



Neuro-philosophy of International Relations

By Nayef Al-Rodhan

Origins of the Debate

Neuroscience has had limited disciplinary connectivity to the field of International Relations (IR) and Politics. The field of IR is traditionally understood to be about the relations between states, competition, power and resources. As a result, the findings of neuroscience appear to hold little relevance for IR scholars.

At the same time, the philosophical interest in human nature has been a crucial driver in the development of IR studies since its inception.

At its origins, the Realist theory of International Relations comes from an analogy between human nature and states, and human nature and international anarchy. In his famous work *Leviathan*, first published in 1651, Thomas Hobbes elaborated on the state of nature and man's fallible existence in the absence of order and sovereign control. At the foundation of the state or body politic was a specific conception of man. According to Hobbes, man has passion and instincts similar to those of animals: seeking pleasure and avoiding all that provides displeasure. In the pre-*Leviathan* state of nature, the right of nature is the norm, whereby man has unrestricted liberty to act in whatever way that would preserve his survival. Yet man is distinct from animals in some important aspects. Man is also endowed with curiosity, reason, a 'desire to know the why and how', as well as an understanding of his own death. Man is therefore aware of his precarious context in the state of nature—a state where all individuals are selfish, self-motivated and interested in their self-preservation. This hypothetical state of nature is an unbearable condition, one of constant anxiety and uncertainty. The *Leviathan* is formed as men seek to exit the state of nature—a state of potential, constant war—and accept a common power to keep everyone in check.

At the centre of Hobbes' philosophy is an understanding of man as [ontologically prior to the state](#). The state/*Leviathan* is instrumental to man's interests. From this interpretation, we move to the realm of international politics where the relations between *Leviathans* subscribe to the same logic of the state of nature. The analogy between individuals and states has been held to be central to the Realist theory. States, as individuals, are intrinsically egoistic, seeking to maximize power and resources. However, at the global level there is no *Leviathan*. This leads states into a perpetual power-balancing mode, doing whatever their respective 'national interest' requires.

Human Nature and the IR Dogma

As the discipline of IR matured in the 20th century, Realist theorists advanced understandings of states and conflicts as essentially rooted in human nature. Moreover, their views did not diverge drastically from the Hobbesian perspective: the cause of all human conflicts could be found in the essential characteristics of human nature, which is fundamentally flawed, self-interested and prone to conflict. Realists retained a general pessimism about human nature, which was in their view little amendable. This view is complemented by an understanding of the eternal laws of power, as borrowed from Ancient Greece, dictating that the strong do as they like and the weak must endure. Realist scholars such as Hans Morgenthau explained that human nature was the driving force behind state behaviour. Morgenthau, however, concluded that humans might not be purely and unalterably evil—but their flaws can be commonly explained through the original sin.

In general, the Realism of the 1950s and 1960s relied on very crude reductionisms about human nature. Even as other disciplines were advancing, Realist explanations overlooked critically relevant [findings](#) in social theory, such as notions of group identity and sociology or brain physiology.

In the opposite camp, Liberalist and Idealist schools also reflected on human nature. Their view was more optimistic and nuanced than the Realists. The Realist notion of the *'animus dominandi'*, or the desire to dominate, was not taken for granted—Liberalists and Idealists attempted to place man's weakness in context. Building on Kant's philosophy, the Liberal/Idealist paradigm considered man's propensity for violence and war to be largely a result of circumstances, and not innate malice. [Real moral progress](#) was therefore considered a possibility. These camps argued that man was also driven by reason, and this capacity for rational calculation informed him that cooperation is comparatively more advantageous than conflict. Beyond calculations of cost, man was thought to possess an intrinsic sense of altruism, a sense exhibited in social settings.

The justification for this latter perspective drew deeply upon Kant's moral philosophy. Kant wrote, particularly in *Perpetual Peace*, that this moral progress would ultimately allow humanity to manifest a "kingdom of ends" wherein the intrinsic worth of each individual person was fully recognized. Reason made humanity capable of cost-benefit analysis, and thus (often) counselled social cooperation. A way of framing Kant's categorical imperative is to insist that human agents, as makers of ends, cannot be construed merely as means to another's ends, but must be accorded dignity.

