Updates/Announcements

- Today: Finish Chapter 3
- Thursday: Chapter 4
  - Assignment 1 decision
- Next week: Chapter 5 → Physical Development
- Following week: Exam 1 (February 15th)

Overview

- Childbirth
  - Approaches
  - Complications
- More Nature-Nurture
  - Heritability estimates & Concordance rates
  - Mechanisms of Influence
  - Bidirectional
Labor Intensive

- 3 stages of childbirth
  1- Dilation & Effacement of cervix
  2- Delivery of the baby
  3- Birth of placenta

APGAR Scale

- Appearance
- Pulse
- Grimace
- Activity
- Respiration

Approaches to Childbirth

- Variations by culture
- USA → hospital
  - Industrialization: Late 1800’s – early 1900’s
  - Knowledge declined
  - Usually male doctors
  - 50’s – 60’s Feminism grew, and approaches to US childbirth were questioned
Approaches to Childbirth

**Natural, or Prepared, Childbirth**
- Mother and companion usually participate in 3 activities:
  1. *Classes*
  2. *Relaxation & Breathing Techniques*
  3. *Labor Coach*

**Alternative Approaches**
- *Home Delivery*
  - More common in England, Netherlands, & Sweden
  - Only about 1% in USA/Canada

**Medication**
- *Analgesics* → relieve pain and help mother relax
- *Anesthetics* → stronger; block sensation
- Most common in US → *epidural analgesia*
Approaches to Childbirth

**Natural, or Prepared, Childbirth**
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  1. Classes
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Birth Complications

**Anoxia** – inadequate oxygen supply during birth process

Causes:
- Failure to start breathing
- Breech position (butt/feet first)
- Placenta abruptio

Impacts:
- Depends on extent of deprivation
- More deprivation → poorer cognitive & language skills

Birth Complications

**Preterm & Low-Birth-Weight**
- "premature" → 3 weeks or more or who weigh less than 5½ pounds
- At-risk for many problems (best predictor of infant survival & health development)
- Preterm versus small for date
- Consequences for Caregiving
Birth Complications

**Interventions**

- *Isolette*

Birth Complications

**Interventions**

- *Infant Stimulation*

Birth Complications

**Interventions**

- *Infant Caregiving Skills*
  - Warm parenting helps babies sustain attention (promoting cognitive and language development)
  - Can aid all parents of premature birth...
    - Intensity of training tied to SES, social support
Birth Complications

Resilient Children
- Supportive environments can restore children’s growth
- But...what about children who develop normally with severe complications AND troubled families???

More on Nature - Nurture

Field of behavioral genetics:
Heritability estimates
- 0 to 1.00

Example: intelligence
.86 for identical twins
.60 for fraternal twins

More on Nature - Nurture

Field of behavioral genetics:
Concordance Rate
- 0 to 100%
Limitations of Heritability/Concordance

1- Each value is specific to a particular population
2- Accuracy depends on extent to which twin pairs used reflect variation in the population
3- Can be misapplied
4- Limited usefulness

Mechanisms of Influence

How do Nature & Nurture work together?

Reaction Range

Mechanisms of Influence

Canalization
Mechanisms of Influence

- We’ve already discussed...
  - Gene-environment correlation
  - Can you recall them?

Environmental Influences

- Uncoupling by caregivers
  - Positive experiences
  - Differentiation of siblings (not just genetics)
  - BIDIRECTIONAL

- Epigenesis: development resulting from ongoing, bidirectional exchanges between heredity and all levels of the environment

Thursday

- Assignment Decisions
- Infancy (Chapter 4)
Questions???

I never learn anything talking. I only learn things when I ask questions.

~Lou Holtz~