

PHL 205-01CS (33967)  
Other Animals  
TR 12:15 -1:30  
JONH 346  
3 units

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### Course Description

This course explores how animals have been, and currently are, understood, from scientific, philosophical, and cultural perspectives. The understanding of both animal minds and behavior will be examined using a priori and empirical approaches. The various methodologies employed in studying animals, their underlying assumptions, and possible limits, will be discussed, as well as the larger moral issues that they, and their findings, raise.

### Primary Texts

Cheney & Seyfarth, *Baboon Metaphysics (ch 1 and 5, 7-12)*  
Daniel Dennett, *Kinds of Minds*  
Allen and Bekoff, *Species of Mind*  
Temple Grandin, *Animals in Translation*  
Stephen Wise, *Drawing the Line*  
Mitchell & Smith, *Experiencing Animals*

### Scholarly Articles & Chapters Posted on Desire2Learn or Available on the Web

1. Descartes, Rene. Excerpt from *Discourse on Method* on D2L (Gutenberg.org)
2. Hume, David. Excerpt from *A Treatise of Human Nature* on D2L (Gutenberg.org)
3. Voltaire. Excerpt from *Philosophical Dictionary* "Animals"
4. Nagel, T. What is it Like to Be a Bat?" (1974) on D2L From: Philosophy of Mind (Ed. John Heil), NY: Oxford University Press.
5. Quine "Ontological Relativity" (1969) on D2L, from Ontological Relativity and Other Essays. USA: Columbia University Press
6. Altmann (1974) "Observational Study of Behavior: Sampling Methods" on D2L
7. Crist (2006) "The Inner Life of Earthworms"
8. Jabr (2012) "Dirty Dancing: Dung Beetles Get Down to Walk the Line"
9. Weir (2002) "Shaping of Hooks in New Caledonian Crows"
10. Panksepp (2005) "Affective Consciousness"
11. Mann (2008) "Why do Dolphins Carry Sponges?"
12. Cronon, William. (1996). "The Trouble with Wilderness" *Environmental History* v. 1 #1, 7-28. On D2L

### Grading Scale

<b>A</b>	<b>93-100%</b>	<b>373-400 points</b>	<b>C</b>	<b>73-76%</b>	<b>292-304 points</b>
<b>A-</b>	<b>90-92%</b>	<b>360-372 points</b>	<b>C-</b>	<b>70-72%</b>	<b>280-291 points</b>
<b>B+</b>	<b>87-89%</b>	<b>345-359 points</b>	<b>D+</b>	<b>67-69%</b>	<b>265-279 points</b>
<b>B</b>	<b>83-86%</b>	<b>332-344 points</b>	<b>D</b>	<b>60-66%</b>	<b>240-264 points</b>
<b>B-</b>	<b>80-82%</b>	<b>320-331 points</b>	<b>F</b>	<b>0-59%</b>	<b>0-239 points</b>
<b>C+</b>	<b>77-79%</b>	<b>305-319 points</b>			

## Grading Policy

Grades are based on the following course requirements:

- 1) Three Thesis Defense Papers with Empirical Evidence; 2) Four Quizzes; 3) Twenty Discussion Days

The specifics of each assignment type are detailed on the following pages.

