Hormones and Behavior
PSYC4092/5092

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Hormones and Behavior — Introduction
A little Historical Background

Endocrinology: Study of endocrine glands and their secretions (hormones)

Endocrine — Greek derivation
  endo = within
  crine = secrete

Not to be confused with exocrine glands!
How can we study the function of a particular hormone?

Hypothetical experiment: Let's say I have discovered a new hormone produced by the adrenal gland of rats, which I have humbly named "Boberone". How can I experimentally determine the effects this hormone has on rat behavior?
**extirpation:** removal of an endocrine gland

**hormone replacement:** treating an individual who lacks a particular hormone with that hormone or a drug substitute for that hormone

**Manipulation of hormone effects on body:**
How to decrease effects of the hormone on the body?
Manipulation of hormone effects on body:
How to increase effects of the hormone on the body?

Effects of castration of male

Cow —
Chicken —
Human —
**Important**: Different effects depending on age at which castration occurs.

prepuberty —

postpuberty —

**Organizational effects** of hormones: relatively permanent effects of hormones on structure and function of the body.

Often there is a critical period of development during which these organizational effects can take place. The most important critical periods are during fetal development and puberty.
Activational effects of hormones: immediate (temporary) effects of hormones that "come and go" with the presence and absence of the hormone.