

9.20 MIT

Classes #30: Sociobiology and human culture
Monday Nov 21, 2005

Reading:

- John Alcock, *The Triumph of Sociobiology* (Oxford 2001), ch 8, pp 149-187.

Study questions: Alcock ch 8

1. Explain the statement (p 150), that “the brain is essentially a reproductive organ....”
2. What would the long-range evolutionary outcome be if, at a given time, most people had “blank slate” brains at birth? (p 153)
3. Conditional strategies are common in humans. Give an example of a conditional strategy in an insect, showing that insect behavior is not always rigidly pre-programmed. (p 156-159)
4. Learning mechanisms have evolved in order to increase fitness – to increase the likelihood that an individual’s genes will be reproduced. As a result, these mechanisms are less general than many learning theorists have claimed. Give an example, from the learning of ingestion-related behavior in rats as studied by John Garcia. (p 162)
5. Give two or three examples of the channeled nature of learning abilities in humans. Are there similar special abilities in animals? (p 167f, 171-173)
6. The use of spices in cooking seems at first to be a human luxury with no particular adaptive value, and thus their widespread use, and the great value placed on spices in human history, presented a Darwinian puzzle. What adaptive value of spices has been approved and supported by data? (p 177-179)
7. Define the “demographic transition” in human populations. It presents a Darwinian puzzle, for which the proposed solutions are incomplete.
8. See Appendix, ch 8, Q2.
9. See Appendix ch 8, Q3.
10. For HOMEWORK: write out an answer for Q1 (due on Wednesday).