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## *Consciousness: The WebCourse*

*Sponsored by the  
Center for Consciousness Studies  
Department of Psychology - The University of Arizona*

<http://www.consciousness.arizona.edu>

### **CONSCIOUSNESS: THE WEBCOURSE**

**SEPTEMBER 20 – DECEMBER 7, 2008**

***COURSE SYLLABUS FOR FALL 2008***

INSTRUCTOR:



**Bernard J. Baars, PhD**

[http://en.wikipedia.org/wiki/Bernard\\_Baars](http://en.wikipedia.org/wiki/Bernard_Baars)

(With many thanks to Professor Katie McGovern, Dr. Stuart Hameroff, and Abi Behar-Montefiore, who is our Administrator and can be reached at: [center@u.arizona.edu](mailto:center@u.arizona.edu).)

*If you are a student of Professor Alfredo Pereira, Jr., please arrange registration through him.)*

**(You can use the *Navigation Pane* under your *View Menu* to jump from Week to Week in this document. Just click on the little arrows.)**

## ***COURSE DESCRIPTION***

We can explore our own consciousness from our own, *First Person perspective*; share our experiences with others, the *Second Person perspective*; and look at conscious beings from the outside --- the *Third Person* or "public" point of view. These three basic perspectives organize our course.

*Weekly Phenomenology Labs* will adopt the *First Person perspective*, using personal consciousness diaries and experiential demonstrations. You are warmly encouraged to keep a Consciousness Diary, to write down or audio-record your first-person experiences.

*The Second Person perspective* emerges in our relationships to each other, in interpersonal experiences, in ethics, and in the brain regions involved in romantic love and parent-child attachment.

*Scientific evidence* is often thought of in terms of the *Third Person perspective*, which we can think of as "public" or "inter-subjective." When we look at consciousness from the outside of the conscious being's point of view, we can explore her or his physical surroundings, actions or brain activities. This, too, is a fundamental source of insight.

Our Lectures will explore new scientific findings about everyday consciousness, and explore what we know about altered conscious states.

I believe that the three classical viewpoints are entirely compatible with each other, and that they are only three different *sources of information*. So from the Instructor's point of view, these are only practical questions --- what's the best way to discover what people experience when they are seeing the color red? What is the best way to know what the brain is doing? By being practical we can avoid many endless controversies.

There are philosophers and scientists who adopt exclusive positions --- *mentalism* (idealism), *physicalism* (materialism), or various kinds of *dualism*. For example, the great contemplative traditions in Asia and the West are typically idealistic --- they often claim that the ultimate reality is mental or *subjective*. Science and public discourse is often *physicalistic* --- it often relies on the notion that publicly shared information is the most trustworthy.

In practice, ordinary life manages to flip back and forth smoothly between the subjective experience that we have a headache and the public act of taking an aspirin (a physical object) for our conscious headache. Nobody has much trouble with that in practice.

Because this course is *not* primarily devoted to philosophy --- which would take many months or years to study in detail --- we will mainly take a "dual-source" point of view. That is, we will assume that our own, subjective, egocentric point of view is one, very useful source of information; but that our shared, intersubjective, public, sociocentric viewpoint is another useful source. We will find this practical, common-sense way of switching between different points of view to be very useful in this course.

For us, the key question is the *believability* of claims made from each perspective. If you tell me that you see your computer screen in flaming red, I am happy to believe you for the purposes of this course. (If you see *everything* in a flaming red color, you might want to buy some sun glasses.)

The three basic perspectives on consciousness are compatible with Global Workspace Theory, a well-known framework for thinking about consciousness, developed by Baars and others. Other theoretical views will also be included.  
[http://en.wikipedia.org/wiki/Global\\_workspace\\_theory](http://en.wikipedia.org/wiki/Global_workspace_theory)

We will not settle the philosophical question "what is consciousness?" but we will gain a better understanding of our growing understanding of consciousness in modern science, as well as in the great wisdom traditions.

We will do our best to make *Consciousness: The WebCourse 2008* fun and exciting for you, as well as thought-provoking.

P.S. Extra readings, powerpoint presentations and demonstrations are available on Dr. Baars' wiki site. You are welcome to explore and download what you like for educational purposes. Since some of these materials are copyrighted, we ask everyone to respect legal limitations. See [www.bernardbaars.pbwiki.com](http://www.bernardbaars.pbwiki.com)

**DATES: SEPTEMBER 20 – DECEMBER 7, 2008**

### ***Announcements.***

You will receive information about the WebCourse platform and resources as soon as you register. Please address registration questions to Abi Montefiore at [center@u.arizona.edu](mailto:center@u.arizona.edu)

Lectures will be posted online on the D2L site --- <http://d2l.arizona.edu> . About one-half hour of audio will be available each week. Phenomenology Labs (or “P-Labs”) are designed to explore our own experiences. We encourage you to do the P-lab by yourself early in the week, since we hope you will be discussing your experiences with each other on D2L!

All participants are encouraged to explore their ideas and experiences in small online Discussion Groups, led by Discussion Leaders.

