## 9.20

## Class #20: Sociobiology topics

*Study questions:* 

- 1. Define "fitness" as the term is used by sociobiologists. What are fitness costs and fitness benefits? Give examples.
- 2. What are the misunderstandings of sociobiological thinking we can see in the statements of Derek Bickerton, Michael Rose and William Kimler, quoted by Alcock? (pp 25-27)
- 3. Contrast proximate mechanisms/causes and ultimate outcomes for a specific behavior.
- 4. What was the thesis of Wynne-Edwards in his 1962 book, which was forcefully countered in 1966 by George C. Williams? Describe Williams' counter thesis, which is a key for understanding modern sociobiology (since 1975).
- 5. What is a "Darwinian puzzle"? Give an example, and also a solution to the puzzle.

*See Appendix, ch 2, three questions. Focus especially on Q2 and Q3:* 

- 6. Which behavior of specific animals would challenge a Darwinian adaptationist (a sociobiologist) most? Study the four descriptions.
- 7. Why would evolutionary biologists (like sociobiologists) object to the speculative argument of Marvin Harris about the origins of human warfare?

In class, after these questions we will continue with a review of concepts from E.O. Wilson's *Sociobiology*.

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