## K — Quantum

### 1NC – Shell

#### Mainstream IR’s state-centric paradigm fails to recognize developments beyond Westphalian abstractions. That guarantees extinction.

Chengxin Pan 20, Faculty of Arts and Education, Deakin University, Australia, 2020, “Enfolding wholes in parts: quantum holography and International Relations,” European Journal of International Relations 2020, Vol. 26(S1) 14–38

According to the holographic worldview, the universe is “an undivided and unbroken whole” which is enfolded into parts. Thus, the division within as well as between society and nature is “a crude abstraction and approximation” (Bohm, 1980: 158, emphasis in original; see also Barad, 2007: 24–25). In his book Wholeness and the Implicate Order, Bohm expressed a pressing concern with the tendency to divide and subdivide the world into essentially different units or groupings: IR scholars are no stranger to the tendency described by Bohm. The world, apparently organized into sovereign states, appears to be as fragmented as ever, further compounded today by the rise of nationalism, populism, and identity politics, as well as by the socalled return to geopolitics or even the Cold War. All these fragmentations and conflicts in IR seem to conform with the Newtonian ontology of things. However, what is revealed in this orthodox ontology is merely the explicate order of IR, whose implicate order and implicate relations have yet to be adequately understood and theorized. Bohm’s insights into holographic relationality lay an important foundation for such theorizing in IR. As will be illustrated below, the Bohmian holographic theory can give IR, among other things, a stronger ontological commitment to whole and wholeness, a more holographic relational conception of parts such as states, and a novel account of differences as contingent and spatio-temporally situated unfoldments of holographic parts. Wholeness and the study of IR The concept of wholeness is central to Bohm’s ontological interpretation of quantum theory (Bohm, 1980; Bohm and Hiley, 1993; Zinkin, 1987: 6). Despite a growing effort to include a wider array of issues and factors, IR still has a rather “weak sense of a social whole” (Albert and Buzan, 2013: 121). Even as IR scholars focus on “macrolevel” factors such as international political systems, international structures, international societies, world systems, and global networks, these systemic factors are at best particular structural abstractions of world politics, such as anarchy, the distribution of capabilities, and international norms and rules. While these systemic or structural features are part and parcel of the whole, ontologically they are often seen as either mere external and causal determinants of state behavior, or ultimately reducible to parts (e.g. states, material resources, or ideas),15 rather than as the whole in the holographic sense of the word. By whole we mean the entirety of space, time, and the information, relations, structures, processes, movements, and parts/agents contained within that all-encompassing space-time. In the IR context, the whole goes well beyond states and the totality of their interactions. It embodies the whole social and ecological systems as well as their explicate and implicate relations both between and embedded within their constituent “parts.” Such “parts” may include regions, states, societies, cultures, religions, peoples, economies, markets, goods, histories, ideas, emotions, materials, creatures, and natural phenomena. Of course, what exactly makes up the whole for IR cannot be exhaustively tallied a priori, because by definition such a task is impossible in any given space-time. But the point is that wholeness should be given a higher ontological priority in IR. Just as trees do not grow as assemblages of previously separate branches, leaves, and roots, the world does not start off with merely fragmented parts and preexisting sovereign states which then come together to form a global system; it is the other way round: the whole permeates through the parts and forms the essential relational conditions under which parts emerge and exist. This approach makes it imperative for IR to look for relations in much broader contexts which otherwise have been invisible, understudied, or artificially carved up by mainstream IR. To advocate for wholeness does not mean always privileging “macro-level” issues at the global level. In any case, whole-part or macro-micro issues are always already entangled and co-emergent (Wendt, 2015: 257). Micro parts and issues, precisely because they are microscopic, may be particularly prone to be diffusely spread and enfolded into various parts of the whole. As a result, micro parts simultaneously develop an emergent, holographic property of the whole. The fact that the tiny coronavirus can be quickly enfolded into almost every corner of the whole world and turn global life upside down illustrates the part-whole entanglement, and we dismiss its holographically holistic nature and impact at our own peril. To further illustrate, often traditionally considered outside the purview of IR, micro issues or events such as music (Gienow-Hecht, 2015), sports (e.g. ping-pong diplomacy), the Chernobyl disaster (e.g. the collapse of the Soviet Union, van der Veen, 2013), a flight school in Florida (e.g. 9/11), US subprime mortgage crisis, Fukushima, Wikileaks, melting polar ice caps, a Tunisian street vendor (e.g. the Arab Spring and the Syria conflict) and now even COVID-19 may be all in various ways “localized” holographic instantiations of the wholes. As such, they can and do play an important part in both reflecting and shaping the whole, especially in the form of some unexpected events and surprising turns, such as the end of the Cold War, 9/11, the global financial crisis, the rise of Donald Trump, and the current global pandemic. True, some of those “micropolitical” issues have begun to attract IR’s attention (Kertzer, 2017; Solomon and Steele, 2017), but overall the discipline lacks an explicit and holographic ontological and conceptual foundation for a more systematic engagement with the duality of whole-part. Of course, we cannot deal with “the whole of reality all at once” (Bohm, 1980: 2; see also Wendt, 1999: 14). Often it is necessary to take things “apart” and analyze them as if they were separable units. But it is important to always remember the “as if” caveat, lest we reify them as something objectively autonomous. It is also worth remembering that ontologically international relations are always a holographic part of bigger wholes, not closed or autonomous systems or units in and of themselves. In this context, a quantum holographic perspective becomes imperative especially in the face, for example, of the increasingly apparent human-nature holographic entanglement as evidenced by mounting “local” environmental crises and their implications for economic development, international conflict, and planetary survival. Contrary to the prevailing IR approaches that continue to subordinate environmental issues to a state-centric framework and a “national economic” imperative (Saurin, 1996), a quantum holographic approach has the potential to bridge the ontological and conceptual division between the parts and the wholes.

