Psych 4320   Spring 2022

The Consciousness Revolutions[*]

Mondays 11:20am – 1:50pm

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Voluala barchin heman la lauoluola dramme pagloni.	[Utopian]
Libenter impartio mea, non grauatim accipio meliora.	[Latin]
Willingly I share what I have, not unwillingly I accept what is better.	[English]

— PETER GILES
(From his addendum to Thomas More's *Utopia*, 1516)

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[*]Version 0, December 24, 2021.

1

1 Motivation and overview

To be added.

2 Notes for participants

This section contains essential information for participants: format description, inclusion statement,[1] ground rules for discussion, and credit requirements.

2.1 Format

2.1.1 The prerequisites

At least one course in a social science (psychology, sociology, anthropology), or permission of instructor.

2.2 Diversity, inclusion, and ground rules for discussion

Unlike in a large-enrollment lecture-based course, in which some students may choose, and succeed, to remain virtually anonymous, in a small-class seminar setting you are required to speak in front of the class (when presenting) and are expected to contribute to the discussion on other occasions. Because *your* informed opinion on every aspect of the material is unique and valuable, I shall strive to facilitate the conversation so as to make all voices heard. In this, I'll be counting on your help, and on the help of your classmates.

Even matters of "consensus" are not always easy to talk about, as the rare dissenters who dare voice their opposition know full well; how then should we approach potentially controversial topics? With care and compassion, diligence, openness, and daring: care for our shared humanity; diligence with regard to the relevant knowledge and findings; openness to informed dissent; and daring to venture into uncharted territory, as befits good education.

If at any point during the semester (no matter whether in class or after hours) you feel that you need to talk about any of these things, please let me know immediately — doing so will be my top priority.

2.3 Credit and grading

There are three components to getting credit for this course:

1. Attend the lecture and contribute to the subsequent discussion during the **weekly meetings**.

2. By noon on the Monday for which readings have been assigned, post on the Canvas discussion board **questions** on the material (at least 10 questions should be submitted by the end of the semester). Be prepared to raise these questions in class.

3. One week after the last class, submit an essay (approximately 1000-1500 words) on a topic chosen in consultation with the instructor.

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[1]The remarks in section 2.2, which are specific to this course, are intended to supplement the official Cornell statement on diversity and inclusion, which covers dimensions such as gender, race, socio-economic background, etc., and which can be found here: `http://diversity.cornell.edu/`.

Final grade components (for reference only; no numerical assessment of anything will be made in this seminar):—

Weekly questions	40%
Participation in the discussions:	10%
Final essay:	50%

3 Weekly topics and readings

- **(January 31)** PRELUDE. THE FIRST REVOLUTION.

  1. Edelman, S. (2008). *Computing the mind: how the mind really works*. Oxford University Press, New York, NY, ch. 9 (Being No One).
  2. Edelman, S. (2020). *Life, Death, and Other Inconvenient Truths*. MIT Press, Cambridge, MA, ch. 7 (Consciousness).
  3. Edelman, S. (2023). *The Consciousness Revolutions*. Springer, Cham, Switzerland. Forthcoming, prelude and ch. 1 (Selfless Consciousness).

- **(February 7)** THE TOWER OF POWER.

  1. Edelman, S. (2023). *The Consciousness Revolutions*. Springer, Cham, Switzerland. Forthcoming, ch. 2 (Minimal Selves).
  2. [OPTIONAL] Moyal, R., Fekete, T., and Edelman, S. (2020). Dynamical Emergence Theory (DET): a computational account of phenomenal consciousness. *Minds and Machines*, 30, 1–21.

- **(February 14)** THE BRAIN'S VR ENGINE: VISION.

  1. Marr, D. (1982). *Vision*. W. H. Freeman, San Francisco, CA, section 3.3.
  2. Edelman, S. (2020). *Life, Death, and Other Inconvenient Truths*. MIT Press, Cambridge, MA, ch. 24 (Perception).

- **(February 21)** THE BRAIN'S VR ENGINE: LOCATION.

  1. Edelman, S. (2008). *Computing the mind: how the mind really works*. Oxford University Press, New York, NY, ch. 6 (Memory).
  2. Wu, C.-T., Haggerty, D., Kemere, C., and Ji, D. (2017). Hippocampal awake replay in fear memory retrieval. *Nature Neuroscience*, 20(4), 571–583.
  3. Bellmund, J. L. S., Gärdenfors, P., Moser, E. I., and Doeller, C. F. (2018). Navigating cognition: Spatial codes for human thinking. *Science*, 362, eaat6766.

- (February 28) [February break — no class]

- **(March 7)** THE BRAIN'S VR ENGINE: MEMORY AND TIME TRAVEL.

  1. Edelman, S. (2008). *Computing the mind: how the mind really works*. Oxford University Press, New York, NY, ch. 6 (Memory).

2. Gilbert, D. T. and Wilson, T. D. (2007). Prospection: experiencing the future. *Science*, 317, 1351–1354.

3. Buckner, R. L. (2010). The role of the hippocampus in prediction and imagination. *Annual Review of Psychology*, 61, 27–48.

4. Hoerl, C. and McCormack, T. (2016). Making decisions about the future: regret and the cognitive function of episodic memory. In K. Michaelian, S. B. Klein, and K. Szpunar, editors, *Seeing the future: theoretical perspectives on future-oriented mental time travel*, chapter 12, pages 241–266. Oxford University Press, Oxford.

