

Psychology 305A: Lecture 13

**Person/Situation Debate** 

**Begin Biological Approach** 

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# Theoretical and Measurement Issues in Trait Research: Person-Situation Debate

INTRODUCTION INTRODUCTION



# 1968

PERSONALITY AND ASSESSMENT

Walter Mischel



INTRODUCTION INTRODUCTION

## What was going on in '68?

- Changes in Field of Personality:
  - End of the era of mega-theories (Freud, Jung, Maslow, Murray, etc.)
  - Era of middle-level theories
    - Domain-specific
    - Personality traits used to describe and predict certain types of behavior
    - B = f(P)
    - · Behavior is determined by personality

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# What was going on in '68?

- Rise of Social Psychology
  - Lewin's Interactionism
    - Behavior as a function of person and situation
    - $B = f(P \times S)$
  - Festinger's Situationism
    - Reduced to B = f(S)
    - Personality = error variance, irrelevant

## **Situationism**

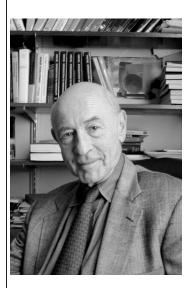
- Emphasis on the *power of the situation* to shape people's behavior
  - Asch's conformity study



- Milgram's obedience study
- Zimbardo's prison study



## Mischel's Critique



- Personality does not predict behavior
  - B = f(P) is wrong
- People act differently in different situations
- Knowing a person's level on a particular trait does not allow you to predict their behavior on any specific occasion

INTRODUCTION INTRODUCTION

## The result of Mischel's critique

- Personality psychology suffered!
  - Fewer grad programs
    - Currently, almost no solely P programs in the US or Canada, and possibly more pure S programs than combined S-P
  - Fewer researchers in the area
  - Fewer jobs

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## The Result of Mischel's Critique

- Social Psychology blossomed
  - Huge area of research
  - Many grad programs, researchers, and jobs
- But, over time, personality psychology fought back... and became stronger

## Personality's Response

- 1. Personality traits predict behavior, but over the long-term
  - Your level of Extraversion is
    - a good predictor of the total number of times you will go to parties this quarter
    - but, a weak predictor of whether you will go to a party this Friday night
  - Like batting average; seasonal weather
- To predict behaviors, use aggregation
  - Averaging/summing together a set of behaviors

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## Personality's Response

- 2. Broad traits predict broad behaviors, narrow traits predict narrow behaviors
  - Conscientiousness → academic performance
  - Punctuality → showing up to class on time

# **Personality's Response**

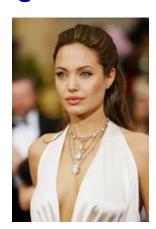
3. People may differ in how they behave across situations, but are consistent relative to other people

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# **Brad and Angelina**



Moderate Extraversion



**High Extraversion** 

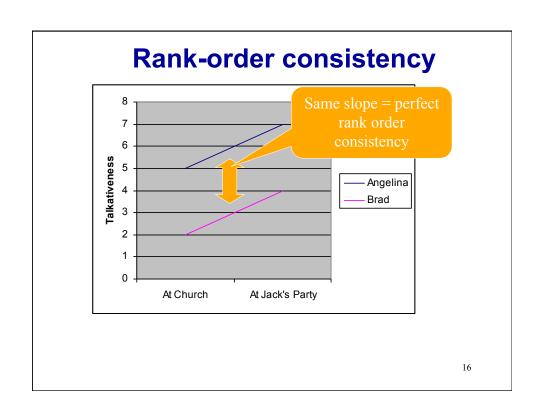
# **Brad and Angelina in Different Situations**

