

NATIONAL INTEREST AND WARFARE ECOSYSTEM 1: GLOBAL BALANCE-OF-POWER STRATEGIES

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Graphical Abstract



Abstract: *Creating an institutional framework on a global scale to understand balance-of-power strategies is the crux of foreign policy today with United States superpower exceptionalism. 'Altercating' defence, diplomacy and development encapsulate the United States foreign policy in relation to national interests globally. Role theory applied in comparing the United States and Chinese grand strategies as case studies. The United States superpower statecraft's clarity help superimposed any form of countervailing alliances globally; while China's sociological pragmatist role currently could change based on 'Power Transition Theory' for hegemony power. Beijing is pursuing a grand strategy that combines both 'internal balancing' and external 'soft balancing', encapsulated as 'warfare ecosystem construct' as countervailing alliances for balance-of-power strategies with development of 'Economic Corridors' in East Asia ; and the United States 'Globalization Agenda' both executed as 'mechanisms of power' date back to their 'hegemonic histories' with adaptive construct for national interests.*

Keywords: grand strategy, foreign policy, national interest, realism, liberalism, pragmatism, United States, China, GVAR model, warfare ecosystem, spatial polysingularity.

Citation: Otaiku A. A (2020). National Interest and Warfare Ecosystem 1: Global Balance-of-Power Strategies. *International Journal of International Relations, Media and Mass Communication Studies* Vol.6, No.3, pp.72-108, December Published by ECRTD - UK Print ISSN: 2059-1845, Online ISSN: 2059-1853.

INTRODUCTION

Today, the United States is the world's only superpower. Twenty years since the end of the Cold War, and no state has taken serious measures to form a balancing coalition to counter American dominance. The realist theory of international relations predicts that China will balance against American power. In a world in which America holds a preponderance of power, how does China design a grand strategy to advance its security interests? Critics of realism point to the absence of countervailing alliances as proof that, the balance-of-power theory is ill-suited for the post-Cold War world.¹ Have states really abandoned balance-of-power strategies? Is China balancing American power? Foreign policy refers to the diplomatic, military, and economic means a state employs to advance and protect its interests. Grand strategy is not a comprehensive description of a nation's foreign policies; it is narrower in scope because it specifically deals with the causal links between these three means and the security objectives of the state.² This focus on causal logic and security interests is a distinctive feature of grand strategy. The making of a state's grand strategy, therefore, is 'contingent upon the judgment of its leaders about how the world works', which in general parallels the theories of international relations. To formulate a sound grand strategy, leaders must be able to accomplish two tasks: first, they must select a strategy that is 'appropriate' for a) the power of their country (triangulation) and b) the shape of the international system (termed warfare ecosystem); and second, they must be able to cope with the inevitable and unexpected challenges to that strategy that emerge along the way (termed polysingularity)³. This focus is to understand and illuminate the distinctive feature of grand strategy using framework.

Layne framework, grand strategy is a three-step process: determining a state's vital security interests; identifying the threats to those interests; and deciding how best to employ the state's political, military, and economic resources to protect those interests.⁴ In practice, however, the grand strategies of states are 'rarely crafted with such precision', but this conceptualization provides a useful guide to "ferret out" the grand strategy of a state⁵. Barry Posen, posited, 'grand strategy is a theory about how a state can best "cause" security in light of national resources and international constraints.'⁶ Layne framework⁴ and Wang grand strategy³, can be transposed into polysingularity (uncertainty in the dynamics of objectives) affirmed by Burchill (2005) that, 'power can be defined in terms of economic, military, and cultural power, they will change over time and warfare ecosystem (the shape of the international system). Spatial polysingularity an engagement methodology embedding those value judgments by participants in the model that should instead be the appropriate domain of the 'discourse and collaborative negotiations' to the grand strategy as a wicked problem (Table 1) involves improving negotiation processes.

¹ For an excellent survey of opposing views on whether the balance-of-power theory is still relevant, see G. John Ikenberry, ed., *America Unrivaled: The Future of the Balance of Power* (Ithaca, NY: Cornell University Press, 2002).

² Avery Goldstein, *Rising to the Challenge: China's Grand Strategy and International Security* (Stanford, CA: Stanford University Press, 2005), 19.

³ Wang, Yuan-Kang (2016). *China's grand strategy and U.S. Primacy: Is China Balancing American Power?* The Brookings Institution 1775 Massachusetts Avenue, NW Washington, DC 20036-2188 Tel: 202-797-6000 Fax: 202-797-6004 www.brookings.edu

⁴ Christopher Layne, "From Preponderance to Offshore Balancing: America's Future Grand Strategy," *International Security* 22, no. 1 (Summer 1997): 86-124, at 88. See also Posen, *The Sources of Military Doctrine*, 13; Melvyn P. Leffler, *A Preponderance of Power: National Security, the Truman Administration, and the Cold War* (Stanford, CA: Stanford University Press, 1992)

⁵ Posen, *The Sources of Military Doctrine*, 13. Chinese military strategists use term the "grand strategy" to mean: "the overall strategy of a nation or alliance of nations in which they use overall national strength' to achieve political goals, especially those related to national security and development." Office of the Secretary of Defense, "Annual Report to Congress: The Military Power of the People's Republic of China, 2005," ed. Department of Defense (2005), 9.

⁶ Barry Posen, *The Sources of Military Doctrine: France, Britain, and Germany between the World Wars* (Ithaca, NY: Cornell University Press, 1984), 13; Stephen M. Walt, *The Origins of Alliances* (Ithaca, NY: Cornell University Press, 1987), 2.

