



FACULTY OF ARTS
DEPARTMENT OF PHILOSOPHY

PHIL 667 Lec 01: TOPICS IN THE PHILOSOPHY OF SCIENCE
TOPIC #3 – PHILOSOPHY OF BIOLOGY
Fall Term 2012

Course Outline

Lectures: Tu Th 09:30 - 10:45 in SS 114

Instructor: Marc Ereshefsky

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Office Hours: Tu 12:00-13:00, Th 15:30-16:30 and by appointment

Required Text *Philosophy of Biology: An Anthology*, A. Rosenberg and R. Arp (eds.), 2010, Wiley-Blackwell; and articles available in e-journals.

Topics

Darwinism

Units of Selection

Species

Adaptationism

Historicity in Biology

Biological Function and Teleology

Biological Individuality

Evaluation and Grading

Article Presentation: Lead class discussion for one article. Your task is not to summarize the article or present all the material in it. Your aim is to present some information about the article that will stimulate class discussion. Pick a particular argument that is central in the article. Briefly present that argument. Then start discussion by raising concerns, problems, or a supporting argument. Plan to lead the class for 10 to 15 minutes.

Article Analyses: 6 article analyses are required. Each analysis must be handed in before we discuss that article in class. In an analysis, describe a particular point or argument in the article. Then critically analyze that point, or pose a question about it, or provide an independent argument in support of that point. An article analysis is not an article summary, but an analysis of a portion of the article. The maximum length for an article analysis is 3 pages. Do not hand in an article analysis for the article you discuss in your presentation.

Paper Proposal: The paper proposal will consist of two parts. The first part will explain and motivate the focus of your research by answering these questions: i) What is the general topic area? ii) What are the main views on the topic? iii) What will your focus in that area be? The second part of the proposal will contain a section-by-section outline of how you plan to construct your research paper. Dedicate a paragraph to describing each section of the proposed paper. This outline will serve as your research plan. The proposal should be no more than 5 pages long. Devote at least 2.5 pages to the first part of the proposal. Also attach a bibliography.

Paper: The word maximum length is 5,000 words (including footnotes, excluding the bibliography and any diagram notation).

There will NOT be a Registrar-scheduled final exam.

Due Dates and Grade Values

Article Presentation		10 points
Article Analyses		5 points each (30 points total)
Paper Proposal	November 6	10 points
Paper	December 7	50 points

Late Policy

No late papers will be accepted without an appropriate excuse.

Final grades will be awarded as follows

96-100 = A+	75-79 = B	55-59 = C-
90-95 = A	70-74 = B-	50-54 = D+
85-89 = A-	65-69 = C+	45-49 = D
80-84 = B+	60-64 = C	below 45 = F

Style and Citation Requirements

- All written work for this course should be submitted as hard copies. Work must be double-spaced, with 12 point font and 1 inch margins.
- Whenever you quote someone, provide the source and page numbers from that source. Here's an example: Dr. Black says that "all kittens are incredibly cute" (1993, p. 46). '(1993, p. 46)' refers to the article or book and page number where Dr. Black says that. Place detailed information about the article or book in your bibliography.
- Whenever you attribute a view or idea to a person, provide the source and page number where that claim is made. Here's an example: Dr. White likes kittens, but argues that puppies are far cuter (1994, p. 333).
- Use the following method for listing articles and books in your bibliography.
 - Smith, D. (1997) "A Theory of Cats," *Philosophy of Science* 44: 60-88.
 - Smith, D. (1998) *A New Theory of Cats*, Blackwell Publishers.
 - Smith, D. (1992) "A Theory of Great Cats," in J. Armstrong (ed.) *An Anthology on Theories of Great Cats*, Oxford University Press, 60-88.
 - Canto, P. (2006). "A Theoretical Discussion of Cats." <http://ohiou.edu/CatTheory>.The first entry is for an article, the second for a book, the third for a chapter in an edited book, and the fourth for a web site.

Readings

Darwin, C. "The Struggle for Existence and Natural Selection." In Rosenberg and Arp.

