

Nature of the Mind: Perspectives from Meditation, Psychedelics, and Computers

Instructor:

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Course Overview:

This course is an investigation into our current understanding of consciousness and the human mind, starting with traditional theories in philosophy of mind, and then moving on to what meditation, psychedelics, and artificial intelligence can reveal to us about the nature of subjective experience. Consciousness is notoriously difficult to define, explain, and study, and this course tries to narrow the scope to some of the more interesting developments in consciousness research.

Course Objectives:

- Understand the many difficulties behind understanding and explaining consciousness
- Gain a deeper appreciation for the wide range of academic fields required to talk about consciousness
- Be able to formulate effective philosophical arguments
- Anticipate and prepare for potential counter-arguments
- Be qualified to think intelligently on what it means for something to be "conscious"
- Become individual investigators of consciousness

Course Structure:

Students will be asked to complete the assigned readings/videos prior and submit a short response prior to class every week. During class I will give brief presentations on material that will be of interest to the class, and then hand it over to the students for discussion. Student responses that are particularly thought provoking and good starting points for conversation will be picked out and shared with the class. The author will be expected to defend (or criticize!) their own viewpoint and other students will be asked to do the same.

Not all readings will be required each week; half of the students will do one set of readings and the other half of the students will do the other set. Students will be

asked during class to partner up and discuss their individual readings and teach their partner what they had learned.

I will be leading the discussions for the first 2 sections of the course (philosophy of mind and meditation) and then groups of students will be assigned to lead discussions in the second half of the course.

Assignments/Grades

The course is divided into 4 sections: Philosophy of Mind, Meditation, Psychedelics, and Computers. At the conclusion of each of the sections, students will be required to write a short personal response. This should be an informal 3-4 page paper on their thoughts about the material. It should read as a journal-type response and should serve as a way for the student to clarify for themselves what they think of the class discussions. It need not be argumentative, persuasive, or researched, but rather simply be a personal reflection on our conversations.

Optional:

Students can also begin a meditative practice and keep regular journal entries about their practice. They can submit this if they want, but it is also perfectly acceptable for it to be private. If they wish to share their experiences with the class, opportunities will be provided for them to do so.

Tentative Schedule:

Week/Topic	Readings	Questions to Think About:
Part 1: Philosophy of Mind		
1. Souls Qualia, and the Mind-body problem	<ol style="list-style-type: none"> 1. Smullyan, R. M. (1981). An unfortunate dualist 2. Nagel, T. (1974). What is it like to be a bat? 3. Jackson, F. (1986). What Mary didn't know. 4. What Is It Like for There to Be Something It Is Like to Be Something- Dennett 5. McMahan, J. (1999). Cloning, killing, and identity 	<ul style="list-style-type: none"> ● What is so special about the human mind? ● Is there really something over and above physical matter when it comes to consciousness? ● Is there always something left out of the picture when explaining consciousness? A mystery that has no physical answer? ● Brain in Vat: is it possible to be conscious without a body? Where would you be? ● Would you consent to such a procedure? ● Is the notion of Souls really a defensible position to take?
2. Free Will	<ol style="list-style-type: none"> 1. Harris, S. (2012). Free will. (short book) 2. Dennett, D. C. (2017). Reflections on Sam Harris' " Free Will". 	<ul style="list-style-type: none"> ● Does free will exist? ● What are the implications of both its existence and non-existence? ● Does a lack of free will diminish your opinion of consciousness? ● Is free will a necessary condition for consciousness?
3. Language and Mind	<ol style="list-style-type: none"> 1. Bickerton, D. (2018). Language and species. (ch.1-3, skip the language syntax stuff) 	<ul style="list-style-type: none"> ● What is the relationship between language and consciousness? ● Is consciousness without language possible? Do you have memories prior to the acquisition of language? ● Do words encapsulate all of your subjective experience? Are there feelings that cannot be described?
4. The Self	<ol style="list-style-type: none"> 1. Dennett, D. C. (2014). The self as the center of narrative gravity. In Self and consciousness (pp. 111-123). Psychology Press. 2. Hume, D. (2003). A treatise of human nature. --section on the existence of self 	<ul style="list-style-type: none"> ● What are the competing theories of self ● Does it exist? ● How do we make sense of our experience without the notion of self? ● Are there conscious organisms without a notion of self?

