

Symbiotic Realism

A Transdisciplinary International Relations theory

Informed by neuroscientific findings about human predispositions and insights from the life sciences, Symbiotic Realism is predicated on the notion that the contemporary landscape of International Relations is shaped by seven novel and interdependent forces: disruptive technological advancements; the changing role, independence, threats, and capacities of non-state actors; the emergence of novel strategic domains; the rise of collective civilisational frontier risks; the weaponisation of economic interdependence; the intensification of sub-/supra-national transcultural historical schisms; and the predispositions of human nature (which profoundly influences the previous six forces).

The late Harvard Kennedy School scholar John Ruggie famously questioned ‘what makes the world of international relations hang together’. Writing over a quarter of a century ago, Ruggie, the intellectual architect of the United Nations’ Millennium Development Goals, understood the significance of humanity’s social and ideational forces in shaping world politics. Today, as International Relations (IR) appear to be hanging together by a thin thread, we are reminded of the undeniable link between human nature and interstate relations. On a basic level, our nature influences how we act and how we perceive one another. Human nature can heavily influence our perception,

and thus our political perspectives and corresponding action, at a time when we are witnessing the emergence of new and inadequately regulated arenas for geopolitical competition.

These profound global transformations – ranging from the virtual realm to the boundless expanses of cyberspace and outer space – are challenging the core tenets of mainstream IR theories, which have long relied on speculative notions of human nature to advance their explanations of global politics. Their capacity to explain trends or events in the contemporary world rests on a range of assumptions rather than explicit

SYMBIOTIC REALISM: BRIDGING THE THEORETICAL GAP

As humanity breaks new ground in science and ventures further into space than ever before, we are entering an era of ‘collective civilisational frontier risks’ that include highly disruptive technologies, cascading geopolitical crises, and social transformations. Stemming from innovative technologies such as artificial intelligence (AI), quantum computing, and synthetic biology, some of these risks have begun to reshape geopolitical dynamics and create mutual vulnerabilities that transcend national boundaries, compelling policy-makers everywhere to navigate a continuously evolving landscape of global interdependencies and threats.

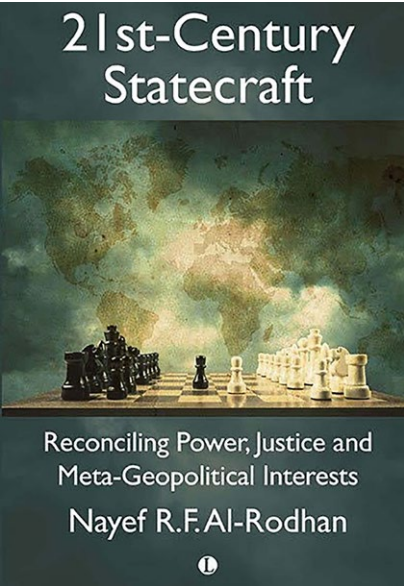
Traditional academic perspectives are proving inadequate in capturing the far-reaching ethical, moral, societal, cultural, political, and existential implications of these systemic changes. Mainstream IR accounts generally overlook many defining elements shaping today’s international system because most

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knowledge of the drivers of behaviour. This is something that my recent research seeks to remedy. In this article, I present an approach that I call ‘Symbiotic Realism’, which draws from the neuroscientific study of the formation of human emotions and unifies insights from the life sciences with ideas from realist IR theory. Symbiotic Realism addresses the speculative view of human nature underpinning mainstream IR theory (and realism in particular) to better account for the dynamics of IR today.

traditional frameworks focus on a limited set of actors, behaviours, and conditions at the expense of a more comprehensive assessment of the international landscape. These shortcomings can be attributed partly to the nature of IR theory as a social science that aims to systematically advance inquiries to yield generalisable findings.

