Genes and Hormones

Focus:
1. Genes
2. Hormones
3. Neurons

Genetic influences
- Evolutionary Psychology
- Twin Studies

Evolutionary Psychology

Natural Selection
genes contributing to survival will be passed on to succeeding generations
(dislike for bitter tastes & rotten smells)

Male & Female Differences in Courtship & Mating

Twin studies
- identical:
  1 sperm 1 egg
- fraternal:
  2 sperms 2 eggs
Twin studies

- schizophrenia
- gay genes?

Is homosexuality linked to:

- quality of parent-child relation (domineering/passive mother, ineffectual/hostile father)
- fear or hatred of people of other gender
- being molested during childhood, seduced, sexually victimized by an adult homosexual
- living with gay parents

Homosexuality

- Neither willfully chosen nor willfully changed
- Homosexual behavior doesn’t always indicate a homosexual orientation
- The brain & sexual orientation
- Abnormal prenatal hormone conditions

Genetic influences

Alcohol-abuse

Genes & Weight:

Set-Point theory
Set-Point theory

Biological mechanism keeps body weight at a genetically influenced set point

We are genetically programmed for:
- metabolic rate
- fat cells

Endocrine system

II. Hormones & behavior
1. Stress
   - adrenal gland
   - hormones: cortisol, epinephrine, norepinephrine

   Psychological dwarfism:
   stress $\rightarrow$ cortisol $\rightarrow$ pituitary gland $\downarrow$
   growth hormone $\downarrow$
   growth failure

2. PMS
   - estrogen
   - progesterone
   - Premenstrual Dysphoric Disorder
3. Child birth
   - postpartum blues
   - postpartum depression
   - postpartum psychosis

Intelligence

- adoption studies: 70%

Intelligence:
   environmental influences

   • “Flynn effect”
   • intellectual enrichment programs
   • socio-cultural deprivation
     - lack of intellectual stimulation
     - inferior school
     - malnutrition
     - lack of medical care