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http://www.protevi.com/john/Morality/2014-Intro.html

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Intro lecture to Honors 2013: "Evolution and Biology of Morality"

OVERALL INTRO

The course description on the syllabus: "This is an introductory course in the current research into the biological underpinnings and evolutionary origins of morality. The course is interdisciplinary, combining psychology, biology, neuroscience, and philosophy. The course should be both an introduction to cutting-edge research and a chance to revisit perennial questions."

Now we won't discuss any specific moral issues, that is, arguments for and against any issue. Rather, we'll discuss how humans evolved the capacity to form moral judgments and to be motivated about moral issues.

Another way to put it is that the course is not moral philosophy (the analysis of arguments for and against positions in moral issues), but moral psychology (the psychological mechanisms at work in any sort of moral argument).

We take an anthropological, psychological, and biological viewpoint: objectively (philosophically and scientifically) looking at what humans do in discussing moral issues, rather than discussing the issues themselves.

BASIC VIEWPOINT

The basic viewpoint is that humans are bio-cultural: we have evolved to be open to our cultural imprinting: our nature is to have our nurture become second nature. Obviously cultures vary widely in content; but I think basic child development practices converge across cultures so that the default setting is that people are pro-social.

Pro-social means that most people are emotionally invested in the patterns of their society: they are happy when the patterns are followed and angry or sad when they are broken. So pro-social does not mean "nice," since it also involves the willingness of people to punish those who break social rules.

Now of course this gets complicated in at least two ways: 1) why do some people buy into systems that hurt them? And 2) what about people who aren't emotionally involved in their cultures? That is, we'll have to talk about psychopaths, who may learn to follow rules, but aren't emotionally attuned to social rules.

We'll also talk about the relationship between intuition and reason. In some clear-cut cases, you can see right away when someone follows or breaks a social rule. But in other cases, you need to discuss it with people: "is that a good or bad thing to do?" We'll talk about how experience shapes those intuitions and the arguments we find convincing. There's always

the chance that we find an argument convincing because it accords with the intuitions that have been shaped by our experience. But then there's also the chance that people can have their intuitions changed by argument, or by having new experiences, meeting new people, moving to a new place, etc.

I. BIOLOGY OF PROSOCIALITY

A. EPIGENETICS. Main reading: Fuentes 2009: http://afuentes.com/wp-content/uploads/2012/06/Fuentes-Anthro-Today-25_3_12-17.pdf

Supplementary reading: assigned:

- Richardson, Kukla et al 2014: http://www.nature.com/polopoly_fs/1.15693!/menu/main/topColumns/topLeftColumn/pdf/512131a.pdf
- My notes: http://www.protevi.com/john/Morality/Intro_lecture_2.pdf

1. Molecular biology, following Watson and Crick, first posited the "Central Dogma" (DNA makes RNA, RNA makes proteins, and proteins make us").
2. Then Jacob and Monod came up with the notion of a developmental program.
3. We now talk about epigenetics
    a. The way in which cell conditions will determine gene expression.
    b. The way these changes in expression can be inherited.

B. NEUROPLASTICITY. Main reading: Buller and Hardcastle 2000: http://www.niu.edu/phil/~buller/publications/_pdf/epmdn.pdf

Supplementary reading: Bruce Wexler, *Brain and Culture* (MIT, 2006): not assigned this term but recommended. Notes at http://www.protevi.com/john/Morality/Wexler.pdf

1. Our sociality and our brain structure / function have co-evolved, such that humans have evolved for a long period (though young adulthood) of intense socially mediated neuroplasticity (Wexler 16; 142). In fact, the most socially sensitive plastic parts of the human brain are precisely the ones whose proportions relative to other brain structures distinguish humans compared to other primates (e.g., frontal and parietal lobes, involved in decision making, impulse control, etc.). (31; 105).
2. However, this neuroplasticity is relatively reduced in adulthood. In a formula, children need sensorimotor and social stimulation to form neuropsychological structures, while adults look to shape their world and / or at least to select input that reinforces previously generated structures, since they operate on a consonance = pleasure / dissonance = pain principle.
3. This difference in neuroplasticity sheds light on generational conflict, bereavement and immigrant experience, and social conflict

C. EMPATHY. It might surprise you to see I include empathy under "biology of morality," but from our bio-cultural perspective that makes sense.

Main reading: Maia Szalavitz and Bruce Perry, *Born for Love: How Empathy is Essential and Endangered*. Notes here: http://www.protevi.com/john/Morality/Born4Love.pdf

Supplementary reading: assigned:

- van Anders for some nuance about oxytocin, which doesn't simply make people feel good about helping others, but actually intensifies social emotions – so it might lead to increased punishment of rule / pattern violators. https://www.academia.edu/3668801/Beyond_Oxytocin_Good_Neural_complexities_and_the_flipside_of_social_bonds
- Heyes on the associative (experience-based) theory of mirror neurons. http://www.all-souls.ox.ac.uk/users/heyesc/Celia's%20pdfs/1%202010%20Heyes%20NBR.pdf

1. Empathy is the ability to care about other people, for the sake of those people.
    a. We will distinguish empathy from two other sorts of feeling:
        i. Emotional contagion (the way emotions can spread among people, especially infants);
        ii. Sympathy (feeling something that someone else does).
    b. We'll also distinguish helping motivated by empathy (helping them for their sake, because they need help) from helping motivated by stress relief (helping someone to alleviate the bad feeling you have from their distress via emotional contagion or sympathy).
    c. The book also indirectly talks about our capacity to feel anger at non-empathic treatment of people: that is, anger at people who treat other people as things to be manipulated.
2. The book has case studies (so you sympathize / empathize with the people described) as well as discussions of current research into the way we are biologically shaped by our experience.
3. It also has some interesting things to say about how public policy can help the nurturing of empathy.

