

Psychology 129
Cognitive Science 102

Scientific Approaches to Consciousness

<http://bcourses.berkeley.edu>

Prof. John F. Kihlstrom

jfkihlstrom@berkeley.edu

<http://socrates.berkeley.edu/~kihlstrm>

Fall 2014



1

Cognition in Personal and Social Contexts

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

2

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

3

Discussion Sections Meet in G75 Tolman

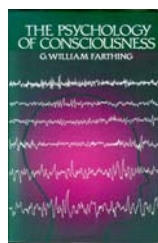
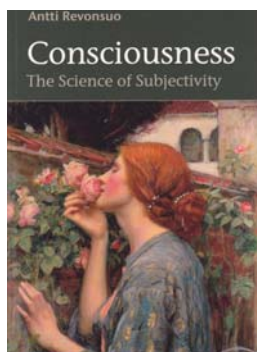
- Sara Gottlieb's Sections
 - 102, Wednesday 1-2 PM
 - 103, Wednesday 2-3 PM
 - 106, Thursday 12-1 PM
- Adam Krause's Sections
 - 101, Wednesday 12-1 PM
 - 104, Thursday 10-11 AM
 - 105, Thursday 11-12 Noon

Discussion Sections Meet September 3-4

4

Primary Text

2 Copies on Reserve in the Ed/Psych Library

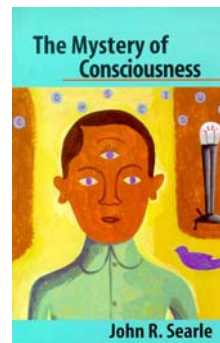


Available on the Course Website

5

The Mystery of Consciousness

by J.R. Searle (1997)



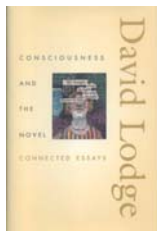
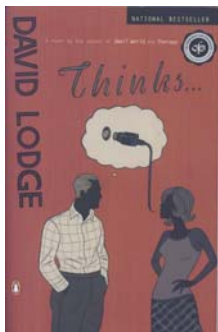
Reviews:

- 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

6

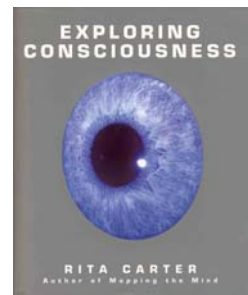
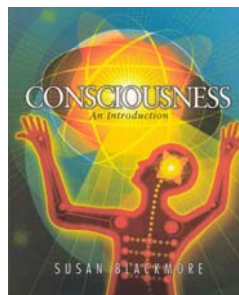
"Consciousness Studies"

by David Lodge



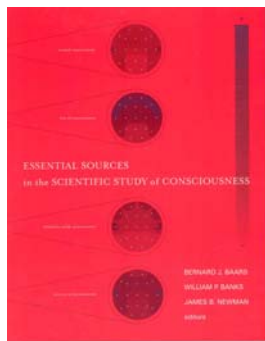
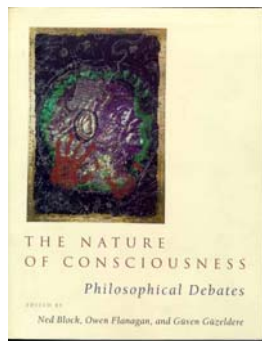
7