These explanations of human nature essentially challenge abstract understandings of states and anarchy. Beyond the [state-centrism](#) professed by Realists, there are human beings who need to behave cooperatively, negotiate, or build norms. This analogy was captured to a certain extent in the neo-liberal institutionalist paradigm, which claimed that states learn to cooperate (with the help of international norms, institutions and regimes), mitigating insecurities and mistrust. However, the liberalists' arguments were not grounded in science-based findings. This was a gap that neuroscience could fill.

While human nature has occupied a central role in IR theory, neuroscience has been a latecomer to the field of IR studies. Traditionally, IR scholars tend to see behaviours and everything else under the umbrella of “human nature” as disassociated from neurochemistry. Rational Realists like Morgenthau did make some concessions on the role of emotions in international politics, but these were mostly seen in the context of garnering support for foreign policy. Beyond the domestic realm, emotions were seen to offer little in the interpretation of international actions. However, as a doctoral student in Germany in the late 1920s, Morgenthau must have noticed the strong emotions of betrayal and humiliation expressed by leaders and citizens alike in response to the Treaty of Versailles. Hitler’s ascent to power took place thanks to this wave of emotional frustration over Germany’s position in the world. The advent of neuroscience has slowly revealed new potential avenues to understand and decrypt the mysteries of the human brain, which is the seat of our emotions and our morality.

[Maurizio Meloni](#) offers a plausible explanation for the revival of interest in biological arguments in the mid 1970s. The period between the mid 19th century and World War II was dominated by the “catastrophic abuse of biologization” (racism, eugenics etc). As a result, in the aftermath of WWII, arguments rooted in biology were decisively rejected and “anti-naturalistic thought” prevailed. This began to change beginning in the mid-1970s, when there was a revival of biological arguments. The change was especially apparent in the growth and popularization of disciplines like molecular biology, behavioral genetics and neurocognitive sciences.

The motivation for these appeals to science was also buttressed in part by a desire for a degree of objectivity in the wake of rampant pseudoscience being put to ill effect. The renaissance of naturalism, understood as enhanced valuation of the arguments of natural science, should not be seen as surprising, though it should surely be welcomed. As neuroscientific studies proliferated and developed more credibility, other disciplines began attempting to integrate its findings. One such interdisciplinary exploration is “[political neuroscience](#)”. Although presenting numerous limitations, it offers an excellent starting point to reflect on the relevance of neuroscience in general, and neurochemistry and neurobiology in particular, for individual behaviour as well as collective belief systems.

Neuroscience has been particularly authoritative in the wider field of cognitive studies and in the examination of emotions and moral reasoning. At the same time, the growing legitimacy drawn from neurosciences in understanding and explaining political phenomena has served to [address shortcomings](#) of the dominant narratives of the 20th century (Marxism, psychoanalysis, Kantian rationalism in political theory).

New Insights from Neuroscience

Neuroscience has provided some fascinating findings about the human brain and human behavior. For the limited scope of this study, which is to connect neuroscience with political theory and policy-making, I will focus especially on those findings that challenge long-held assumptions about human nature. A critical lesson from neuroscientific research concerns human emotionality, which is much more pervasive than initially thought. Furthermore, emotions are physical because every neurochemical event is physical. Human decision-

making or moral choices all correspond to neurochemical processes in the brain, and therefore have a physical dimension.

This body of scholarship has already inspired policy analysis that turns to neuroscience in search for understanding the deeper motivations which underlie political behavior in recent events. One such study looked at the neuroscience of [negotiations with Iran](#) over its nuclear programme. In another study, neuroscience has been used to explain some of the voters' allegiances in the [2016 electoral campaigns in the United States](#), an inventory of findings that could also provide inspiration for presidential hopefuls in devising strategies to change voters' opinions. The latter study shows that the process of forming and changing opinions is intimately connected to the brain's neural hardware, where different parts of the brain are involved differently in shaping opinions, and the more beliefs are tied to community values, the more difficult it is to change them.

Further, as summarized by a new generation of moral philosophers with a keen interest in neuroscience including Jesse Prinz, Jonathan Haidt, and Jonathan Greene, among many others, emotionality is pervasive in human consciousness.

