

# Personality

What makes us who we are?

## **Psych 305A: Lecture 18**

### **Evolutionary Approach Wrap Up**

### **The Cognitive Approach Part I Learning and Behaviorism**

# Exam 4

- MC mean = 73%, range = 19%- 100%
- Grading will be done by next Tuesday  
(no class Monday next week)

## Problem Item

6. All of the following characterize the difference between BIS and BAS, EXCEPT:
- a. People high in BIS are sensitive to punishment
  - b. People high in BAS are highly impulsive and tend to seek novelty
  - c. People high in BIS tend to be neurotic
  - d. People low in BAS tend to be controlled and even-tempered
  - e. All of the above characterize the difference between BIS and BAS

# **Evolutionary Perspective: Wrap Up**

# Further Evidence for Buss et al.

- Gender difference in:
  - How many sexual partners do you hope to have?
    - 13 vs. 2.5 in next 30 yrs, worldwide
    - 18 vs. 4/5 in lifetime, in the U.S.
  - Would you have sex with an attractive stranger who approached you?
    - 75% vs. 0%
  - What if he/she is a “friend of a friend”?
    - 95% vs. 5%

# Importance of “Good Financial Prospect” When Selecting a Mate

*Table 10.6* Importance of “Good Financial Prospect”  
When Selecting a Mate

Sample	Males	Females
<i>Africa</i>		
Nigeria	1.37	2.30
South Africa (Whites)	0.94	1.73
South Africa (Zulus)	0.70	1.14
Zambia	1.46	2.33
<i>Asia</i>		
China	1.10	1.56
India	1.60	2.00
Indonesia	1.42	2.55
Iran	1.25	2.04
Israel (Jewish)	1.31	1.82
Israel (Palestinian)	1.28	1.67
Japan	0.92	2.29
Taiwan	1.25	2.21
<i>Eastern Europe</i>		
Bulgaria	1.16	1.64
Estonia	1.31	1.51
Poland	1.09	1.74
Yugoslavia	1.27	1.66

*Table 10.6 (continued)*

Sample	Males	Females
<i>North America</i>		
Canada (English)	1.02	1.91
Canada (French)	1.47	1.94
United States (Mainland)	1.08	1.96
United States (Hawaiian)	1.50	2.10
<i>Oceania</i>		
Australia	0.69	1.54
New Zealand	1.35	1.63
<i>South America</i>		
Brazil	1.24	1.91
Colombia	1.72	2.21
Venezuela	1.66	2.26

*Note:* Participants rated on a scale from 0 (Unimportant) to 3 (Indispensable). From Buss (1989).

# **Evidence for Evolutionary Perspective: The Big Five**

- The Big Five are the most important categories of personality across cultures
- From an evolutionary perspective, why might humans place importance on these 5 traits?



Big Five = innate psychological mechanisms and behavioral strategies that developed to help us solve problems of survival and reproduction.

## SURVIVAL PROBLEM

**EXTRAVERSION** → social rank, cooperation  
(social skills, activity, leadership, assertiveness)

**EMOTIONAL STABILITY** → resilience to stress, adaptability  
(anxiety, worry, self-approval, moodiness)

**AGREEABLENESS** → intimacy/mating, altruism  
(empathy, generosity, conformity)

**CONSCIENTIOUSNESS** → work, trust, dependability  
(will, no impulsivity, responsibility, orderliness)

**OPENNESS** → learning, exploration, versatility  
(curiosity, creativity, flexibility)

*Being able to PERCEIVE the Big 5 in other people has adaptive value:*

Would this person be a good leader?	E
Will he survive hard times?	N
Will she love our family?	A
Can I rely on him?	C
Will her wisdom help me?	O

# Evolution of Big Five

- But, high end of each trait cannot be complete adaptive
  - If so, we wouldn't see normal variation on traits in all human populations
  - Heritability of that variation suggests that the *variation* is what is adaptive
- Trade-off perspective (Nettle, 2006)
  - All levels of each trait have costs and benefits

# Nettle, 2006

**Table 1**

*Summary of Hypothesized Fitness Benefits and Costs of Increasing Levels of Each of the Big Five Personality Dimensions*

