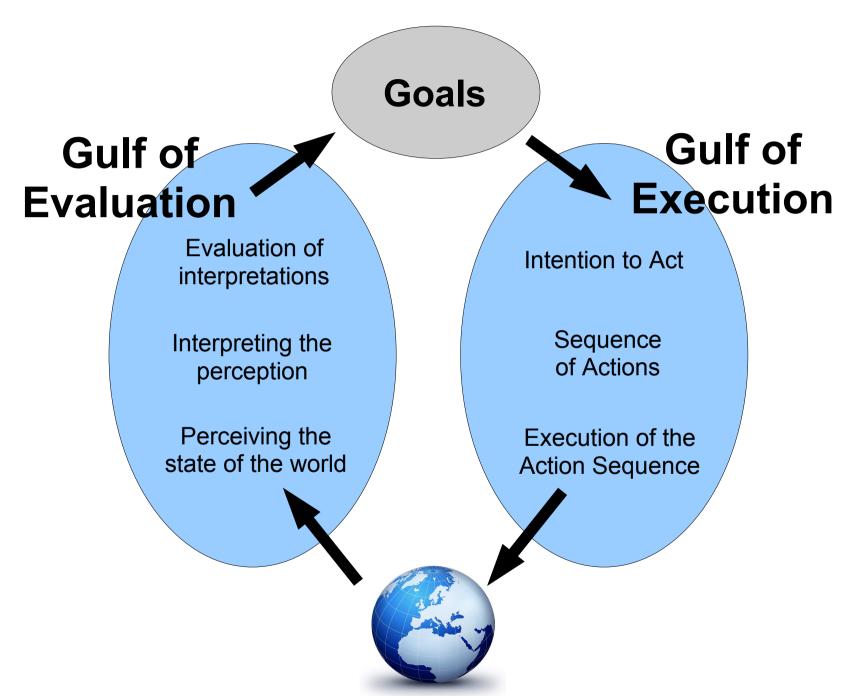
- Ergonomics (Human factors analysis)?
  - Studying how humans physically interact with physical devices.
  - Designing objects to be better adapted to the shape of the human body.
  - Design of Workplace equipment or how to arrange and design devices, machines, or workspace so that people and things interact safely and most efficiently.

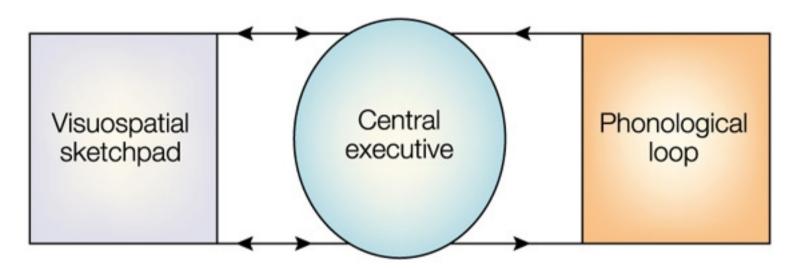
- Cognitive Psychology (cognition)?
  - Understand the psychological processes involved in the acquisition and use of knowledge by people
    - Perception
    - Attention
    - Memory
    - Learning
    - Thinking
- Cognitive Ergonomics
- Distributed Cognition

#### Norman's seven-stage model of activity

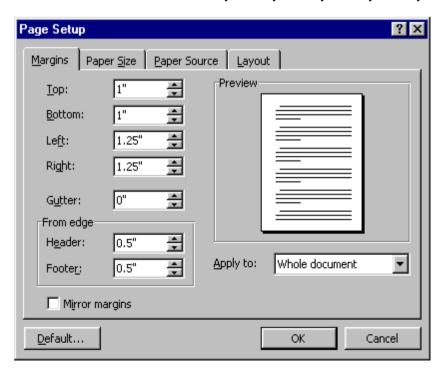


- Attention?
- Memory
  - Two types?
    - 1. Working Memory
    - 2.Long Term Memory

#### Working Memory



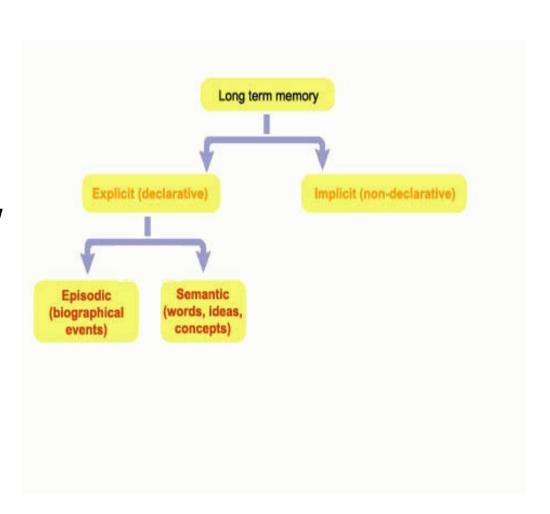
- Rehearsal?
- Displacement?
- Serial Position effect (Recency-primacy)?
- Chunking?
  - 98204928482048 / 98,20,49,28,48,20,48



- Miller's Magic No. 7
  - STM limited to 7 +/- 2
  - Was a guiding principle among HCI researchers
  - One Area of relevance is Audio menu's

# Long Term Memories

- Declarative Memory
  - Episodic memories
  - Semantic memories
  - Sensitive to meaning /
    Constructive process
- Implicit Memory
  - Skills



# What is Perception?

- Sensation?
  - Information from the real world contacts our sensory receptors
  - Early stage of the perceptual process
- Perception
  - Latter stages of perceptual process
  - Active process
- Why study perception?

Illusions

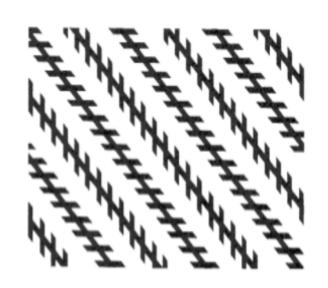
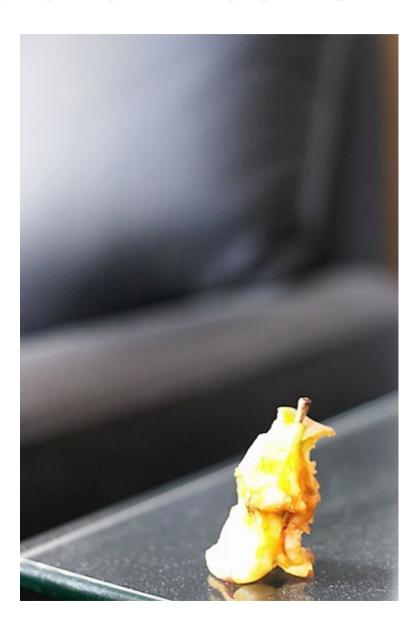


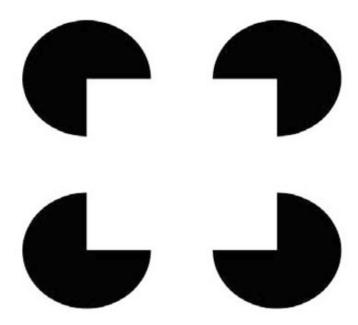
Figure and ground





## • Top-down / Bottom-up processing







- Gestalt Approach
  - The whole experience is greater than the sum of its constituent parts
  - We take partial meaning from the environment an fill in the gaps to make meaning