Table 1. Comparative Indications of Simpler and Wicked Problems

N/S	Simpler Problems	Wicked Problems	Sectors/Industry /Scenarios	References
1	Manageable complexity	Extreme complexity and disciplinary expertise	Policy problems	Freeman , 2000 ; Salwasser, 2004
2	Clearly defined problem	Imprecise goals, fuzzy equity questions, and nebulous information	Planning for public forests	Freeman, 1986; Batie, 2008 ; Bunte, 2013
3	Appeal to expert for solution	Expertise is not enough, no one final, ideal solution	Poverty, health, diet, and environment	Brown et al .,2010; Norton, 2005
4	Ideal win-win possible	Approaching our social messes,beliefs, and values	Housing and Development	Ackoff, 1974 ; Alpaslan and Mitroff, 2011
5	Agreement likely	Individual, institutional, governmental decisions	Food production and Agro-forestry	Allen and Gould, 1986 ; Patel, 2012
6	Individual effort alone	Amenable to isolated expert intervention	Education and Human Capital	Rittel & Webber, 1973 ; Ramley, 2014
7	Low stakes and/or low risk	Partially unforeseeable, and thus unpredictable	High-stake situations / Finance/Food	Turnpenny et al., 2009; Pine and de Souza, 2013
8	Conventional warfare	Hybrid warfare, Environment and Pollution management	Military and Defence Strategy / Policy	Otaiku , 2018 d; Brown and Lambert, 2014;
9	Food innovation districts (FIDs)	Redevelopment and Urban market	Downtown market and Hospitality	Lake, 2015; Market Ventures, 2010
10	Access to local and healthy food	Sustainable food systems	Agriculture	Hodgson, 2012; PolicyLink, 2014; Buchanan 1992
11	Food-oriented markets	Food neighborhood gentrification	Supply food value chain	Gonzalez and Waley, 2013; Wood, 2010
12	Boundary organizations	Iterative and collaborative experimental process and learning	Education, Policy and Organizations	Alpaslan and Mitroff, 2011; Guston ,2001
13	Bottom-up participatory tactics	Intellectual resources	Creativity and Innovation	Brown et al., 2010; Thompson and Whyte, 2012
14	Sustainability issues	Sustainable development (SD)	Climate change and Environmental	Lönngren 2014; Voss 1983, Simon 1981
15	ill-structured problems	High level of inherent ambiguity	Sustainability problems	Simon 1973; Jonassen 1997, Voss 1987
16	Measurable performance	Designing for resilience	Designing for resilience	Seager et al., 2012; Farrell and Hooker ,2014

National Interest

The use and understanding of the term “national interest” is relatively straightforward. It refers to the self-interest of nations, how states envision their defence and projection of power beyond their borders. Indeed, it has been felt that the pursuit of the national interest is closely linked to geography - the locations where acts unfold (for economic, energy, military or other reasons) and which constitute potential fault lines that have to be carefully watched while this geographic anchoring remains significant (Banks, 2006) it has been balanced in recent times by the changes brought about by the deterritorialization of politics at the national and international level (Johnston,2009) - a deterritorialization that includes normative factors such as identification with human-rights imperatives, the influence that it has on individual and collective interests and values and their interaction, as well as on policies at home and abroad. Ambitious states, who are also the world powers, such as the United States, Britain, France, Russia and China, among others, have documents embodying their national interests in global politics. The national interest in a nation's foreign policy should dwell squarely on the welfare of the people of that country, towards the promotion and protection of the economic well-being of the people and dominion strategy.

The un-resisted pandemic from COVID-19 China with change foreign policy and the tools of national interest in 21st century where “realism” and liberalism with merge with a new meaning in foreign policy because geography mattered more than commerce in ‘spatial thinking’ as a mechanism of geopolitics of power, security and economy. National interest is a channel to the formulation of foreign policy. It is not an end in itself, but a means to an end (Sklenka, 2007). Modern discussions on the primacy of the objectives, will and aspirations of the state as driving force in international politics (Machiavelli, 2012; Morgenthau, 1989; Clausewitz,1873). The pursuit of national interest and the primacy of national power are considered to be in the calculations of nations from the foundation of the realist school of international relations now deficit in philosophy of modern warfare and operational art. From Sun Tzu, Thucydides, Machiavelli, Clausewitz to Morgenthau and Waltz, political realism celebrates national interest and holds that foremost in national role conception are pursuits of national interest and power, negating the moralistic and legalistic fusion into foreign policy by the idealists with the view to creating a utopian and impossible institutional framework on global scale. There are three schools of thought on the concept of national interest. These are Realist, Behaviourist and the Marxist (Political Economy) schools of thought (Eze, 2010). Realists and constructivists more recently, have claimed that the national interest is a key explanatory tool in the analysis and understanding of foreign policy.

A grand strategy that enforces a self-centric and often universally applied order and its role expectations of nations upon others cannot be categorised as mutual role-playing, given that the primary reference. The study of grand strategy usually focusses on the strategic goal of a major power. This goal should consider the capacity and ideology of the nation and guide its foreign policy. Given that strategy conceptualisation requires a nation to be unequivocal in its perceived role in the world, a self-centric reference is necessary to prescribe norms consistently and unilaterally and assign responsibilities to other nations (Chih-yu and Chiung-chiu,2015). Can a consciously mutual role-playing state possess a grand strategy? Using role theory, which breaks down the style of role into identity-based and relationship-based formulations. The grand strategy of China has become a crucial issue for international relations (IRs) researchers worldwide since the rise of the People’s Republic of China at the end of the Cold War era (Wang,2005). Goldstein (2005) affirmed that, ‘grand strategy of China’ is difficult to identify. The goal and logic of the Chinese grand strategy can be comprehended only when a broader time frame is applied. Pragmatism is applied to IR - realism, liberalism and constructivism and trace their connections to an emerging pragmatist approach. These theories help explain how states interact on the international stage and what factors influence the outcome of international competition, cooperation and conflict (Banks,2006). Besides improving our understanding of affairs between and among nations, they also help country and area experts as well as diplomats and higher-level appointees in government frame a coherent and effective foreign policy agenda. In other words, IR theory enriches the practice of international diplomacy. Walt (1998) the ‘complete diplomat’ of the future should remain cognizant of realism’s emphasis on the inescapable role of power, keep liberalism’s awareness of domestic forces in mind, and occasionally reflect on constructivism’s vision of change.’ A nation constitution provides legitimacy for policy formulation and execution (Otaiku,2018c).

Pragmatism Theory: International Relations

Jorgensen (2013) discusses foreign policy traditions as ‘the software of policy-making’, as relatively stable and coherent clusters of ideas about ends and means in foreign policy. Therefore, foreign policy traditions could help both the crystallization and implementation of foreign policy and its analysis. As distinct traditions of US foreign policy many have identified isolationism and moral principle. Naturally, isolationists believe that American values should be preserved and American interests fulfilled by limiting US interventions and US opening to foreign values.

The moral principle, on the other hand, encourages the dissemination of American values in the world⁷. Both moral principle and isolationism are strongly connected to American exceptionalism, which has been described as ‘the most pervasive element in US political culture’, comprising of a ‘strong sense of mission’ and a ‘comprehensive set of beliefs, norms, principles, and values’⁸. Michael Ignatieff sees the grounds for exceptionalism in the country’s uniquely powerful position, its messianic vision, its institutional set-up, and the dominance of constructivism and individualism in its political culture.⁹ Recognizing the importance of moralism and isolationism, Walter Russell Mead nevertheless argues that the US foreign policy tradition should not be limited to their legacy alone.¹⁰ Therefore, he elaborates on four schools that have continuously influenced US foreign policy, each named after a key American statesman.¹¹ Wilsonians believe that the US has both a moral responsibility and an interest in disseminating values like democracy, civil rights, etc., while Jeffersonians consider interventions abroad very risky and prefer to focus on democracy at home. Hamiltonians think that the US should not only participate but also lead international trade, while the central concern of Jacksonians is the Americans’ security and well-being.¹² These schools or clusters of ideas are not strictly separated, as decision-makers could subscribe to a different one at different times or to more than one of them simultaneously, depending on the given issue.