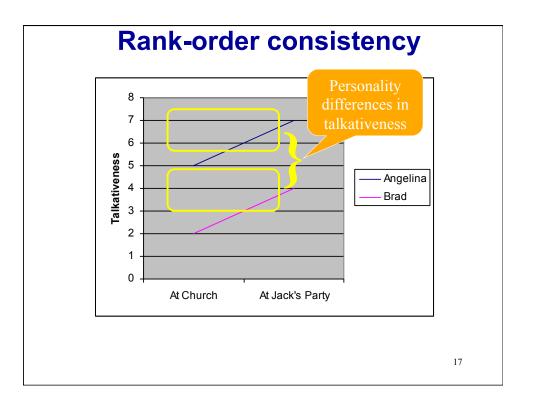
At Church

· At Jack's party



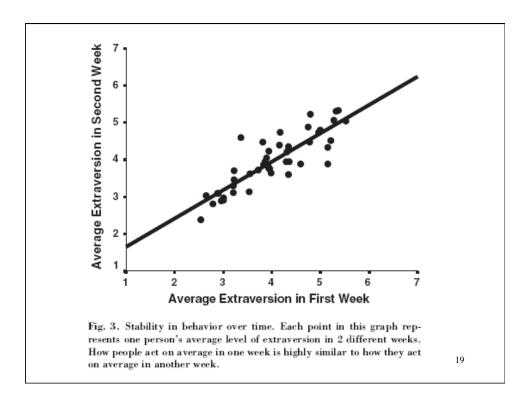






## Personality's Response

- 4. Personality traits are stable over long periods of time
  - The degree to which a person is shy, organized, creative, friendly, etc. tends to be consistent from week to week, year to year, and even across the entire lifespan



# Adult Personality is Linked to Child Temperament

<u>Temperament</u> <u>Big Five</u> <u>Dimension</u> <u>Dimension</u>

Activity level Extraversion

Sociability Extraversion, Agreeableness

Emotional reactivity Neuroticism

Attention level Conscientiousness

Orienting sensitivity Openness

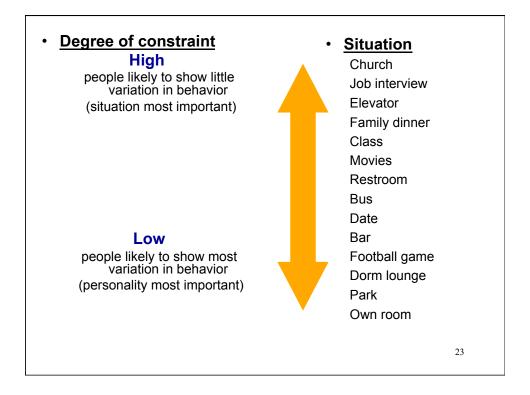
# Resolution of Person-Situation Debate: Interactionism

 Both personality and situation are important predictors of behavior

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# So how do we know which matters, when?

- Situational characteristics are better predictors of behavior
  - when situation is strong—with a high level of constraint
- Personality traits are better predictors of behavior
  - when situation is weak—with a low level of constraint



# Biological Approach to Personality

INTRODUCTION INTRODUCTION

# **Biological Perspective and Personality: Basic Assumptions**

- Personality traits:
  - -Reflect physiological differences



Are largely genetically determined



THE CAMBRIDGE

NATION ISSNI
HUMAN
EVOLUTION

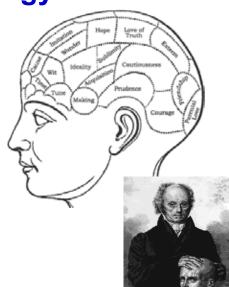
Are rooted in our <u>evolutionary</u> history

# Pre-Scientific Approach: Phrenology

Regions of the brain are associated with certain functions (e.g., sloping forehead = criminal prone)

#### Modern view:

- 1) it's in the brain, not the head
- 2) it's not that specific



## Galen's four humors

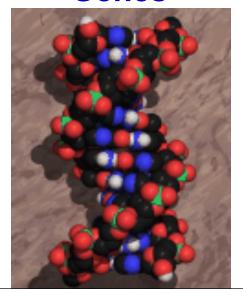
**GALEN:** Ancient Greek physician (C.130-200 A.D.)

Thought personality was a reflection of the four humors (fluids) that (he thought) make up our bodies.