**You are responsible for checking your email and D2L every 48 hours.**

## Course Requirements:

- 1) **3 Thesis Defense Papers:** (1000-1400) words, about 4-5 pages, 80 points each, 240 points total) Consists of a **clearly stated thesis**, a **summary of the current, relevant readings**, and an **argument that supports that thesis that includes your own observation of animal behavior**. These papers must describe a project that is an **exploration into the minds, concepts, behaviors, intelligence, empathy, consciousness, or emotional states of animals**. The animals you observe cannot be your own pets. Data that truly supports an hypothesis must be able to falsify it, and must fit with current theories and the general understanding of the subject at hand. Important terms must be operationally defined, and methods of observation should be specified in great detail. Grades are based on: clarity of the thesis, accuracy and completeness of the summary of a) philosophical theories and b) scientific research that grounds your project, how clearly your observations are described, a critique of your methods for collecting your data, a response to that critique, grammar, spelling, and finesse. The specific creature-type and mental state or process you choose to focus on is entirely up to you, so pick one that interests you.
- 2) **Quizzes:** (4 quizzes, 15 points each, 60 points total.) Quizzes will ask you to answer a specific topic already discussed in class and will require that you write about two paragraphs for a complete answer. Quizzes might be take-home, depending on how much time we need in class. Missed quizzes cannot be made up for any reason.
- 3) **Discussion/Activity Days:** (20 discussions, 5 points each, 100 points total) You need not prepare anything extra for these days, but know the lectures and readings well, and reflect on your experiences in the shelter, just in case you are called on to speak - you wouldn't want to be embarrassed. I will give a topic for discussion on those days, and you will have a chance to write down what you think about that topic and why, and then present it to the class. Discussions may occasionally take on different formats, such as a debate, or lighthearted competition, or a game.
- 4) **Extra Credit:** (sporadic, usually 5 points each, up to 21 points) Bonus work is usually a 1-page written summary & philosophical discussion of a current issue on animals or animal minds, as related to out-of-class readings or events. I will announce extra credit opportunities as they appear throughout the semester. If you successfully complete 2-3 extra credit assignments, the points could substitute for a missed quiz.

## Thesis Paper Guide

Thesis statement: State your specific thesis very clearly on the first page. (10 points)

Summary: explain the texts, research articles and philosophical theories and arguments relevant to your specific project clearly and completely. Do not explain or discuss anything irrelevant to your thesis or hypothesis. Use quotations from the texts we are using in class that are important to your view. (15 points)

Empirical Evidence: Explain your method fully. What type of observation and sampling did you use, and why? Show the behavioral budget for the animal of your choice. Give operational definitions for all mental terms. State how many times per week, and for how long you observed your animals and note the different kinds of observations made. Include a table or chart of your observations. (15 points)

Argument: Use the texts and your observations to support your thesis. (15)

Objection Paragraph(s): Present potential problems for your thesis or methods. Present them briefly but completely, using texts studied in class as appropriate. (10 points)

Reply to Objections: Explain how you overcame these difficulties to complete your research project, why your thesis can withstand the objection. Be honest. (10 points)

Grammatical Accuracy: Up to 10 points off for errors.

**Plagiarism and Academic Dishonesty are Serious Offenses. Know what they are and recognize that the consequences could be worse than a failing grade on the assignment. If I discover academic misconduct, I will 1) meet with you, 2) fill out an Academic Misconduct Notification Form, and 3) provide a written request for the Dean of Students to press charges of violation of the Student Conduct Code.**  
[http://www2.montana.edu/policy/student\\_conduct/#academicmisconduct](http://www2.montana.edu/policy/student_conduct/#academicmisconduct)

## General Paper Grading Guidelines

### Thesis & Definitions (10 points)

- Failing to state a thesis is an error -- be as clear and specific as possible
- Clarify in detail what sort of mental state or process you are exploring in your project
- Provide operational definitions

### Summary (15 points)

- Misattributing a view to a philosopher or scientist is an error
- Failing to produce two relevant quotes from assigned class texts is an error
- Failing to include information important to your experiment that was covered in class is an error
- Including information that is irrelevant to your thesis is an error -- Do not wildly summarize everything that comes to mind about an animal or view

### Empirical Evidence (15 points)

- Provide a table or chart of at least 15 observations of animal behavior
- You must explain how the data you collected could have (or did) falsify your thesis, i.e., state why this set of observations is relevant to your thesis

### Argument (15 points)

- Give reasons for your view! Failing to give a reason for your view is an error
- Reasons come from both the class readings and your own observations

- Fallacies are errors. See handout, and below:
  - Agreeing with your other beliefs/what you were taught is not a reason
  - Making you feel good is not a reason
  - Claiming you have a right to your opinion is not a reason to believe that the opinion is true. In this culture we often agree that each person has a right to his or her own opinion. However, that does not make all opinions equally true or equally well supported. Some opinions are false, and some views have no substantiation.
  - Distorting facts to make your case is an error. For example, claiming that the planets move in perfect circles, or that the moon only appears at night, is a distortion of our best-substantiated view of the world today and cannot be used for evidence of any view.