Warfare Ecosystem

Nation-states seek to balance their power relative to other states, both internally, by accumulating resources or military-economic capabilities, and externally, by forming alliances with other nation-states with compatible interests for objective development grand strategy for the country foreign relations is what I called ‘warfare ecosystem’ because of the altercasting with different adaptive theatre of war construct by participants/communities with responsibility and value drivers (Table 1, Otaiku, 2018d page 5) where major power tends to engage in stronger altercasting than a weaker power. Weinstein (1963) asserted that, ‘a major power is relatively more prepared to undertake grand strategy designs because of its high capacity to act unilaterally. Therefore, one plausible proposition is that a grand strategy design usually involves a substantial degree of altercasting. Creating a grand strategy is intrinsically a kind of social behaviour’. Symbolic interactionism distinction between the two sources of social behaviour, namely between role-making (United States, that is, psychological) and role-taking (China, that is, sociological) interaction within individuals, and interaction between individuals, and the communities of nations (Mead, 2004).

Role theory can be either psychological or sociological. This division of role sources is particularly useful in comparing American and Chinese grand strategy styles, because the US’ grand strategy historically conceptualises national roles based on an isolationist tradition, whereas China’s grand strategy derives roles from the reciprocal convention of the tribute system. Nevertheless, the US’ grand strategy can accommodate sociological sources. For example, the United States has been suggested to have instituted a tributary system that commits the hegemonic power to benevolence and civilizational diffusion (Khong, 2013).

⁷ Tzvetkova Gergana (2018). Principled pragmatism as an emergent US foreign policy tradition *DIPLOMACY* 21/2018

⁸ Maull, “Hegemony reconstructed? America’s role conception and its “leadership” within its core alliances,” 168.

⁹ Michael Ignatieff, *American Exceptionalism and Human Rights*, 11.

¹⁰ Mead, *Special Providence: American Foreign Policy and How It Changed the World*, 7.

¹¹ Mead, *Special Providence: American Foreign Policy and How It Changed the World*, xvii. The traditions are named after statesmen whose approach to foreign policy best represents the specific tradition: Alexander Hamilton (1755 or 1757- 804),

¹² President Thomas Woodrow Wilson (1856-1924), President Thomas Jefferson (1743-1826) and President Andrew Jackson (1767-1845).

¹⁶ Ibid.

In contrast, China’s grand strategy can contain psychological sources. These observation was apparent during the Cultural Revolution, when China endorsed national liberation elsewhere ‘to win adherents to the Chinese programme for radical change in the international system’ that China had desired reported by Van Ness (1970). The psychological sources of role refer to the cognitive construction of role, whereas sociological sources primarily comprise interactions. Psychological role conceptions emerge from the indigenous environment of the actor and his or her self-identity that provides universally applicable self-references. A psychological role conception, therefore, is to a large extent context-free, and can aid the actor in evaluating others. This includes whether or not other actors are capable, cooperative, or equal, and how to deal with other actors consistently. Such a self-identity-based role exists in the perceived differences between a self-conception and other-conception. It is therefore sensitive to the relative power necessary to defend self-difference. Sociological role conceptions adapt to the context and remain negotiable to acquire the recognition of the other.

Table 2. Warfare Ecosystem (shape of the international system).

N/S	Warfare ecosystem participants/communities	Responsibility and value drivers
1	Institutions	World class education and human capital development
2	University research and development	Prototype, proof of concept and spinoff companies
3	Military infrastructure	Space-based assets and GPS guided munitions
4	The innovators	Inventors, application development and futurist
5	Empire builders	Venture capital
6	Bankrollers	Capitalist/Finance
7	Architects/Intelligent cities	Clusters/knowledge parks
8	Knowledgepreneur/ Technocrats	Disruptive technologies and indigenous knowledge
9	Energy	Renewable/Non-renewable
10	Non-government agencies/media	Improving the state of the world
11	WIPO (Intellectual Property)	Idea, patents, finance, clusters, market and innovation-ecosystems link
12	Diaspora brain drain globally	Distributed networks, data repositories and mining
12	Governance	Policies
14	Communities of practice	Business schools, job creation and standards
15	Industrialist	Manufacturing
16	Environment sustainability	Access to necessities. Vulnerability to shocks. Social cohesion
17	Social sustainability	Environmental policy. Use of renewable resources, Degradation of the environment

The rationality behind allowing the other side, presumably the weak side, to determine the outcome of an interaction rests upon the longer term concerns, as regards the nation’s reputation as role-player. Such reputation is essential to conveying sincerity towards the ideal world favoured by that nation like the USA exceptionalism and globalization impacts. Tied to the specific conditions of interaction, the nation subscribing to the sociological role conception must always adapt flexibly to such conditions like China foreign policy in development of Economic Corridor in East Asia.¹³ Whereas conversion in accordance with the role expectation of others is the goal of psychological role conception, adaptation is the goal of sociological conception. The former seeks to transform the rest of the world from a potentially threatening one to an accepting one, whereas the latter seeks to convince the rest of the world that the nation is not a threat to anyone else.

¹³ CPEC is a flagship \$60 billion project of Chinese President Xi Jinping's Belt and Road Initiative that aims to connect Asia, Africa and Europe through a vast network of highways, rail lines and sea lanes. <https://www.arabnews.com/node/1670971/press-review>

Sociological role conceptions that avoid rigidity in mutable conditions can be consciously compromising and contingent at one time but punitive and confrontational at another. The credibility of the role-player, without which no grand strategy can be deemed convincing, is of paramount importance. Compromise out of a strong position is a deliberate performance of benevolence, whereas confrontation out of a weak position destroys the reputation of the other side as a credible role-player. For psychological role conceptions, however, compromise is only sensible out of a weak position. Johnston (2009) notes that for the pragmatist, “different contexts, in which different subject - matter is under consideration, necessitate different techniques, different approaches, indeed, different use of (differing) abstract ideas”, which encapsulate this discourse as a trilogy papers.

Paper One:

National Interests and Warfare Ecosystem 1 : Pragmatism and Grand Strategy

In international politics, weakness invites aggression, and strength begets security. How does policy statecraft bridging that yawning divide between the worlds of theory and policy, ideas and practice? What flexible and pluralist approach to theorizing international relations produce grand strategy? What makes American exceptionalism unique, the philosophy in crafting its grand strategy? Can China’s hegemony in the Asia-Pacific region change the balance of power? What is the alternative solution?

