Examples of human cognition in common tasks

Lesson I: Introduction

module 06

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Introduction.

Examples of human cognition in common tasks

Three examples of common tasks

- Studying for this course
  - What are the cognitive demands when taking a college course online? Does cognitive psychology offer any insights into how to improve learning?

- Driving a car
  - What are the main cognitive demands while driving? How do people differ in their driving skills? What about driving distractions?

- Decision making: Buying a house
  - When buying a house, the buyer’s cognitive system has to evaluate a number of important factors. How does the cognitive system keep track of these? How (or do) we come up with a good decision?

Driving a car

- Developing expertise
  - Automation of driving tasks
  - Development of driving related schemata

- Perception
  - Object recognition
  - Lane following, collision avoidance

- Attention
  - Divided attention
  - Visual search and pop-out

- Memory
  - Spatial memory for routes
  - Declarative and procedural memory
Cognitive Psychology

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Studying for this course

- Memory
  - Massed vs. distributed practice
  - Shallow vs. deep processing
  - Use of schemata and personal experience
  - Context effects on memory
- Metacognition
  - Thinking about one’s thinking
  - Strategies to improve recall of information
  - Mnemonic techniques
- Decision making in multiple choice exams
  - Heuristics and satisficing
  - Decision making fallacies
  - Deductive reasoning

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Buying a house

- Memory
  - Schemata and scripts
- Mental representations
  - Visual imagery
  - Spatial imagery
- Problem solving (how to get a mortgage)
  - Problem representation
  - Mental set and fixation
  - Problem solving strategies
- Decision making
  - Satisficing
  - Reasoning
  - Biases