Objection (10 points)

- Describe and consider a reasonable, well thought out objection from a viewpoint that differs from your thesis. Explain the other viewpoint clearly and thoroughly. Why does your opposition believe something that you do not?

Reply to Objection (10 points)

- How can you defend your view against the view you just presented? This response is usually the conclusion of a your paper.

Number of grammatical and spelling errors (up to 10 pts.).

- *Nota Bene*, if you spell a philosopher's or scientist's name incorrectly in your paper, I will remove 10 points immediately, and then continue to count fatal errors.
- If you use philosophical or scientific terminology learned in class incorrectly, I will remove 5 points.
- All other errors appear in the attached or forthcoming handout, and are worth 1 point each.

**Ground Rules & Notes on General Civility**

1. *If a disagreement arises, present facts and evidence calmly rather than a heated and useless personal attack. Some opinions are more well-justified than others, but none merit disruptive hostility or degradation.*
2. *Missed papers, discussions, and quizzes cannot be made up, but an opportunity for extra credit will be provided for those who have experienced some difficulties in attending class. If you experience an extended illness or catastrophe, see me.*
3. *If something or someone in the class is genuinely and persistently bothersome, offensive and/or inhibiting your learning process, please bring it to my attention.*
4. *If work is accepted by email, it is always due at 11:59 p.m. on the stated due date. If your work does not arrive in my inbox with that time stamp (because you experience internet difficulties, your computer has problems, your computer clock is inaccurate, or for any other reason), or if I cannot open your file or if it is corrupt, you will receive 0 points for that assignment. Work is not always accepted by email.*

### **Course Objectives:**

**This course provides students with the opportunity to understand, explain and critique the content of scientific and philosophical methods and theories regarding animal consciousness and cognition. Students will gain experience in the collection and interpretation of data, and the careful definition of terms, research methods and outcomes. Students will explore the ways professional philosophers, comparative psychologists, and cognitive ethologists come to understand animal minds.**

**Specifically, at the end of the course, students will be able to explain and apply methods that scientists and philosophers use to explore animal consciousness and cognition, and will have used critical reasoning and writing skills, and worked in small groups to complete a research project on animal behavior. Students will be asked to independently analyze data and readings, and will have a broad understanding of several approaches to animal minds, cognition and consciousness. Successful students will have demonstrated the ability to do the following at the completion of the course:**

- **Write thesis defense papers with an empirical component. This skill demands:**
  - Accurate use of the English language
  - Accurate use of terminology specific to philosophy, comparative psychology and cognitive ethology
  - Identification, and avoidance of, fallacies of reasoning and misrepresentation and misinterpretation of evidence
  - Recognition and use of good experimental design/ethological methods
  - Identification & description of theories of consciousness and concepts
  - Construction of a clear, specific hypothesis on animal minds
  - Collection and presentation of relevant data
  - Reading & understanding primary texts as demonstrated by accurate summaries of them, and the use of quotations from these texts to further an argument
  - Clear presentation of reasons and evidence (found in texts or originally developed by the student) that furthers the thesis
  - Avoidance of discussing irrelevant subjects
  - Recognition and precise description of objections (critiques of, or potential problems with), a theory, thesis or hypothesis
  - Presentation of a relevant, content-bearing response to such objections
  
- **Demonstrate (orally and in writing) knowledge of several philosophical and scientific writings on consciousness, intelligence, cognition and emotion, and the arguments, principles, concepts, and issues contained therein, including but not limited to the writings of:**
  - Descartes
  - Darwin
  - Dennett
  - Grandin
  - Nagel
  - Quine
  - Altmann
  - Seyfarth & Cheney
  - Allen & Bekoff
  - Herman
  - Pepperberg
  - Panksepp