Antonio Damasio studied at length the role of emotions in moral reasoning. His [studies back in the early 1990s](#) led him to conclude that human consciousness requires autobiographical memory, which emerges from emotions and feelings. These insights were inspired by research on patients with brain lesions who were unable to make good decisions, although the part of the brain responsible for 'reason' was otherwise unaltered.

The venerable Western tradition, by contrast, at least as old as Plato and later Kant, held that emotions were stumbling blocks to clear rational thought, and thus to real ethical understanding. Such characterizations, however, are undermined by neuroscientific evidence that emotions dominate moral decision-making, and that rationality attempts to subsequently validate and make consistent what are in large part emotional judgments. From these findings, it follows that morality can be described physically, as a complex interplay of neural structures and neural chemistry in the brain.

Another recent debate has explored correlations between brain structure and political affinities. Some of the findings of the cognitive neuroscientists studying the brain scans of individuals from different political parties seem to suggest some interestingly patterns. They do seem to hint that there are possible neurological correlations between individuals embracing some political ideologies over others. One of the studies looked at the [amygdale or the anterior cingulated cortex](#). The results suggested that greater leaning towards liberalism was associated with increased gray matter in the anterior cingulated cortex, whereas greater embracing of conservatism corresponded to increased volume of the right amygdale. The tests were repeated multiple times and indicated similar results. The question of causality remains murky, however. There are numerous factors that mediate political preferences, and we do not function solely on the basis of an inherited brain structure. Rather, we must always remember a key element in neuroscience, which is that the brain is plastic and malleable. This means that every activity we engage in, no matter how small, leads to a change in the brain.

Our understandings of what it means to be human have been influenced by the growing exploration of the brain through brain-imaging or fMRI (functional magnetic resonance imaging). While the exploration has been anything but exhaustive, studies of the brain have provided glimpses into the fundamental and basic foundations of our morality, rooted in our innate neurochemistry and inherited through millennia of evolution. While much is left to upbringing, norms and environments (as explained in the next section), other elements critical to our morality are to be found in a set of universal inclinations. [Neuroanatomy](#), as well as neurochemistry, may shed light on possible human inclination to act morally. For example, individuals who have suffered brain injuries early on in life, particularly in some regions of the prefrontal cortex (PFC) experience significant defects in understanding social conventions or emotions such as compassion, empathy, guilt or shame. Evidence seems to confirm that there *are possible* neurobiological correlates to ethics. In Damasio's view, these exist beyond the realm of human beings: some non-human species exhibit traits of moral behaviour – such as compassion or shame.

The neuroscience of morality remains a vast and open-ended topic, merely in its early stages. Although in the past few decades we have learnt more about the human brain than in all previous centuries, we are still nowhere near a complete understanding of the brain and its potential role in moral leanings or moral sensitivities. As our knowledge of the brain expands, much more will be revealed. This means that many of the existing insights into the neuroscience of morality might not be exhaustive but they remain invaluable in understanding how our nature and morality are shaped.

Neurophilosophy aims to bring these issues together with a view to inform policy-making. Findings in neuroscience and neurochemistry, for example, can also help us better understand the biological underpinnings of dignity and justice or inform us about how [moral decisions and tradeoffs](#) occur.

In an abstract sense, decision-making refers to the selection of options among a range of possible alternatives. Often such choices involve tradeoffs between our own-self interest and the interests of others; on other occasions, these choices can be between our own present well-being and our future (certain or anticipated) interests. At the cellular level, the process of decision-making has a neurochemical translation. Different chemicals in our brains – neuromodulators – shape the process of decision-making. Events in our surroundings activate these neuromodular systems and perfuse different regions of the brain, influencing how information is processed. One important discovery in the neuroscience of morality, for instance, relates to the influence of serotonin on behaviour, with findings that suggest that low levels of serotonin seem to increase the desire for revenge and punishment. Serotonin, has a long tradition of being associated with protosocial behaviour: a boost in this chemical implies a higher propensity for protosociality. Other chemicals too, such as testosterone or oxytocine, can influence our decision-making. Again, while for Realist thinkers, decision-making was always grounded in rational cost-calculations, neuroscience paints a more nuanced portrait of the many factors and indeed, neurochemicals that play a role.

