

9.01 Study Questions
Lectures 36-37: Motivation 2

- 1) Is it true that the choices that an animal (or a person) makes are guided by drives? In what sense?
- 2) The conclusion from studies of hunger elicited by electrical stimulation of the lateral hypothalamus: "Hunger acts as a _____ that eating will be _____."
- 3) Describe two experiments showing that drive and reward are separately represented in the brain.
- 4) Activation of what pathway in the brain is accompanied by pleasure (and thus, reward).
- 5) What are the two major kinds of aggression in cats that can be elicited from electrical stimulation of the hypothalamus? How can we be sure that the kind that corresponds to predatory aggression is not due to increased hunger?
- 6) Describe an experiment that indicates connections to the motor system by the hypothalamic neurons involved in attack behavior.
- 7) How critical is the hypothalamus for control of attack behavior in the cat? Or, for temperature regulation?
- 8) How do we know that forebrain structures are also very important in the control of aggressive behavior? Give an example of such a forebrain structure.
- 9) How might androgens act to increase aggression?
- 10) How does the brain resolve the problem of more than one simultaneously activated drive state?
- 11) Describe an experimental set-up for obtaining fear conditioning in a rat. (The one described in the lecture results in learning that is dependent on the amygdala.)