

Class Lecture- Scientific Methods in Psychology

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STUDY TIPS

- Great notes make great study material
- Have learning goals
- **Psychology:** Behavior and mental processes
- Learn across all levels of understanding
- Check learning progress
- Break up studying in small sessions

PSYCHOLOGY SUBDISCIPLINES

EXPERIMENTAL	APPLIED
<ul style="list-style-type: none">• Biological (Dr. Siftka): brain	<ul style="list-style-type: none">• Clinical- disturbed
<ul style="list-style-type: none">• Cognitive: thinking processes	<ul style="list-style-type: none">• Counseling- family
<ul style="list-style-type: none">• Social: Behavior and mental processes in a social situation• Bystander apathy: lack of helping someone when you're in a large group	<ul style="list-style-type: none">• School
<ul style="list-style-type: none">• Developmental: Study over the life span of someone as they develop and age	<ul style="list-style-type: none">• Psychometrics (measurement)
	<ul style="list-style-type: none">• Industrial (business)

- So which sub-discipline has the real understanding of human behavior? All.

HISTORY OF PSYCHOLOGY: A TIMELINE

- 1879: Structuralism: **W. Wundt & introspection** (German)

- Looking at something and taking it apart.
- Example: notebook= white, has holes, has lines, ect.
- 1890s: Functionalism: **W. James** (American—studied at Harvard)
 - Function of sleep, emotion, ect.
 - Basically, the function of the mind
- 1920s: Behaviorism: **B.F. Skinner & J. Watson**
 - Science is based on measurement
 - This was a huge transition because we stopped studying mental “things” and studied measurable “things”
- Psychoanalysis: **S. Freud**
 - Theory of human behavior and emotion triggered by early years
- 1960-1970s: Cognitive Revolution & Modern Clinical
 - Introduced methods of cognitive processes that occur in humans
 - “Does this stuff really work?”--- Modern Clinical’s beginning question
 - Modern Clinical is evidence based (more recent)

WHAT MAKES A DISCIPLINE A SCIENCE OR SOMETHING ELSE?

- **Theory**: Comprehensive explanations of phenomenon
- Astrology and horoscopes
- 1948: **B. R. Forer**: rate the personality analysis 0-5 on accuracy
 - The issue is, B. R. Forer did a personality test on individuals, due to the fact that many astrology’s are the same
 - Nothing can really fit you, but rather everybody

- Average rating= 4.26

The “BARNUM EFFECT” AND OTHER PROBLEMS OF ASTROLOGY

- **Barnum Effect:** believability of personality analysis/horoscopes and astrology
- The zodiac constellations no longer coincide with the signs they were 2000 years ago
- The zodiac signs don't split into 12 anymore, but rather 13

ON DOING GOOD SCIENCE

- Let's begin with theories...
- **Good theories must:**
 - Fit known facts
 - Predict discoveries
 - Be falsifiable (worded so that you could test it and prove it wrong)
 - Be most parsimonious (over others) (simplicity)

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A THEORY OF SEASONAL AFFECTIVE DISORDER- *example of a theory*

- Seasonal changes and light exposure alters peoples' emotions- the absence of sunlight= ☹
- **Fit known facts:**
 - Cases of winter depression are unique
 - They sleep/eat more