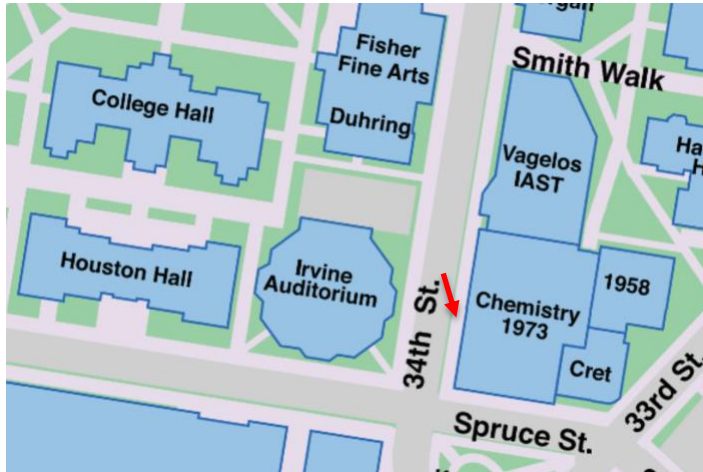


LAW/PSYC 557-401 – Neuroscience, Ethics and Law (G)
PSYC 600-301 – Proseminar in Biology of Social Processes (G)
Syllabus – Spring 2019



Class time:
Wednesdays, 5-7

Location:
Chemistry Building Rm. 119

Instructor:
Martha J. Farah, mfarah@upenn.edu

GOALS

At the most general level, the goal of this course is to acquaint you with social neuroscience and its implications for psychology, ethics and law.

More specifically, by the end of the course you can expect to have:

- A basic familiarity with central topics in social neuroscience, including the neural systems underlying emotion and motivation, empathy, mentalizing, attachment, aggression, altruistic and antisocial behavior, cooperation, deceit, intuitions about fairness and morality, self-control, and social development.
- An understanding of the relevance of neuroscience to social psychology, ethics and law, including the subtleties of how neuroscience is, and is not, relevant to specific issues in social cognition, interpersonal relations, normative ethics and legal problems including, but not limited to, criminal law.

The work for students in 600 will focus particularly on the first of these goals, with assignments designed to emphasize basic social neuroscience, and they will receive one half course unit credit. Students in 557 will undertake additional work directly relevant to the second goal and receive a full course unit of credit.

LOGISTICS

Early classes will combine lecture with student-led discussion. Discussion will predominate in later classes, including some classes with faculty guests.

Reading assignments should be completed in advance of class and a weekly written response to the reading should be uploaded to Canvas by class time. If you have questions of clarification

about the reading, please post them to the Canvas Discussion board, by mid-afternoon Tuesday, and I will clarify in class. More detail on assignments and evaluations next.

Many readings in the first half of the course will come from Jamie Ward's textbook, *The Student's Guide to Social Neuroscience*, 2nd edition. It is a reasonably good textbook and inexpensive (https://www.amazon.com/Students-Guide-Social-Neuroscience/dp/1138908622/ref=sr_1_1?ie=UTF8&qid=1548174399&sr=8-1&keywords=jamie+ward+the+students+guide+to+social+neuroscience). We have 2 copies in the 2nd fl Goddard CNS suite, which you are welcome to read there.

ASSIGNMENTS AND GRADING

Written assignments include:

Weekly 150-200-ish word reactions to the assigned reading.

Approach these assignments as a low-stakes invitation to engage in a bit more detail or depth with some aspect of the reading. They do not all need to be brilliant or creative; for the most part a simple read-out of some coherent thoughts about the paper or chapter will be fine! (But when inspiration strikes, try to take advantage of it, as you'll submit 2 of these short pieces at the end of the semester for a grade – see below.) On weeks with multiple assigned readings, you may choose one or feel free to discuss multiple readings together in an integrated way. After reading the material thoughtfully, you can go back, see what sparks a response, then spend about 30 minutes expressing yourself. I have provided examples of three possible responses to the first week's reading, two that are fine and one that is not. Credit will be given for any sensible response that is uploaded to Canvas before class. 600 students can miss 3 of these in the final half of the semester (after the class on the trolley problem). 557 students are expected to submit each week.

At the end of the semester, you will select what you regard as your two best responses, to be evaluated for critical acumen, creativity and/or insight, on a 1-5 scale.

Take-home integrative essay exam, of about 1000-1500 words.

You will have 25 hours to produce a brief but thoughtful essay on a question TBA, involving the relation of social neuroscience to psychology (PSYC 600) or ethics and law (LAW/PSYC 557). This is open book but independent, so do not discuss with other students, even in general terms. Questions of clarification can be directed to me. You can access the question, once you are ready to work on it, any time between Thursday, April 25 and Tuesday, April 30.

Term paper.

