

# Nature and Nurture

## Chapter 3



# Genetic Foundations

- Chromosomes
- DNA
- Genes
- Evolutionary psychology
  - Research how natural selection plays a role
  - Look at personality, behaviors, and cognition from a survival perspective

# Sexuality

- Men think about sex more and have “looser” values when it comes to sex
- Clark and Hatfield research
  - An experimenter of average attractiveness approached at random an attractive different-sex person on campus
  - “I’ve seen you on campus and think you are attractive, do you want to go to bed with me tonight?”
  - 75% of men agreed but no women did
- Men are more likely than women to perceive friendliness as attraction or sexual interest

# Attraction

- Men worldwide prefer youthful looking women
  - Reproduction cues (for human males - waist to hip ratio)
  - .70 - males prefer
    - Marilyn Monroe, Kate Moss, and Barbie all have the same ratio
    - A .65 to .8 is considered healthy
    - Cue of a lot of childbearing years ahead
  - .80-.95 - female prefer in men
    - .8 to .9 is healthy in men
    - Do also like dominant, mature, affluent men – men who will provide well for a family

# Twin Studies

- Identical twins
- Fraternal twins
- Identical twins are often very similar personality-wise
- Fraternal twins are generally no more alike than non-twin siblings

# Twin Studies cont

- If fraternal twin divorces, odds of other twin divorcing go up 1.6 times
- If identical – odds go up 5.5 times
- Strong similarities for identical twins in religious preference, personality, and interests
- Identical twins reared apart are less like each other than if raised together; however, they are more alike than fraternal twins raised apart.

# The Jim Twins

- Jim Lewis and Jim Springer first met February 9, 1979 after 39 years of being separated. They were the rarest of twins, and most prized by researchers: identical twins who had been separated at birth, were raised in different families, and had grown to adulthood completely unaware of each other's existence.
- When the two first met, Lewis described it as "like looking into a mirror." For starters, both had the same first name. They were physically identical. But when they got talking, the similarities were astounding. Both had childhood dogs named Toy. Both had been nail biters and fretful sleepers. Both had migraines. Both had married first wives names Linda, second wives named Betty. Lewis named his first son James Allen, Springer named his James Alan. For years, they both had taken holidays on the same Florida beach. They both drank Miller Lite, smoked Salem cigarettes, loved stock car racing, disliked baseball, left regular love notes to their wives, made doll furniture in their basements, and had added circular white benches around the trees in their backyards. Their IQs, habits, facial expressions, brain waves, heartbeats, and handwriting were nearly identical.

# Adoption Studies

- Adopted kids' personalities are more like their biological parents than their adoptive parents
- If 2 non-biologically-related adopted kids are raised in the same home, their personalities are no more alike than to a random person
- Values, faith, and politics are affected by the environment



# Temperament

- “Easy” infants are generally cheerful and predictable
- “Difficult” infants are intense and irritable
- Temperaments are there at birth and become a large part of our personalities

# Heritability

- Genes help us understand individual differences but not group differences
- 50% of the variance in personality is accounted for by genes

# Genetic Testing and Engineering

- Genetic testing?
  - Selective abortions?
- Engineering
  - Designer babies?
  - Long-term ramifications?

# Environmental Influences

- How much influence do parents have on personality?
  - Not much
  - Does this remove/reduce parental responsibility?
- Prenatal environment and behavior
  - Placenta-sharing identical twins are more alike than separate-placenta identical twins
  - Nutrition, drugs, stress

# Experience and the Brain

- Rats in enriched environments
  - Complex/stimulating environments increase dendritic branching and density
  - Exercise and the brain – increases blood supply
- What implications does the rat research have for humans (in light of SES and other similar factors)?
- Early experience is critical

# Peers

- “Peer influence is the most consistent predictor of adolescent drinking patterns when controlling for other background characteristics.” In mixed-sex friendships, males influence females’ drinking patterns but the reverse is not true (Gaughan, 2006).
- Kids will often eat a disliked food if their peers are doing it but not if their parents ask them to.

# Culture

- Cultural differences between countries – experiences?
- Cultural norms
  - What are ours?
  - Personal space – talking, sitting, etc?
  - Lifestyle differences?
- Cross-cultural research in psychology – hugely popular now

# Sex and Gender

- Sex is determined by the 23<sup>rd</sup> chromosome
- Androgen-insensitivity syndrome – genetically male but female characteristics
- Gender roles
  - Culturally-defined
  - What are traditional Western European/American gender roles?
    - Girls can do “guy” things but guys can’t really do “girl” things
  - Women in graduate education
    - 50% of law students are women
    - 66% of psychology grad students are women
  - Not as many women want to just stay home and take care of their kids
  - According to theorists, gender and sex are distinct



# Social Learning Theory

- We learn by imitating and observing and receiving rewards or punishments
  - Some researchers say all gender is learned

# Wrap-up

- Is it only nature and nurture?
  - “To excuse our failings by blaming our nature and nurture is what philosopher-novelist Jean-Paul Sartre called ‘bad faith’ – attributing responsibility for one’s fate to bad genes or bad influences.”
    - I did poorly on this exam, so is it bad genes or a bad environment?