#### The alternative is quantum holography. That challenges the tautological ontology of the Newtonian narrative.

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Despite its name, International Relations (IR) has long been predicated on a Newtonian substantialist ontology of things, rather than an ontology of relations, which are “the important missing dimension in most theories of IR” (Wight, 2006: 296). In recent years, IR’s “deep Newtonian slumber” (Ruggie, 1998: 194) has been disturbed by a “relational turn” (Bousquet and Curtis, 2011; Jackson and Nexon, 1999; Kavalski, 2018; McClurg and Young, 2011; Neumann, 2013; Nexon, 2010; Nordin et al., 2019; Nordin and Smith, 2018; Qin, 2018; Shih, 2016; Trownsell et al., 2019). Challenging two versions of Newtonian substantialism: atomism (individualism) and structuralism (structuralistsubstantialism) (Zanotti, 2017; see also Wendt, 1999: 26), the gist of this turn is that the fundamental reality is not independent things, but relations. Focusing on “a relation between entities” (Jackson and Nexon, 2019: 584–585, emphases in original), the relational scholarship also departs from the agent-structure and level-of-analysis debates. Yet, despite this significant and welcome development, IR’s relational turn suffers several drawbacks. First, it lacks a clear conception of relations/relationality beyond often tautological definitions. Second, insisting on the temporal priority of relations over entities, much of the literature sidesteps an implicit “chicken-egg” dilemma between entities and relations. Further and more importantly, the relational turn has not yet seriously engaged with another important development in the social sciences in general and IR in particular, namely, the “quantum turn” (Keeley, 2007; Wendt, 2015), or according to Der Derian and Wendt (2020), a permanent quantum revolution. This neglect is both surprising and lamentable. Both turns share an anti-Newtonian stand, and as a “momentous shift in metaphysical outlook” (Seager, 2018: 5), quantum mechanics espouses a doctrine of relational holism “in an all pervasive way” (Teller, 1986: 71), which would make quantum theory a valuable source in IR’s relational quest. To be fair, at least in the IR context the neglect seems mutual. With few exceptions and some general references to relational ontology (e.g. Wendt, 2015; Fierke, 2017; Zanotti, 2017), the burgeoning quantum turn literature in IR has not focused extensively on relations either. Wendt’s pioneering work on quantum theory, for example, is driven primarily by the need to “reconcile consciousness and meaning with the material world” (Wendt, 2006: 218), though he acknowledges that quantum mechanics’ holistic and relational contribution is “a thematic that needs to be developed down the road” (Wendt, 2015: 35). Therefore, the gap between these two turns in IR calls for an explicit quantum relational perspective. This is what this article sets out to do, by offering, more specifically, a quantum holographic approach. The basic notion of holography is that an “object” is “part of the whole while it simultaneously contains the whole” (Van Daele, 2018: 651, emphases added).1 In quantum theory, the holographic principle promises a solution to the well-known tensions between atomic-level quantum physics and Albert Einstein’s planet-level theory of gravity by suggesting that the universe is a holographic projection: what appears on the surface (event horizon) of a black hole is encoded information about what is inside, “just as a two-dimensional hologram encodes a three-dimensional image” (Merali, 2013: 517). So far still largely alien to this field (few exceptions include Pan, 2018; Wendt, 2015), quantum holography adds value to IR in several important ways. First, as a specific form of relationality, quantum holography helps mitigate the existing definitional vagueness about relations. Second, instead of asserting relations’ priority over entities, quantum holography accentuates the ontological duality of relations and things. Avoiding the ontological chickenegg dilemma over which comes first, the duality proposition suggests that relations do not exist either before or after things; rather, relations are from the outset implicated or embodied in things. Relations-in-things are implicate relations that can be better understood through quantum mechanics, whereas things-in-relations (and relations-between-things) represent more classical understandings of relations as something external, compositional, and derivative. Third, quantum holography provides a deeper and more sophisticated understanding of relations, including whole-part relations and internal relations, which have not been adequately theorized in IR. Furthermore, its differentiation between explicate and implicate relations enables us to incorporate mainstream IR’s Newtonian ontology as a limiting case in a broader quantum relational ontology, rather than simply brush it aside.

#### The observer effect creates erroneous predictions in foreign policy. A quantum approach halts these false alarms.

Favour Obi-Okolie 14, Delta State University, Abraka Delta State, Nigeria, 2014, “Towards A Quantum Mechanical Model of Foreign Policy Analysis,” International Affairs and Global Strategy, Vol.27, 2014.

