

## **HPS/PI 130 Winter 2013 First Paper Assignment**

**Instructions:** Write an argumentative paper of 1,500 to 2,000 words (3-5 single spaced typed pages). The general guidelines are as follows. First, your paper must critically engage one or more of the topics we have discussed in the first six weeks of class. Second, your paper should not *merely* summarize the position(s) of some of the authors you discuss or describe some factual or technical details; it should in some way locate ideas relative to each other, synthesize those ideas, criticize them, defend them against important objections, or develop them in your own way. Third, the topic of your paper should be of an appropriate scope given the length constraints.

**Due Date:** You must submit your paper to me by email before 10:30 am on Thursday, February 14th. Note that there is no class that day.

**Grading:** This paper is worth 35% of your final grade, and will receive a numerical grade out of 35.

**Collaboration:** Collaboration on this assignment is encouraged. Students are free to discuss the topics with one another, read each other's papers, and offer suggestions. Any suggestions or ideas contributed by another student must be acknowledged just as you would acknowledge an idea taken from any other source. The only restriction is that each student must write their own paper containing their own ideas and words.

**References:** All sources used in the writing of your paper must be properly referenced. This applies to material in the course readings, other published material, lecture notes from this class and other classes, material 'published' on the internet, and ideas contributed verbally by other students. Information about proper procedures and formats for references is included in my handout "How not to get BOC'ed," which is posted on the course website. Failure to follow these guidelines may result in a lowered grade or even an automatic F in the course; it may also lead to charges being brought before the Board of Control. If you have any questions about these issues, please do not hesitate to contact me.

**Advice on Writing a Philosophy Paper:** The course website contains several handouts on writing a philosophy paper, as well as links to a sample philosophy paper and websites on the topic.

**Reading Drafts:** I am happy to read drafts of papers, on a time-permitting, first-come, first-served basis. If you get a draft to me early on Monday the 11th, it is likely that I can get it back to you by Tuesday evening. Please indicate whether you would like to receive detailed comments, or only a general sense of whether you are on the right track. Please request the former only if you actually plan to make substantial revisions to your paper based on the feedback.

**Topics:** The topics offered below are given as suggestions: you may address one of them

as is, you may modify one of these topics, or you may create your own topic. Whatever topic you may choose, your essay should have a title that clearly and accurately reflects what the essay is about. It is strongly recommended that your opening paragraph make clear what the conclusion of your paper is and give as much of the key argument for this conclusion as possible. For example, do not write a paper with the title “On Natural Selection” and then proceed to simply talk about natural selection. Better would be a title of “Why natural selection is not a causal process” with an opening paragraph that explains why this is true. If you would like further readings that may be helpful in addressing some of these topics; I recommend starting with the Stanford Encyclopedia of Philosophy. I have also put up a number of additional readings that are directly relevant to the papers we have read in class, though it is not always clear exactly how they are relevant without some research. Asking me for advice for what to look at is also a very good idea.

**Some possible topics (just quickly thought of off the top of my head) -**

Is it possible for the fitness of an organism to be a single, scalar value? What does that value represent? [If not, what does this mean for fitness]?

If fitness represents a propensity, does that mean that the fitness of a trait (or organism) can help to explain why a trait spread through the population?

If every outcome in a real population is a result of both natural selection and drift, how can these be distinguished? Does it even make sense to think of them as separate processes?

It is sometimes said that if a trait frequency changes in a population “due to chance” then that is genetic drift. What does “due to chance” here mean?

How does the “selection for” vs. “selection of” distinction interact with the idea that traits that spread by drift are due to chance?

Is genetic drift a process at all? Or is it better thought of as a measurement of the error the outcome? Or something else?

Are natural selection, drift, and other evolutionary forces part of a theory can be used to make any predictions? How are they used in explanations?

Do we have any reason to believe that evolutionary theory is a stochastic theory? What does this mean? Is there any reason to think that the probabilities that appear in biological theories represent genuinely indeterministic processes?

Can the probabilities that appear in biology be objective? How?

Does drift just always represent our ignorance of the true causes of changes in a population over time?