Paper Two:

National Interest and Warfare Ecosystem 2 : Problems Framework and Policy Formulation

The realist theory of international relations predicts that China will balance against American power. Uncertainty about each other’s intentions is driving the security dilemma between nations globally. Bridging that yawning divide between the worlds of foreign policy theory, ideas and practice in international relations require a framework for contexts specific situations and consensus decision making. The benefits of being the world’s strongest state are tremendous and what is the role of policy formulation?

Paper Three:

National Interests and Warfare Ecosystem 3 : Values, Security and Economy

United States is the country most capable of obstructing China’s rise, it occupies a central place in China’s grand strategy. Beijing needs to find a way to survive, and thrive, under U.S. hegemony. What are the policy implications for the United States? Why is the logic of balancing World power still relevant in the post-Cold War world and the impacts on global economy?

METHODOLOGY

The realist theory of international relations predicts that China will balance against American power. The United States is the world’s only superpower and consolidate its role after 20 years of post-Cold War. The People’s Republic of China, on the other hand, is a rising power with the potential to compete with the U.S. in international affairs and no state has taken serious measures to form a balancing coalition to counter American dominance. Critics of realism point to the absence of countervailing alliances as proof that the balance-of-power theory is ill-suited for the post-Cold War world¹⁴. Have states really abandoned balance-of-power strategies? Is China balancing American power? The making of a state’s grand strategy, therefore, is contingent upon the judgment of its leaders about how the world works, which in general parallels the theories of international relations. The explanatory (and predictive) power of realist theory can be illustrated by examples from both America’s and China’s own histories as empirical case studies - hegemonic power. Pragmatists approach was adopted because of clarity of American leaders have consciously sought to build a country dominant in the Western Hemisphere-in the words of John Quincy Adams in 1811 before he became president, “a nation, coextensive with the North American continent, destined by God and nature to be the most populous and most powerful people ever combined

under one social compact.”¹⁵ United States Pragmatism of its International Relations (IR) - realism, liberalism and constructivism; and definition the United States ‘exceptionalism’ in the last 100 years in global geo-politics with pragmatism’s interest in how ‘language and discourse shape meaning’ emerged The United States as the world’s only superpower. Ansell (2016) argues that pragmatism approaches interpretation as inference, dialogue, and perspective. Central pragmatist premises: i) ideas are ‘tools for action’ which in turn might be habitual but also creative; ii) when drawing inference about meaning, individuals ask questions and speculate, sometimes changing their interpretation after reviewing the received answers; iii) ‘social actors often view the world from different and selective points of view’ (Ansell,2016).

These premises have the potential to transform pragmatism from a philosophical perspective to ‘a framework for interpretive analyses- something which, as Ansell (2016) rightly claims, is already being done by scholars of international relations, and especially constructivists. My view of this paper is to apply the ‘Role theory’: Identity-based Role (United States versus) Relationship-based Role (China) for interpretive analysis of the two nations statecraft construct of national interest impacts on foreign policy and grand strategy. What global case studies narratives to iteratively and objectively assess its viability? What impacts will resilience have on national interest’s statecraft construct for instrumentality of the harmonious world ideal? The construction of an amicable international environment beneficial to China’s progress has always been the main theme of Beijing’s grand strategy discourse (Goldstein, 2005). Washington adopted a style of grand strategy conception based on the judgment of the relative power of the United States (isolationism or retrenchment) must be thoroughly considered. Isolationism, containment, and engagement all rest upon the cause of liberalism for justification, depending on whether the United States has the power to spread liberalism to the rest of the world (Brooks *et al.*, 2013). Major Powers tend to engage in stronger altercasting than a weaker power. Major power is relatively more prepared to undertake grand strategy designs because of its high capacity to act unilaterally (USA or China today).

Theoretical Framework

Weinstein and Deutschberger (1965) asserted that, one plausible proposition is that a grand strategy design usually involves a substantial degree of altercasting. Creating a grand strategy is intrinsically a kind of social behaviour. What role will United Nations and international institutions play in the balance of trade and common future, where equitable distribution of its benefits to both developed and developing countries. The rationale for change today ‘increasingly frequent and virulent systemic breakdowns in the operation of international financial markets associated with financial liberalization and deregulation’ with substantial degree of altercasting. Layne¹⁶: grand strategy three-step process and Wang¹⁷ grand strategy merged as the theoretical framework:

¹⁴ For an excellent survey of opposing views on whether the balance-of-power theory is still relevant, see G. John Ikenberry, ed., *America Unrivaled: The Future of the Balance of Power* (Ithaca, NY: Cornell University Press, 2002).

¹⁵ Quoted in John Lewis Gaddis, *Surprise, Security, and the American Experience* (Cambridge, MA: Harvard University Press, 2004), 26.

¹⁶ Christopher Layne, “From Preponderance to Offshore Balancing: America’s Future Grand Strategy,” *International Security* 22, no. 1 (Summer 1997): 86-124, at 88. See also Posen, *The Sources of Military Doctrine*, 13; Melvyn P. Leffler, *A Preponderance of Power: National Security, the Truman Administration, and the Cold War* (Stanford, CA: Stanford University Press, 1992), ix; Barry R. Posen and Andrew L. Ross, “Competing Visions for U.S. Grand Strategy,” *International Security* 21, no. 3 (Winter 1996/97): 5-53, at 5.

- 1a. Determining a state's vital security interests;¹⁶
 - b. Select a strategy that is 'appropriate' for the power of their country.¹⁷
- 2a. Identifying the threats to those interests;¹⁶
 - b. Shape of the international system;¹⁷
- 3a. Deciding how best to employ the state's political, military, and economic resources to protect those interests;¹⁶
 - b. They must be able to cope with the inevitable and unexpected challenges to that strategy that emerge along the way.¹⁷

Layne and Wang grand strategies transmuted into: policy polysingularity and warfare ecosystem. Foreign policy refers to the diplomatic, military, and economic means a state employs to advance and protect its interests. Grand strategy is not a comprehensive description of a nation's foreign policies; it is narrower in scope because it specifically deals with the causal links between these three means and the security objectives of the state.¹⁸ My objective is to encapsulate the distinctive feature of grand strategy within the warfare ecosystem construct to execute national interest. Chinese military strategists use term the "grand strategy" to mean: "the overall strategy of a nation or alliance of nations in which they use overall national strength' to achieve political goals, especially those related to national security and development."¹⁹ The writings of Chinese analysts are also unclear about how much power the country should eventually possess. Barry Posen, posited, 'grand strategy is a theory about how a state can best "cause" security in light of national resources and international constraints.'²⁰

Does China wish to revive its status as the dominant power in Asia? The writings of Chinese analysts are also unclear about how much power the country should eventually possess.²¹ Most agree that China should become a "world great power" (*shijie daguo*), but do not specify whether China should be "first among equals" or just equal.²² Others put forth a somewhat qualified view and suggest that China should play a preeminent role in regional security affairs, with global economic interests, but should not become a global military power.²³

¹⁷ Wang, Yuan-Kang (2016). China's grand strategy and U.S. Primacy: Is China Balancing American Power? The Brookings Institution 1775 Massachusetts Avenue, NW Washington, DC 20036-2188 Tel: 202-797-6000 Fax: 202-797-6004 www.brookings.edu

¹⁸ Avery Goldstein, *Rising to the Challenge: China's Grand Strategy and International Security* (Stanford, CA: Stanford University Press, 2005), 19.

