

Personality

Sociobiological Approaches



What We Will Cover in This Section

- Overview
- Evolutionary Theory
- Sociobiology
- Summary



Overview

- Total focus on internal aspects of personality and behavior.
- Emphasis on.
 - Bodily structures.
 - Physiological processes.
 - Natural selection and evolutionary processes.
- Nomothetic.



Darwin: Evolutionary Theory

1. Living organisms can produce more offspring than environmental resources can support.
2. This leads to *Struggle for Survival*.
3. Organisms that compete better to reach reproductive maturity produce offspring (*Survival of the Fittest*).
4. The biological characteristics that allow organisms to survive will be passed on to offspring.



Inclusive Fitness

Our biological goal (energy) is to ensure that our genes (our own and those of our relatives) get carried on.

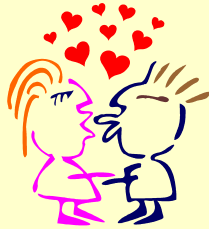


Basic Assumptions

1. We live to pass copies of our genes to the next generation and to ensure their survival.
2. Natural selection influences social behavior as well as anatomical and physiological structures.



Ideas
About
Human
Nature



Empirical (Social Science) Model

A person's internal and external behavior is a function of life experiences.

- No inherited predispositions.
- Tabula rasa.

Evolutionary Psychology

- **The human mind and body have been shaped by evolutionary pressures.**
- **We are predisposed to act in certain ways and to avoid other behaviors.**

Cultural Universals

If a class of social behavior occurs in every culture, it is probably genetically determined.



Question?

What social behaviors occur in all cultures?



Biogrammar

The innate, genetic programming that structures our social behavior.

- This is a template for behavior.
- Provides a potential, not the implementation.



Biological Sources of Behavior

1. Primary Epigenetic Rules

Innate capacities that determine what environmental stimuli can be sensed or experienced.

2. Secondary Epigenetic Rules

Innate processes that determine how environmental stimuli are processed, reacted to, learned.



Biological Sources of Behavior

3. Prepared Learning.

Our predisposition to learn some things and not learn others.

- Language.
- Culture.
- Dominance hierarchies.



Behavioral Interaction

Biological Predispositions



Environmental Experiences and Culture



Biology and Personality



Mate Selection - Females

- Energy expenditure in reproduction is high.
- Seek out good genes that will ensure survival.
- Seek out mates with good resources.
- Seek out highest potential for stability and protection.



Self-promotion: Females

- Emphasize
 - Youth
 - Fertility
 - Faithfulness
 - Vitality
- Competitor derogation.

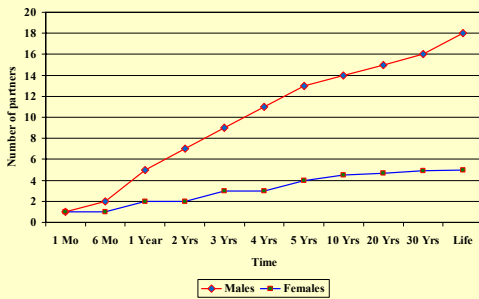


Mate Selection - Males

- Reproductive Value vs. Fertility.
- Energy selection in producing offspring is low.
- Males seek out attractiveness and fertility.
- Age is an indicator of fertility.
- To ensure continuation of genes multiple mates is the best policy.



Number of sexual partners desired



Self-promotion: Males

- Emphasize
 - Strength.
 - Ability to provide resources.
 - Readiness to commit and faithfulness.
 - Stability.
- Competitor derogation.



Parenting - Traditional

- **Female**
 - Offspring are a major biological investment.
 - Child rearing is important.
- **Male**
 - Broad capacity to reproduce.
 - Less vested interest in an individual child.
 - May have to be enticed to participate in child rearing.



Parenting – Other Issues

- **Stepparents.**
 - There is no genetic interest on the part of the stepparent.
 - Children are 100 times more likely to be abused by a stepparent than a genetic parent.
- **Incest.**
 - Generally shunned in all societies.
 - **Westermarck Effect.**
Children raised together are unlikely to become sexually intimate when they are adults.



Altruism

1. Kin Altruism.

Offering to help genetic relatives.

- Indirectly helping your genes continue into the future.

2. Reciprocal Altruism.

Offering to help others who are not genetic relatives.

- Humans that help one another have a better chance of surviving than those who don't.



Hamilton's Rule

$$r \times B > C$$

r = proportion of shared genes.

B = Benefit

C = Cost



Aggression

- Assume that human aggression is an inherited potential.
- Through culture we learn how to direct it.
- Aggressive behavior occurs when the benefits outweigh the costs.



Religion and Ethics

- **Shared beliefs**
 - allow us to live together cooperatively.
 - can lead to reciprocal altruism.
 - simplify life and make it more predictable.
 - make common rules (ethics, laws, rules) easier to communicate.



Dysfunctional Behavior

- **Context failure.**
 - *Activation of an inherited mechanism in a situation other than those for which it was evolved.*
 - Suicide
 - Murder

Psychological Disorders

- **Addiction**
- **Anorexia Nervosa**
- **Anxiety disorders**

Eysenck's Heritability Criteria (Again)

1. **Is there a genetic contribution?**
2. **Is the behavior seen in non-humans?**
3. **Is the behavior seen in other cultures?**
4. **Is the behavior stable over time?**

Issues and Contributions

- **Issues.**
 - Not falsifiable.
 - Rigidly deterministic.
 - Is it racist and sexist?***.
 - Too general to be useful.
- **Contributions.**
 - Scientific foundation for studying behavior.
 - Provides a new framework for studying behavior.



Postview

Individual Differences	Based on environmental experiences.
Adaptation & Adjustment	Not much here.
Cognitive Processes	Our thinking capacity is generally inherited and fixed. Experience then molds it.
Biology	Major template for personality.
Development	Determined by biological critical stages.