Yellow Bile - bad temper, irritability (Choleric)
Black Bile - gloomy, pessimistic (Melancholic)
Phlegm - sluggish, non-excitable (Phlegmatic)
Blood - cheerful, passionate (Sanguine)

If one of these fluids was dominant, the personality associated with that fluid would be observed

# Modern Biological Approach: Genes



## **Genetic Approach to Personality**

- Genes are the building blocks of personality
  - Inherited through evolutionary processes
  - Shape personality and behavior by shaping physiological responses
  - Behavioral genetics = the study of how genes shape behavior

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# Assumptions of Behavioral Genetics

- Nature w. Nurture
  - Behavior (i.e., personality) is shaped, in part, by genes we inherit
  - Behavior is also shaped by the environment
- NO traits are caused entirely by nature or nurture; it's always both

# **Basic Assumptions of Genetic Approach**

- Genotypes are genetic potentialities
  - E.g., genes for eye color, height
- Phenotypes are manifest characteristics.
  - E.g., actual eye color and height; influenced by mix of genes and environment
- · Genetic determination
  - If gene, then phenotype, irrespective of environment
- · Gene-environment interaction
  - If gene and a particular environment, then a particular phenotype

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## **Genetic Heritability**

- Heritability is the extent to which individual differences in a trait, within a group of people, are due to differences in genes
  - Heritability can only apply to groups > based on individual differences
  - Does NOT mean how much of a trait within a single person is due to genetics

## **Behavioral Genetics**

- Used to identify genetic differences between individuals <u>within</u> a group
- Allows researchers to determine the extent to which individual differences in a trait are due to genetics <u>and</u> to the environment

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# Misconceptions about Heritability

- Group differences are (most typically)
   NOT explained by genetic differences
  - E.g., African-American vs. Caucasian IQ scores
  - Numerous studies have found that average IQ for U.S. African-Americans is 10 to 15 points lower than for U.S. Caucasians
  - This difference has been assumed, by some, to be due to genetics
  - What is wrong with this explanation?

# Where are the Genetic Differences? Heritability = 100% Uniform lighting Uniform lighting Uniform nutrient solution: Normal Uniform nutrient solution: Deficient

# Group differences due to environmental differences between groups

- The difference in average racial IQs decreases when environments are matched on SES
- Average IQ for U.S. African-Americans adopted into white middle-class households is 110
  - 25 points higher than average African-Americans, 10 points higher than average Caucasians

# **Group Differences Due to Different Environments**

- Race differences in IQ differ by age
  - No difference in infancy
  - 4 point difference at age 4
  - From ages 4-24 years African Americans lose 6/10<sup>th</sup> of a point per year

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# What's the environmental difference?

- African American children more likely to be raised by single parent
  - Single parent homes less cognitively complex
- Attend schools with lower average IQ, so high achievers don't need to achieve as high

## **Behavioral Genetics**

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# Research in Behavioral Genetics: Twin Studies



- Twin studies help us understand the importance of genetic and environmental influences on social development
  - Identical (MZ) vs.Fraternal (DZ) twins
  - Reared together vs. reared apart



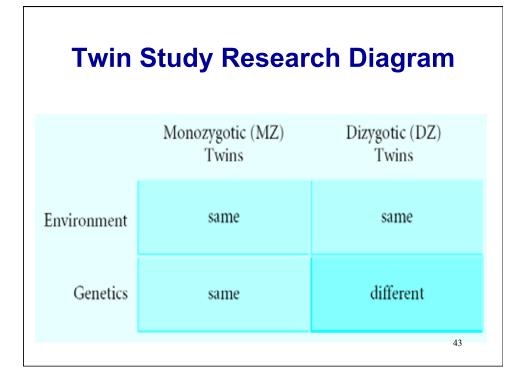






## **Shared Traits in Identical Twins**

- · Who has an identical twin?
- What personality dispositions do you and your twin share?
- Why do ID twins share traits?



## **Behavioral Genetics Methodology**

- Twin Studies: compare concordance (similarity) of trait in MZ vs. DZ twins
- Adoption Studies: compare concordance of trait between parents and biological vs. adopted kids
- MZ Twins Raised Apart
  - Best Design: Simply look at the concordance of the trait → that's its heritability

Table 10.3 Within-Pair Extraversion Correlations for MZ and DZ Twins

_	MZ Twins	DZ Twins
Swedish sample	.47	.20
Finnish sample	.46	.15

Source: From Floderus-Myrhed et al. (1980) and Rose et al. (1988).

Is Extraversion more heritable in Swedes or Finns?

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## **Next Class**

- Next Week: Biological Approach
  - Monday: BC Family Day- No class!
  - Wed: Genetics Approach
  - Fri: Physiology, Begin Evolutionary approach
  - Read Larsen & Buss Chapter 6 for Wed.