Introduction to Cognitive Science: Outline of Lecture

1. Background on Cognitive Science

- The delicate balance between the common-sensical and the barely-believable.

  - Þ The truth of folk psychology vs the misleadingness of being the subject/object of study

  - Þ Examples of folk-psychology explanations: What's right about them & what's wrong about them?

- The intentionality of explanations: Need for "propositional attitude verbs" such as believes-that, fears-that, wants-that, thinks-that, imagines-that, etc and the mystery of semantic contents.

- The seductiveness of conscious content and the ineffableness of non-conscious content and process. Are we infallible judges of what we know or experience?

- The need for intellectual prosthetics. Why computing is important. Computers:CogSci::Math:PhysicalSciences.

2. What is cognition?

- Why is it hard to study cognition?

- What's special about intelligent behavior?

- The Description-relativity of explanations: Equivalence Classes

  - Þ Special role of ***meaning*** in explaining intelligent action

- Central role of Representations: Examples

  - Þ Compatibility with materialism: The Computational Theory of Mind (CTM)

3. Computational Theory of Mind

- Tri-Level Hypothesis & The Physical Symbol System Hypothesis

- Symbolic representation vs architecture & Capacity

- Strong equivalence

  - Þ Examples & Methods

- Failure to distinguish capacity from representation-governed behavior: Cognitive Pentrability

  - Þ Some examples: Language understanding, mental imagery