

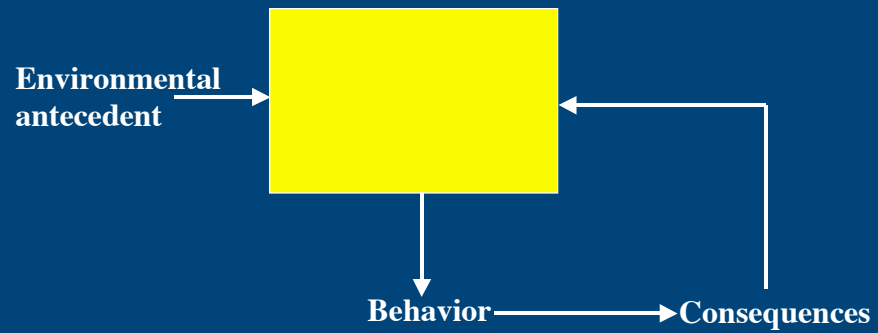
Psychological Foundations

September 8, 2003

Behaviorism

- ▶ Operant Conditioning
- ▶ Stimulus and Response
- ▶ Behavioral Shaping

Black Box Metaphor



Challenges to Behaviorism

- ▶ **Questions of Memory**
- ▶ **Questions of Understanding**
- ▶ **Chomsky's Attack on Skinner's account of language acquisition**

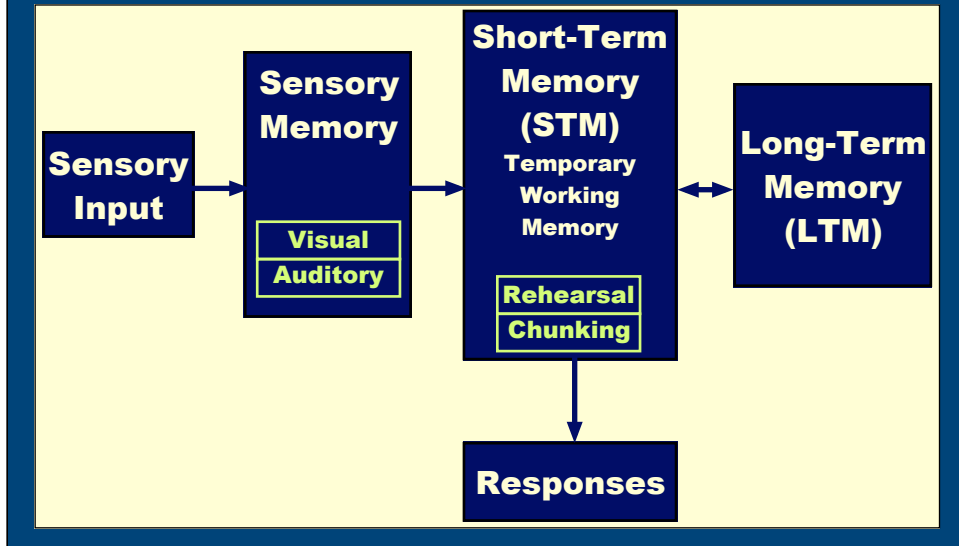
Differences B and C

- | | |
|-------------|------------------------|
| ▶ Stimuli | Inputs |
| ▶ Black Box | Information Processing |
| ▶ Behavior | Output |

Information Processing

- ▶ **Mind is much like the computer**
 - *Input from environment*
 - *Output as learned capability*
 - *Intervening variable is the learner's information processing system*

I - P Model



Constructivism

- ▶ Authentic Activities
- ▶ Collaboration
- ▶ Multiple Perspectives
- ▶ Individual Regulation of Learning
- ▶ Reflection on Learning



Domains of Learning

- ▶ Verbal Information
- ▶ Intellectual Skills
- ▶ Cognitive strategies
- ▶ Attitudes
- ▶ Motor Skills



Verbal Information - “that” or “what”

Intellectual Skills - applying knowledge

Cognitive strategies - employing effective ways of thinking and learning

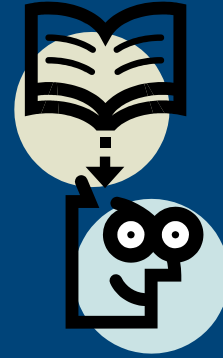
Attitudes - feelings and beliefs

Motor Skills - physical abilities

Teaching each differs in fundamental ways

Gagné's 9 Events

1. Gain Attention
2. State Objective
3. Stimulate Recall
4. Present Stimulus
5. Provide Learning Guidance
6. Elicit Performance
7. Provide Feedback
8. Assess Performance
9. Enhance Retention and Transfer



These steps come out of Cog Processing and Observations of Teachers