Psychology 129 Cognitive Science 102

## Scientific Approaches to Consciousness http://bCourses.berkeley.edu



Fall 2014

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## Cognition in Personal and Social Contexts

- Consciousness
  - Unconscious Mental Life
  - Hypnosis
  - Sleep, General Anesthesia
- Memory
  - Autobiographical Memory
  - Collective Memory
- Social Cognition
  - The Self

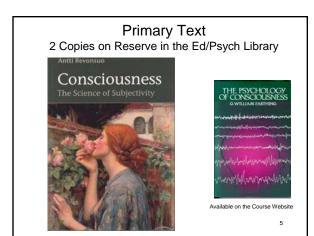
#### **Class and Office Hours**

- Class in 50 Birge 9 10 AM
   Monday, Wednesday (9:10 AM)
- Office Hours in 3333 Tolman
  - Monday, 1-2 PM; Wednesday 10-11 AM
  - Before and After Class
  - By Appointment, Via E-Mail

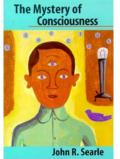
## Discussion Sections Meet in G75 Tolman

- Sara Gottlieb's Sections
  - 102, Wednesday 1-2 PM
  - 103, Wednesday 2-3 PM
  - 106, Thursday 12-1 PM
- Adam Krause's Sections
  - 101, Wednesday 12-1 PM
  - 104, Thursday 10-11 AM
  - 105, Thursday 11-12 Noon

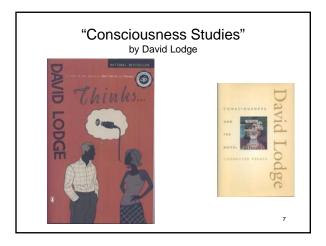
**Discussion Sections Meet September 3-4** 



#### The Mystery of Consciousness by J.R. Searle (1997)



Reviews: The Astonishing Hypothesis Francis Crick & Christoph Koch The Remembered Present Gerald Edelman Shadows of the Mind Roger Penrose Consciousness Explained Daniel Dennett The Conscious Mind David Chalmers An Anatomy of Consciousness Israel Rosenfield











#### Examinations

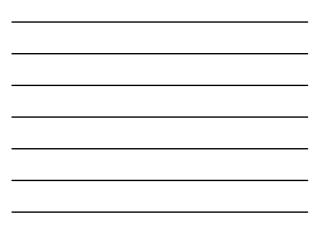
- Short-Answer, Very Short Essay – Multiple Choice?
- Midterm Examination
   Wednesday, 10/22, In Class
- Final Examination
  - Thursday, 12/18, 7-10 PM
  - Noncumulative Portion
  - Cumulative Portion
- No Make-Up Exams

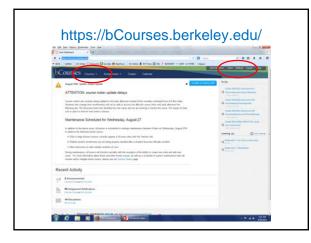
#### **Discussion Sections**

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- Scarce Resource – Attendance, Participation Count
- Mini-Lecture, Demonstration
- Discussion
- Forum Postings
  - Topics Indicated on Syllabus
  - Firm Deadlines
  - Graded All-or-None

Grade Policy							
<ul> <li>Exams <ul> <li>Midterm</li> <li>Final</li> </ul> </li> <li>Sections <ul> <li>Attendance, Participation</li> <li>Forum Postings</li> </ul> </li> <li>Total</li> </ul>	50 points 100 points 30 Points 45 Points 225 Points - =>90%, "A" - =>80%, "B" - =>51%, "C"	12					

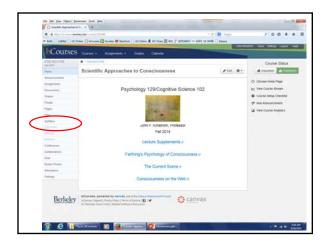








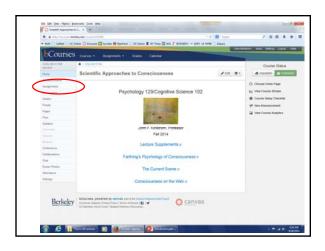






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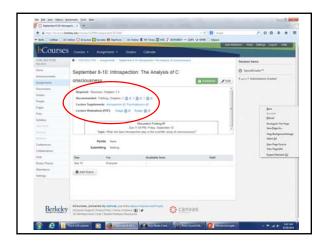