To bridge this theoretical gap, I have proposed Symbiotic Realism, a



A Comparison of Key Perspectives on International Relations				
	Classical/ Neorealism	Classical/ Neoliberalism	Constructivism	Symbiotic Realism
Key insights	In an anarchic world, self-interested states compete for power/ security. The unequal distribution of capabilities across states compels them to act in certain ways.	In an anarchic world, self-interested states advance their interests through freedom, institutionalised cooperation, prosperity, and progress enabled by self-regulating free markets.	In an anarchic world, state behaviour is shaped by ideas, collective norms, images, identities, and belief systems (especially those of elites).	In an anarchic world, human predispositions shape actor behaviour in the international system. Conditions and factors that promote the human capacity for peaceful coexistence foster symbiotic interstate relation, reconciliation of national/ transnational interests through multi-sum, win-win, non-conflictual competition
Assumptions about human nature	Human nature seeks to maximise benefits and minimise losses. States are egoists who make rational decisions that maximise their self-interest.	Human nature is perfectible as human reason is capable of triumphing over fear and the desire for power. <i>Homo economicus</i> makes decisions on the basis of cost-benefit analyses.	Human interests and identities are malleable, shaped by historically and socially constructed norms, beliefs, and values.	Both humans and states have emotional, amoral and egoistic predispositions. Their behaviour is driven by five powerful neurochemical motivators.
Main forces shaping the international system	Anarchy, state sovereignty, power politics and balancing, security dilemmas.	Free trade/market actors, economic interdependence, international institutions and norms, financial markets, soft power diplomacy.	Ideational factors (ideas, beliefs, values, and identities), social norms and practices, social constructions of power.	The predilections of human nature, disruptive technological advancements, the evolving role of non-state actors, the emergence of novel strategic domains in cyberspace and outer space, the rise of collective civilisational frontier risks, the weaponisation of economic interdependence, and the intensification of sub-/supra- national transcultural historical schisms.
Main actors in the international system	Sovereign states, the international system.	States, individuals, international institutions, non-state or market actors.	Individuals (especially elites), transnational networks, non-governmental organisations.	Individuals, the state, non-state actors, collective cultural entities, international organisations, transnational corporations, the environment, natural resources, disruptive information and communications technology.
Main state objectives and instruments to achieve them	Self-preservation and power-maximisation. Power is both a means and an end. Force and deceit are effective tools for advancing national interests, and survival is achieved through state capabilities.	World peace and individual happiness. These are (indirectly) achieved through international institutions, global commerce, and democracy promotion. Tools include economic measures to encourage market competition.	Improved IR through shared normative frameworks, ideas, discourse, and community building.	International peace and security through dignity-based governance at the global and national level. Such governance reconciles the tension between emotional, amoral and egoistic human tendencies and the dignity needs of others (absence of humiliation and presence of recognition) partly through a focus on multi-sum games .
Attitude toward cooperation vs. competition	Conflicts are inevitable and mainly resolved by force, with some limited potential for cooperation.	Mutually beneficial cooperation is possible when rational actors create institutions, share norms and build mutual trust.	Global prospects for cooperation and conflict depend on prevailing ideas and values.	Peace is possible through win-win, non-conflictual competition and symbiosis (i.e. mutually beneficial multi-sum relationships) that allows all parties to benefit, albeit to varying degrees, rather than just simple cooperation.
Stress on relative or absolute gains?	Power politics are a zero-sum game. States increase their power by taking it from others. Relative power matters more than absolute gains.	States mainly prioritise their individual gains and are indifferent or less concerned with gains/ losses of others.	Preoccupation with relative gains dominates relations with out-group members. A focus on absolute gains probably dominates social exchanges with in-group members.	Losses experienced by one state will probably affect other states in various ways over the long term. Absolute gains are thus critical owing to deepening interdependence, instant connectivity, supply chains, collective civilisational risks, new geostrategic domains, cultural schisms, and globalisation.

transdisciplinary analytical approach that incorporates insights into the emotions of both humans and states to advance our understanding of ongoing conflicts and achieve a more accurate analysis of states’ predilections and interstate dynamics. By bringing together findings from science, neuroscience, philosophy, applied history, strategic culture, and IR with familiar ideas from

realist IR theory, Symbiotic Realism provides a more holistic and nuanced understanding of the mechanics of international affairs. Bridging the gap between the intricate workings of the human brain and global politics reveals new avenues for improving interstate relations by identifying key factors that harness humanity’s potential for peaceful coexistence.

SEVEN FORCES RESHAPING THE IR LANDSCAPE

Symbiotic Realism is predicated on the notion that the contemporary landscape of IR is shaped by seven novel and interdependent forces:

1. disruptive technological advancements;
2. the changing role, independence,



Symbiotic Realism discards the zero-sum logic that requires one state to lose for another state to win and sees multi-sum outcomes as both possible and achievable.

- threats, and capacities of non-state actors;
- the emergence of novel strategic domains (e.g., generative AI, cyberspace, and outer space);
 - the rise of collective civilisational frontier risks (e.g., AI, pandemics, supply chains, climate, transnational crime);
 - the weaponisation of economic interdependence (based on the ‘weaponised interdependence’ concept originally coined by Henry Farrell and Abraham Newman);
 - the intensification of sub-/supra-national transcultural historical schisms;
 - the predispositions of human nature (which profoundly influences the previous six forces).

Through philosophical reflection that is informed by neuroscientific insights into the emotional/rational origins of human perception, Symbiotic Realism updates core realist conceptions of human nature and state behaviour that have had an

outsized influence on policy-making. It also recognises the growing impact of disruptive emerging technologies on national interests and IR. In realist theory, a gain to one state comes at a loss to another; when gains and losses are combined, the final sum is zero. But a symbiotic realist approach holds that states are motivated by a selfish and skewed view of rational and emotional self-interests, and a shift away from narrow (or binary) self-interest is thus possible.

A state’s power – and ultimately, security – can be understood through a lens that allows for multi-sum outcomes. This is the conceptual backbone of the Multi-Sum Security Principle, which posits that global peace and stability consist of five security dimensions: human, environmental, national, transnational, and transcultural. Symbiotic realism discards the zero-sum logic that requires one state to lose for another state to win and sees multi-sum outcomes as both

possible and achievable. By employing pragmatic, multi-sum, symbiotic, and non-conflictual competition, Symbiotic Realism advances the view that national interests must be reconciled with transnational and transplanetary interests for them to be achieved in a sustainable and peaceful way. This must be done with the acceptance of differing capacities between states in prosperity, efficacious governance, technological sophistication, educational and economic power and, as a result, varying levels of military and political power.