- **Describe (orally and in writing) philosophical & scientific theories, concepts, techniques and issues related to animal minds, including, but not limited to:**
  - Consciousness
  - Cognition
  - Fallacies of Reasoning
  - Altmann's Observational Techniques in Cognitive Ethology
  - Criterion of Flexibility of Response
  - Language vs. Communication
  - Skinnerian, Popperian & Gregorian Mind-Types
  - Criteria for a Good Scientific Theory
  - Meta-Cognition
  - Self-Awareness & Visual-Kinesthetic Matching
  - Empathy, Cooperation, Morality
  - Learning
  - Theory of Mind
  - Problem Solving
  - Intelligence
  - Insight

**Schedule (subject to change)**

Date	Class Content	Due/Points	Reading
	<b>Introduction: Background &amp; Theory</b>		
Thur. Jan. 9	Syllabus, Introduction to course, Meet Ben Davis, your GTA How do we view the environment, nature, wilderness, animals? <a href="http://www.youtube.com/watch?v=Nc9xq-TVyHI">http://www.youtube.com/watch?v=Nc9xq-TVyHI</a> <a href="http://www.liveleak.com/view?i=aaf_1247697774">http://www.liveleak.com/view?i=aaf_1247697774</a>		Syllabus
Tue. Jan. 14	Review of Philosophy: Ontology, Epistemology, Axiology, Philosophy of Mind, Philosophy of Science, Comparative Psychology & Cognitive Ethology	<b>Discussion (5)</b> What is consciousness? What is intelligence?	excerpts from Descartes, Hume, Voltaire, and Nagel's bat (D2L)
Thur. Jan. 16	What are good indicators for consciousness, rationality, and intelligence? Four arguments & Voltaire: Descartes' Two Tests Hume's Animal Reason Nagel's Bat Quine's Gavagai <a href="http://www.youtube.com/watch?v=YBv79LKfMt4">http://www.youtube.com/watch?v=YBv79LKfMt4</a> <a href="http://news.bbc.co.uk/2/hi/8441974.stm">http://news.bbc.co.uk/2/hi/8441974.stm</a>	<b>Discussion (5)</b>	Quine (D2L)

Tue. Jan. 21	Kinds of Minds: Darwinian, Skinnerian, Popperian, Gregorian	<b>Discussion (5)</b>	Dennett ch. 1, 4 & 5
Thur. Jan. 23	Grandin: abstractifiers	<b>Discussion (5)</b>	Grandin ch 2 & ch 6 to page 266
	<b>Methods for Research</b>		
Tue. Jan. 28	Review of Altmann's methods, data sampling, data collection, Describing behaviors Operational definitions Ethograms	<b>Discussion (5)</b> Data Sampling Exercise, Inter-rater reliability exercise with animal behavior videos	Altmann (D2L) Allen ch. 3
Thur. Jan. 30	Kinesthetic methods Playback Experiments Operationally defining terms & Empirical methods	<b>Discussion (5)</b>	Mitchell ch. 12 Seyfarth ch. 5
	<b>Sensation, Memory, Learning</b>		
Tue. Feb. 4	<b>Quiz (15)</b> Memory & Planning (jays, dung beetles) Perception (earthworms, beetles)	<b>Quiz (15)</b> measuring minds	Mitchell ch. 15 Crist (D2L) Jabr (D2L)
Thurs. Feb. 6	Pleasure and Pain	<b>Discussion (5)</b>	Grandin, ch. 3 & 5
Tue. Feb. 11	Learning: imitation, modeling & observation, trial and error, insight, reinforcement, reward, etc. <a href="http://www.isciencetimes.com/articles/6538/20131218/chimpanzees-learn-food-preparation-one-another-study.htm">http://www.isciencetimes.com/articles/6538/20131218/chimpanzees-learn-food-preparation-one-another-study.htm</a> <a href="http://www.smithsonianmag.com/history-archaeology/The-CIAs-Most-Highly-Trained-Spies-Werent-Even-Human-224933882.html#animal-intelligence-1.jpg">http://www.smithsonianmag.com/history-archaeology/The-CIAs-Most-Highly-Trained-Spies-Werent-Even-Human-224933882.html#animal-intelligence-1.jpg</a>	<b>Discussion (5)</b>	Wise ch. 5
Thur. Feb. 13	Clicker Training	<b>Discussion (5)</b> <b>Clicker Training</b>	
Tue. Feb. 18	Problem Solving (chimps, octopus) Tool Use (crows) <a href="http://www.youtube.com/watch?v=mDntbGRPeEU">http://www.youtube.com/watch?v=mDntbGRPeEU</a> <a href="http://www.youtube.com/watch?v=fPz6uvIbWZE">http://www.youtube.com/watch?v=fPz6uvIbWZE</a>	<b>Discussion (5)</b>	Weir (D2L)