	<ol style="list-style-type: none"> 3. Parfit, D. (1971). Personal identity. <i>The Philosophical Review</i>, 80(1), 3-27. 4. Gallagher, S. (2000). Philosophical conceptions of the self: and their relation to recent cognitive science 	
Part 2: Meditation and Consciousness		
<p>5. What is Meditation? What are the basic tenants of Buddhism and how are they related to the practice?</p>	<ol style="list-style-type: none"> 1. Excerpts from : "Mindfulness a Practical Guide to Awakening"- Joseph Goldstein 2. Excerpts From "Loving Kindness" - Sharon Salzberg 3. Guided meditation tapes: (https://dharmaseed.org/) 4. TED talk on meditation:https://www.ted.com/talks/matthieu_ricard_on_the_habits_of_happiness#t-264425 5. **Personal Anecdotal experience from Hermes 	<ul style="list-style-type: none"> ● What were your preconceived notions of meditation? ● Why do you think these practices have been so successful in leading to long-term happiness? ● What are some implications for consciousness? What does this reveal about our "true" nature if there is one?
<p>6. The Self: Re-Examined</p>	<ol style="list-style-type: none"> 1. Attending to the present: mindfulness meditation reveals distinct neural modes of self-reference. (Farb et al. 2007) 2. Meditation experience is associated with differences in default mode network activity and connectivity. (Brewer et al. 2011) 3. The default mode network and self-referential processes in depression. (Sheline et al. 2009) 	<ul style="list-style-type: none"> ● The readings this week are a series of neuroscience studies that describe what happens in the brain during meditation. The results do indeed seem to support the claim that the "self" is constructed and that freeing ourselves from this illusion can be a wildly freeing experience. Are there issues with the studies and their conclusions? Can we draw other conclusions based on the same data? ● Is the self really an illusion? Can you free yourself from the idea that it is not?

	<p>4. https://samharris.org/the-illusion-of-the-self2/ -- interview with Bruce Hood on the illusion of self</p>	
<p>7. Minimal Phenomenal Consciousness: Distinguishing Between Awareness and Consciousness</p>	<p>1. Metzinger, T. (2019). Minimal phenomenal experience.</p>	<ul style="list-style-type: none"> • An interesting phenomenon that has garnered some recent academic attention is the notion of minimal consciousness. What does it mean to be minimally conscious? • Does there exist a <i>medium</i> of consciousness that is directly observable outside of the <i>contents</i> of consciousness? • How does one properly describe a notion of consciousness without a self? In order to have consciousness, there surely must exist an observer to that consciousness?
<p>Part 3: Psychedelics and Consciousness</p>		
<p>8. Experience of Psychedelics: How do they relate to what we have talked about so far?</p>	<ol style="list-style-type: none"> 1. Griffiths, R. R., Richards, W. A., McCann, U., & Jesse, R. (2006). Psilocybin can occasion mystical-type experiences having substantial and sustained personal meaning and spiritual significance. 2. Ch.4 +5 in Michael Pollan: <i>How to Change Your Mind: What the New Science of Psychedelics Teaches Us about Consciousness, Dying, Addiction, Depression, and Transcendence</i> 3. Sumnall, H. R., Cole, J. C., & Jerome, L. (2006). The varieties of ecstatic experience: an exploration of the subjective experiences of ecstasy. 	<ul style="list-style-type: none"> • Interestingly the experience of psychedelics also give the user a sense of "ego-dissolution", the same sort of experience described by experienced meditators. Yet there will still obviously be some vivid differences between obtaining a psychological state through years of practice vs taking a drug. How do you think those differences manifest themselves in an individual? • The studies/subjective reports demonstrate how "mystical" experiences in psychedelics lead to long-term and profound changes in individual consciousness and meaning. They claim to have seen a "higher reality" or "deeper understanding" that goes beyond language. Does this agree with our previous discussions on the relation between language and consciousness? • https://www.ted.com/talks/jill_bolte_taylor_s_powerful_stroke_of_insight?language=en <ul style="list-style-type: none"> ○ This TED talk is given by a Neuroscientist who suffered from a stroke. The way she speaks about her experience is quite similar to those reported on psychedelics, and it is important to note that during her stroke, blood flow to the left hemisphere of her brain, the part responsible for language. Is this more

