Ethics and Neuroscience

Synopsis by Thomas A. Lifvendahl, Ed.D.

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

Patricia S. Churchland is a philosophy professor at the University of California, San Diego who seeks to examine ethics through the study of socially shaped and derived behaviors by reviewing the current neuroscience research on interlocking brain processes. She points out that one can divide research areas into themes that include:

1. *Caring* = rooted in attachment to kin kith and care for their well-being.

2. *Recognition of Others Psychological States* = rooted in the benefits derived from an ability to predict the behavior of others.

3. *Problem Solving in a Social Context* = the disbursement of limited resources to meet unlimited demand (*another form of Politics…my words*).

4. *Learning Social Practices* = the utilization of behavior reinforcement, psychic conditioning coupled with trial and error to support a complex interaction of human interaction

She points out that humans are biologically driven to care; about themselves first and then others. Human brains are monitoring systems constant testing internal and external environments. Species survival is dependent on inter-cultural caring. We attach to our kin (children/mates) because our cognitive abilities, brain structures and neuro-chemically driven genetic systems evolved to support the formation of interactive cultural formation.

Humans build trust and seek formation of cooperative systems that "work towards the same end, purpose, or effect" (p. 68). The long childhood dependency of humans on their parents continues to be played out by the extension of family linkages to broader societal norms (tribes).

An example of how moral foundations of ethical stances can be seen is provided by a list of itemized adaptive behaviors (see similarities to previous list):

1. Harm/Care = protect and care for young, vulnerable, or injured kin.
2. Fairness/Reciprocity = reap benefits by dyadic cooperation with non-kin.
3. In-group/Loyalty = reap benefits from group cooperation.
4. Authority/Respect = negotiate hierarchy, defer selectively.
5. Purity/Sanctity = avoid harmful microbes and parasites.
   (Haidt cited in Churchland, p. 112)

She points out that Haidt seeks to identify basic domains of intuition, demonstrate that these values are common across cultures, and show that each is a unique emotion. The issue of purity/sanctity can also be interpreted to infer reasoning behind religious practices. The problem with Haidt's and other "innateness theories" (see philosophers doing back to Aristotle) is that they are not consistent with evidence of how the mind actually functions.

Examination of the functioning human brain has been accelerated by brain imaging, which is an evolving technology that is only beginning to map the dense complexity of the human brain. However, understanding the acquisition of social skills involves more than just mapping brain activity. Humans are social animals that learn to adapt and prosper through internalization of observed adaptive behavior by mimicking that which the group deems useful. One's ability to interpret other individuals mental states (theory of mind) has been posited because of the discovery of "mirror neurons" that seem to endow one with the ability to simulate in one's mind what another individual is intending to do. This is done through interpretations of observed actions. Human intuiting activity seems to be manifested as displays, a "mimicry [that] precedes the recognition of what you are feeling, and gives us the basis for scribing a feeling to you" (Iacoboni cited in Churchland, p. 148). Seeking to understand mental states is difficult. Fully understanding social skill acquisition and the underlying neurobiological mechanisms is a "continuing challenge" to science.

Humans have adapted to social conditions by the imposition of "rules". Churchland points out that some researchers believe that "if rules are definitive of morality, and rules requires language, then by definition, verbal humans are the only organisms with morality" (p. 166). She also believes that this stance may be unnecessarily restrictive. Rules can also be in moral conflict (killing wrong except in war). Social understanding is thus dependent on the level of sensitive sophistication of a legal concept called "fair exception".

Churchland believes that moral ambiguity and conflicting pragmatic need…doing onto others (the Golden Rule), depends totally on what I see as what I want done to me. Emmanuel Kant's Categorical Imperative seeks to form "exceptionalness, unconditional rule[s] for human

behavior" (p. 173). The problem with this view is that it requires an inhuman level of emotional detachment. We are social beings who in seeking to act emotionally negate our ability to think dispassionately do disservice to ourselves and our fellow humans.

Churchland points out that Jeremy Bentham's concept of maximizing the "consequences" of a given situation in order to ensure happiness can be coupled with John Stuart Mill's belief that happiness is an "end in itself". Both echo back to Greek *eudaimonia* (living well and flourishing…the right life),. In that context morality is center on the well-being of individuals in ways that do not elevate the happiness of one person above others. Trying to make sense of a vast array of conflicting individual "happiness's" leads one back to "theory of mind"…in the sense of the collective mind of a "rational" humanity as a whole.

Churchland concludes her book with a review of the role of conscience and religion as actors in human moral development. Neuroscience points out that understanding conscience is dependent on understanding the role pain/pleasure and avoidance mechanisms play on our moral decision-making. Traditional philosophy has "un-hinged" conscience from reality by couching it in metaphysical terms. The problem is that one's inner-voice is susceptible to distortion by incapacitated problem-solving abilities induced by mental illness or drug induced abnormal behavior. God's commandments still filter through fallible human minds. Our affiliations with certain religions and their associated beliefs are reflecting individually selected moral collectives derived from learned social practices.

In summary, Churchland argues that moral and ethical behavior evolved the way it has because neurological brain based conditions created opportunities for humans to evolve a mental framework only now being understood in an expanding world of scientific enquiry. We have just begun to fully comprehend this "vast undertaking".