Thur. Feb 20	Abstract concepts & Meta-cognition <a href="http://www.redorbit.com/news/science/113008391/monkeys-point-to-objects-they-cant-see-112013/">http://www.redorbit.com/news/science/113008391/monkeys-point-to-objects-they-cant-see-112013/</a>	<b>Discussion (5)</b>	Wise, ch. 6 Seyfarth, ch. 12
Tue. Feb. F25	Abstract Concepts, Beliefs, Thoughts Folk Psychology <b>Paper #1 Due (80)</b>	<b>Paper #1 due (80)</b>	Mitchell 14 Allen, 5 Grandin 6
	<b>Self, Social, Language</b>		
Thur. Feb. 27	<b>Quiz (15)</b> Imagination, Pretending & Play	<b>Quiz (15)</b>	Allen 6
Tue. Mar. 4	Self Awareness	<b>Discussion (5)</b>	Mitchell 16 Seyfarth 8 & 9
Thur. Mar. 6	Theory of Mind	<b>Discussion (5)</b>	Mitchell 1 & 17
Mar.11 - Mar. 13	<b>Spring Break</b>		
Tue. Mar. 18	<b>Quiz (15)</b>	<b>Quiz (15)</b>	
Thur. Mar. 20	Social Knowledge, Pointing, Gestures Language & Symbol Manipulation Language vs. Communication	<b>Discussion (5)</b>	Dennett <u>Kinds of Minds</u> 6 Seyfarth 6
Tue. Mar. 25	Language & Symbol Manipulation	<b>Discussion (5)</b>	Wise 8 and 11 Seyfarth 10, 11
	<b>Emotion &amp; Morality in Animals</b>		
Thur. Mar. 27	Cooperation <b>Paper #2 due (80)</b>	<b>Paper #2 due (80)</b>	
Tue. April 1	Emotion <a href="http://www.youtube.com/watch?v=q9wM8cY3yFM">http://www.youtube.com/watch?v=q9wM8cY3yFM</a>	<b>Discussion (5)</b>	Panksepp (D2L) Wise, 9 Grandin 3,4, 5
Thur. April 3	Empathy, Altruism, Morality, Autonomy <a href="http://www.ted.com/talks/frans_de_waal_do_animals_have_morals.html">http://www.ted.com/talks/frans_de_waal_do_animals_have_morals.html</a>	<b>Discussion (5)</b>	Mitchell 12
Tue. April 8	Culture, musical sense, humor?	<b>Discussion (5)</b>	Mann (D2L)
Thur. April 10	Drug seeking behavior	<b>Discussion (5)</b>	TBD



	<b>Questions in Society, Ethics, Law</b>		
Tue. April 15	Legal and Moral Personhood <a href="http://www.wired.com/wiredscience/2013/12/chimpanzee-personhood-nonhuman-right/">http://www.wired.com/wiredscience/2013/12/chimpanzee-personhood-nonhuman-right/</a> <a href="http://www.bioedonline.org/news/news.cfm?art=3289">http://www.bioedonline.org/news/news.cfm?art=3289</a> <a href="http://www.livescience.com/18611-marine-mammals-dolphins-human-rights.html">http://www.livescience.com/18611-marine-mammals-dolphins-human-rights.html</a>	<b>Discussion (5)</b>	Wise ch 3 & 12
Thur. April 17	Moral questions in the use of animals: medical & cosmetic testing, scientific research, food	<b>Discussion (5)</b>	
Tue. April 22	<b>Quiz (15)</b> Sara Out	<b>Quiz (15)</b>	Cronon (D2L)
Thur. April 24	Ben Lectures Paper #3 due Sara Out	<b>Discussion (5)</b> <b>Paper #3 due (80)</b>	