Overview of Psychology of Learning

EXP 4404

Defining Learning

- ***Learning*** **is a relatively permanent (lasting) change in an organism's behavior that results from experience**
  - ***Some changes in behavior are excluded: illness, drug effects, maturational changes, effects of injuries (these tend to be temporary changes)***
  - ***Changes might not be observed in behavior immediately***
  - ***Changes might not be permanent (forgetting might occur)***

Learning & Memory are central to the study of Psychology

- What would we be without memory?
- Learning & Memory influence other areas of psychological study
  - **classical & instrumental conditioning play a role in the acquisition & treatment of clinical disorders**
  - **social stereotypes reflect the way we encode and store categorical information**

Defining Memory

- ***Memories*** **are the internal records or representations created when events or experiences are encoded**
- **Memories are *dynamic***
  - **they sometimes interact with existing memories and acquire components not present in the original experience**
  - **they sometimes change over time, producing distortions & loss of information**

Learning & Memory Result in a Variety of Behavioral Adaptations

- Habituation and Sensitization
- Classical Conditioning
- Instrumental Conditioning
- Short-Term Memory
- Long-Term Memory
- Encoding, Storage, Representation, & Retrieval

Learning & Memory are related but separate phenomena

- Variables that influence learning do not necessarily influence memory
- Some variables can influence the success of memory retrieval after learning is completed
- The content of a memory can be altered by variables not present during learning

Learning & Memory are Adaptive in the Evolutionary Sense

- Evolutionary adaptations can be manifested as instinctive behaviors
  - **nest building, migration**
  - **behaviors do not have to be learned**
  - **behaviors tend to be inflexible**
- Capacity to learn from experience as a biological trait that has adaptive value
  - **introduces flexibility**
  - **produces vulnerability because organism must learn**

Biology plays a role in both Learning & Memory

- Learning & memory are associated with changes in neural activity
- Learning & memory depend on specific structures & organizations in the nervous system
- Biological characteristics of organisms limit and shape the nature of learning and memory

Comparing the Behavioral & the Cognitive Approaches

- Behavioral Approach
  - emphasis on ***behavior & behavior change***
  - relation between stimuli and responses
  - little attention paid to changes inside the organism or to effects of biology
- Cognitive Approach
  - emphasis on the ***representation & use of knowledge***