HUMAN NATURE AND OUR INNATE PREDILECTIONS

Although Symbiotic Realism offers answers to the question of how we should act, it must not be mistaken for a utopian vision. Developing a sensibility to the predispositions of human nature is becoming increasingly pertinent as our innate predilections determine how we might, for instance, deploy emerging technologies that bring both promise and peril. Symbiotic Realism gives us the conceptual tools to understand how human nature might shape state behaviour in relation to technological advancements, non-state actors, new strategic domains, shared civilisational risks, the weaponisation of economic interdependence, and transnational cultural schisms.

MOVING TOWARDS SYMBIOTIC TRANSDISCIPLINARITY

A transdisciplinary approach such as Symbiotic Realism helps to illuminate how human predispositions are shaping developments in the international system by providing empirical knowledge of affective processes and how they influence the behaviour of both humans and states in the face of collective frontier risks. Transdisciplinary research goes beyond simply incorporating views from various disciplines and helping thinkers straddle the worlds of academia and policy-making, as Ruggie did with much success. It takes an additional step, by forging deeper connections among researchers and practitioners and unifying diverse disciplinary perspectives. In so doing, transdisciplinary research conceptualises ideas in novel ways.

A transdisciplinary understanding presents a view of IR that understands states as emotional amoral egoists

whose interests are neither inherently narrow nor limited to the self, but broadly shared. It thus follows that the calculus of policy-makers need not always be interpreted as a rational zero-sum game seeking to maximise power over other states. State behaviour can also be understood in terms of the emotional motivators of what I call the Neuro P5, which work through the brain’s mesolimbic reward system to encourage the pursuit of power, profit, pleasure, pride, and permanency (i.e. the Neuro P5). The quest for power and profit, for instance, are particularly strong and lie at the root of much global conflict. Related emotions, such as fear of the loss of power or profit, can induce pre-emptive aggression or other adaptive behaviours that shape actor relations in the international system. In light of recent neuroscientific findings, Symbiotic Realism emphasises the necessity to

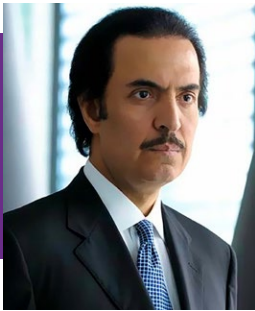
move beyond zero-sum calculations in the international system that exacerbate the emotional amoral egoism of actors and their binary Neuro-P5 motivations. Instead, Symbiotic Realism advocates for the creation of dignified living conditions through the pursuit of symbiotic (win-win), multi-sum, non-conflictual competitive relations, with absolute rather than relative gains.

TOWARDS A MORE SECURE AND PROSPEROUS HUMANITY

By unpacking scientific conceptions of human nature, the drivers of state behaviour, and the logic of competition under conditions of global anarchy, Symbiotic Realism not only equips us with a better understanding of what makes the world of IR ‘hang together’ but also provides us with a conceptual thread to tie together human and state-level processes and offers us

a rich ground for IR theorising. Such an understanding can infuse our interpretations of IR with a sensibility to the emotions of relevant actors that can clarify the cause for behaviour where factual explanations fall short, or rational choice analyses are unclear. This starting point can then foster collaboration, non-conflictual competition, absolute gains, and an acceptance of differing strategic capacities. It can also accommodate diverse political structures, diplomatic approaches, geopolitical realities and geostrategic imperatives while focusing on mutually beneficial and peaceful relations. These will prove invaluable in channelling our innate predispositions toward a more secure, peaceful, sustainable, and prosperous humanity on Earth and in outer space, without leaving anyone behind.

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Behind the Research

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Research Objectives

Professor Nayef Al-Rodhan’s transdisciplinary ‘Symbiotic Realism’ framework describes the seven new forces transforming the international system.

Detail

Bio
Professor Nayef Al-Rodhan, FRSA is a philosopher, neuroscientist, futurologist and geostrategist who has written 25 books and more than 300 articles. He was educated at the Mayo Clinic, Yale University, and Harvard University. Professor Al-Rodhan is a Senior Fellow at the Institute of Philosophy, an Honorary Fellow of St Antony’s College, University of Oxford, UK, and Head of the Geopolitics & Global Futures Department at the Geneva Centre for Security Policy, Switzerland. He is also a Member of the Global Future Council on Complex Risks at the World Economic Forum. His research focuses on transdisciplinarity, neuro-techno-philosophy, and the future of philosophy, with a particular emphasis on the interplay between philosophy, neuroscience, strategic culture, applied history, transcultural synergies, geopolitics, disruptive technologies, outer space, artificial intelligence, synthetic biology and international relations, as well as national and global security.



References

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