Uncertainty, as noted earlier, is one of the key features of quantum mechanics. It holds that no matter how carefully we observe, even with adequate knowledge of initial conditions, we can never objectively understand a physical reality. Applying the concept to politics, Cioffi-Revilla defines uncertainty as the “lack of sureness or absence of strict determination in political life”44 Rathbun furthers that “information is ambiguous because the world is complex and can only be approximated and partially understood due to cognitive limitations.”45 He therefore sought to explain the element of uncertainty within mainstream IR theories. For realists, it is experienced in fear of each other’s intention, while rationalists try to cope with uncertainty through international institutions charged to monitor and signal benign intent. For constructivists, uncertainty stems from an assumption that states are uncertain about action to take when norms as defined by identity are absent. Then cognitivists argue that uncertainty emanates from the confusion caused by the complexity of international politics as well as mental limitations of statesmen. 46 Assessing uncertainty from the quantum mechanical framework, we begin with Heisenberg who is arguably the first to introduce the principle. From his perspective, we cannot completely describe an object since we cannot simultaneously describe its momentum and position with exactitude. The more accurately we understand position, the less accurately we understand the momentum, vice versa. As such, it becomes impossible to predict the destination of a moving object since we cannot accurately determine its position and momentum at the same time. From quantum mechanical thought, this is may be due to hidden variables and/or non-locality. Non-locality describes the possibility of a quantum state to interact with another quantum state of the same pair, even when separated by large distances without an established means of communication. By position we refer to the location of an object relative to a reference point while momentum is taken to mean the measure of the motion of an object relative to its mass and velocity. Position in theoretical physics is synonymous with the condition of a State prior to an action or event being analysed. By condition we mean the geographic and politico-economic structure of a State. In the same vein, the foreign policy action of a State in a given case, accounts for momentum in physics. Therefore, by directly applying Heisenberg’s argument to foreign policy analysis, it is impossible to completely understand foreign policy behaviour of a State by merely understanding its condition prior to the behaviour being analysed. Also, it is impossible to predict the outcome of a given foreign policy behaviour. This explains why despite efforts to predict the outcome of a given foreign policy behaviour, mainstream approaches to foreign policy analysis have routinely fallen short in this regard. A good example showing the compatibility of Heisenberg’s uncertainty in foreign policy analysis could be found in the recent Arab Spring. An understanding of the socio-political landscape of the Arab world had led scholars of different schools to conclude that democracy was essentially incompatible with the Arab world. However, at the outbreak of the region-wide uprising, scholars began to foretell democratization. Soon, scholars began to make reversals in their predictions, such that it is no longer fashionable to equate the Arab uprising with democratization. What is deducible from this instance is that, in agreement with Heisenberg’s uncertainty, it is impossible to understand the present and predict the future by simply understanding initial conditions. This position is also understood by recalling that whereas the Cold War engaged IR scholars in a war of paradigms, none of the theories and models predicted the end of the conflict.47 Schrodinger’s wave equation furthers our understanding of the compatibility of quantum mechanics with foreign policy analysis. Inferring from his postulation, it is impossible to understand the totality of a State’s foreign policy behaviour. Rather, every State possesses every possible theoretical element that can be attributed to a State’s foreign policy. For instance, before observation is made, every state is weak and strong at the same time; aggressive and accommodating; cooperative and competitive. However, upon observation, the observer interferes with reality such that the condition of the State aligns with the premonition of the observer/analyst. Thus, we are uncertain of a State’s foreign policy behaviour until we decide to observe and/or analyse. Upon analysis, our uncertainty is substituted by the ‘creation’ of reality. It is at this point therefore that the foreign policy analyst relinquishes every claim to objectivity, having created the reality s/he claims to analyse. Relating the foregoing to Bohr’s contribution to Quantum Mechanics, the foreign policy analyst can no longer be regarded as an impartial observer but as an active participant. The instrument with which s/he assesses a phenomenon directly interacts with the physical object being observed to influence the result obtained. Consequently, we could safely assume that if no one was observing, then nothing would be existing. Then, should we now assume that occurrences in international politics are the creation of analysts? To a large extent, the answer weighs to the affirmative and accounts for why certain state and non-state actors, cognizant of this fact, have immensely invested towards gaining the attention of observers/analysts. Terrorist organizations routinely post videos of violence on the internet for analysts to ‘create’ their existence. States regularly release videos and images of military drills and military hardware. The essence is to gain attention of analysts who would therefore ‘create’ the desired reality. Indeed, terrorism is non-existent until it is so designated by analysts. More so, war is simply what analysts and observers make of it. In addition to the foregoing, quantum mechanics gives us insight in understanding causation. This is chiefly in its notion of interconnectedness which carries potentially far-reaching implications for foreign policy analysis. According to Senge, et al, we are now aware that interconnectivity is the organizing principle of the universe.48 The universe is interconnected in a complex web or relationships such that we cannot adequately understand a physical reality without acknowledging its web of relationships. However, this aspect of the universe was ignored by the Newtonian scientists perhaps as a result of the pervasiveness of relationships which can sometimes fade into the background so that “only the apparently separate ‘things’ of the world are noticed.”49 If objects are interconnected within the universe, do we then assume same for humans and States? Of course, yes. This is largely because humans as well as States share the same feature with all other objects: wave-particle duality. As particles they have form, boundaries, and identity while as wave, they possess an unstructured potential which, according to Zohar, spreads out across the boundaries of space, time, choice and identity.50 Therefore, State and non-State actors, as applicable to other objects, are interconnected or better still entangled in a complex manner that makes it particularly tasking if not impossible to accurately assess foreign policy behaviour. From the foregoing, it could be assumed that quantum mechanics emphasizes what we cannot do over what we can do. How does it then help our understanding of foreign policy? The answer is not far-fetched. By identifying what we cannot do, quantum mechanics saves us from raising false alarms and making erroneous claims. It rather makes case for intellectual diligence by encouraging cross-paradigmatic approach to foreign policy analysis. It underscores that no single theory or approach to foreign policy analysis is on its own adequate for foreign policy analysis. Thus, by engaging all possible approaches, the analyst increases the proportion of objectivity in his/her analysis.

