

Neurophilosophy of Global Trans-cultural Understanding

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In this article Nayef Al-Rodhan explores the relationship between neuroscience, philosophy, and society.

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Philosophy of culture has a long history of reifying culture(s) in opposition to nature. This goes a long way back to the Greek Sophists. Hippias, one of the most famous representatives of the Sophist movement described human institutions and customs as forcing us to go against nature. The Cynics further emphasized this divide and longed for a return to the simplicity of primitive existence.

The relationship between ‘culture’ and ‘natural’ was complicated, of course, much more especially by the rise of nationalistic literature in the 19th century (and notably by German romanticists such as A. Muller) and by the ascent of anthropology as a distinct discipline. Furthermore, some of the extreme ideologies of the 20th century pushed the analogy between *cultural* evolution and *biological* evolution to abhorrent and radical levels – this made it very difficult for any arguments rooted in bio-sciences to be accepted in the field of political philosophy for a long time. “Anti-naturalistic thought” prevailed for several decades after WWII, until around the mid 1970s, when new disciplines emerged which contributed to the shift to more interdisciplinary dialogue. Molecular biology, behavioral genetics and neurocognitive sciences were prominent contributors to this [biological turn](#). The “[biophobia](#)” that previously created a rigid division between sociology and biological sciences gave way for more favorable exchanges. At the same time, the efforts to conceptualize what it meant to be human started to undergo a transformation as well. Again, as a result of inputs from neuroscience.

Neurophilosophy and human nature

The advent of neuroscience and its techniques had a particularly powerful impact.

Neuroimaging techniques such as fMRI, which could identify and record brain activity in real time, provided unprecedented insight into the brain and revealed fresh evidence about our shared neuroanatomy and neurochemistry – which began to overturn established theories about our nature. Neuroscience has brought forward especially unsettling – if not uncomfortable – conclusions about human cognition, morality and emotions, revealing a deeper and more intimate connection than previously thought. For example, in a seminal work, [Descartes' Error](#), neuroscientist Antonio Damasio describes the experience of patients with brain lesions (more precisely, damage in the frontal cortices) and who were unable to make good decisions despite otherwise intact mental capacities. But because the patient's emotions and feelings were compromised, they were simply no longer able to take the most advantageous course of action.

[Western philosophical tradition](#), strongly influenced by Plato and Kant, held that emotions precluded rational thinking and, simultaneously, one's ability for ethical thinking. However, neuroscience has extensively shown that the neuronal mechanisms underpinning cognition and moral decision-making are in fact tightly connected to emotional processing in the brain (for a more elaborate discussions of this, see two of my previous posts [here](#) and [here](#)).

In the mid-1980s, Patricia Churchland's [Neurophilosophy](#) argued for a deeper connection between neuroscience-based evidence and philosophical inquiry. Neurophilosophy is an interdisciplinary field that aims to overcome the unverified assumptions about the human mind and human nature, with implications that cut across other disciplines. Neuroscientists like Damasio would go even further to argue that neurobiological research has a [philosophical purpose](#). Adina Roskies unpacks how evidence from neuroscience managed to become so [empirically compelling](#). I argue, further, that the implications of neurophilosophy are also beneficial in a global, transcultural, and humanistic sense. (Of course, neuroscience-based evidence should not be seen as deterministic – as it has wrongly been portrayed by many who consider it eliminates the premise of free will.)

The appeal of neurophilosophy

In addition to being represented in opposition to rationality, cultural interpretations of emotions further complicated the picture, and in the process contributed to narratives of divisions or 'incompatibility' among cultures. Furthermore, studies of variations among behavioral patterns fed into different theories about the relationship between emotions and culture. For example, some have argued that emotions are [social constructions](#), which may have a basic biological format but this is 'altered' by culture. In the opposite camp stand those who claim that emotions are [innate biological programs](#), experienced across our species, although with variations in vocabulary. Moreover, these connect emotions to evolutionary approaches and study emotions' adaptive value for [fundamental life tasks](#). However, neuroscience has gone further to demonstrate the salience of emotions and their profound connection to a host of cognitive functions in humans, generally speaking.

When Maurizio Meloni speaks of the "[seductive power of neuroscience](#)" he hints, rightly, at the underlying humanistic premise of the interest in neuroscience in recent years. Neuroscience is

endowed both with “epistemic significance” but also “with normative force”. He posits that the attempt to bring light to questions of morality and politics via neuroscience responds to an intellectual need of the post-1989 world, whereby neuroscience replaces or fills the void left behind by some of the leading theories of the 20th century, including Marxism but also the Kantian rationalism in political theory. The other main reason for the forceful advent of neuroscience is in its project of deconstructing notions of morality, of cultural differences or even political divides. He writes:

“neuroscience’s project of bringing to light the *natural, bare substrate* of human faculties, no longer contaminated by cultural and linguistic differences and resistant to the pressures of society and political regimes, seems to offer [...] a safe anchor against the return of many of the traumas of the twentieth century: neuroscience appears to promote a message of universal brotherhood [...] and, with its emphasis on our natural, hardwired inclination to moral life and empathy, seems to provide a firmer basis for a newly possible ethics.”