Most Discussions will be held online on weekends, to encourage you to participate live (synchronously).

Off-line Discussions will be available to those who cannot participate synchronously.

Readings will include the textbook (below), as well as posted readings, powerpoint presentations, demonstrations, and more. We always explore new ways of teaching and learning in this course. This time we hope to explore Skype teleconferencing as one way to have real-life interactions with each other. But new technology is always tricky, so we cannot promise that audio conferencing will work smoothly. We just do our best.

## **OUR TEXTBOOK:**

Bernard J. Baars, In the Theater of Consciousness: The Workspace of the Mind. (NY: Oxford University Press, 1997).

## **OTHER SOURCES:**

William James, Psychology: Briefer Version. (1894) Free on the web.

*Science & Consciousness Review* will have a new web address, to be announced.

See also [www.bernardbaars.pbwiki.com](http://www.bernardbaars.pbwiki.com)

... and more as we go along.

The Phenomenology Lab will be posted early in each week.

We hope you will join in D2L Discussions as much as possible. Don't be shy! (And if you do feel shy at first, just keep exploring your thoughts about feeling shy in your Diary!)

**PLEASE DIRECT QUESTIONS TO:**

CENTER FOR CONSCIOUSNESS STUDIES, UNIVERSITY OF ARIZONA,  
[center@u.arizona.edu](mailto:center@u.arizona.edu)

**COURSE OUTLINE**

(Tentative: we may add or change some content.)

***WEEK 1. (September 20) First, second and third person:  
Approaches to the evidence.***

Explorations of consciousness are very ancient. Science is a late-comer!

How can we explore our own experience without first solving metaphysical questions that nobody has been able to find a consensus on?

Reportability as the standard for 2nd and 3rd person explorations of consciousness. What if you can't describe your experience? Psychophysics and contrastive analysis.

The Theater of Consciousness: A helpful metaphor. Metaphors are not facts!

What do we lose when consciousness is lost or reduced? The puzzle of the Minimally Conscious State (MCS): Terry Schiavo.

Meditation and "higher" or altered states.

**READINGS:**

Baars (1997), Prologue and Chapter One.  
James (1890). Chapter on The Stream of Thought.  
Online readings

**PHENOMENOLOGY LAB I:**

How to keep a Consciousness Diary. Cultivating mindful self-observation. Gathering information about our own consciousness. Meditation, noting, and the stream of

consciousness. Data to be gathered: what happens when you try to focus consciousness?  
Twilight states of consciousness.

## **DISCUSSION GROUPS:**

Your first thoughts on your own experiences. Meeting other conscious people on the web *versus* meeting each other in person. Your thoughts on our conscious encounters.

***WEEK 2. In the Theater: The bright spot of consciousness has limited capacity from moment to moment.***

**Why multi-tasking has limits. Some interesting implications.**

**PHENOMENOLOGY LAB 2: Your Consciousness Diary: „À what happens when you are loading your mental capacity? Slips and automatisms during mental tasks. The convergence between personal experience and scientific studies.**

**DISCUSSION GROUPS. Your Consciousness Diary. Exploring variations of multi-tasking in everyday life. Do you notice slips, automatisms and speed changes when you are multi-tasking? What else do you notice?**

***WEEK 3: In spite of its limited capacity from moment to moment, consciousness enables vast access in the mind-brain.***

The astonishing amount of knowledge that we can access by way of conscious experiences.

Brain evidence for conscious contents. The *thalamo-cortical brain core* as the basis of global interactions in the brain. Why this part of the brain is believed to underlie conscious experiences.

READING: Baars (1997). Chapter 2.

**Baars (1997) summary article in Journal of Consciousness Studies**

**Baars (2002). The conscious access hypothesis. Trends in Cognitive Science. See Baars' wiki site.**

### **PHENOMENOLOGY LAB 3:**

Your Consciousness Diary: Exploring personal memories --- true ones, false ones and creative, reconstructions. Taste preferences or aversions --- one kind of powerful learning in everyday life.

### ***WEEK 4: In the "lighted area" of consciousness: Sensation, imagination and ideas.***

Isaac Newton and the discovery of primary colors. The inner and outer senses. Input competition. Some imaging experiments. The compelling power of imagination. Metaphors and persuasive images. Emotions and "heart-felt" experiences.

Plato and abstract ideas. Plato as a psychologist. The Hindu-Buddhist psychology of subtle experiences. Semantic satiation and meditation.

Where in the brain does visual consciousness first become unified? Top-down and bottom-up processing: Cooperation in the creation of conscious contents.

**READING: Baars (1997). Chapter 3.**

### **PHENOMENOLOGY LAB 4:**

Your Consciousness Diary: Exploring your imagination through dreams, daydreams, evocative images and language. Jungian, Freudian, and other dimensions of dream contents. Notice ambiguities and multi-leveled meanings.

Life is full of ambiguities: Ambiguous and multiple meanings, figures and words. Feelings and fringe consciousness: The tip of the tongue and other feelings.

Notice that consciousness tends to collapse multiple meanings into one --- at any given

moment. This is a fundamental insight.