### 2NC---Root Cause

#### Binarism is the cause of external conflict.

Chengxin Pan 20, Faculty of Arts and Education, Deakin University, Australia, 2020, “Enfolding wholes in parts: quantum holography and International Relations,” European Journal of International Relations 2020, Vol. 26(S1) 14–38

This article situates itself between the relational turn in IR and the quantum turn in the social sciences (and lately in IR as well). Between the two turns, there has been a mutual neglect at the expense of a better defined and more operationalizable relational approach to IR. To address the gap, this article has outlined a quantum holographic ontology, which stipulates that parts are more than just parts in the conventional sense of the word, but are specifically enfolded wholes. Drawing on Bohm’s insights into wholeness and the implicate order, the article has introduced a set of new conceptual tools to IR in general and to the relational debate in particular, such as whole-part duality, enfoldment, unfoldment, implicate order, and explicate order. These tools help us rethink IR and many dominant IR concepts in some ontologically innovative ways, including the need to take wholeness in IR more seriously, a new emphasis on the holographic nature of the state, and the promises of this approach for explaining and mitigating difference and conflict in IR theory and practice. By way of conclusion, the article now briefly considers two ethical implications of quantum holography for IR. First, the holographic being/becoming for “parts” is immensely empowering, because it reveals that the parts, or previously assumed individual “selves,” are never alone in a frightening state of nature; rather, they are inescapably linked to and sustained by the whole/world: indeed, their holographicity means that they are the whole/world, merely on smaller scales. This should transform the way we think about our identity, interest, and security in a fundamentally relational and positive way, because in a holographically related world, there can be no inherent “Others” or “external” threats out there unless we consciously or subconsciously divide the world in binary terms and act accordingly. Second, holographic being/becoming entails holographic responsibility, which is an ethical commitment to the notion and practice of responsibility for all. By all we mean the whole and its various “parts,” including the smallest “components,” such as corals and insects. To the extent that they all ultimately share the same whole, all parts, large or small, are real or potential enfoldments of the whole. Their well-being, as an indicator of the well-being of the whole, matters to the whole and to each of its parts. Thus, responsibility for all means “care for all and do no harm.” In a holographically connected world, harm to “others” (even the smallest “others”) means inevitably harm to the whole, including the “self,” who necessarily enfolds the whole: here the example of the microplastics problem comes to mind. Cosmopolitanism has long held the idea that “harm to individuals [is] a moral problem for the world as a whole” (Linklater, 2002: 320), and quantum holography can enrich the relational ontology of cosmopolitanism and at the same time help it move beyond its narrow humanist focus.

### 2NC---Holography Solves

#### Assertions of realism and liberalism recreate the Aff’s conflict scenarios. Only the alternative provides a sufficient view to form policy solutions toward China.

Chengxin Pan 22, Faculty of Arts and Education, Deakin University, Australia, 2022, “Chapter 10: China’s Rise as Holographic Transition: A Relational Challenge to International Relations’ Newtonian Ontology,” China’s Rise and Rethinking International Relations Theory

