

Personality
What makes us who we are?

Psychology 305A: Lecture 17

Body Doubles
Evolutionary Perspective Part II
Begin Learning and Behaviorism

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Body Doubles

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Body Doubles: the twin relationship

- How can we explain the emotional connection between identical twins?
- Is it different from fraternal twins?
- Why might some identical twins feel so similar and close, and others not?

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Body Doubles and genetics

- Did the film make you more or less convinced about the importance of genetics in shaping personality?
- What questions/challenges does the film raise for twin research?

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Evolutionary Perspective Part 2

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Evolutionary Perspective: Sex Differences

- Throughout evolutionary history, men and women faced different problems in reproduction
 - Men fertilize externally
 - Need to make sure they invest in *their* children
 - Women fertilize internally
 - Need to find a mate who will provide resources during the pregnancy and after
- Result: gender-specific relationship strategies and desires

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Hypotheses

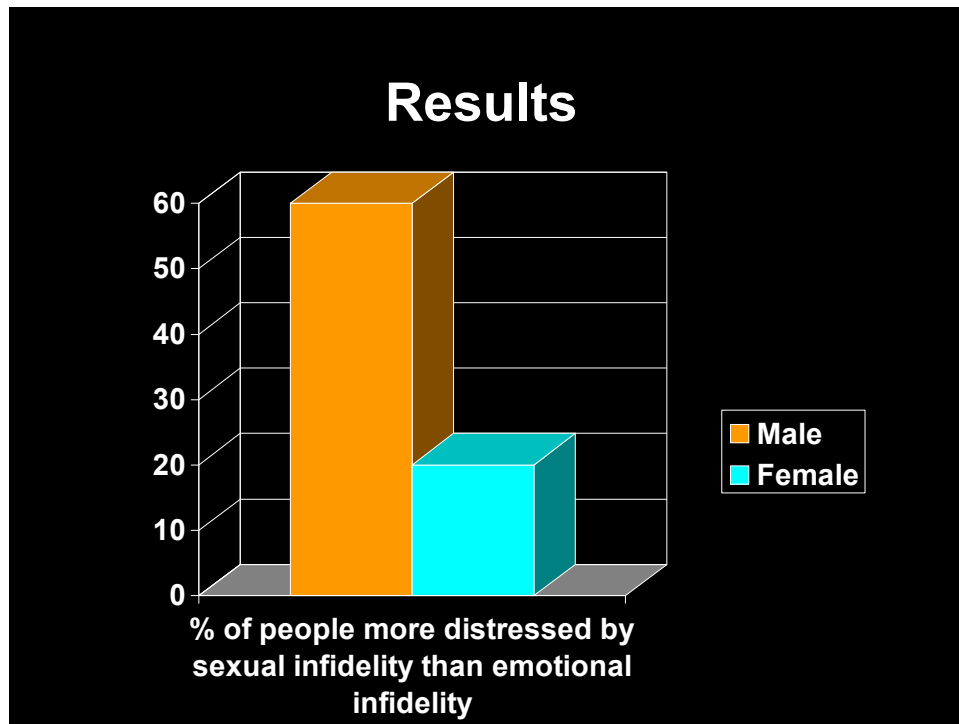
- Jealousy is the adaptive solution
 - Motivates people to make sure they're not being cheated on
- Gender differences in mating problem should lead to gender differences in source of jealousy
 - External fertilization → Sexual jealousy
 - Internal fertilization → Emotional jealousy

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Buss, Larsen, Westen, & Semmelroth (1992)

- Which would distress you more:
 - Imagining your romantic partner forming a deep emotional attachment to someone else
 - Or...
 - Imagining your romantic partner enjoying passionate sex with someone else?

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Further Evidence

- Gender difference replicates across several cultures
- Men show higher physiological arousal (heart rate, sweat) during sexual infidelity imagery than emotional infidelity imagery
 - Women show higher physio arousal during emotional infidelity imagery
- Men show better memory for sexual infidelity cues in a story; women better memory for emotional infidelity

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Do you buy it?

