

9.20

Class #19: Sociobiology, introduction

Study questions:

1. Why did a group of scientists (especially from Harvard and MIT) write a manifesto, published in the *New York Review of Books* in 1975, against a large new book by Edward O. Wilson (of Harvard) entitled *Sociobiology: The New Synthesis*? See pp 3-5; p 20.
2. What is the primary analytical tool of a sociobiologist? (I don't mean a computer! See p 10.)
3. What simple experiment on the function of aggregations of whirligig beetles (fig 1.2) was carried out by Watt and Chapman, and what was the result? Was their question "proximate" or "ultimate" in nature, as these terms are defined by Alcock?
4. What other questions could the scientists have asked? Include an example of a proximate question and an ultimate question.
5. Which kind of question (proximate or ultimate) is more important?
6. How did the evolutionary analysis of behavior begin?
7. Why is variation within species so important for evolution?
8. Did E. O. Wilson invent the field of Sociobiology? What were the antecedents? What was Wilson's primary field of basic research in biology?.
9. See Appendix, ch 1, two discussion questions.
10. Introduction to E.O. Wilson's, *Sociobiology*: some definitions (to be summarized in class)
 - a) Population
 - b) Deme
 - c) Species
 - d) Society
 - e) Social homeostasis
 - f) The multiplier effect

- g) The evolutionary pacemaker
- h) Adaptive demography
- i) Behavioral scaling
- j) Compromises in social evolution
- k) Ultimate vs. proximate causation

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