The Neuro-Chemistry of Power

There are other ways in which neuroscience informs political theory and policy analysis. The human brain is pre-programmed neurochemically to seek gratification and ‘feel good’ and its underlying motivators, which I call “the Neuro P5” (power, profit, pleasure, pride and permanency) will gear our actions to achieve or maximize these motivators. We are inevitably driven to pursue these ‘feel good’ motivators, but society, culture, religion or other institutions play a critical role in staving off the harmful effects that can result therein. In this discussion, power – a central focus of political and IR scholarship – deserves close attention and neuroscience has some important lessons to teach us.

How power, and particularly absolute power, works on leaders can be explained in cellular and neurochemical terms. I have argued previously that [absolute power is intoxicating](#). It is addictive and functions on the basis of ready-made reward circuitries in the brain, producing extreme pleasure. Like addicts of any drug, individuals in positions of absolute power will seek to maintain that power at all costs, in order to satisfy the desire for this addictive high.

From what we know today, the primary chemical involved in the reward of power is dopamine, which is also the brain’s “pleasure chemical”. More generally, dopamine is released in the brain each time we are rewarded; this happens whenever we participate in an activity we associate with excitement. The brain has reward centres which are activated by dopamine and these regions increase our motivation; the more motivated we are, the more dopamine is released. Dopamine has also been dubbed “the save button” because it helps retain information, stay focused and want to repeat certain activities that result in the pleasure centres of the brain being rewarded. To some degree, therefore, we are all addicts insofar as we tend to seek out activities which ensure the continued flow of dopamine and subsequent pleasure.

This reward circuitry works similarly with power. The more power an individual possesses, the more addicted they become to its presence. The neurochemistry of power also informs us that a sudden withdrawal of power is bound to produce uncontrollable cravings for its reacquisition. While in moderate amounts dopamine can enhance cognitive functions, in very high levels, dopamine can result in reckless behaviour, paranoia, extreme narcissism and cruelty. Thus while Lord Acton’s dictum—that all power tends to corrupt, and absolute power corrupts absolutely—was, at the time of its authoring, primarily anecdotal and based on a selective reading of history, he had stumbled upon a stronger causal explanation than he realized. Hitler, Stalin, and Napoleon are just some of the famous examples that point to the devastating effects of power addictions. These examples show the political relevance and implications of neurochemistry of power. It teaches us that political transitions (and therefore power withdrawal) in dictatorships must be gradual, and that accountable institutions and systems of checks-and-balances are crucial in instituting restraints and keeping personal power in check.

Given our malleable neurochemical makeup, good governance and accountable institutions are pivotal for morality to thrive. Similarly, a system of checks and balances is critical to prevent excesses of power – something that most leaders will pursue if given the chance.

A Neurophilosophy – based Theory of Human Nature

Evidence points to the fact that humans are born with what I have previously called *a predisposed tabula rasa*: while innate ideas of good or bad do not exist, humans still have a predetermined set of neurologically-based predilections for survival which are coded by genetics. In one sense, John Locke’s understanding of human beings as blank slates with the potential to reason came closer to the mark than his inheritor, Kant, and his well-intentioned but problematic desire to build an edifice of positive morality into the nature of human beings. Indeed, the limited assumptions Locke made about human attributes gave his work significant longevity and influence politically. What Locke could not sufficiently appreciate, given his lack of neuroscientific understanding, was the way in which the human brain has evolved and come to possess specific predispositions as a consequence of this evolutionary process.

Locke took our penchant for reason to be god-given, and with a proper upbringing this was generally sufficient to guarantee social cooperation. While not oblivious to social influence, Locke also underestimated its determinative power. Further, although his more optimistic conception of human nature significantly aided in establishing liberalism, because Locke underestimated the importance of the context in which human beings find themselves, he failed to address the central challenge from Hobbes, viz. how to guarantee social harmony in anarchic circumstances absent strict (usually monarchic) control. Whatever other criticisms of Hobbes might be levelled, Hobbes saw clearly, without the aid of neuroscience, that our moral values can best be developed in those circumstances where our own survival is not put to test.