Recommended Supplements



8

Recommended Anthologies



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

10

Discussion Sections

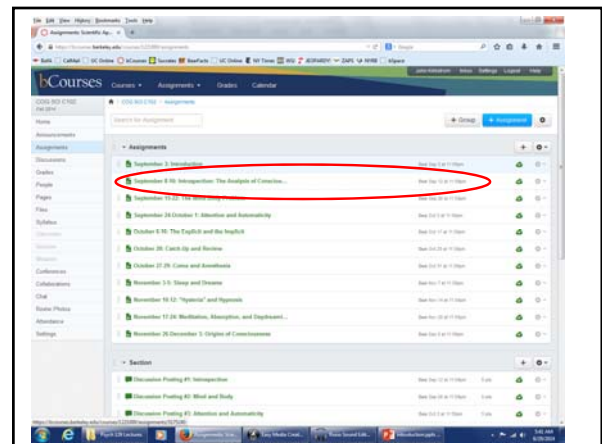
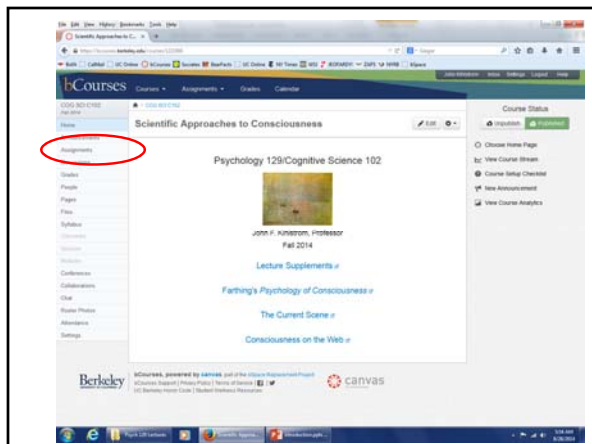
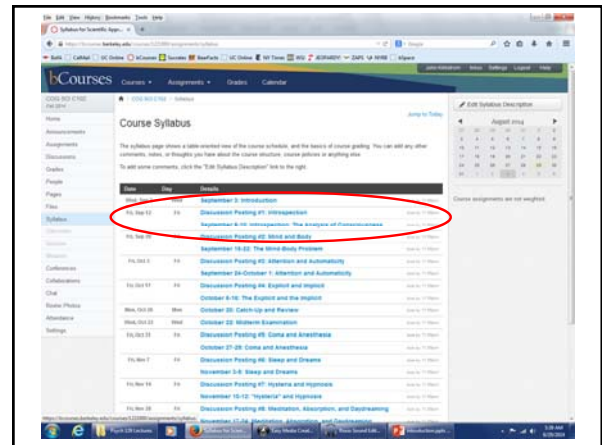
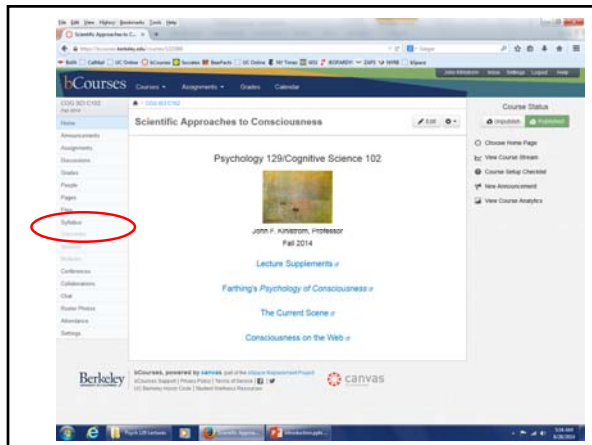
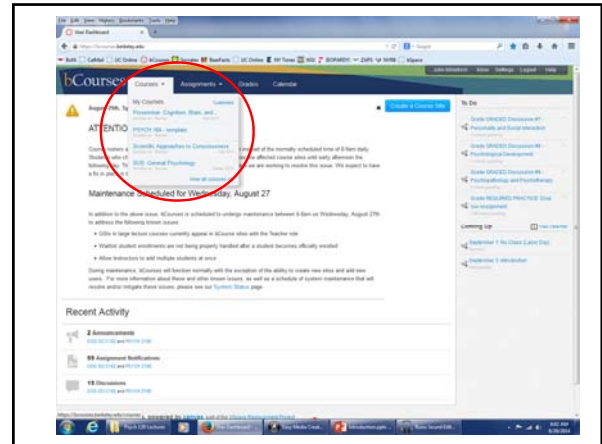
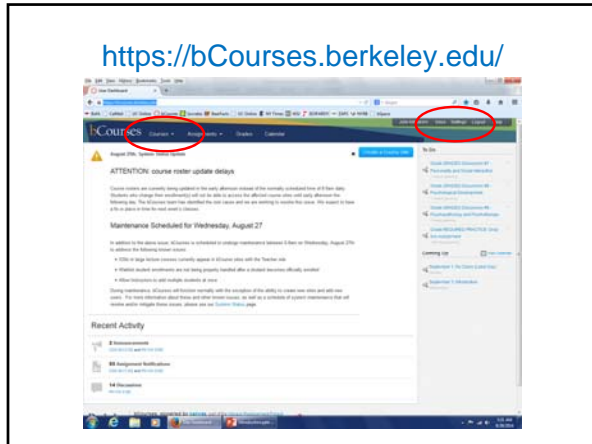
- Scarce Resource
 - Attendance, Participation Count
- Mini-Lecture, Demonstration
- Discussion
- Forum Postings
 - Topics Indicated on Syllabus
 - Firm Deadlines
 - Graded All-or-None