¹⁹ Posen, *The Sources of Military Doctrine*, 13. Chinese military strategists use term the "grand strategy" to mean: "the overall strategy of a nation or alliance of nations in which they use overall national strength' to achieve political goals, especially those related to national security and development." Office of the Secretary of Defense, "Annual Report to Congress: The Military Power of the People's Republic of China, 2005," ed. Department of Defense (2005), 9.

²⁰ Barry Posen, *The Sources of Military Doctrine: France, Britain, and Germany between the World Wars* (Ithaca, NY: Cornell University Press, 1984), 13; Stephen M. Walt, *The Origins of Alliances* (Ithaca, NY: Cornell University Press, 1987), 2.

²¹ Rise': Reflections between Dream and Reality], Guoji jingji pinglun [International Economic Review] (Nov.-Dec. 2003): 45-47. Meng Honghua, an analyst at the Communist Central Party School, summarizes the various views expressed in Chinese scholarship and places them in four categories: regional great power, Asia-Pacific regional great power with global influence, great power with global influence, and world great power. But as he points out, there are debates over these options. Meng Honghua, *Jiangou Zhongguo Dazhanlue De Kuangjia [China's Grand Strategy: A Framework Analysis]* (Beijing: Peking University Press, 2005), 283-286.

²² See, for example, Shi Yinhong, "Feng Wu Chang Yi Fang Yan Liang: Lun Zhongguo Yingyou De Waijiao Zhexue He Shijixing Dazhanlue [To Have a Long Vision: On China's Diplomatic Philosophy and the Grand Strategy of the Century]," *Ha'erbin gongye daxue xuebao (shehui kexue ban) [Journal of HIT (Social Sciences Edition)]* 3, no. 2 (June 2001): 13-20; Chu Shulong, "Quanmian Jieshe Xiaokang Shiqi De Zhongguo Waijiao Zhanlue [Comprehensively Constructing China's Diplomatic Strategy During the Period of Relative Wealth]," *Shijie jingji yu zhengzhi [World Economics and International Politics]*, no. 8 (2003): 8-13.

²³ Tang Shiping, "Zailun Zhongguo De Dazhanlue [China's Grand Strategy Revisited]," *Zhanlue yu guanli [Strategy and Management]*, no. 4 (2001): 29-37

This lack of clarity in Chinese writings is hardly surprising, considering that the mantra of China's foreign policy since 1949 has been opposition to any forms of power politics and hegemonism - not to mention that China does not yet have the capability to assume the leading role in Asian affairs.¹⁷

Pax Americana and Pax Sinica

The United States Superpower Perspectives

American leaders have consciously sought to build a country dominant in the Western Hemisphere. John Quincy Adams (1811) asserted before he became president, "a nation, coextensive with the North American continent, destined by God and nature to be the most populous and most powerful people ever combined under one social compact."²⁴ Manifest Destiny aside, in 1823, the United States announced the 'Monroe Doctrine' to prevent European powers from meddling in its backyard. American leaders understood that, 'its security would be best served by becoming the hegemonic power in the Western Hemisphere'. In the twentieth century, declared President John F. Kennedy in 1963, "The interest of the United States of America," "is best served by preserving and protecting a world of diversity in which no one power or no one combination of powers can threaten the security of the United States"²⁵. The White House's National Security Strategy of 2002 explicitly states: "our forces will be strong enough to dissuade potential adversaries from pursuing a military build-up in hopes of surpassing, or equalling, the power of the United States."²⁶ Joseph S. Nye, former Assistant Secretary of Defense for International Security Affairs, argues that maintaining regional stability and "detering the rise of hegemonic forces" constitutes the rationale for stationing American troops in East Asia.²⁷ Samuel Huntington argues: "a world without U.S. primacy will be a world with more violence and disorder."²⁸ Former Secretary of State Henry Kissinger emphasizes that "it is in the American national interest to resist the effort of any power to dominate Asia."²⁹ Stephen Walt asserted, that "one would be hard pressed to find a prominent U.S. politician who would openly endorse anything less than the continuation of the nation's dominance."³⁰ Realist theory predicts, American foreign policy aims to preserve its global dominance and prevent the rise of a regional hegemon in Europe or Asia. Such a regional hegemon could challenge America's interests and threaten its security.

China Regional Hegemon in East Asia

Sinocentric order undoubtedly differs in culture and form from Pax Americana as well as other regional hegemonic systems and they share a core element, however: a recognition that security is best ensured by becoming the most powerful state in their region¹⁷. Many scholars consider Imperial China's tribute system voluntary and peaceful. The Middle Kingdom was the most

²⁴ Quoted in John Lewis Gaddis, *Surprise, Security, and the American Experience* (Cambridge, MA: Harvard University Press, 2004), 26.

²⁵ Quoted in John Lewis Gaddis, *Strategies of Containment: A Critical Appraisal of Post-war American National Security Policy* (New York: Oxford University Press, 1982), 201.

²⁶ George W. Bush, *The National Security Strategy of the United States of America* (Washington, DC: The White House, September 2002). In the most recent National Security Strategy released in March 2006, President George W. Bush reiterates: "We must maintain a military without peer.... America must continue to lead."

²⁷ Joseph S. Nye, "The Case for Deep Engagement," *Foreign Affairs* 74, no. 4 (July/August 1995): 90-102, 91. See also Joseph S. Nye, *The Paradox of American Power: Why the World's Only Superpower Can't Go It Alone* (New York: Oxford University Press, 2002). Nye argues that "Pax Americana is likely to last" (p.7) because of its hard and soft powers.

²⁸ Samuel P. Huntington, "Why International Primacy Matters," *International Security* 17, no. 4 (Spring 1993): 68-83, at 83.