My theory of human nature, ‘*emotional amoral egoism*’, is closely derived from an understanding of human nature based on findings from neuroscience. Emotions are central to our existence and manifest themselves much more frequently than displays of ‘cold’ and calculated rationality. More recent understanding of the brain and our neurochemistry points to the centrality of emotions to human existence. Research has demonstrated that even when we can describe something in very logical terms, it is our emotions that play the crucial role in decision-making.

Amorality refers to our lack of inherent moral or immoral values. We are amoral, and our moral compass is heavily influenced by our perceived emotional self-interest and informed by our experiences, education and environments.

We do possess a limited number of predispositions encoded in our genetics, and the most fundamental of these innate predispositions is for the survival of the self. This is a basic form of egoism. Altruism and other positive emotions are, of course, possible, but they most likely take a back seat in our powerful drive for survival.

Policy Implications

Arguments based on neuroscience can be uncomfortable because they force us to confront the reality that our morality is not static. Many of us like to believe that our moral values are irreversibly entrenched and

fundamental to who we are. However, a more accurate picture is to think of our neuromodulators as changing constantly in response to events in our environment. Indeed, external circumstances play a key role in shaping our moral compass. We are malleable and, depending on the circumstances, most of us, most of the time, will choose the action that best aligns with our perceived emotional self-interest. We should therefore never take moral virtues for granted: the enduring assumption that man has innate morality is at complete odds with the historical record of brutality, alienation and injustice. That is why accountable institutions and good governance are pivotal, both domestically and internationally.

In political theory, neuroscience charts new territories because it explains human nature with unprecedented accuracy. Although much of the cellular and sub-cellular functions of the human brain remain unknown, the insights we currently have paint a more nuanced understanding of human nature, which in turn helps shape our understanding of politics, IR theory, and global order.

1. *State emotionality*

In understanding international politics, neurophilosophy shows us that states, as individuals, can act emotionally in many and surprising ways. It is indeed the merit of neuroscience to have alerted us to the crucial impact of emotions on decision-making. Historical scrutiny has refuted IR dogma that states, like individuals, act rationally and calculate their options with a view to maximize power. Quite the opposite, [emotionality](#) plays an important role in state behaviour, just as it does with individuals. Realism, the central theory in IR, suffered too from this misreading of human nature, adopted from Classical thinkers but disconnected from more recent accounts.

Another way that neuroscience is relevant for policy and theory is by looking into studies conducted in cognitive neuroscience, which helps explain some of the reasons for patterns of cooperation and enmity in international relations. [Habit](#) and habitual behaviour is among the centrepieces of human existence. Humans act habitually more than reflectively. Similar inferences have been analyzed at the level of interstate relations, where patterns of alliances, cooperation and conflict have often proven to be long-lasting.

2. *State amorality*

As individuals, states' norms and moral standpoints fluctuate greatly, depending on circumstances and interests. While some states are factually known to breach international law more frequently than others, it is virtually impossible to divide states into "moral" or "immoral". No state in the international system is perpetually on one side of the spectrum only. States are amoral in that their conduct will shift, being able to act morally in circumstances when their survival or other immediate strategic interests are not at stake and immorally when geopolitical calculations or survival needs require. However, a less known fact is that the same countries have offered generous [humanitarian assistance](#) to countries of little or no direct strategic relevance.

3. *State egoism*

States, as individuals, are selfish actors insofar as they will always pursue those actions that will guarantee their survival, which is a basic form of egoism. However, unlike Realists, who consider egoism an underlying and ever-present feature of state behavior, this is not an end in itself, nor an objective pursued unreasonably. As long as we define egoism in a minimal sense as a pursuit of survival, this will remain a perennial trait in state conduct but in many other instances, states' actions will be guided by many other neuro-cognitive catalysts, which only loosely reflect egoistic. In the international system, states (as individuals in societies) are socialized into norms and security communities, where the notion of egoism is strongly challenged.