Domain	Benefits	Costs
Extraversion	Mating success; social allies; exploration of environment	Physical risks; family stability
Neuroticism	Vigilance to dangers; striving and competitiveness	Stress and depression, with interpersonal and health consequences
Openness	Creativity, with effect on attractiveness	Unusual beliefs; psychosis
Conscientiousness	Attention to long-term fitness benefits; life expectancy and desirable social qualities	Missing of immediate fitness gains; obsessionality; rigidity
Agreeableness	Attention to mental states of others; harmonious interpersonal relationships; valued coalitional partner	Subject to social cheating; failure to maximize selfish advantage

# Evolutionary Approach and Individual Differences

- Why are some people introverted, if extraversion is adaptive?
  - Frequency-Dependent Selection
    - Certain traits are adaptive ONLY if there are also people who have the opposite
    - What if everyone was extroverted?
    - What if no one was neurotic?
  - Environmental Triggers
    - We all have the potential to become neurotic, but it is more adaptive in adverse conditions
    - Evidence for environment + gene interaction in depression

# **The Cognitive Approach to Personality**

# History

**Behaviorism**  
*Classical conditioning (Watson)*  
*Operant conditioning (Skinner)*



**Cognitive  
Revolution**

**Social Learning (Bandura)**  
**Personal Construct (George Kelly)**

**Social Cognition /  
Information processing**



# Personality Defined by a Behaviorist

- *“Personality involves the discovery of the unique set of relationships between the behavior of an organism and its reinforcing or punishing consequences”*
  - Skinner, 1974
- Translation: Personality is a set of learned responses to the environment
- Person = rat



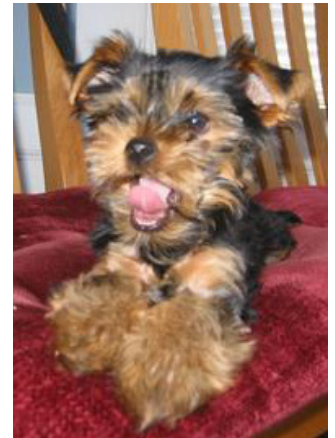
# Skinner's Approach

- Method: Systematic observation and controlled experimentation
  - No inferences into the “black box” of personality
- Data: Directly observable behavior that can be assessed objectively
- Subjects: mainly lab animals (rats, pigeons), but some humans
- Emphasis: Environmental causes of behavior and personality (i.e., nurture)

# Behaviorist Approach

- We can only study observable behavior
- ‘Mind’ (spirit, motivation, soul) does not explain behavior
- Personality (behavioral tendencies) is shaped by what we learn from the environment
  - Classical Conditioning
  - Operant Conditioning

# Classical Conditioning



# Operant Conditioning



# The Essence of Behaviorism

- ***"The consequences of behavior determine the probability that the behavior will occur again"***  
– ***BF Skinner***

- Anyone's personality can be formed or changed through patterns of reinforcement and punishment

- If you are extraverted, that's because extraverted behaviors were rewarded by the people who raised you

# A Clockwork Orange

# Classical Conditioning

- Alex injected with nausea drug (*unconditioned stimulus*) while watching violence
  - Alex feels nauseous (*unconditioned response*)
- Alex thinks about violence or acts violent (*conditioned stimulus*)
  - Alex feels sick and avoids acting violent (*conditioned response*)
- Would this approach work for real juvenile delinquents?

**Did the conditioning process  
change Alex' s personality?**



# **Message of Movie: Society Can't Produce Morality**

- Satire about societal attempts to make people good/moral
  - Psychological conditioning can't make people good
  - People must choose to be good/moral
  - But, Kubrick made the movie before the reign of behavioral genetics– what would he say now?

# View of Skinner Today

- Not very good
  - If we're interested in HUMANS, it's ok (and even good!) to study mental states
- Yet, behaviorism remains an important part of personality, and psychology more generally
  - Behavioral evidence considered strongest
    - Emotion expression research
  - Subjective reports (e.g., self-report data) often suspect
    - Importance of O, T data

# Next Class

- Modern Cognitive Approach
  - If you already read Larsen & Buss, Chapter 12, NO HOMEWORK!