- Why else might we see these gender differences?

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What about gender differences in the way we think about sex?

- If your partner has a deep emotional connection with someone else, do you think he/she will ALSO have sex with him/her?
- If your partner has passionate sex with someone else, do you think he/she ALSO loves him/her?

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Results

- Women more likely to think that for men, being in love means ALSO having sex
- Men more likely to think that for women, having sex means ALSO being in love
- Jealousy difference may due to a “double-shot” effect
- But... Buss found that the effect holds even when participants are told to assume NO SEX or NO LOVE

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How else might we explain the difference?

- Cognitive Load study
 - Found that women became more like men when both are under cognitive load
 - Both genders found sexual infidelity problematic
- But, would we expect an evolved brain mechanism that detects and regulates responses to infidelity to operate automatically?
 - Even if it did, could it work this way in an imagined scenario task?

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How else might we account for the sex difference?

- Distinct Emotion findings
 - Sexual infidelity leads to anger
 - Emotional infidelity leads to sadness
- Still gender differences, but the difference is in the negativity of different emotions

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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%

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**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

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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).

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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?

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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 completely 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

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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; obsessiveness; rigidity
Agreeableness	Attention to mental states of others; harmonious interpersonal relationships; valued coalitional partner	Subject to social cheating; failure to maximize selfish advantage

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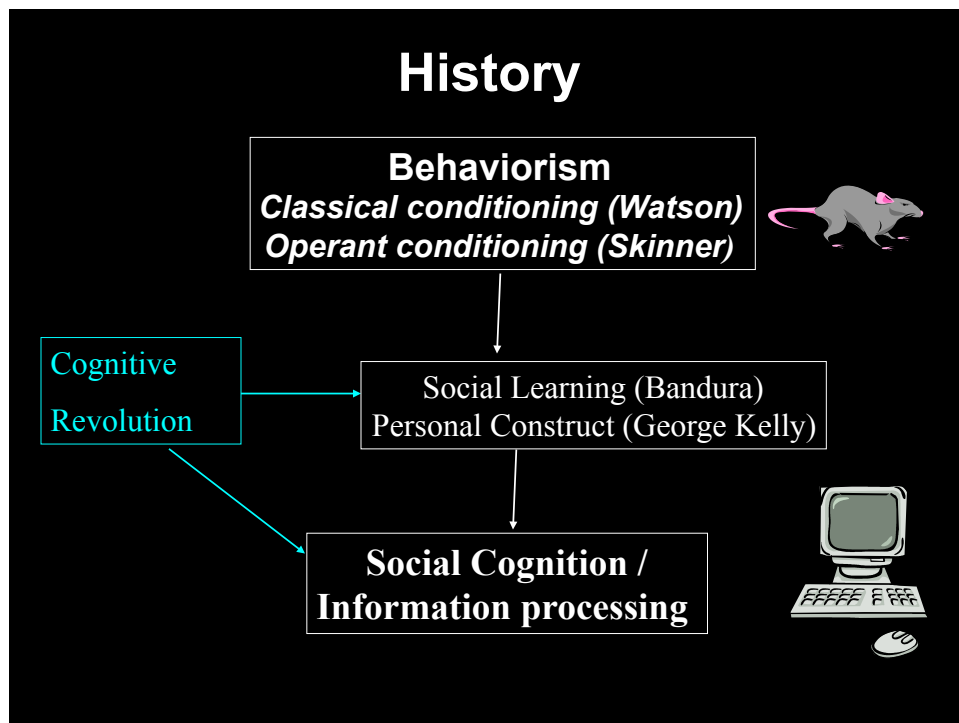
Evolutionary Approach and Individual Differences

- 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

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The Cognitive Approach to Personality

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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

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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)

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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

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Classical Conditioning



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Operant Conditioning



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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

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A Clockwork Orange



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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?

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

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**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?

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Next Class

- Cognitive Approach continued
 - Read Larsen & Buss, Ch. 12
- Personality and Emotions
 - Larsen & Buss, Ch. 13

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