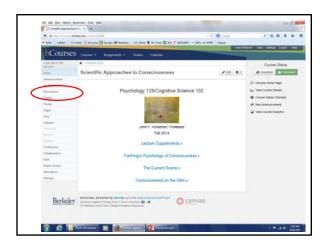


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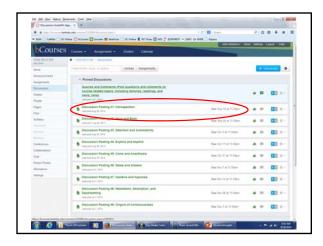




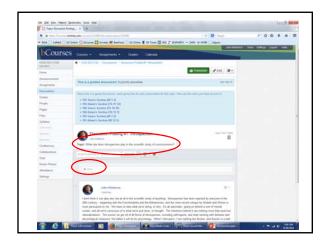




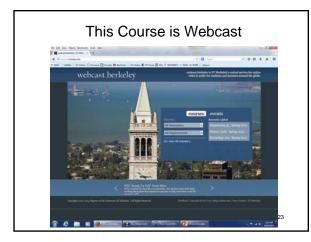












## For Auditors on the Web

Email Me for Access to bCourses <u>ifkihlstrom@berkeley.edu</u> (Check Inbox and Spamfolder)

Please Ask Me to Repeat Questions

Questions About Course Organization?

## The Domain of Consciousness

Conscious Control Requires Conscious Awareness (?)

- Awareness
  - Monitoring Ourselves, the Environment
  - Phenomenal Experience (Sentience)
    - Events in World
    - Contents of Minds
- Agency
  - Controlling Ourselves, the Environment
  - Voluntary Activity ("Free Will")
    - Mental
    - Behavioral

## Rene Descartes



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- Methodological Doubt
  - Without Skepticism
  - Acquire Knowledge Through Reason Alone
- "Cogito, ergo sum"
  - Discourse on Method (1637)
- "Sum, res cogitans"
  - Meditations (1641)
- Shifted Emphasis in Philosophy
  - From Metaphysics and Ethics To Epistemology
  - Got Us Thinking About Consciousness

# William James

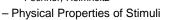


"Psychology is the science of mental life.... The first fact for us, then, as psychologists, is that thinking of some sort goes on." *Principles of Psychology* (1890)

"Psychology is the description and explanation of states of consciousness as such." Psychology: Briefer Course (1892)

### Consciousness in Psychology Before James

Sensory Psychophysics
 Fechner, Helmholtz



- Psychological Properties of Experience
- Experimental Introspection
   Wundt, Titchener



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- Beyond Uncontrolled Self-Observation
- Experimental Manipulation of Stimuli
- Quantitative Analysis of Data

## Structuralism in Psychology



- Wundt on Psychology and Physics
   "Physics is the science of experience as independent of the individual."
  - "Psychology is the science of experience as dependent on the experiencing individual."
- "Mental Chemistry"
  - Introspection: Analyze Conscious Mental States
  - Elementary Sensations and Feelings

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## The Behaviorist Revolution

- Dissatisfaction with Introspection
  - Science is Objective
    - Introspection Necessarily Subjective
  - Science Depends on Public Observation
  - Consciousness is Necessarily Private
- Abandoning the Mental
   J.B. Watson, B.F. Skinner
   Analysis of Behavior



- Functional Relations
  - Between Stimuli, Responses

### Persisting Interest in Consciousness

• Gestalt Psychology (Wertheimer, 1923)



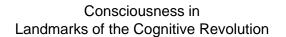
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Hormic Psychology (McDougall, 1924)

"Mental life begins with a cognition, continues with a conation,

- and ends with an affection."

• Span of Apprehension (Woodworth, 1938) – "Seven Plus or Minus Two"



- Positive
  - Selective Attention
  - Primary Memory
    - Short-Term Memory, Working Memory
- Mental Imagery
- Negative



Chomskian Psycholinguistics
 Consciousness as "Folk Psychology"

- The Computer Metaphor



"Conscious Shyness" Flanagan (1992)



- Positivistic Reserve
   Methodological Behaviorism
- Piecemeal Approach – Perception, Memory, Emotion
- Conscious Inessentialism
  - Computational Functionalism
- Epiphenomenalist Suspicion – Zombies, Conscious Automata

A Public, Objective Description... ...of Private, Subjective Experience

### Four Problems of Consciousness

- The Mind-Body Problem
  - Descartes' Philosophical Legacy
- Knowledge of Minds
  - Introspection
  - Unconscious Mental Life
- Altered States of Consciousness – Consciousness in Animals and Machines
- Origins of Consciousness
  - Phylogenetic, Ontogenetic, Cultural Views

But First: What is Consciousness, Anyway?

- James on "The Stream of Consciousness "
- Philosophical Analyses
  - Qualia
  - Intentionality
  - Subjectivity
- Psychophysical Analyses
  - Sensory Experience
    - Modalities of Sensation
    - Sensory Qualities



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