

# I. Psychology as science

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What makes a science?

- definition of science: intellectual, systematic endeavor
  - natural, **empirical**, observable
  - correlation v. causation
  - **determinism**, non-**determinism**, **indeterminism**
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Popper

- problems and methods
  - **principle of falsifiability**
  - risky predictions
  - value of non scientific methods?
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Theory

- conceptual system; guide scientific activity
  - testability
  - **types of theories:**
    - physical (mechanism and material) - note **positivism & logical positivism**
    - mathematical abstractive (relationships and formalisms)
    - metaphorical and analogical
      - pitfalls
    - general v. single domain
  - Example of theory in psychology: **Hullian Learning Theory** (1943)
    - formalized learning and behavior
  - **does psychology need a theory: Skinner v. Allport**
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Kuhn's description of science

- concerned with evolution of science and pointing out subjectivity of enterprise
- **pre-paradigmatic → paradigm → revolution**
- **normal science** / what would Popper say?
- "not yet disconfirmed"

- **zeitgeist**
- the paradigm shift... examples?

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## Psychology as science

- prevailing question throughout course...
- **JS Mill**: "Psychology as the science of elemental laws of mind"
- do we fit definitions of science?
  - **determinism: physical v. psychical**
- we will see how this debate plays out in ideas and schools of thought in psychology