. Reflex action and the nervous system

9/19 B5. Conditioned reflexes
 B6. Comparative psychology and the beginning of behaviorism

9/26 B7. Apes, problem-solving and purpose
 B8. Nature and nurture

Presentations

10/3 S1. Cognition, evolution, and the study of behavior
 S2. Perception and attention

10/10 S3. Learning
 S4. Simple recognition learning

10/17 S5. Discrimination and classification
 S6. Memory

10/24 S7. Getting around
 S8. Timing and counting

10/31 S9. Foraging and measuring rate
S10. Learning from others

11/7 S11. Cognitive ethology and the evolution of mind
S12. Communication and language

11/14 NO CLASS

11/ 21 THANKSGIVING

Discussion

11/28 Read Bekoff (2002); paper due

12/5 Skinner, B. F. (1987). Whatever happened to psychology as the science of behavior? *American Psychologist*, 42, 780-786.
Povinelli, D. J. (1993). Reconstructing the evolution of mind. *American Psychologist*, 48, 493-509.
Blumberg, M. S., & Wasserman, E. A. (1995). Animal mind and the argument from design. *American Psychologist*, 50, 133-144.