II. EVOLUTION OF PROSOCIALITY

A. OVERVIEW

Main reading: Fuentes and MacKinnon 2011: https://www.academia.edu/859594/Primates_niche_construction_and_social_complexity_The_roles_of_social_cooperation_and_altruism

Supplementary reading: Susan McKinnon, *Neo-Liberal Genetics* (Prickly Paradigm Press, 2006): not assigned this term but recommended. Notes: http://www.protevi.com/john/Morality/McKinnon.pdf

1. Definitions we'll use in all the evolution of prosociality discussion.
    a. Fitness = descendants living to reproductive age.
    b. Altruism = helping behavior with a fitness cost (direct risk to life and limb, but also just time spent away from mate selection, child raising, resource provision, etc.). Self-sacrifice is a dramatic example, but it can be less than that. Further, prosocial and 3rd party punishment [punishing X for violating a norm affecting non-kin person Y] carries risks: you could start a feud; you eliminate a potential ally, …

c. Kin selection, reciprocal altruism, mutualism, and indirect altruism are ways of explaining helping behavior that appears to be altruistic, but has hidden benefits that balance out (or outweigh) the fitness costs.
    i. Kin selection: costly helping behavior that helps genes in kin to survive ("I would sacrifice myself for two brothers or for 8 cousins."
    ii. Reciprocal altruism: aid given back to donor by recipient with time delay ("I'll scratch your back if you scratch mine.")
    iii. Mutualism: working together so that immediate benefits (at end of successfully completed task) accrue to all parties compensating for any costs. ("Hey, let's all go hunting this woolly mammoth."
    iv. Indirect altruism: aid given to donor by a third party (due to reputation gained by altruistic acts) ("Scratch an 'altruist,' watch a hypocrite bleed.")
    v. Sexual selection (qua mate preference vs male arms race): altruism as predictor of genetic quality. "Costly signaling": "think how much energy I have if I can waste it like this."

B. WAR AND PEACE: Tracking down the evolution of prosociality. Was war a selection pressure?

Main reading: Douglas Fry, *Beyond War*.

Supplementary reading:
- Bowles (background): http://tuvalu.santafe.edu/~bowles/backgroundforjournalists.pdf
- Bowles 2009: http://www.life.umd.edu/faculty/wilkinson/BIOL608W/BowlesScience2009.pdf
- Kelly 2005: http://www.pnas.org/content/102/43/15294.full
- Protevi 2013: http://www.protevi.com/john/APSA2013.pdf
- Protevi 2014: http://www.protevi.com/john/PowerPoints/DDP29Jan.pdf

1. Was warfare enough of presence in pre-history for it to be a selection pressure for inherited tendencies toward prosocial behaviors in humans?
2. Or is it instead restricted to certain post-State societies (hence tied in with the appearance of agriculture, urban settlements, and hierarchical societies with specialized military forces?
3. Bowles supports the first position and Fry supports the second. To read them together we have to consider biological, archeological, and ethnographic evidence.

C. SOCIAL SELECTION. Main reading: Christopher Boehm, *Moral Origins*.

Supplementary reading: assigned:
- Hirstein and Sifferd: https://www.academia.edu/4031593/The_Significance_of_Psychopaths_for_Ethical_and_Legal_Reasoning
- Protevi 2013 blog: http://www.newappsblog.com/2013/05/out-smarting-nietzsche.html

1. Boehm proposes that "social selection" (ridicule, temporary ostracism, exile, killing) plays a big role in the evolution of altruistic prosocial behaviors and emotions, alongside the other mechanisms of kin selection, direct reciprocity, mutualism, and indirect reciprocity. It thus deals with the controversies around group selection.

D. COLLABORATIVE BREEDING: Sarah Hrdy, *Mothers and Others*.

1. This is an anthropology / primatology book about co-operative childcare. It has all sorts of interesting things to say about many of the topics we'll cover, so I think it will be a great way to start to wrap up the course.
2. For instance, the book deals with the cuteness of babies; how humans allow much more handling of infants by non-parents than other primates; how the grandmother is one of the heroes of human evolution; and other topics.

VI. CONCLUSION.

We'll conclude with a couple of short pieces of mine applying these themes.

- http://www.newappsblog.com/2013/08/the-spinoza-question.html
- http://www.newappsblog.com/2012/01/hayeks-anthropology.html
- http://contemporarycondition.blogspot.com/2011/10/overcoming-shame-rhythm-and-resonance.html