5. Christophel, T. B., Klink, P. C., Spitzer, B., Roelfsema, P. R., and Haynes, J.-D. (2017). The distributed nature of working memory. *Trends in Cognitive Sciences*, 21, 111–124.

- **(March 14)** THE BRAIN'S VR ENGINE: EMBODIMENT.

1. Edelman, S. (2008). *Computing the mind: how the mind really works*. Oxford University Press, New York, NY, ch. 9 (Being No One).

2. Ehrsson, H. H. (2007). The experimental induction of out-of-body experiences. *Science*, 317, 1048.

3. Blanke, O. (2012). Multisensory brain mechanisms of bodily self-consciousness. *Nature Reviews Neuroscience*, 13, 556–571.

4. Guterstam, A., Larsson, D. E. O., Szczotka, J., and Ehrsson, H. H. (2020). Duplication of the bodily self: a perceptual illusion of dual full-body ownership and dual self-location. *Royal Society Open Science*, 7, 201911.

- **(March 21)** THE BRAIN'S VR ENGINE: SELF-MODEL.

1. Metzinger, T. (2004). The subjectivity of subjective experience: A representationalist analysis of the first-person perspective. *Networks*, 3-4, 33–64.

2. Edelman, S. (2023). *The Consciousness Revolutions*. Springer, Cham, Switzerland. Forthcoming, ch. 3 (Self-consciousness).

3. [OPTIONAL] Hohwy, J. and Michael, J. (2017). Why should any body have a self? In F. De Vignemont and A. J. T. Alsmith, editors, *The Subject's Matter*, pages 363–391. The MIT Press, Cambridge, MA.

- **(March 28)** PAIN.

1. Kolodny, O., Moyal, R., and Edelman, S. (2021). A possible evolutionary function of phenomenal conscious experience of pain. *Neuroscience of Consciousness*, 7(2), niab012.

- (April 4) [Spring break — no class]

- **(April 11)** SUFFERING.

1. Metzinger, T. (2017). Suffering, the cognitive scotoma. In K. Almqvist and A. Haag, editors, *The Return of Consciousness*, pages 237–262. Axel and Margaret Ax:son Johnson Foundation, Stockholm.

2. Edelman, S. (2020). *Life, Death, and Other Inconvenient Truths*. MIT Press, Cambridge, MA, ch. 32 (Suffering).

3. Agarwal, A. and Edelman, S. (2020). Functionally effective conscious AI without suffering. *Journal of Artificial Intelligence and Consciousness*, 7, 39–50.

4. Edelman, S. (2022). On the ethics of constructing conscious AI. In A. Chella, editor, *Computational Approaches to Conscious AI*. World Scientific. To appear.

5. [OPTIONAL] Metzinger, T. (2021). Artificial suffering: An argument for a global moratorium on synthetic phenomenology. *Journal of Artificial Intelligence and Consciousness*, 8(1), 1–24.

6. [OPTIONAL] Edelman, S. (2021). Conscious AI is artificial slavery. In K. Wendland, N. Lahn, and P. Vetter, editors, *Künstliche Intelligenz mit Bewusstsein (Artificial Intelligence with Consciousness)*. To appear.

- **(April 18)** ALIENATION.

1. Seeman, M. (1959). On the meaning of alienation. *American Sociological Review*, 24(6), 783–791.

2. Harvey, D. (2018). Universal alienation. *Journal for Cultural Research*, 22(2), 137–150.

3. Sawyer, J. and Gampa, A. (2020). Work alienation and its gravediggers: Social class, class consciousness, and activism. *Journal of Social and Political Psychology*, 8(1), 198–219.

4. [OPTIONAL] Graeber, D. (2004). *Fragments of an Anarchist Anthropology*. Prickly Paradigm Press, Chicago, IL. Available online at https://www.prickly-paradigm.com/titles/fragments-anarchist-anthropology.html.

5. [OPTIONAL] Malherbe, N. (2021). A psychopolitical interpretation of dealienation: Marxism, psychoanalysis, and liberation psychology. *Psychoanalysis, Culture & Society*.

- **(April 25)** THE ROADS TO FREEDOM.

1. Edelman, S. (2020). *Life, Death, and Other Inconvenient Truths*. MIT Press, Cambridge, MA, ch. 25 (Politics), 26 (Power), & 29 (Religion).

2. Edelman, S. (2023). *The Consciousness Revolutions*. Springer, Cham, Switzerland. Forthcoming, interlude.

3. [OPTIONAL] Graeber, D. and Wengrow, D. (2021). *The Dawn of Everything: A New History of Humanity*. Macmillan, London, UK.

- **(May 2)** THE LAST REVOLUTION.

1. Chatterton, P. and Pusey, A. (2020). Beyond capitalist enclosure, commodification and alienation: Postcapitalist praxis as commons, social production and useful doing. *Progress in Human Geography*, 44(1), 27–48.

2. Di Paolo, E. A. (2021). Enactive becoming. *Phenomenology and the Cognitive Sciences*, 20, 783–809.

3. [OPTIONAL] Le Guin, U. K. (1974). *The Dispossessed*. Harper & Row, New York, NY.

4. [OPTIONAL] Killjoy, M. (2014). *A Country of Ghosts*. AK Press, Chico, CA.

5. [OPTIONAL] Doctorow, C. (2017). *Walkaway*. Tor Books, New York, NY.

- **(May 9)** CLOSING GENERAL DISCUSSION.

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References

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Bellmund, J. L. S., Gärdenfors, P., Moser, E. I., and Doeller, C. F. (2018). Navigating cognition: Spatial codes for human thinking. *Science*, 362, eaat6766.

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