A China that holographically emerges out of the contemporary globalized world cannot be adequately understood by theories that are still based on the Newtonian ontology, which treats states like China as ontologically separate and distinct. In opening up a new ontological perspective, this chapter now turns to a brief examination of why mainstream IR theories, particularly realism and liberalism, need to be rethought. First, realism, and power transition theory in particular (Tammen and Kugler, 2006; Lai, 2011), have almost completely overlooked China’s contemporary holographic transition. Analysts from those perspectives routinely see in China the rise of a Nazi Germany-like great power, but the world in which China has been rising has largely moved on from the one in which Nazi Germany emerged. The current international system is more ‘regime-intensive’ than the period during which Europe and the United States came into prominence (Lanteigne, 2005: 32). Western theorists may have good reason to draw upon past European and American experiences to fear the prospect of China adopting its own ‘Monroe Doctrine’ or falling into the ‘Thucydides Trap’ (Allison, 2017). What they fail to adequately appreciate is that the whole from which China has emerged has now become quite different (Wang, 2013). The holographic relational perspective does not necessarily mean that China’s rise or ‘Chinese’ relationality will be peaceful (Shih, 2016: 687). Hard power still matters in contemporary world politics, and realism remains part and parcel of China’s strategic thinking. Hence, despite the existence of a holographic world, if Chinese leaders behave as if they live in a Newtonian world of mechanistic relations, then the earlier-mentioned fears of China may be warranted. In the face of the COVID-19 pandemic, rising antiglobalization sentiment and increasing global trade tensions, the shift to more emphasis on domestic circulation in China’s ‘dual circulation’ economic strategy seems to signal the winding back of its holographic engagement with the world. Nevertheless, a couple of points are worth noting here. One is that there is some Chinese recognition, at both scholarly and official levels, of the world as a cosmopolitan whole (for example in terms of ‘the community of common destiny’), and of the holographic entanglement that there is something of each in the other (ni zhong you wo, wo zhong you ni) (Xi, 2015). Whether Chinese foreign policy (for example the Belt and Road Initiative (BRI)) will live up to such rhetoric remains to be seen, but at least such understanding could help underpin a consistent policy of opening up. Another point is that China’s holographic relational being/becoming is by definition relational and reciprocal. Given that how its significant ‘Others’ behave constitutes part of China’s holographic whole, the dominance of a zero-sum, non-holographic way of understanding and dealing with China from the ‘outside’ world is likely to produce a China that is similarly uncompromising and assertive. As China’s Foreign Minister Wang Yi was quoted as saying during his discussion with US Secretary of State Antony Blinken, ‘China will consider how to engage with the U.S. side based on the U.S. attitude towards China’ (Reuters, 2021). Second, while liberal scholars do pay close attention to China’s transformation and socialization (Economy and Oksenberg, 1999; Johnston, 2008), they also fail to recognize that its transformation/socialization is fundamentally holographic and multidirectional, rather than linear or unidirectional. Some liberal thinkers are right that it would be illogical and extremely difficult for today’s China to overturn the international capitalist order (Ikenberry, 2008); after all, China is already a holographic part of that order and so turning against that order would mean turning against itself. Still, many tend to misconstrue its holographic transition as reducible to Westernization or democratization in the Western image (Gilley, 2004; Hutton, 2006; Kristof, 2013), while forgetting that the sources of holographic influence on China are global, rather than merely ‘Western’. The global whole in which China exists and evolves includes also the ‘nonWestern’ world as well as ‘Chinese’ history and tradition (or what Wang Jisi calls ‘historical China’, see Chapter 6). To ignore those connections and their complex impact on China is to miss a significant aspect of China’s rise that does not fit well with the liberal narrative. Furthermore, even as China has absorbed many ‘Western’ influences (bearing in mind that there is nothing purely Western to begin with, as Hobson [2004] points out), such outside influences, once transmitted into China, may undergo further local holographic transition of their own by taking on some ‘Chinese’ characteristics (Pan, 2012: 116–17). Also, as China’s power grows and its relations further expand (such as through the BRI), it is certain to once again become a major source of holographic transition for other countries, just as it once was, particularly through its tributary system, in which the participation of the ‘barbarians’ was in part to ‘come and be transformed’ (lai-hua) (Fairbank, 1942: 132). Thus, China’s rise is both an object and an agent of holographic transition. To sum up, both the ‘identity’ of China and its implications for the world are inherently complex, dynamic and indeterminate. As a case of holographic transition, China’s rise defies the binary scenarios of either a hegemonic challenge to the Western-dominant order or a linear integration into it (see also Chapter 9). With China unable to meet the liberal expectation, there has now been growing disillusionment with, and renewed realist fear of, it in recent years (Pan, 2012: Chapter 7; Campbell and Ratner, 2018). China’s rise does pose many profound challenges, whether economically, politically, normatively or environmentally. But such challenges, despite their apparent ‘Chinese’ symptoms, often have their holographic origins in the world. Thus, without denying Chinese responsibility or agency, to effectively deal with those challenges requires us to see them also as global and holographic challenges that cannot be reduced to, let alone solved as, uniquely Chinese problems. Global problems demand global public policy and cooperative solutions. As such, the United States’ focus on ‘Chinese’ imports, for instance, as the cause of its job-loss problem misses the point. Similarly, attempts to contain China are unlikely to be effective given that China’s very being has been embodied and embedded in holographic relations with the global whole, with which we are all inextricably entangled and implicated.

