

### Sample test question on first lecture

- Before she began seeing patients with psychological disorders, Dr. Melfi went to medical school and then specialized in clinical psychology. Dr. Melfi is probably a
  - A. psychoanalyst
  - B. clinical psychologist
  - C. psychiatrist
  - D. counselor
- Before he began became a T.V. personality, Dr. Phil completed his dissertation in the Psychology Department of the University of North Texas. This means Dr. Phil probably has a
  - A. Psy.D.
  - B. Ph.D.
  - C. Ed.D.
  - D. M.A.

### One More:

- A psychologist doing research from the \_\_\_\_\_ perspective might be interested in how our brain chemistry affects mood.
  - A. evolutionary
  - B. behavioral
  - C. psychodynamic
  - D. sociocultural
  - E. neuroscience
- Cognitive psychology is thought processes as *developmental psychology* is to \_\_\_\_\_
  - A. social interactions
  - B. factors that promote health
  - C. change throughout the lifespan
  - D. behavioral disorders
  - E. influence of brain on behavior

- Your studying will be more effective if you ORGANIZE the information you need to know rather than just studying a list of facts and definitions.
- One way of ORGANIZING is to create a diagram or CONCEPT MAP of what you need to know.
- I created one related to last class period (couldn't squeeze in *everything*):



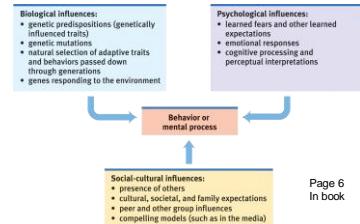
- You can make concept maps at:

<http://www.spiderscribe.net>

- (or draw them by hand)

[http://www.spiderscribe.net/app/?9b3d9d1d42219cae4a21ab3b9dc\\_e20e7](http://www.spiderscribe.net/app/?9b3d9d1d42219cae4a21ab3b9dc_e20e7)

See p 6: Biopsychosocial Approach



Page 6  
In book

Where do the 190,000 U.S. psychologists work?

- ~35% at colleges/universities
- ~21% self-employed
- ~18% business, industry, for profit practices
- ~10% local, state, fed government agencies
- ~9% nonprofit organizations
- ~7% in K-12 school settings
- Only ~ 47% are in clinical/counseling; the other 53% in very diverse work settings.

## Goals of Psychological Research

- Describe the behavior
- Predict the behavior in the future
- Explain the behavior
- Control or modify behaviors

## Research Methods to Help Psychologists Develop the Description of a Behavior

### Case Study

- Intensive study of an individual



Sybil

Case studies: Can provide in-depth data on an individual and spark ideas for further research  
• BUT we can't assume data will apply to all others with the same condition

## Naturalistic Observations



- Observing behavior in its natural setting as unobtrusively as possible.

## Observing Kids at Play



The researcher using naturalistic observation must try to make sure the observation does not change the behavior under study.

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Huffman:  
Psychology in Action (Bd)

For example, these descriptive methods helped build a description of ADHD (p 373)



## Survey

- Using questionnaires or interviews to efficiently collect data from many people
- But data may not be useful if:
  - questions are poorly written or administered
  - sample of participants is not representative
  - the self-reported responses are not accurate
- These descriptive methods helped build our description of ADHD →

## Attention Deficit/Hyperactivity Disorder (ADHD)

- Diagnosed when these criteria are met:
  - 6 or more symptoms of inattention and/or
  - 6 or more symptoms of hyperactivity and/or impulsivity
  - These symptoms must have been present before the age of 12, for at least 6 months & must be interfering with school, social or work functioning
- Do you know someone with ADHD?

### Naturalistic Observations in the Classroom Revealed:

- Compared to the average kid, those with ADHD have more trouble:
  - staying in their seats or sitting still,
  - paying attention, following instructions
  - completing work, staying on task
  - controlling impulses, controlling temper
- This method collects data in real-life situations, but it is important to use well-trained, unbiased observers.

### Survey Results Reveal:

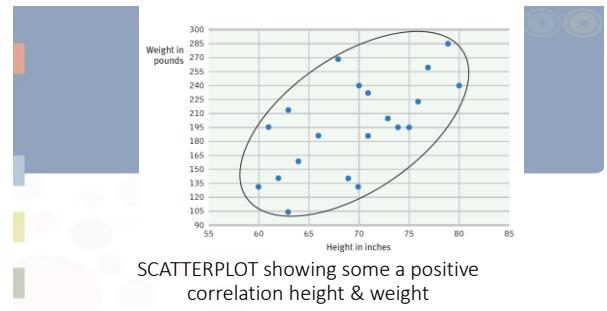
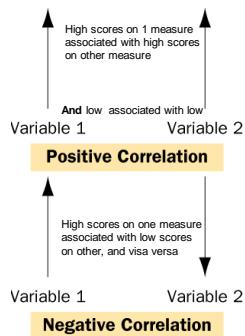
- ~11% of USA school kids receive this diagnosis & many are taking medication for ADHD
- 2X more males than females
- ~50-60% show defiant behavior & higher risk of conduct problems as teens
- ~30-60% still have symptoms as adults
- ~40% have a parent with symptoms

### Research Methods That Help Make Predictions

- Once many observations have been made, patterns may emerge that help predict the behavior
- Correlational research statistically analyzes these patterns

### Correlation

- Correlation:** the degree to which one variable or set of data is **related** to another variable or set of data, and how well one variable predicts the other.
- Correlation coefficient:** statistical calculation indicating the **strength and direction** of this relationship.
  - Varies between -1 (perfect inverse or negative correlation) and +1 (perfect positive correlation)
- Correlations help us **predict behavior** but do not indicate the cause of the relationship.
- Remember: Correlation does not prove causation.**

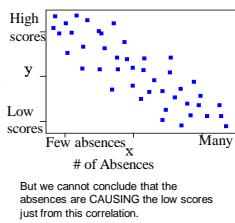


PSYCHOLOGY IN EVERYDAY LIFE | THIRD EDITION | David G. Myers • C. Nathan DeWall  
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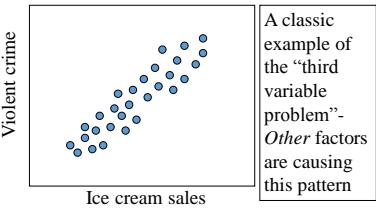
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### A Negative Correlation (inverse relationship between variables)

- If we plot test scores and absences, high scores are associated with few absences, low scores with more absences



Correlations DO NOT imply causal relationships



### Correlation Coefficient

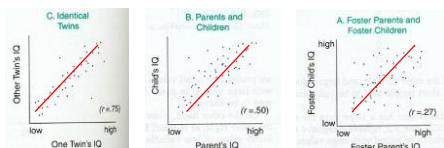
- Positive correlation (between 0 and +1.00)**
  - Indicates a direct relationship
- Negative correlation (between 0 and -1.00)**
  - Indicates an inverse relationship
- A correlation coefficient close to zero indicates little or no relationship between the 2 data sets

### Correlations

- The larger the **correlation coefficient**, the stronger and more predictive the relationship between the data sets.
- A strong negative correlation is just as predictive as a strong positive correlation.

### Strength of a Correlation

- Look at how spread out the dots are around the line
- Stronger Weaker



### Is Hyperactivity Correlated in Twins?

- Male **fraternal** twins show almost no correlation (+.05) in their level of activity
- But male **identical** twins show a strong correlation (+.71) in their level of activity
- Supports the hypothesis that genetics play a role in ADHD, but does not prove a cause-effect relationship.