PSYC 1101 vs. PSYC 1100
Social Science vs. Natural Science

- Social Sciences:
  anthropology, communication studies, economics, history, political science, sociology, psychology, etc.

- Natural Sciences:
  physics, chemistry, biology, astronomy, oceanography, psychology, etc.

SOCIAL SCIENCE VS NATURAL SCIENCE
study of society consisting of relationships among individuals, their institutions, cultures, artifacts; vs. study of natural phenomena
social science of mind and behavior
- individual's circumstances and characteristics matter, or are of interest: gender, race, orientation, socioeconomic status (SES), culture, religion, age, etc.
- history (societal and personal) affects individual in understandable ways: "the way things happened, that could have been different"
- what effect does experience have on individuals?

natural science of mind and behavior
- individual’s species matters, not circumstances like gender, etc.
- nature isn't concerned with history but is outside of it: "the way things are, regardless of what events occur"
- what mechanisms allow organisms to be affected by experience? (neuroscience, learning, memory, sensation and perception, etc.)
SOCIAL SCIENCE VS NATURAL SCIENCE

Social and natural science are often thought of as differing in methodological rigor, exactitude, and objectivity: sometimes called "soft" vs. "hard" science.

Features often cited as characteristic of "hard" science include producing testable predictions, performing controlled experiments, relying on quantifiable data and mathematical models, a high degree of accuracy and objectivity, higher levels of consensus, faster progression of the field, greater explanatory success, cumulativeness, replicability, and generally applying a purer form of the scientific method.

BUT is that just shorthand for age / development of the science, noise in the phenomena (measurement problem), multicausality?

- Methodology is very sophisticated, fields are highly mathematical.
- Replicability and statistics issues aren't specific to social science (biology, medicine, physics etc. all use p-values).

Psychology as a Social Science

- Developmental Psychology
- Sex & Gender
- Personality
- Health Psychology: Stress and Well-Being
- Psychological Disorders
- Psychological Therapies and Treatments
- Social Psychology
- Motivation
- Industrial & Organizational Psychology
<table>
<thead>
<tr>
<th>Perspectives on Psychology</th>
</tr>
</thead>
<tbody>
<tr>
<td>• biological</td>
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<tr>
<td>• behavioral</td>
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<tr>
<td>• psychodynamic</td>
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<tr>
<td>• humanistic</td>
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<td>• cognitive</td>
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<td>• evolutionary</td>
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<td>• sociocultural</td>
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**Perspectives on... what, though?**

The ABC’s:

• emotions
• behaviors
• thoughts

(um, wait...)
Perspectives on... what, though?

The ABC’s:

• Affect
• Behavior
• Cognition

Perspectives on... what, though?

• emotions
• behaviors
• thoughts

so remember these as THE ABC’s:

• affect
• behavior
• cognition
Psychology as “the science of mind and behavior”

**Historical outline of psychology**

**1879**: Wilhelm Wundt in Leipzig, Germany, founds the first laboratory dedicated to psychology, separating psychology from philosophy for the first time as the science of the mind: STRUCTURALISM (Titchener in US) looks for elements of thought.

**1913**: John Broadus Watson declares that to be a science, psychology must only study the observable and thus must be a science of behavior, rather than of mind; this inaugurates roughly six decades of dominance of American psychology by BEHAVIORISM.

**1967**: an arbitrary date for the beginning of COGNITIVISM - Ulric Neisser publishes his textbook *Cognitive Psychology*, outlining the areas of study (e.g., attention, memory, perception, language) that had begun yielding to investigation in the last decade, and presenting a consensus on the new information processing view of the field that solidified its popularity and led to its rapid ascendance.

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**Functionalism (1890’s-1930’s)**

- influenced by William James and Darwinian evolutionary theory, which assumed mind had a function useful to an animal’s survival
- opposed to structuralism: instead of understanding elements and structure of mind through introspection, study how mind and behavior better adapt an organism to its environment
- interested in both mind and behavior -- so methods included introspection, but also puzzle boxes, mazes, mental tests, etc.
- studied animal behavior as well as special human populations (children, mentally ill)
- interested in practical applications (in self-improvement, education, industry, etc.) as well as theorizing
- interested in motivation of behavior, whereas structuralism didn’t depend on motivation
- interested in individual differences (e.g., in intelligence, motivation, etc.), instead of solely focusing on universal characteristics of mind
Gestalt Psychology

- Gestalt Psychologists (Germany in 1900’s, U.S. in 1940’s)
- Retinal image + INNATE LAWS of ORGANIZATION --> percept (organized into set of objects)
- Principles of perceptual organization: grouping by proximity, similarity, good continuation, closure
- Apparent Motion: the phi-phenomenon: stimulus present in two locations within short time interval is seen as one moving stimulus; no moving stimulus though! (i.e., no sensations of movement)
- Perception is always in the direction of the simplest, most economical configuration
- The WHOLE is different from the sum of the parts
- Kurt Lewin 1890-1947: person is an element in the whole which is society; context of the whole affects identity of elements

Figure 6.17: Perceptual segregation
Fig. 6.10

- Proximity
- Similarity
- Good Continuation
- Closure

Figure 6.10: Apparent movement
Psychoanalysis

- Sigismund Schlomo Freud May 6 1856 - September 23 1939
- 1873-1881 medical student at University of Vienna (Austria) researching neurophysiology and studying philosophy
- 1876 - Where are the male eel's sex organs? Can't find them!
- 1882-1888 doctor at Vienna General Hospital
- 1886 begins private practice focusing on nervous disorders (medical psychopathology); ailments mental in origin?
- tries and eventually abandons therapeutic hypnosis and cocaine; finally settles on listening to patient’s talk
- 1890s concludes unconscious ideas (especially sexual ones) caused mental and physical troubles; 1899 dreams are the key to discovering these unconscious influences
- 1905-1915 psychosexual development, Oedipus complex
- 1920s id ego superego formed through developmental stages and Oedipal conflict
Psychology as “the science of experimental epistemology”

Outline of Epistemology for Psychology

<table>
<thead>
<tr>
<th></th>
<th>Foundations</th>
<th>Modern Philosophy</th>
<th>Modern Psychology</th>
</tr>
</thead>
<tbody>
<tr>
<td>RATIONALISM</td>
<td>Plato d. 347 BC</td>
<td>Descartes 1641</td>
<td>Kant 1781</td>
</tr>
<tr>
<td>EMPIRICISM</td>
<td>Aristotle d. 322 BC</td>
<td>Locke 1690</td>
<td>Berkeley 1710</td>
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</tbody>
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<thead>
<tr>
<th>RATIONALISM / NATIVISM</th>
<th>EMPIRICISM / ASSOCIATIONISM</th>
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</thead>
<tbody>
<tr>
<td>What is the origin of knowledge?</td>
<td>born with innate ideas; experience provides occasion for knowing; &quot;nativism&quot;</td>
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<tr>
<td>How is knowledge arrived at?</td>
<td>born as clean slate (&quot;tabula rasa&quot;); experience is source of knowledge; &quot;empiricism&quot;</td>
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<td>learn by operation of mind – manipulation of concepts and ideas; &quot;rationalism&quot;</td>
<td>learn by connecting experiences in world; &quot;associationism&quot;</td>
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