# Affirmative Answers

#### Nation states are the cause of peace and promote regional unity.

Sebastiaan Laurens Metselaar 18, Graduate School of Seoul National University, International Cooperation, “A study on how modern nationalism can prevent imperialism from re-emerging,” February 2018, Seoul National University, https://s-space.snu.ac.kr/bitstream/10371/141693/1/000000151525.pdf

Though we do live in the most peaceful era of our time, we tend to forget how much more violent the world has used to be. These days, more people die of car crashes than being killed by wars or terrorism. We commemorate the wars and celebrate our independence, to continue the realization of what happened and to what extend we are capable of committing inhumane crimes. Whether internal state conflicts have been decreased since the end of World War II is debatable, but that clashes between states have decreased is undeniable. The succession of the League of Nations by the United Nations, provides one of the most powerful resistance to pull factors in keeping nations in check with regards to imperial ambitions. Obviously there were tensions during for example the Cold War and conflicts did break out between states, but in light of the historic time frame, it has never been this peaceful as it is today. No Roman or Ottoman empire can start a conquest, in fact, ever since the end of the last great war no country recognized by the United Nations has been conquered or wiped of the map. Even the superpowers today who have all the means for starting their imperial conquest have to take into account that such conquest are too costly to undertake (e.g. Russia and Crimea, China and Tibet). And despite that conflicts are still present; the United Nations does not only have the tools to interfere military wise (i.e. peacekeeping operations), but also the capabilities to sanction perpetrators. The United Nations might be far from perfect as power struggles within the system exist, causing nations among each other to differentiate in meaning and action. However, as long as it is in place, nations will rethink once more their behavior.

Thus, no country has attempted to conquer another nation ever since the end of the decolonization period. The rise of the nation has a causal relationship to the decline in interstate violence. Moreover, the nationalists in a country do not want to start an imperial conquest and make colonies, instead, they want the colonials out of their country. The nationstate as we know it today is deeper rooted in the emotions of the masses than any other previous political organization has achieved before. In order for nationalism to develop and for sovereignty to be claimed by the populace, a complete revision of the status quo was required.

As for Korea, the foundation of nationalism developed during the annexation by Japan and it was not strong enough to prevent the separation between the North and South. These days, South-Korea has probably one of the strongest forms of nationalism. The love for the flag and the (popular) culture, the remembrance of its past, all contribute to strong sense of horizontal connection. The best and most recent display of Korea’s nationalism were the regular massive protests, by the millions, opposed to the Korean president. The fear of the Korean people in the survey stated in the introduction are therefore overrated.

Not only have the costs of imperial warfare gone up, its profits also declined. Looking into the history of empires, the mere reason for expanding was to search for resources that could still the economic hunger for growth. Thus, most conquests were focusing on securing material wealth such as gold, silver, spices, cattle, but also slaves. These days, we all have access to a global market and as our traditional resources are getting exhausted, there is a shift in focus to for example renewable energy sources. So, not only war did war became less profitable, peace became more lucrative than ever.

Additionally, when we examine the historical developments starting from the cognitive revolution till present day, we can observe that we are moving toward unity. The reason for this observation is that we moved throughout history from many separate tribes and communities into the large nations covering territories today. We now share a mostly similar geopolitical system as the world has been divided into internationally recognized nations, we share a similar economic system (i.e. capitalist open market place), a similar legal system (i.e. international and human rights), and we use the same scientific system (scientist from all over the world share the same view about the structure of atoms or the treatment of tuberculosis). This applied to the transformation of nationalism too, it did not spread evenly across the globe. It was a phenomenon that slowly spread itself. Notably, nationalism is not the end station. After the dynasties transformed into what we call nations, we are now at the brink of a breakthrough of a new transformation, regionalism. Europe is ahead of this transformation, with the establishment of the European Union and its Schengen treaty of free movement. There are more regional blocks rising in the world, even within Africa. Though regionalism is experiencing some setbacks as we have seen with the Brexit and the rise of nationalistic movements, this form will at some point in time succeed nationalism and its pre-predecessor dynasticism. Whereas with nationalism we feel this horizontal comradeship with our own nationals, in regionalism we feel connected in a similar way with other nationals.

#### Humans are disentangled from nature. The idea of entanglement is intrinsically Newtonian.

Scott Hamilton 18, professor at the London School of Economics and Political Science (LSE), London, UK, “Securing ourselves from ourselves? The paradox of “entanglement” in the Anthropocene,” rime Law Soc Change 68, 579–595 (2017). https://doi.org/10.1007/s10611-017-9704-4

This article argues that an epoch defined by and through the action of anthropos, the human, does not represent an entanglement of humanity with things, nature, or the Earth. Instead, the Anthropocene illustrates and intensifies a profound separation or dis-entanglement of humanity from nature. It replaces what was once the primary and objective concern of security – i.e., survival, or avoiding death – with anthropos, the human being, as a new geological and spatiotemporal force to be problematized and secured in both the present and the future. Rather than protecting itself from physical threats in an external world, humanity now subsumes that world by making itself the simultaneous subject/object of security; an Archimedean point. With the catastrophic prognoses for the Anthropocene’s future making humanity’s temporal, ontological, and epistemological essence uncertain, a paradox forms: an existential discontinuity, in which humanity must secure itself in the future from itself in the present.