This assignment is relevant to the 557 students only. To make the syllabus easier to navigate I am indenting this:

LAW/PSYC 557 students will write a term paper, due the last day of class. Short extensions are possible if requested in advance. The paper will consist of two parts: First, a summary and informative critique of a recent book on neuroscience related to ethics and/or law. Second, an extension and update, from the primary literature, on what has been learned since the book went to press. Even books published in 2018 will

omit literature since 2016 or so, giving you room to identify new studies and new ideas, and to consider them in the context of the book's view of the field. The recommended length of these papers is 3000-4500 well-chosen words.

Half to two-thirds of the paper should be devoted to a critical review of the book's thesis, evaluating its originality, importance, and above all, its degree of support by the empirical evidence it cites. This will, of course, require you to summarize and critique the evidence. Some books make their relevance to ethics or law obvious, as in "*The Science of Evil*" or "*The Brain Defense*." For others, the relevance is strong but less obvious, as in "*High Price*," which argues that misunderstandings of drug abuse, promulgated by NIDA and other government agencies, has led to neglect of important social justice issues and disproportionate incarceration rates for minorities. The first part of your paper should focus on the most ethics- and law-relevant claims of the book and their empirical evidence.

The second part of the paper should summarize the most relevant empirical research that has emerged since the book's publication. In 1000-2000 words you cannot give a comprehensive review of everything that has been published in the last few years, but you can highlight the important developments, be they scientific game-changers, further refinements or simply added support. This part of your paper should characterize at least a couple of important new studies in detail, describing their methods and analytic approach, and evaluating the implications of these studies for the book's thesis. Please tell me your choice of book by 3/27/2019.

Examples of suitable books include (but feel free to look for others):

Baron-Cohen, S. (2012). *The science of evil: On empathy and the origins of cruelty*. Basic books.

Blitz, M.J. (2017). *Searching Minds by Scanning Brains: Neuroscience Technology and Constitutional Privacy Protection*. Palgrave Studies in Law, Neuroscience, and Human Behavior.

Churchland, P. S. (2011). *Braintrust: What neuroscience tells us about morality*. Princeton University Press.

Davis, K. (2017). *The Brain Defense: Murder in Manhattan and the Dawn of Neuroscience in America's Courtroom*. Penguin Press.

Eisenberg, J.B. (2006). *The Right vs. the Right to Die: Lessons from the Terri Schiavo Case and How to Stop It from Happening Again*. Harper.

Fields, R. D. (2016). *Why We Snap: Understanding the Rage Circuit in Your Brain*. Dutton Adult.

Greene, J. (2014). *Moral tribes: emotion, reason and the gap between us and them*. Atlantic Books Ltd.

Grisel, J. (2019). *Never Enough: The Neuroscience and Experience of Addiction*. Doubleday.

- Hart, C. (2013). *High Price: A Neuroscientist's Journey of Self-Discovery that Challenges Everything You Know about Drugs and Society*. Harper Collins.
- Hirstein, W., Sifferd, K.L. & Fagan, T.K. (2018) *Responsible Brains: Neuroscience, Law, and Human Culpability* The MIT Press.
- Hoffman, M. B. (2014). *The Punisher's Brain: The Evolution of Judge and Jury*. Cambridge University Press.
- Kahn, J. (2017) *Race on the Brain: What Implicit Bias Gets Wrong About the Struggle for Racial Justice*. Columbia University Press.
- O'Mara, S. (2015). *Why torture doesn't work: The neuroscience of interrogation*. Harvard University Press.
- Raine, A. (2013). *The anatomy of violence: The biological roots of crime*. Vintage.
- Wegner, D. M., & Gray, K. (2016). *The Mind Club: Who Thinks, What Feels, and Why It Matters*. Viking.
- Young, L. & Alexander, B. (2012). *The chemistry between us: love, sex, and the science of attraction*. Penguin.

Class participation includes:

General class participation. Hearing from all members of the class enriches everyone's educational experience, as well as helping me gauge levels of interest and understanding, so I encourage all of you to participate in discussions. A full score on class participation means that you are present (barring a good reason for absence), not noodling on a device, and contributing to class discussion at least a few times over the course of the semester.

Leading class discussions. Given the size of enrollment, we will have at least two students per class in charge of discussion. These students will (a) anticipate possible confusions and clarify for their classmates, and (b) pose 3-4 questions for discussion that are designed to bring out important issues. Each discussion leader should upload, by class time: a brief statement of what, if any, points of confusion s/he has identified, what general issues seem important to explore in class discussion, and a small set of questions that will set the discussion on a productive course with those issues. Students from the 600 section will have priority for discussions of basic social neuroscience, ie the first half of the semester.

Grades will be computed as follows:

	LAW/PSYC 557-401	PSYC 600-301
Class participation	10%	10%
Class discussion leadership	10%	15%
Weekly written response to reading (credit for simply	15%	15% (allowed to skip 3 in second half of course)

submitting a reasonable effort, on time)		
Graded response to reading (student selects 2 of above to be graded)	10%	10%
Take-home essay exam	20%	50%
Term paper	35%	n/a

CLASS SCHEDULE

I. Background

1/23 Overview of neuroscience methods and anatomy

READING:

Skim chapter 2 of Ward's *The Student's Guide to Social Neuroscience*, 2nd Ed.