The idea that neuroscience allows us to uncover “the first structures of morality” was also supported by French neuroscientist Jean-Pierre Changeux, who emphasized that humans possessed the very first, foundational, bases for moral evaluation, which is needed for [ethical deliberation](#). My neuroscience-based theory of human nature as [emotional, amoral and egoistic](#) refutes the premise of innate morality (or immorality), and contends that a more accurate description is that of *amorality*: we are born without any predefined notion of good or bad, although we do possess a basic, hardwired predisposition for survival. We are in other words, a “[predisposed tabula rasa](#)”. Amorality implies that, while we do have the capacity for developing a moral compass that compass will fluctuate in the course of our existence depending on circumstances in our environment – as I described at length in a [previous post](#). Moral conduct is unlikely when conditions of fear and insecurity abound. These will induce survival-prone behavior and a preoccupation with short-term survival goals. Morality, altruism and pro-social behavior are not a given in our ‘nature’ but are cultivated and sustained by circumstances that guarantee basic security, dignity and accountable institutions.

Two important points are crucial going forward:

1. The first is that, despite polemics and limitations inherent to neuroscience, as a discipline that is fast-evolving, a neurophilosophical account of human nature does promote an *understanding of commonality, which is rooted in our shared neurochemistry*.
2. The second conclusion has implications for our evolving discussion of trans-cultural understanding and is more overtly normative in scope. Given the highly emotional character of human nature, the recognition, respect and dignified treatment of each culture is crucial. That is because the dignity needs of human beings are both *individual and collective*: we expect dignity both on a personal level and for the larger groups we identify with and to which we belong. Furthermore, in a globalized world of instant connectivity, transcultural understanding is also important for global security and for de-escalating international conflict. In this sense, neurophilosophy echoes some of the arguments made by [revisionist](#) currents of history and histories of culture, which advocate for a more inclusive narrative on cultures, one that would rightly recognize contributions from each and every culture and grant respect and due recognition to each.

The Ocean Model of Civilization

Essentialist accounts of cultures and “civilizations” were often premised on paternalistic or highly divisive views of cultures, described as either irreconcilable or prone to clash. For example, [Samuel Huntington’s “clash of civilizations”](#), a thesis first proposed in 1996, framed civilizations (mostly Western civilization versus others) as distinct entities. He argued at length about ‘cultural fault lines’, and the distinctness of the West from the rest of the world’s civilizations. A major danger in such essentialist accounts is that it portrays cultures and civilizations as a finite project and as if they had emerged *ex nihilo*. This is thoroughly incorrect and unjust. It is incorrect because it fails to identify the larger historical forces and power relations that created categories such as ‘civilized’ vs. ‘uncivilized’. It is unjust because it denies due recognition to other cultures, and implicitly de-values their role and contributions.

In fact, the description of “multiple civilizations” is itself tainted with bias. It reinforces discrepancies in status and, as I wrote [elsewhere](#), it establishes a pecking order that directly or indirectly permits and encourages preconceptions, alienation, de-humanization, and enhances the propensity for hegemony and denial of rights. A more accurate and judicious account of the history of culture calls into questions the ‘insularity’ or ‘superiority’ of any one culture and regards history as a cumulative effort. I synthesized this in the metaphor of [the Ocean Model of Civilization](#): human civilization is just like an ocean into which many rivers flow and add depth. There is, in other words, only one human civilization that prospered and evolved as a result of accumulations of contributions from distinct geocultural domains, which have interacted with one another, and in the process, shaped one another.

The relations between the Arab-Islamic world and the West are a stark exemplification of this misrepresentation. To this date, the Arab-Islamic world is portrayed in opposition to the West, and Islam is Europe’s [“formidable Other”](#). What’s more, Islam in Europe is considered as a recent phenomenon, and a menacing one. This sadly vilifies or obliterates the long history of exchanges and cultural borrowings from the Arab-Islamic world and its contribution to the rise of the West in varied domains. We discussed this at length in an [edited volume](#) on this subject. The dominant narrative on the rise of the West conventionally ties this rise to the Renaissance era, the Scientific Revolution and the Enlightenment, thus propagating a Euro-centric and self-contained view on the rise of the West. In reality, Europe was greatly influenced by positive encounters with the Arab-Islamic world, which are no longer part of Europe’s collective memory. This long history of cultural and intellectual exchange includes contributions from arts, mathematics, astronomy, medicine, architecture and philosophy. Just as the Arab-Islamic world had borrowed and built upon the works of others in the rise to its Golden Age, so did Europe, and it is crucial to recover and revive this forgotten aspect of history, especially in today’s interdependent world and pluri-cultural societies. What is (still) left instead is most often mistrust and perceptions of irreconcilable differences, which are expediently exploited politically.

Global trans-cultural understanding can only be advanced when the history of cultures goes beyond existing curricula, to unearth knowledge that diminishes prejudice and promotes awareness of our deep transcultural connections. My post here started with a discussion of neuroscience and neurophilosophy before moving to the concept of ‘the Ocean Model of Civilization’. These two revisionisms (one of the philosophy of human nature, the other of history and culture) cohere and

reinforce the ideal of working towards ‘transcultural security’, a critical pre-requisite to sustainable global security and to a more peaceful and prosperous world – with the ultimate goal to see humanity in a holistic sense, not as a collection of insular and conflictual geo-cultural domains.

The next post in this series will look into theories of conflict and neurophilosophy.

About the Author

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