This “Paradox of the Anthropocene” forms an ontological insecurity that is evinced through the concept of “entanglement” now borrowed from quantum physics and applied to human/nature relations. As noted above, entanglement is commonly used as an expression emphasizing humanity’s enmeshment with, and hence its ethical responsibility towards, non-human forms of life and matter. However, although its complex understanding of space, time, and the nature of reality offers a quantum rejoinder to neo-Newtonian or “classical” understandings of physics, upon closer inspection ‘entanglement’ is found to replicate and exacerbate these same classical dynamics within Anthropocene discourses. The atomic scale and nature of “quantum” is so complex that any observation of nature in-itself is impossible, in that any knowledge of quantum always already presupposes human interference and involvement in nature [7]. This implies that security or morality in the Anthropocene cannot be derived from, nor based upon, the mathematical principles of entanglement alone. Rather, it is from humanity’s dis-entanglement – the gap or distance between our mathematical knowledge of entangled phenomena and the social world within which we as humans reside – from which ethics, norms, and values are derived. The danger lies not in promoting and demanding humanity’s ethical responsibility towards nature and Earth – a noble and essential task indeed – but in attributing these ethics to entanglement, thereby forgetting how it is only through a social and human world that forms of security and responsibility are made practicable and thinkable.

This article proceeds as follows: First, it provides a brief overview of how security and entanglement are commonly used and combined in scholarly literature. The Anthropocene’s “entanglement” claims are generally positioned as a new form of human/nature order in response to the destabilization of traditional subject/object binaries that outmoded logics of security were previously grounded upon. Second, it examines how a specific variant of security – “ontological security”, or the existential securing of a continuous sense of self – best exemplifies or situates security discourses surrounding the Anthropocene today. The success of the concept of the Anthropocene is an artifact or product of this profound new ontological (in)security. In an uncertain future, the Anthropocene provides a new ontological certainty and stable understanding of what humans as individuals, and as a species, have become: a planetary force [8]. Third, by examining the concept of quantum entanglement in greater detail, this article outlines how its version of anthropos is made always already present in a neo-Newtonian guise. By elevating itself to the status of a present and future global security problem, the human is neither entangled or entwined with nature, but only with its own classical knowledge of nature. Finally, the article concludes by outlining a possible solution to this paradox: to embrace humanity’s dis-entanglement from Nature as a social space, within which to recognize and act ethically against humanity’s catastrophic effects on the planet. This requires grasping the quantum lesson that humanity will never be fully enmeshed or entangled with Nature: “Thus even in science the object of research is no longer nature itself, but man’s investigation of nature. Here, again, man confronts himself alone” ([7], p.24).

#### Predictions are good and true

Michael D. Ward 16, Michael was a Professor of Political Science @ Duke University, “Can We Predict Politics? Toward What End?”, Journal of Global Security Studies, Volume 1, Issue 1, 02/10/2016, <https://academic.oup.com/jogss/article/1/1/80/1834930> [\\pairie](file:///\\pairie)

What Are the Pros and Cons of a Predictive Approach to Social Science?

The main pro is that the predictive enterprise helps us evaluate how well we are doing so that we can improve our understanding of the world. It is the gold standard of a scientific approach. We do not yet have an experimental framework for many important subjects. As a result, it is important to make sure we can get the same kind of results with new information that we got with the data we began investigating. That means we have to either save some data back (a great idea), use the future to see how well our modeled understandings perform, or preferably both. There are only nascent traditions of this in the social sciences at present. Keeping track of your success is not collecting significant coefficients. Keeping track matters. One consequence is that we cannot just keep using the same data over and over. And over. One reason that many hate predictions is that talking heads make many predictions in the media, but few of them ever keep track of how well they are doing. Their goal is somewhat akin to a venture capitalist’s make enough bets that eventually one of them is correct enough that you get to make a lot more bets. Ascher (1979) long ago showed that the talking heads were most often wrong. This is still true. You would think that they would get better over time, but there is little evidence that this is the case.

We also will be driven into making more precise investigations once we start to predict. We will not be satisfied with annual data for most things. Nor will we necessarily be satisfied with national-level information because it becomes even more apparent in the predictive domain that the world is neither flat nor homogeneous. As a result, we should get more precise understandings of how things play out in our social world. At the same time, we have to recognize that our predictions are probabilistic and contain a large amount of uncertainty, more so than in other endeavors.

As a result of these two aspects, better and more precise understandings of our social world, it is possible to be more relevant to decision makers at all levels. This does not mean just inside the beltway. It also means decision makers at CDC (Centers for Disease Control) as well as those in non-governmental organizations around the world.

What are the cons? Several arguments are usually brought to the fore.

1. The world is inherently unpredictable. But we are studying it anyway. Go figure. The refrain to this litany is often “but I know what is going to happen in this instance.” Maybe, but let us keep track and find out if you are right. This is the talking heads premise, and it is demonstrably false. Making cause and effect statements about politics does imply that politics is in part, at least, predictable.

2. This will empower the establishment and impoverish those without power. Actually, it might. But at the same time, it provides ways in which those outside the capitals can also affect the future. Why will prediction be more valuable to the establishment than it is to the rest of society? Is the same thing true of explanation and substantive knowledge? Western society is based in part on the idea that knowledge is a valuable thing for all. It is true that some take more advantage of it than others. But having open and available knowledge can be important for many diverse groups. As an example, we might think that clandestine organizations can benefit from open knowledge, even precise actionable knowledge, but as we think these thoughts, most of us might not be thinking about transnational activist networks but rather large governmental organizations. However, it is clear that non-governmental actors are also consumers of knowledge.