²⁹ Henry Kissinger, *Does America Need a Foreign Policy? Toward a Diplomacy for the 21st Century* (New York: Simon & Schuster, 2001), 135. [emphasis original].

³⁰ Stephen M. Walt, "American Primacy: Its Prospects and Pitfalls," *Naval War College Review* LV, no. 2 (Spring 2002): 9-28, at 10.

powerful state in the region and was able to set the rules for trade and tribute with neighbouring and even faraway states. Chinese dominance was expressed through a tribute system that required regional states to acknowledge Chinese supremacy and accept their inferior status as vassals. The tribute system served as a “defense mechanism” to protect China from foreign attacks³¹. China specialists frequently use the tribute system to argue that the Chinese world order was a benign one, and that China has not historically followed the dictates of realism.³² Peter Purdue asserted, the seemingly pacific tribute system, “the iron fist always was held in reserve behind the smooth ritual mask”³³ and the bedrock of the tribute system was Chinese power. When China was powerful, it was able to preserve and protect the tribute system. When China was in decline, its ability to maintain the system dropped in tandem.³⁴ In the seventeenth and eighteenth centuries, Qing China under the Manchus was an expansionist power bent on dominating Asia.³⁵

Policy Polysingularity

Policy polysingularity is defined as uncertainty in the dynamic of strategy objective, because knowledge builds on itself. The September 11, 2001, terrorist attacks shifted the administration’s strategic focus. With America’s strategic spotlight focused on counterterrorism and Iraq, China perceived a “period of strategic opportunity” (*zhanlue jiyu qi*) in which it could concentrate on developing its “comprehensive national power.”³⁶ As long as the United States does not put its efforts in earnest against China, China will have a more relaxed international environment.³⁷ “China obviously does not pose a threat to the United States, but the United States poses a certain threat to the security of China’s core national interests [sovereignty and socio-political stability].”³⁸ Despite repeated statements from the White House that “we welcome the emergence of a strong, peaceful, and prosperous China,³⁹” (interestingly, the word “strong” was dropped out in subsequent U.S. policy statements), Chinese analysts frequently accuse the U.S. of pursuing a double-faced strategy vis-à-vis China - officially seeking to engage China in the political, economic, and military realms while at the same time taking measures to constrain or even contain China’s rise.⁴⁰

³¹ Morris Rosebay, ed., *China among Equals: The Middle Kingdom and Its Neighbours, 10th-14th Centuries* (Berkeley, CA.: University of California Press, 1983), 1; J. K. Fairbank, “Tributary Trade and China’s Relations with the West,” *The Far Eastern Quarterly* 1, no. 2 (Feb. 1942): 129-149, at 137.

³² David Shambaugh asserts that “China does not have a significant history of coercive statecraft... The tribute system may have been hegemonic, but it was not based on coercion or territorial expansionism.” David Shambaugh, “China Engages Asia: Reshaping the Regional Order,” *International Security* (Winter 2004/05): 64-99, at 95.

³³ Peter C. Purdue, *China Marches West: The Qing Conquest of Central Eurasia* (Cambridge, MA: The Belknap Press of Harvard University Press, 2005), 548.

³⁴ Gary Ledyard, “Yin and Yang in the China-Manchuria-Korea Triangle,” in Rossabi, ed., *China among Equals*, 313-353.

³⁵ Purdue, *China Marches West*.

³⁶ Yang Jiemian, “Zhongyao Zhanlue Jiyu Qi Yu Zhongguo Waijiao De Lishi Renwu [Important Period of Strategic Opportunity and the Historical Mission of Chinese Diplomacy],” *Mao Zedong Deng Xiaoping lilun yanjiu* [Study of Mao Zedong and Deng Xiaoping Theories], no. 4 (2003): 60-67.

³⁷ Liu Bin, “Shilun Ershi Nian De Guoji Zhanlue Jiyu Qi [On Two Decades of the Period of International Strategic Opportunities],” *Guoji guanxi xueyuan xuebao* [Journal of the University of International Relations], no. 6 (2003): 19-21.

³⁸ Yang Jiemian, “Shilun zhongmei zonghe guojia anquan hudong guanxi” [“On the Interacting Relationship in Sino-American Comprehensive National Security”], in Ni Shixiong and Liu Yongtao eds., *Meiguo wenti yanjiu* [Studies on American Issues], Vol. 4 (Shanghai: Shishi chubanshe, 2005): 134-150, at 141-142.

³⁹ Bush, *The National Security Strategy of the United States of America*.

⁴⁰ Chu Shulong, “Meiguo Dui Hua Zhanlue Ji Zhongmei Guanxi Zouxiang.”; Liu Bin, “Shilun Ershi Nian De Guoji Zhanlue Jiyu Qi [On Two Decades of the Period of International Strategic Opportunities].” The U.S. policy of engagement may have reflected the idealist strand in American foreign policy. But, as Mearsheimer points out, in practice, liberal America has acted like a realist power in the world. Mearsheimer, *The Tragedy of Great Power Politics*.

In Central Asia, the U.S. has established a military presence to prosecute the post-9/11 war on terrorism. In South Asia, Washington has accepted India's nuclear status and moved to strengthen ties with this "key strategic partner."⁴¹ Beijing charges that Washington's improved military ties with Taiwan are emboldening the island to pursue independence, and are thus damaging to China's vital interest. As former vice-premier Qian Qichen notes in his memoir, "Supporting the Taiwan authority and promoting [the strategy of] 'using Taiwan against China' has been the established policy of the various administrations of the United States."⁴² U.S. provision of defensive armaments to Taiwan (only defensive weapons are allowed under the Taiwan Relations Act) are seen by Beijing as threatening to Chinese nationalism.⁴³ China views the U.S. as the biggest threat to its security and believes that its sovereignty and territorial integrity can be best ensured by becoming the leading great power in Asian affairs.

Beijing's offer was conditional, but however-Washington could expect cooperative behaviour as long as China's core security interests were not infringed upon. But such a partnership is probably "the best of a bad lot of options" for a relatively weak China to live with the U.S. primacy⁴⁴. This low-profile strategy is well captured in Deng Xiaoping's oft-cited adage of "dim our lights and thrive in the shadow" (*taoguang yanghui*, sometimes translated as "hide our capabilities and bide our time"),⁴⁵ the metaphor encapsulates policy polysingularity affirmed by David Shambaugh and others have argued, there is "scant financial evidence of a significant military build-up by China."⁴⁶ China's military modernization fits into the concept of hard (internal) balancing, an area that has aroused the most concerns in the region.⁴⁷

Warfare Ecosystem: Counterbalancing Coalition

Pentagon's QDR published in 2006: "Of the major and emerging powers, China has the greatest potential to compete militarily with the United States and field disruptive military technologies that could over time offset traditional U.S. military advantages absent U.S. counter strategies."⁴⁸ Twenty years after Cold War, no counterbalancing coalition against America's preponderance of power has not occurred and lack of hard balancing is puzzling for some international relations scholars.⁴⁹

⁴¹ Rumsfeld, Quadrennial Defense Review Report (2006), 28.

