

9.20

Class #9: Lorenz: Fundamentals of Ethology: Innate releasing mechanisms and related topics.

Wednesday Sep 28, 2005.

Reading:

Lorenz, K.Z. (1981) *The Foundations of Ethology*, New York: Springer-Verlag. Pp 153-175, "Afferent processes".

Study questions:

1. "The innate releasing mechanism responds to complex stimulus configurations and triggers a behavioral response from the organisms." Criticize this statement, using one or two examples.
2. Describe MIT's J.Y. Lettvin's contribution to the study of IRMs.
3. Give an example of maladaptive behavioral responses to key stimuli. (E.g., p 158)
4. What does Lorenz mean by transposibility of key stimuli? (p 161, 163)
5. Explain the exploitation of the properties of IRMs by the European cuckoo (p 164). Compare this to the related behavior of whydah birds (p 169).
6. Explain how the doll industry and the food industry exploit the IRMs of humans. (p 164-166)
7. What is the difference in meaning of the terms "releaser" and "key stimuli"? How can releasers usually be recognized? (p 166-168)
8. Describe two releasers in humans, one involving a motor pattern and the other not. (p 168, etc)
9. Mimicry usually evolves in a species in order to affect the behavior of other species. Describe cases of mimicry that has evolved to affect other members of the same species ("automimesis"). (p 169-170)
10. Explain the "dummy rule". Also explain why it cannot be inverted. (p 171, 175)
11. For IRMs, what is the usual role of learning? (pp 173-175)