

Types of learning

- Non associative / innate
 - Elicited behaviour, **habituation** and **sensitization**
- Associative
 - Between stimuli (**classical conditioning**)
 - Behaviour and consequences (**instrumental conditioning**)
- Cognitive learning
 - **Observational**
 - **Conceptual**
 - **Implicit Learning**

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Observational Learning (learning by models)

Albert Bandura (1925-2021)



- He influenced the **transition between behaviorism and cognitive** psychology
- He is known as the **originator of social learning theory** (renamed the social cognitive theory)
- Observational learning occurs through **observing the behavior** of others.
- It is a **form of social learning** which takes various forms, based on various processes.
- In humans, this form of learning **seems to not need reinforcement to occur, requires a social model** such as a parent, sibling, friend, or teacher with surroundings.

Observational Learning - Processes

- **Acquisition:** observation of a model and recognizing the main characteristics of a behavior
- **Retention:** storage of model behaviors in the memory.
- **Execution:** reproduction of learned behavior when it is expected to cause positive consequences.

The Bobo Doll Experiment



Concept Learning (cognitive learning)

Jerome S. Bruner (1915-2016)



- one of the pioneers of cognitive psychology which began through his early research on sensation and perception as being active, rather than passive processes



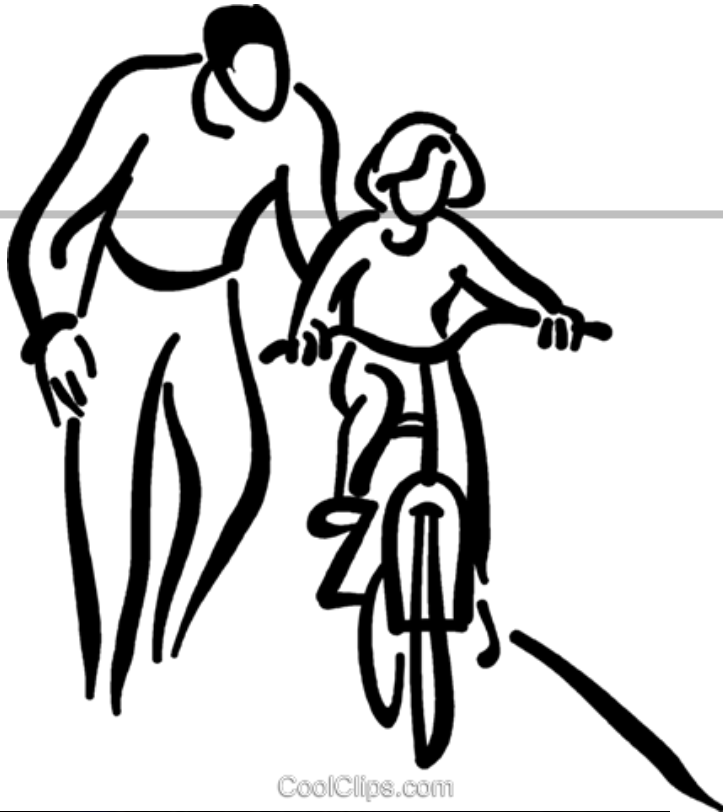
Concept/Cognitive learning

We learn best when we go from concrete to abstract

- **Enactive Representation:** based around actions and reactions. Actions-based learning (touching a circular object)
- **Iconic Representation:** visual summarization of objects (storing a mental picture of a circular object)
- **Symbolic (language-based) Representation:** information is stored in the form of a code or symbol, like a language. (using the circle as a part of a language)

Implicit learning

“learning that occurs without full conscious awareness of the regularities contained in the learning material itself and/ or that learning has occurred” (Sævland & Norman, 2016, p. 1).



Debate I: The use Psychology for military purposes

- Thorndike: put his testing expertise to work for the United States Army during World War I, participating in the development of the Army Beta test used to **evaluate illiterate, unschooled, and non-English speaking recruits.**
- Bruner: During World War II, served on the Psychological Warfare Division of the Supreme Headquarters Allied Expeditionary Force committee under General Dwight D. Eisenhower, **researching social psychological phenomena**
- Kahneman: He served in the psychology department of the Israeli Defence Forces. One of his responsibilities was to **evaluate candidates for officer's training school, and to develop tests and measures for this purpose.**

The evolution of Psychology for...

- Military purposes...
 - Knowing people's preferences...
 - Shaping decision making...
 - Creating 'bots' to polarize political opinions
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- What is the role of ethics in IA?