

Final Exam Questions

Part 1. This part will consist in 6 short answer questions, each worth 5 points, to be answered in 2-3 sentences each.

Part 2. For this part you will be required to write two essays (each worth 35 points) on questions which will be selected from the following:

1. What is the difference between being adaptive and being an adaptation? How do these concepts relate to the use of the concept of function in the biological sciences? Is it important to have a single, clear notion of function? Does it need to be tied to either adaptiveness or adaptation?
2. With Darwin, the notion of a species became problematic. Explain why. What are some of the major contemporary views as to what a species is? Discuss the advantages and disadvantages of the different views from the point of view of evolutionary theory.
3. What emotions (or features of emotions) are good candidates for evolutionary analysis and which are not? How should theorists conceptualize emotions such as Japanese *amae*, for which there is no English word. Do examples like this indicate that people in different cultures experience different emotions, or do different cultures merely have different ways of describing them? Do such cases present a problem for an evolutionary conception of emotion?
4. Many people find the notion that individual organisms are simply "survival machines" for their genes deeply disturbing. What leads theorists such as Dawkins to construe organisms as simply interactors serving their replicator genes? What leads others to question or reject this notion as giving the correct account of evolution? Do individual organisms simply serve the function of promoting their genes?
5. What is meant by *altruism* in the context of natural selection and what is the problem it poses to theories of natural selection? How are the notions of kin selection, reciprocal altruism, and group selection invoked to explain altruism?
6. Discuss the different views and critiques of adaptationism. What is the appeal of the adaptationist approach? What do Gould and Lewontin mean by a spandrel? How do such ideas as developmental constraints figure into the discussion of adaptationism? How could one determine whether a specific trait or traits in general were adaptations?
7. What are the main features of the programs of sociobiology and evolutionary psychology? What are some example goals, methods, and claims? How might a DST theorist critique these projects?