⁴² Qian Qichen, *Waijiao shiji* [Ten Episodes in Diplomacy] (Beijing: Shijie zhishi chubanshe 2003): 306.

⁴³ Thomas J. Christensen, "The Contemporary Security Dilemma: Deterring a Taiwan Conflict," *The Washington Quarterly* 25, no. 4 (Autumn 2002): 7-21.

⁴⁴ Goldstein, *Rising to the Challenge*, 146.

⁴⁵ *Taoguang yanghui* is a time-honored strategy of the weak in ancient Chinese statecraft—a strategy practiced by the weak Liu Bei before he established his own kingdom during the famed Three Kingdoms period (220-265 A.D.). Liu, fearing his safety from the more powerful Cao Cao, pretended to harbour no ambitions by acting as a farmer and planting vegetables in his backyard. When thunder struck while he was having a meal with Cao, Liu dropped his chopsticks to the ground and humbly bent over to pick them up. Such "un-heroic" behaviours put away Cao's concerns about Liu's ambitions.

⁴⁶ Shambaugh, *Modernizing China's Military*, 223-224. Similarly, Goldstein argues that "the belief that China was rapidly increasing its military capabilities was unduly alarmist." Goldstein, *Rising to the Challenge*, 55.

⁴⁷ Bates Gill, "China's Evolving Regional Security Strategy," in *Power Shift: China and Asia's New Dynamics*, ed. David Shambaugh (Berkeley, CA: University of California Press, 2005).

⁴⁸ Rumsfeld, *Quadrennial Defense Review Report* (2006), 29.

⁴⁹ For various viewpoints, see the articles in Ikenberry, ed., *America Unrivaled*.

U.S. geographical location and the tremendous power advantage that it enjoys account for the absence of counterbalancing. The United States, as an offshore power enjoying the advantages of geography, is so far ahead of the other states in almost every dimension of power (spatial) that coordinating a counterbalancing coalition would be extremely difficult, if not impossible. Given the huge power disparity, no state in its right mind would want to provoke the “focused enmity” of the United States. Moreover, a state that resorts to military build-ups would likely trigger counterbalancing by local states, who would see the distant U.S. as an attractive alliance partner. Balancing America’s preponderant power will be especially hard and prohibitively costly.⁵⁰ ‘War beyond limits’ entitled ‘Unrestricted Warfare’, reflects the search for an asymmetric strategy to exploit the vulnerabilities of a much more advanced armed force, even though non-military means such as cyber warfare or targeting financial institutions or the media,⁵¹ and similar by and [We must] explore the art of the inferior defeating the superior under high-tech conditions⁵² affirmed by a similar report by Otaiku (2018d) on ‘hybrid warfare framework’. The goal of an asymmetric strategy is not to challenge U.S. global preponderance or to defeat the U.S., but, as Thomas Christensen points out, “to develop politically useful capabilities to punish American forces if they were to intervene in a conflict of great interest to China.”⁵³ Nation’s production possibility frontier creates the warfare ecosystem (Table 2) for ‘altercasting’ as liberalist and realist for global economic and military power. China aims to deter or disrupt third-party intervention in the Taiwan Strait.⁵⁴

China must pass through oceans and go out of the oceans in its future development.⁵⁵ China’s 2004 Defense White Paper acknowledged that the “technological gap resulting from the Revolution in Military Affairs” will have a “major impact on China’s security,” and adjusted the PLA’s doctrine to “local war under the conditions of informationization.”⁵⁶ Colonel Jiang Lei (1997) asserted that, ‘in the future, winning a limited war under high-technology conditions means that, as strategic guidance, [we must] be prepared to fight superior enemies equipped with high- technology armaments, and, under the new historical conditions, implement [the strategy of] defeating better-equipped enemies by using inferior equipment...[Such a strategy] will be particularly necessary in the next two or three decades.’⁵⁷

⁵⁰ William C. Wohlforth, “The Stability of a Unipolar World,” *International Security* 24, no. 1 (Summer 1999): 5-41. See also Stephen G. Brooks and William C. Wohlforth, “American Primacy in Perspective,” *Foreign Affairs* 81, no. 4 (July/August 2002): 20-33.

⁵¹ Qiao Liang and Wang Xiangshui, Chao Xian Zhan: Dui Quanqiuhua Shidai Zhanzheng Yu Zhanfa De Xiangding [Unrestricted Warfare: Scenarios About War and War-Fighting Methods in the Era of Globalization] (Beijing: Jiefangjun Wenyi Chubanshe, 170 Office of the Secretary of Defense, “Annual Report to Congress: Military Power of the People’s Republic of China, 2006,” 25-26.

⁵² Lieut. Gen. Wang Houqing and Maj. Gen. Zhang Xingye, chief eds., Zhanyi Xue [The Study of Campaigns] (Beijing: National Defense University Press, May 2000) (military circulation only): 28, quoted in Thomas J. Christensen, “Posing Problems without Catching Up: China’s Rise and Challenges for U.S. Security Policy,” *International Security* 25, no. 4 (Spring 2001): 5-40, at 9999.

⁵³ Christensen, “Posing Problems without Catching Up: China’s Rise and Challenges for U.S. Security Policy,” at 9. See also Walt, *Taming American Power*, 136.

⁵⁴ Office of the Secretary of Defense, “Annual Report to Congress: Military Power of the People’s Republic of China, 2006,” 25-26.

⁵⁵ Quoted in Office of the Secretary of Defense, “Annual Report to Congress: The Military Power of the People’s Republic of China, 2005,” 12. This quote is cited again in the 2006 version of the report.

⁵⁶ Information Office of the State Council of the People’s Republic of China, “China’s National Defense in 2004,” <http://www.china.org.cn/e-white/20041227/index.htm>.

⁵⁷ Jiang Lei, *Xiandai Yi Lie Sheng You Zhanlue: Guanyu Yi Lieshi Zhuangbei Zhansheng Youshi Zhangbei Zhi Di De Zhanlue Zhidao* [Modern Strategy of Pitting the Inferior against the Superior: Strategic Guidance for Defeating the Enemy with Better Equipment] (Beijing: National Defense University Press, 1997), 2. This is his dissertation selected for publication by the National Defense University Press.