## **Connotation and allusion, meaningfulness and meaning.**

Illusions of conscious continuity: The blind spot, peripheral vision, and eye fixations in reading.

## ***WEEK 5. Outside of the lighted spot on the theater stage: "Working memory" as extended consciousness.***

How focal consciousness interacts with working memory. What is working memory? Inner speech and the visuospatial sketchpad. The magic number, 4 thru 9.

## **The front half of the brain: working memory and extended consciousness.**

READING: Baars and Franklin (2003).

How consciousness and working memory interact. Trends in Cognitive Sciences.

## **PHENOMENOLOGY LAB 5:**

Demonstrating the magic number of immediate memory to yourself. Working Memory load in everyday life. Is mental effort like a muscle?

## **The visuo-spatial sketchpad in everyday life: visual imagination.**

## **Inner speech, inner humming, inner actions, and inner music.**

## ***WEEK 6. Aiming the spotlight: Attention, absorption and the construction of reality.***

Selective attention. Eye movements. Voluntary and spontaneous attention.

Brain basis: Prof. Tutis Villis brain slideshow for eye movements. (On the web).

Selection biases --- in opinion formation, culture, cults and indoctrination. The amazing



stability of belief systems.

**READING: Baars (1997). Chapter 4.**

PHENOMENOLOGY LAB 6: Daniel Simons' demonstrations of inattentional blindness.

“Absent minded” or “other-minded”? The Stanford Hypnosis Scale. Attention and absorption.

***WEEK 7. It is dark backstage: The unconscious context of conscious experiences.***

The banks of the stream of consciousness. Egocentric brain maps and the self. Tip of the tongue and the prefrontal cortex. How am I doing? , appraisal and emotion.

Current concerns, and Unfinished business, as active contexts in the stream of consciousness.

Interpreting projection, in scientific terms. Unconscious activation of moods. Emotional trauma as an active context.

**READINGS: Baars (1997). Chapter 5.**

PHENOMENOLOGY LAB 7: Fixedness: being blind to the obvious. Priming conscious thoughts. Breaking rigid contexts for creativity. Unconscious contexts and interpersonal activities.

***WEEK 8. Volition: Conscious goals can guide actions.***

**Errors of volition: thought and action. Errors of action and slips of the tongue.**

**Competing plans. Automatisms and mental effort.**

**Unconscious influences on our actions.**

**Paradoxes: Ironic effects. Inner conflict and the anterior cingulate cortex.**

**READING: Baars (1997). Chapter 6. Errors of speech and action.**

**PHENOMENOLOGY LAB 8: Your Consciousness Diary. What's free about free will?**

The devil made me do it! Counter-voluntary acts. Collecting errors of action and speech. Everyday dissociation: accidents, earthquakes. William James on fugue and hypnosis.

***WEEK 9. The Stage Director in the Theater of Consciousness.***

Lecture. Split selves, fragmented selves, disordered selves. A theater or a parliament? Brain establishments, dominant coalitions, and revolutions. Our limited self-awareness. Split-brain personalities.

**Reading: Baars (1997). Chapter 7.**

Phenomenology Lab 9: Your Consciousness Diary: Marcel Proust waking up at night. Experimenting with a shifting sense of self. A dialogue with Buddhist psychology.

***WEEK 10. What is conscious about our emotions?***

**The interplay of conscious and unconscious processes in emotion. The controversy over Freudian repression: New brain evidence for conversion disorders?**

Feelings, emotions, and moods --- regulating the contents of consciousness. The

mammalian core of the human brain.

Primitive emotions: hunger, thirst, air hunger.

**Phenomenology Lab 10: Exploring unconscious moods. Anthony Greenwald, Mazarin Banaji and unconscious stereotyping. Conscious and unconscious aspects of personal emotions.**

***WEEK 11. Sharing our consciousness with others.***

(This Week may be collapsed with Week 12).

**READING: Baars, Chapter 8, 9, and Appendix.**

Intersubjectivity. About age three or four, toddlers begin to share their experiences. "Look, Mommy, airplane!"

The origins of shared consciousness: empathy and "negative empathy." Theory of Mind. Why doesn't your dog look where you point? Do ravens have a Theory of Mind? Autism as a disorder of interpersonal empathy. Temple Grandin and Asperger's Syndrome. We need shared contexts of communication.

**The ethical contract: Person-to-person relationships.**

**Consciousness at the beginning and end of life. When does a fetus become conscious?**

Consciousness as a standard for ethical personhood. The growing evidence for animal consciousness.

**PHENOMENOLOGY LAB 11:**

Your Consciousness Diary. Imagining how the world seems to others. The pitfalls of mindreading.

**Take a look at your Consciousness Diary from Week 1 to Week 11.**

***WEEK 12. CONCLUDING THOUGHTS:***

**What is it good for? Functions and theories of consciousness.**

**The biological roots of the conscious brain. Some brain theories.**

**The brain evidence for consciousness in mammals.**

**Converging ideas about conscious experience.**

**How will consciousness develop in the future?**

**Your thoughts about the WebCourse and future courses.**