Scott, E. "Evolution." In Rosenberg and Arp.

Gould and Lewontin "The Spandrels of San Marco and the Panglossian Paradigm." In Rosenberg and Arp.

Mayr, E. "How to Carry Out the Adaptationist Program?" In Rosenberg and Arp.

Perlman, M. "The Modern Philosophical Resurrection of Teleology." In Rosenberg and Arp.

Cummins, R. "Neo-Teleology." In Rosenberg and Arp.

Godfrey-Smith, P. "A Modern Theory of Functions." In Rosenberg and Arp.

Sober and Lewontin "Artifact, Cause and Genic Selection." In Rosenberg and Arp.

Sterelny and Kitcher "The Return of the Gene." In Rosenberg and Arp.

Coyne and Orr "Speciation: A Catalogue and Critique of Species Concepts." In Rosenberg and Arp.

Hull, D. 1978 "A Matter of Individuality," *Philosophy of Science* 45, pp. 335-360.

Ruse, M. 1987 "Biological Species: Natural Kinds, Individuals or What?" *The British Journal for the Philosophy of Science* 38, pp. 225-242.

Ereshefsky, M. "Species, Taxonomy, and Systematics." In Rosenberg and Arp.

Beatty, J. 2006 "Replaying Life's Tape," *The Journal of Philosophy* 103, pp. 336-362.

- Cleland, C. 2011 "Prediction and Explanation in Historical Natural Science," *British Journal of Philosophy of Science*, 62, pp. 551-582.
- Clarke, E. 2010 "The problem of biological individuality," *Biological Theory* 5, pp. 312-325.
- Godfrey-Smith, P. 2011 "The Evolution of the Individual." Lakatos Award Lecture, LSE, June 2011. http://www.petergodfreysmith.com/Evo_Ind_PGS_Lakatos_2011_Web.pdf

BlackBoard and Email

Class information and handouts will be posted on BlackBoard. You'll be sent class announcements through email. The email account used will be the one you gave the University Registrar, so make sure to check that account.

INTELLECTUAL HONESTY

Intellectual honesty is the cornerstone of the development and acquisition of knowledge and requires that the contribution of others be acknowledged. As a result, cheating or plagiarism on any assignment or examination is regarded as **an extremely serious academic offence**, the penalty for which may be an F on the assignment and possibly also an F in the course, academic probation, or requirement to withdraw. The University Calendar states that plagiarism exists when:

- *the work submitted or presented was done, in whole or in part, by an individual other than the one submitting or presenting the work (this includes having another impersonate the student or otherwise substituting the work of another for one's own in an examination or test;*
- *parts of the work are taken from another source without reference to the original author;*
- *the whole work (e.g., an essay) is copied from another source; and/or*
- *a student submits or presents work in one course which has also been submitted in another course (although it may be completely original with that student) without the knowledge of or prior agreement of the instructor involved.*

While it is recognized that scholarly work often involves reference to the ideas, data and conclusions of other scholars, intellectual honesty requires that such references be explicitly and clearly noted. Plagiarism occurs not only when direct quotations are taken from a source without specific acknowledgement, but also when original ideas or data from the source are not acknowledged. A bibliography is insufficient to establish which portions of the student's work are taken from external sources; footnotes or other recognized forms of citation must be used for this purpose.

ACADEMIC ACCOMMODATION

It is the student's responsibility to request academic accommodation. If you are a student with a documented disability who may require academic accommodation and have not registered with the Disability Resource Centre, contact their office at 220-8237. Students who have not registered with the Disability Resource Centre are not eligible for formal academic accommodation. You are also required to discuss your needs with your instructor no later than fourteen (14) days after the start of this course.

FREEDOM OF INFORMATION AND PROTECTION OF PRIVACY (FOIP) ACT

The University of Calgary is under the jurisdiction of the provincial FOIP Act in all aspects of its operations as a publicly funded institution. The Department of Philosophy ensures the student's right to privacy by requiring all graded assignments be returned to the student directly from the instructor.