Also watch video on brain imaging basics

II. Basic social neuroscience: Neural building blocks of social, ethical and legally relevant behavior

1/30 – Emotion and motivation

READING:

Chapter 4 of Ward's *The Student's Guide to Social Neuroscience*, 2nd Ed. [start on p 105 and read through the end, noting that the description of ACC is out of date on p. 106 or 126-128, and skipping the personality box – also out of date!]

2/13 – Mentalizing and empathy

READINGS:

Chapter 6 of Ward's *The Student's Guide to Social Neuroscience*, 2nd Ed. [skim first section of chapter, on empathy, read carefully pp. 185-194, and skim section on autism]

Walter, H. (2012). Social cognitive neuroscience of empathy: concepts, circuits, and genes. *Emotion Review*, 4(1), 9-17.

2/27 – Human relationships: attachment and isolation

READINGS:

Chapter 8 of Ward's *The Student's Guide to Social Neuroscience*, 2nd Ed. [read p. 240 through the end]

Cacioppo, J. T., & Hawkley, L. C. (2009). Perceived social isolation and cognition. *Trends in cognitive sciences*, 13(10), 447-454.

3/6 – no class, SPRING BREAK

3/13 - Moral intuitions: Kant, Mill, trolleys and the brain

<Tess Wilkinson-Ryan visits class>

READINGS:

“The neuroscience of morality” from Chapter 10 of Ward’s *The Student’s Guide to Social Neuroscience*, 2nd Ed. [pp. 294-306]

Greene, J. D. (2014). Beyond point-and-shoot morality: Why cognitive (neuro) science matters for ethics. *Ethics*, 124(4), 695-726. [read through p. 710]

<by mid-March: 557 students select book for term paper>

3/20 –The developing social brain

<Jason Chein visits class>

READINGS:

Chapter 11 of Ward’s *The Student’s Guide to Social Neuroscience*, 2nd Ed [skip “social learning during infancy”]

Luna, B., & Wright, C. (2016). Adolescent brain development: Implications for the juvenile criminal justice system. In K. Heilbrun (Editor-in-Chief), *APA Handbook of Psychology and Juvenile Justice*. [Focus on pp 97-108.]

3/27 - Aggression and antisocial behavior

READINGS:

“Anger and Aggression” from Chapter 10 of Ward’s *The Student’s Guide to Social Neuroscience*, 2nd Ed. [p. 306 – end]

Glenn, A. L., & Raine, A. (2014). Neurocriminology: implications for the punishment, prediction and prevention of criminal behaviour. *Nature Reviews Neuroscience*, 15(1), 54-63.

III. Applications of neuroscience to morality and law

4/3 – Social neuroscience application: Predicting dangerousness and recidivism

READINGS:

- Gabrieli, J. D., Ghosh, S. S., & Whitfield-Gabrieli, S. (2015). Prediction as a humanitarian and pragmatic contribution from human cognitive neuroscience. *Neuron*, 85(1), 11-26. [Focus on pp. 11-13 and 21-22.]
- Poldrack, R. A., Monahan, J., Imrey, P. B., Reyna, V., Raichle, M. E., Faigman, D., & Buckholz, J. W. (2018). Predicting violent behavior: What can neuroscience add?. *Trends in cognitive sciences*, 22(2), 111-123.

4/10 – Social neuroscience application: Pain

<Amanda Pustilnik skypes into class>

READINGS:

- Pustilnik, A. C. IMAGING BRAINS, CHANGING MINDS: HOW PAIN NEUROIMAGING CAN INFORM THE LAW. *Alabama Law Review*, 66(5), 1099-1158. Read pp. 1101-1103, 1113-1121, 1151-1158
- Reardon, S. (2015). Neuroscience in court: The painful truth. *Nature*, 518(7540):474-6.

4/17 – Social neuroscience application: Solitary confinement

<Michael Zigmond skypes into class>

READINGS:

- Lobel, J., & Akil, H. (2018). Law & Neuroscience: The Case of Solitary Confinement. *Daedalus*, 147(4), 61-75.
- possible second reading TBA*

4/24 – Relevance of neuroscience to moral and legal responsibility

<Stephen Morse visits class>

READINGS:

- From *Neuroethics: An Introduction with Readings* (M.J. Farah, Ed)
- “Neuroscience and justice” (Farah)
- “For the law, neuroscience changes...” (abridged, Joshua Greene & Jonathan Cohen)
- “Brain overclaim syndrome” (abridged, Stephen J. Morse)

5/1 – Multi-topic review of social neuroscience and its applications to psychology and law, details TBA