		<p>evidence of an insight into consciousness beyond language, or are these all examples of delirious states of consciousness? What do we learn from her experience? Are we better off without language?</p>
<p>9. Benefits of Psychedelics</p>	<ol style="list-style-type: none"> 1. Reduction in social anxiety after MDMA-assisted psychotherapy with autistic adults: a randomized, double-blind, placebo-controlled pilot study. Psychopharmacology, 2. Human pharmacology of MDMA: pharmacokinetics, metabolism, and disposition. Therapeutic drug monitoring, 3. Safety and efficacy of lysergic acid diethylamide-assisted psychotherapy for anxiety associated with life-threatening diseases. 4. Acute psychological and physiological effects of psilocybin in healthy humans: a double-blind, placebo-controlled dose-effect study. 5. Durability of improvement in post-traumatic stress disorder symptoms and absence of harmful effects or drug dependency after 3, 4-methylenedioxymethamphetamine-assisted psychotherapy: a prospective long-term follow-up study. 	<ul style="list-style-type: none"> ● **All of the readings listed are studies published on the therapeutic advantages of psychedelics. Citations of these studies can be found in the Bibliography; PDFs will be provided closer to the date. ● The benefits of psychedelics mimic those of meditation; hardly surprising due the similarities in subjective experience participants report while using psychedelics or after intensive meditation practice. To what extent is the notion of "self" causing inherent suffering in our everyday lives? ● If the purpose of meditation is to teach us that the self is the root of suffering in our lives, and if psychedelic research is starting to support this claim, where does the idea of "self" come from? Are we evolved for survival and not for happiness? ● At some point in our childhood development the notion of the "self" comes into play; is it possible to live a life without this perspective? Can we constantly be in a state akin to being on psychedelics? Or is it something to be experienced briefly and then brought back to normal waking consciousness?

<p>10. Altered States of Consciousness</p>	<ol style="list-style-type: none"> 1. Cosmic consciousness experience and psychedelic experiences: A first person comparison. 2. Psychedelic Substances and Paranormal Phenomena: A Review of the Research. <i>Journal of Parapsychology</i>, 72(1). 	<ul style="list-style-type: none"> ● Psychedelic reports mimic much of the “transcendental” reports by mystics and contemplatives of other practices (kundalini, yoga, etc). Are they all speaking to a deeper commonality of human consciousness? To what extent are these reports descriptions of the same phenomenon?
<p>Part 4: The Brain as a Computer</p>		
<p>11. What is Artificial Intelligence?</p>	<ol style="list-style-type: none"> 1. https://www.youtube.com/watch?v=aircAruvnKk <ol style="list-style-type: none"> a. Watch the first three videos in this series for a general sense of the current state of deep learning and artificial intelligence 2. https://www.humanbrainproject.eu/en/ <ol style="list-style-type: none"> a. Please also take a look at the Human Brain project and try to find connections between this and artificial intelligence 	<ul style="list-style-type: none"> ● Is there a route from current neural networks to actual consciousness? ● Is actual consciousness <i>what we want</i>? Actual Artificial General Intelligence, the sort of information processing that would be useful, need not be conscious. ● Do computers have a “language” in the way that we have language? Is it necessary? ● Do computers notice <i>that they notice</i>? Are they like functions with simple input and output, or is there some element of awareness? ● What would it take for there to be awareness? ● How different is the neural network model from how the brain actually works?
<p>12. Ethics</p>	<ol style="list-style-type: none"> 1. Bryson, J. J. (2010). Robots should be slaves. 2. Watch Movie: <i>Ex Machina</i> 	<ul style="list-style-type: none"> ● How would we know that an artificially intelligent system were conscious? ● What rights would something like that have? ● What restrictions should we be putting on current AI research?
<p>13. Brain-Computer Interfaces: Cyborgs, and Augmented Consciousness. The Future of Humanity</p>	<ol style="list-style-type: none"> 1. Ch.4 of <i>Life 3.0</i> by Max Tegmark: and outline of what the future of artificial intelligence might look like for humanity 2. STUDY: An EEG-based 	<ul style="list-style-type: none"> ● How plausible do you think these theories are? ● What sort of future would you craft? ● Does the altering of the human brain with technology devalue it in any way? ● Would a future world in which humans are no longer biological be acceptable?

	brain-computer interface for cursor control. 3. Ch. 12 + 16 from <i>The Deep Learning Revolution</i> by Terence Sejnowski (The future of Machine Learning and Consciousness)	
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