

# Cognitive Psychology

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## Introduction to History, Methods, and Paradigms

- Cognitive psychologists → to find ways to examine the key mechanisms underlying the complex cognitive processes.
  1. Design experiments with sufficient experimental control
  2. ensure laboratory tests preserve the essential workings of the processes under study
- Cognitive psychologists are interested in how people perceive, attend, remember, and categorize (recognize patterns) information, as well as how they communicate (use language) and make decisions.

## Antecedents of Cognitive Psychology

- Two central philosophical traditions concerning the nature of the human mind (17<sup>th</sup> and 18<sup>th</sup> century)
  - **Empiricism:(经验主义)**
    - \* Supported by David Locke, John Hume and Stuart Mill.
    - \* The tenet that knowledge comes from an individual's own experience.
    - \* Born (blank state) → all the cognitive abilities and knowledge is thought to be acquired through their interactions with their environment.
  - **Nativism: (先天论)**
    - \* Emphasizes role of biological factors in determining one's cognitive abilities

- \* Attribute individual cognitive differences to innate abilities
- \* Argue that many cognitive abilities and the processes that underlie them are hardwired in the brain and thus difficult to modify with experience

- **Wilhelm Wundt**

- Primary goal: to discover the elemental components of the human mind – building blocks to conscious experience.
- In essence (本质上), he wants to create a table of mental elements (similar to periodic table).
- Once identified **mental elements**, psychologists can determine how these units combine to produce complex mental phenomena.
- **Structuralism (构造主义)**: this search for key components for building blocks of human mind is referred to as structuralism.