

## Midterm Examination Review

Fall 2014

### Midterm Exam

- Wednesday, October 22
  - In-Class Review Monday, October 20
- Students with Disability Accommodations
  - I have emailed you concerning details
    - To your “berkeley.edu” address

### All Lectures and Required Readings To Date

- 14 Short-Answer Questions
  - 5 Sentences *Maximum*
- Covers:
  - Introduction
  - Introspection
  - Mind and Body
  - Attention and Automaticity
  - The Explicit and the Implicit

### Resources for Exam

- Q&A Session in Class October 20
- Materials on Course Website
  - Lecture Illustrations, Supplements
  - Exam Information, Narrative Review
  - Past Exams (with Scoring Guide)
- Post questions to bSpace Forum
  - By 12:00 Noon Tuesday, October 21

### Focus on General Concepts and Principles!

### Introduction

- Aspects of Consciousness
  - Phenomenal Awareness
  - “Free Will”
- A Little History
  - Behaviorism and the Cognitive Revolution
- “Conscious Shyness” (Flanagan)
  - Positivistic Reserve
  - Piecemeal Approach
  - Conscious Inessentialism
  - Epiphenomenalist Suspicion

### Revonsuo – Section Introductions

- Definition of Conscious Being
- Consciousness and Natural Science
  - Converging Evidence
  - Nature of Theory on Science
- Supervenience, Covariation
- Neural Correlates of Consciousness

### Introspection

- Faculties of Mind
  - Knowledge, Feeling, and Desire
    - Cognition, Emotion, Motivation
- James’ “Five Characters” of Consciousness
- Qualia, Intentionality, Subjectivity
- Psychophysical Laws
  - Psychophysical Principle
- Structuralism and the Analysis of Qualia
  - Modality of Sensation
  - Modality-Specific Qualities

### Revonsuo Chapter 1

- Dualism vs. Monism
- Bottom-Up vs. Top-Down Processing
- Causal Closure vs. Causal Inertness
- Interactive Dualism vs. Epiphenomenalism
- Eliminative and Reductive Materialism
- (Computational) Functionalism
- The Explanatory Gap and the “Hard Problem”

### Revonsuo Chapter 2

- Psychophysics
- Structuralism
- Gestalt Psychology
- James on the Stream of Consciousness
- Watson and Behaviorism
- Cognitive Science and Consciousness

### Revonsuo Chapter 3

- Qualia
- Being Conscious vs. Being Conscious of *Something*
- Attention and Consciousness
  - Change Blindness
  - Inattentional Blindness
- Introspection
- Zombie Argument
- Alternative Definitions of Consciousness

### Mind and Body

- Vocabulary of the Mind-Body Debate
  - Varieties of Dualism
    - Dual-Aspect Theory
  - Varieties of Monism
    - Idealism, Materialism
  - Varieties of Materialism
    - Automata, Epiphenomenalism
- Descartes’ Impasse

## Mind and Body

- Behaviorism
  - Psychological
  - Philosophical
- Reductionism
  - Intertheoretic Reductionism
- *The Mystery of Consciousness*
  - Dennett, Functionalism
  - Chalmers, Dual-Aspect Dualism
  - Searle, Biological Naturalism

## Four “Mind-Body” Problems

- The Mysterious Leap from Body to Mind
  - Neural Correlates of Consciousness
- The Mysterious Leap from Mind to Body
  - Placebo Effects
  - Psychosomatic Interactions
- Mind without Body
  - Spiritualism, Parapsychology
- Body [Behavior] without Mind
  - The Zombie Argument

## Revonsuo Chapters 7, 9

- Brain-Imaging Techniques
  - PET vs. fMRI
  - EEG and MEG
- Neural Correlates of Consciousness

## Searle’s *The Mystery of Consciousness*

- Searle’s Biological Naturalism
- Crick’s “Astonishing Hypothesis”
- Penrose and Idealism
- Dennett’s Functionalism
- Chalmers’s Property Dualism

## Attention

- Filter Models
  - Early vs. Late Selection
- Capacity Models
  - Attention as Effort or Cognitive Capacity
- Implications for Pre-Conscious Processing
  - Scope of Pre-Attentive Processing

## Automaticity

- Stroop Effect
- Definition
  - Inevitable Evocation
  - Incorrigible Completion
  - Efficient Execution
  - Parallel Processing
- Unconscious in the Strict Sense of the Term
- Process-Dissociation Procedure
  - Method of Opposition
  - Focus on Logic, not Mathematics!

### The Problem of Free Will

- Automaticity and Epiphenomenalism
- The “Automaticity Juggernaut”
  - Claims for the Automaticity of Everyday Life”
- Evidence
  - Demonstration Experiments
  - Process-Dissociation Procedure

### Revonsuo Chapters 10-11

- Dennett
- Alva Noe: Brains Not Sufficient
- Searle
- Chalmers
- Crick & Koch, 40-Hz Hypothesis
- Tononi & Edelman
  - Thalamocortical Binding Theory
- Damasio

### Unconscious Processes vs. States

- Implicit Memory
  - Priming in Amnesia
  - Implicit Memory in Normals
- Dissociations
  - Population vs. Functional (Experimental)
  - Single vs. Double vs. Twin
  - Repetition vs. Semantic Priming
    - Perception-Based Representations
      - Perceptually Driven Processing
    - Meaning-Based Representations
      - Conceptually Driven Processing

### “Subliminal” and Implicit Perception

- Subliminal Perception
- Masked Priming
- Objective vs. Subjective Thresholds
  - Consciousness as Discriminative Response
- Neurological Syndromes
  - Blindsight, Neglect, Prosopagnosia
- Inattentional Blindness
- Attentional Blindness
  - Repetition Blindness
  - Attentional Blink

### Non-Cognitive Domains

- Automaticity in Emotion and Motivation
  - Bargh's Assertions
- Implicit Motivation
  - Thematic Apperception Test
- Implicit Emotion
  - Implicit Attitudes Test

### Revonsuo Chapter 4-5

- Disruptions of Visual Consciousness
  - Visual Achromatopsia
  - Visual Agnosia
    - Including Prosopagnosia
      - Implicit Face Perception
  - Visual Neglect
    - Implicit Perception
  - Blindsight
  - “What” vs. “Where” Pathways