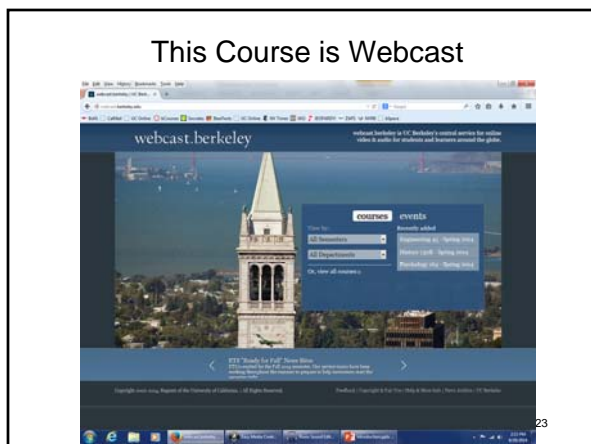
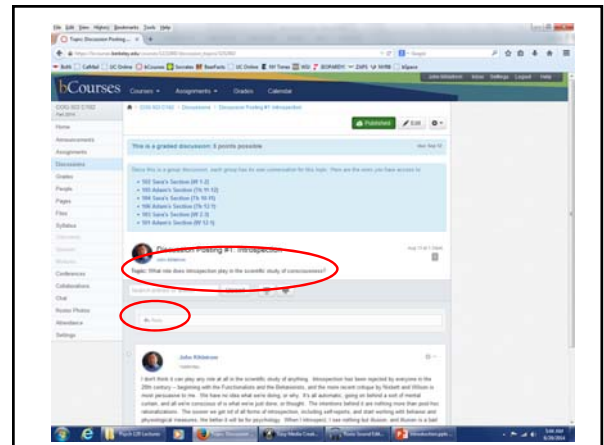
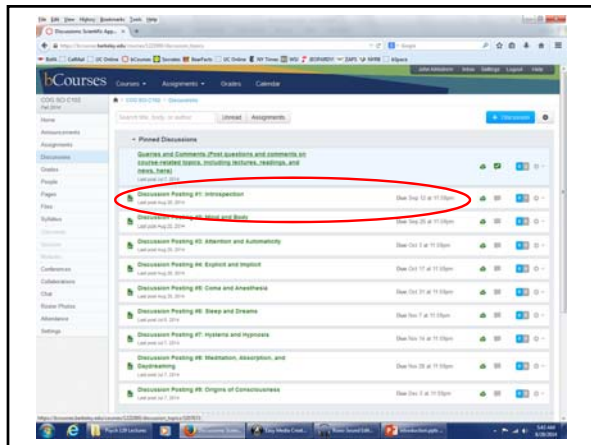
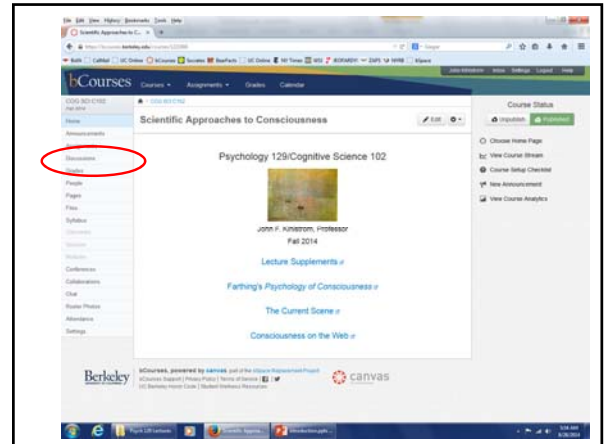
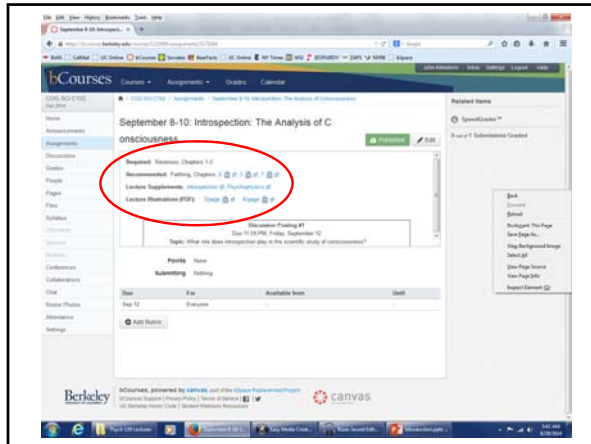
11

Grade Policy

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

12





For Auditors on the Web

Email Me for Access to bCourses
jfkihstrom@berkeley.edu
 (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

25

Rene Descartes

(1596-1650)




- 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

26

William James

(1842-1910)



“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)

27

Consciousness in Psychology Before James


- Sensory Psychophysics
 - Fechner, Helmholtz
 - Physical Properties of Stimuli
 - Psychological Properties of Experience
- Experimental Introspection
 - Wundt, Titchener
 - Beyond Uncontrolled Self-Observation
 - Experimental Manipulation of Stimuli
 - Quantitative Analysis of Data

28

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



29

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



30

Persisting Interest in Consciousness

- Gestalt Psychology (Wertheimer, 1923)



- 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”



31

Consciousness in Landmarks of the Cognitive Revolution

- Positive
 - Selective Attention
 - Primary Memory
 - Short-Term Memory, Working Memory
 - Mental Imagery
- Negative
 - The Computer Metaphor
 - Chomskian Psycholinguistics
 - Consciousness as “Folk Psychology”



32

“Conscious Shyness”

Flanagan (1992)



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

33

A Scientific Approach to Consciousness

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

34

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

35

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



36



***Discussion Sections Begin This Week
September 3-4***

37