4. *Strategic Culture: Skewed and Selective Neuro-narratives*

Pride, prestige, and historical narratives help build [strategic cultures](#), which are in essence shared narratives about a given country's historical role and geostrategic position. Emotions, collectively held historical narratives and memories profoundly shape state conduct and impact geopolitical thinking. These narratives are often skewed and highly selective both with regards to a states' own historical account and more dangerously of other states' historical account. Such narratives often set the stage for misunderstanding and mistrust, which persists over generations. As Henry Kissinger had stated in his [doctoral dissertation](#), no country's problem of security can be understood "without an awareness of the historical context" and that "the memory of states is the test of truth of their policy". State rationality, he claimed, was but an idiosyncratic interpretation of states' respective histories. Kissinger wrote: "it is not the equilibrium as an end that concerns them...but as a means towards realizing their historical aspirations."

5. *Symbiotic Realism: A Neurophilosophy – based IR theory*

In our interconnected and interdependent world today, I previously proposed a theory that captures this complex set of variables which define and influence states which I called [Symbiotic Realism](#). The latter transcends the traditional Realist imperatives of power maximization and competition and looks at other factors that constrain or compel states. For instance, many conflicts in the world today can be best understood outside the paradigm of pragmatism and rationality. Conflicts between China and Japan for the Senkakus islands are more for symbolic purposes than of strategic importance. The conflict between Palestine and Israel has a profoundly emotional character on both sides. [States](#), as individuals, are emotional, amoral and egoistic. Their conduct will fluctuate based on circumstances, being highly moral in certain situations and highly immoral in others. Emotionality and historical baggage will affect their conduct to a large extent and they will remain, in essence, preoccupied with survival and territorial integrity above all else.

6. *Sustainable History Theory: A Neurophilosophy- based Philosophy of History*

The most critical of the lessons offered by neuroscience for policy-makers lies in the findings about the underlying emotionality of human nature. Given that humans are governed by rationality to a much less extent than previously considered and that our moral compass shifts and is determined by circumstances, policy-makers have a key role in harnessing the best or the worst feature in mankind. This provides a valuable lesson for **policy-makers**: an understanding of the main attributes of our nature outlines the conditions under which humans can develop moral values and interest in social cooperation. In conditions of fear—or when our own survival is at stake—the pursuit of actions that ensure our survival will reign supreme. Circumstances are key to shaping our moral leanings, and the malleability of our neurochemistry is further proof of this argument. A political and social context in which human dignity is respected will increase the likelihood of moral human action. Conversely, societies in which conditions of injustice, humiliation and deprivation are endemic are more likely to foster egoistic and survival-oriented behavior.

Given the plasticity of our brains and the malleability of our nature, only policies that work towards ensuring a *Sustainable History* paradigm can charter an inclusive way forward for all. *Sustainable History* is a concept I previously proposed as an alternative to the End of History narrative proposed by Francis Fukuyama, which envisaged the fast spread of liberal democracy as a point in history where all major ideological struggles would cease. Instead, the Sustainable History paradigm proposes a different understanding of what drives history, which is not the quest for political freedom but rather for dignity. The human quest for dignity underlies human existence and is a prerequisite for good governance. To that end, the most successful and durable governance models will be those that balance between the ever-present tensions between the *three attributes of human nature* (*emotionality, amorality and egoism*), on the one hand, and the *nine human dignity needs* (*reason, security, human rights, accountability, transparency, justice, opportunity, innovation, inclusiveness*), on the other.

Policies informed by neuroscience should therefore aim to build political systems that guarantee dignity (in its holistic nine metric framework mentioned above), foster social order, and reduce the consequences of our inherent emotional amoral egoism. No policies that disregard human nature and human dignity needs can remain durable. Leaders should remember that it is only a matter of time before regimes and ideologies crumble if they do not ensure a durable balance of this essential tension (between human nature attributes and human dignity needs). This Neurophilosophical view of human nature, will be revised continuously as we get more and more insights into the human brain. This needs to be done while avoiding being reductionist or deterministic. Knowing what motivates and conditions individuals, ethnic and cultural groups (both sub-nationally and supra-nationally), leaders can better reflect upon the fundamental prerequisites for sustainable governance and will give policy-makers a unique opportunity to build more stable, equitable and progressive societies.

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