3. It is possible to predict things without true understanding or knowledge. Sure, but rarely is this true for any but the simplest of systems. I am reminded of the wonderful essay by Calvin Trillin describing the chicken on Mott Street in New York’s Chinatown that played and always won Tic-Tac-Toe. The chicken did not understand the game. But the chicken always won.6 It is ridiculous to suggest that we have models that predict as accurately as the (now gone) Mott Street chicken but have the same understanding of the “chicken” game. Even if it were the case (and I repeat it is not), could the opposite really be true? If you have deep understanding of the world, should you not be able to generate accurate predictions of how it will work in situations you have not seen before? Will proximate effects lead us toward distant causes much like proximate causes can lead us to distant effects?

4. We will disrupt the space-time continuum. If we can predict conflict, for example, we will be able to prevent it. Or start it where we want. And then we will no longer be able to predict conflict. One of my models attempts to predict where there will be coups de e´tat and other types of irregular regime changes on a monthly level. Maybe if Muhammadu Buhari, who assumed the presidency of Nigeria at the end of May 2015, sees our manuscript, he might be able to prevent any irregular leadership change from occurring in the next six months. And maybe that would be bad. Or good. But in any case, I am pretty sure that the Nigerian president is already aware of the fragility of the Nigerian political landscape. This is a frequent type of criticism of forecasting. I think we can wait for this to become a real problem before we stop trying to develop better understandings of the world.

5. Real social effects occur glacially. Predictions will be focused on epiphenomenal changes that won’t matter in the long run. How do you know?

In summary, we need less theory because most theory is an attempt to rescue or adapt extant theory. We need more predictions in order to keep track of how well we understand the world around us. They will tell us how good our theories are and where we need better explanations. Predictions are like cell phones. First, they seem arcane and bizarre. Then, in a few short years, there is no one around who remembers life without cell phones and your kids use them in ways you don’t understand. The 2012 US presidential election was the first that was famously and accurately predicted. But it will be the first of many. All future voters will vote in an era in which accurately predicting the election will be the norm, not the exception, though as in the UK in 2015, there will be exceptions. This will have consequences for democracy. In the same way that having a product recommended to us on the web is now normal, this will become the new normal. Data science (and more data) will guide us to a better understanding of our future than we have now. Whether you are involved with commercial organizations, local government, non-governmental organizations (NGOs), the federal government, or international organizations, prediction will be part of the daily ebb and flow of information, and we shall become used to seeing accurate predictions about a wide variety of political phenomena.

#### The alternative’s imagination doesn’t change reality but creates violence through erasing boundaries.

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Although the basics of quantum physics also depends upon statistics and a type of quantum causality to make predictions, “quantum mechanics is incompatible with the view that physical observables possess pre-existing values independent of the measurement context” ([37], p. 259). Nature might be manifested in certain phenomena in the macro world, but conceived through entanglement, these manifestations would be so incommensurable to everyday neo-Newtonian thought that they would be “irreducibly beyond anything we can experience or beyond anything we can possibly conceive of” ([38], p. 1653). In other words, quantum uncertainty rules entanglement in a mind-boggling way, while classical certainty (i.e., causality) rules Newtonian metaphysics so uniformly that today we barely even notice it. Declaring classical sciences and renderings of nature to be “entangled”, therefore, does not actually make them so. It actually masks the certainty of a classical Newtonian causality still working beneath the Anthropocene’s discursive surface. One cannot overcome Western metaphysics simply by reading about how to overcome Western metaphysics, and then asserting it to be so. This only intensifies the underlying conceptual foundations that treat quantum entanglement itself as a concept, tool, or object that can be causally applied to a human subject and its world.

For example, following Maslin, take the concept best framing the effect of humanity upon the Earth system: planetary boundaries ([9], p. 2). These are discrete and quantitative boundaries, units, or limits, within which humanity should operate to achieve a safe space for human development. Notions of quantified “safe” spaces obviously retain the classical Newtonian epistemologies of calculating secure, bounded limits for the “future” of humanity; a predictive orderly security, designed to reduce uncertainty within discrete limits, to ensure survival from chaos outside these spatiotemoporal limits. Indeed, humanity must respect the limits of these linear thresholds as “Earth’s ‘rules of the game’ or, as it were,. .. the ‘planetary playing field’ for the human enterprise” (Röckstrom et al., 2009). The point here is that ESS and its planetary boundaries model replicates a Western secular cosmology that works by explicitly measuring the distance between an “objective” nature and humanity. Nature is once again placed into a structural numerical box as the background context from which humanity is contrasted in order to make itself secure [34]. As Fagan [6] has noted, an implicit human/nature dualism results from this. Any relation of the environment and security supposedly erasing the boundaries between humanity and nature becomes itself a violent act [6]. In this case, entanglement becomes, therefore, an analogy masking a neo-Newtonian ordering of subject to object that is actually inherent to the ESS, and thus to conceptualizing the Anthropocene. If we were actually entangled, not only should there be no boundaries, but it would be impossible to detect them. This new metaphysical orientation would have to replace or transcend thinkable subject/object binaries, rather than focus on or assert their interdependence or interconnection, which we still see in IR’s security discourses today.