

Consciousness: From Philosophy to Neuroscience

Course introduction

Teachers:

- PD Dr. Daniel Kiper
 - PhD experimental psychology
 - Specialization: Neuroscience of vision, neuroinformatics
- PD Dr. Alex Gamma
 - PhD (neuro-)biology
 - Specialization: drug-induced altered states of consciousness, philosophy of consciousness

Course introduction

- Two-part structure:
 1. phenomenology/philosophy of consciousness (AG)
 2. neuroscience of consciousness (DK)
- Seminar language: English (German allowed)
- Credits: 3
- Final grade
- Exams: 3 quizzes
- Other requirements: online forum participation

Course format

- Discussion-centered, teacher as moderator
- Less one-way teaching
- Relaxed, non-competitive
- De-emphasis of *being* right or wrong
- De-emphasis of exams/testing
- No pretense that we know everything

Why this format?

- ...because consciousness, unlike any other subject in science, evades the traditional approaches and explanations of science, and the best way of raising a generation of new scientists fit for the challenge is to help them develop their own thinking abilities
- ...because consciousness is unique in being a subjective, private phenomenon, and we believe that the largest contribution to becoming a competent student is to learn to study one's own consciousness. This is the only way to become familiar with its nature, and will help make precise what needs explaining and what doesn't

Caveat

- Different people have different definitions of consciousness
- This course is about *one particular meaning* of consciousness, because it is this meaning that poses the scientific challenge and makes consciousness such an intractable problem
- Coming to this course, you might have a different definition and therefore different expectations. If the definition of consciousness we deal with in this course is not the one you care about, feel free not to take it. You may, however, consider staying at least long enough to find out whether you may not still be interested in what we have to offer.

Course aims (general)

- To learn to think for yourself & develop **your own thoughts**
- To learn to become comfortable expressing your own thoughts
- To learn not to censor yourself because what you say may be perceived as “wrong” or “stupid”
- To learn to accept & appreciate others’ viewpoints

Learning goals (part I)

At the end of this course you will be able to...

- ...name & understand the **features** of consciousness
- ...understand what particular **problem** consciousness poses to science (“hard problem”, physical irreducibility)
- ...name & understand some **arguments** to bring out this particular problem (“absent qualia”, “the knowledge argument”)
- ...understand the concept of NCCs
- ...understand the basics of the **philosophy** of consciousness (dualism, functionalism,...)

Learning goals (part II)

At the end of this course you will be able to...

- ...understand some of the main **neuroscientific approaches** to study consciousness (NCCs, binocular rivalry/fusion, motion-induced blindness, brain pathologies)
- ...understand **specific research** papers using these methods
- ...understand the experiment done by Libet to study human free will

Forum

- Online platform to extend discussion in class
- Semi-closed (access: uni, post: regist. members)
- Lightly moderated (AG)
- Reply to topics, open new topics
- Civilized conduct, please 😊
- Don't copy-paste!
- Read sticky posts!
- **THIS IS YOUR PLACE TO DISCUSS!**

Forum: Ravenscroft Club

- “Ravenscroft Club”: section of forum devoted to introduction to philosophy of mind / consciousness
- Based on book by Ian Ravenscroft (“Philosophy of mind. A beginner's guide.”)
- Supplements class to give a systematic background on philosophy of mind

Instructions for how to join the discussion forum

1. Go to:
<https://lms.uzh.ch/auth/BusinessGroup/16129786455/toolforum/0>
2. Select your university and log in with your university email account credentials
3. Enter a username of your choice (only lowercase letters and number 0-9)
4. On the next page, you will be asked for the access code
5. The access code is: nevermind17
6. Enter it and click "Order"
7. This brings you to the Discussion Forum
8. Once in the forum, you can reply to existing posts or open a new thread by clicking on "Open new topic"
9. Enjoy yourself and get inspired!
10. (There's also a chat function!)

Forum deadline

- The forum will close at **midnight on New Year's** eve.
- No posts made after this time will be considered!

Course requirements

- Complete 2 of 3 one-page multiple-choice **quizzes** given in class
 - (you can always take a quiz later, if you miss one)
- Read chapters 1-5 of the Ravenscroft **book**
- Make 4 “substantial” posts in the **forum**, at least one of which must be in the “Ravenscroft Club”

Course requirements

- How grading is done
- Scaled mean score of your best 2 quizzes
- The forum requirements just yield a pass/fail

Course requirements

- What is a **substantial** posting?
- It is a posting that expresses **your own thoughts**. It's not just a description of someone else's theory or a link to a paper etc. It doesn't have to be long, but it should contain some kind of an argument for or against something.
- It's not important whether what you write is in any sense right or wrong. It is only important that you write down your own thoughts, not somebody else's.

Core syllabus

- Introduction: philosophy of mind
 - Dualism
 - Behaviorism
 - Identity Theory
 - Functionalism
 - Eliminativism
- Consciousness
 - Phenomenology (subjectivity, privacy, ineffability, sensory modalities, unity, selfhood, intentionality, incorrigibility)
 - The concept of qualia
 - The "hard problem" of consciousness
 - The "explanatory gap"
 - Skeptical scenarios (absent/inverted qualia, knowledge argument)
 - The neural correlates of consciousness (NCC)
- Neuroscience of consciousness
 - Experimental strategies to study consciousness
 - Case studies from vision science (Binocular rivalry, binocular fusion, motion-induced-blindness etc)
 - Pathologies of consciousness
 - Empirical theories of consciousness
 - Global workspace theory (Baars)
 - Dynamical core and Integrated Information Theory of consciousness (Tononi)*
 - Theory of Microconsciousnesses (Zeki)*
 - Libet's experiment on free will

*not part of core syllabus