Beijing seeks to maximize leverage by linking economic benefits with bilateral relations through partnerships, 'open to potential allies and adversaries and does not necessarily assume cooperative outcomes' and recognizes national differences in culture, ideology, and interests and seeks to build a mechanism to manage the areas of potential conflicts.⁵⁸ Deng Xiaoping (1990) instructed: "If China wants to withstand the pressure of hegemonism and power politics and to uphold the socialist system, it is crucial for us to achieve rapid economic growth and to carry out our development strategy."⁵⁹ The collapse of the Soviet Union offers an important lesson to Beijing about the adverse consequences of prioritizing the military and distorting economic infrastructure-China should maintain an optimal balance between economic development and military modernization.⁶⁰ The economic gap between China and the U.S. is gradually shrinking. China's military modernization fits into the concept of hard (internal) balancing, an area that has aroused the most concerns in the region. China's military modernization fits into the concept of hard (internal) balancing, an area that has aroused the most concerns in the region.⁶¹ China's "Belt and Road Initiative (BRI)" strategy based upon non-interference and positive relations now altercasting as liberalist and realist for global economic and military power (narrative for Table 2, warfare ecosystem). BRI, conceptualised, in pre-Covid-19 era is an audaciously, ambitious project designed to stamp China's centrality in reordered global economic ecosystem⁶². Hailed as 'Project of the Century' by Chinese President Xi Jinping, it seeks to cover 65 countries, touching lives of 62% of global population. It's bevy of projects, entail expenditure of 30% of world GDP, transporting 75% of energy products. Russia is the foremost example of this type of relationship. It is the main supplier of China's arms- accounting for 85% of China's total arms imports since the early 1990s - and a "significant enabler of China's military modernization."⁶³ BRI is an empirical model for productivity frontier of possibilities.

China respond to unbalanced American power?

Post-Cold War era, U.S. global hegemonic position has been consolidated.⁶⁴ The United States is the country most capable of obstructing China's rise, it occupies a central place in China's grand strategy. The key strategic question for Beijing is how to maximize China's relative power and ensure that the process remains peaceful.¹⁷ China defines grand strategy as one of "maintaining balance among competing priorities for sustaining momentum in national economic development" and "maintaining favourable trends in the security environment within which such economic development can occur."⁶⁵ Robert Ross asserted, that "Beijing is relying primarily on domestic resources to balance U.S. power."⁶⁶ Kenneth Waltz asserted that "As nature abhors a vacuum, so international politics abhors unbalanced power. Faced with unbalanced power, some states try to increase their own strength or they ally with others to bring the international distribution of power into balance."⁶⁷

⁵⁸ Goldstein, *Rising to the Challenge*, 130-135.

⁵⁹ "Guoji xingshi he jingji wenti" ["The International Situation and Economic Problems"], in *Selected Works of Deng Xiaoping*, vol. 3, (Beijing: Renmin Chubanshe, 1993), p. 356.

⁶⁰ Ye Zicheng, "Zhongguo Maixiang Shijie Daguozhi Ru [China's Road to a World Great Power]," *Guoji zhengzhi yanjiu [Studies of International Politics]*, no. 3 (Aug. 2003): 73-86; Shen Jiru, "Duobian Waijiao He Duoqi Shijie [Multilateral Diplomacy and Multipolar World]," *Shijie jingji yu zhengzhi [World Economics and International Politics]*, no. 10 (2001): 20-24.

⁶¹ Bates Gill, "China's Evolving Regional Security Strategy," in *Power Shift: China and Asia's New Dynamics*, ed. David Shambaugh (Berkeley, CA: University of California Press, 2005).

⁶² Taking stock of China-Pak economic corridor Lt General K J Singh.

<https://timesofindia.indiatimes.com/blogs/generals-jottings/taking-stock-of-china-pak-economic-corridor/>

⁶³ Office of the Secretary of Defense, "Annual Report to Congress: The Military Power of the People's Republic of China, 2005," 23

⁶⁴ Wang Jisi, "Meiguo Baquan De Luoji [The Logic of American Hegemony]," *Meiguo yanjiu [American Studies Quarterly]* 17, no. 3 (2003): 7-29, at 28.

⁶⁵ Office of the Secretary of Defense, "Annual Report to Congress: Military Power of the People's Republic of China, 2006," ed. Department of Defense (2006), 9. 60 Ross, "Bipolarity and Balancing in East Asia," at 288.

⁶⁶ Ross, "Bipolarity and Balancing in East Asia," at 288.

⁶⁷ Kenneth N. Waltz, "Structural Realism after the Cold War," *International Security* 25, no. 1 (Summer 2000): 5-41, at 28.

Threatened states can resort to either “internal balancing” (mobilizing domestic military and economic resources) or “external balancing” (forming military alliances), or they may do both.¹⁷ Recent international relations scholarship has distinguished between “hard balancing” and “soft balancing”. Hard balancing is practiced by pursuing traditional military build-ups and formal alliances. Soft balancing is often based on a limited arms build-up, ad hoc cooperative exercises, or collaboration in regional or international institutions; these policies may be converted to open, hard-balancing strategies if and when security competition becomes intense and the powerful state becomes threatening.”⁶⁸ By definition, ‘soft balancing’ seeks to limit the ability of the United States to impose its preferences on others.”⁶⁹ It is commonly believed that there are two common options for America’s China policy, “engagement” and “containment.” The intermediate objective of engagement is two-fold: to socialize China into the norms of appropriate international behaviour, and to help it democratize through extensive ties in a number of different areas.⁷⁰ The longer-term objective is a prosperous, democratic China that is satisfied, interdependent with the rest of the world and not a threat to democracy in Asia. The policy of containment, asserts that because a strong China will be an expansionist power, the U.S. should prevent an increase in Chinese relative power by slowing down its economic growth and holding back its military modernization. Both options face certain risks and obstacles.⁷⁰ Engagement risks creating a powerful China whose future intentions may not be benign - there is no guarantee that China will resist the temptation to expand to get what it wants as its capabilities rise. Containment, on the other hand, is difficult to implement. A weak China would adopt a defensive posture and initiate fewer conflicts. When China’s relative power was least advantageous, its grand strategy would become accommodationist, usually accepting the demands of adversaries.⁷⁰

In light of the preceding analysis of China’s grand strategy, what are the policy implications for the United States? -warfare ecosystem (Table 2). In the words of Robert Ross, “If the United States gives China the opportunity to displace the U.S. presence [in East Asia], it will grab it. The United States should be under no illusion that China will be content with the *status quo* should its relative power increase.”⁷¹ Warfare ecosystem construct encapsulate Beijing seeks to maximize leverage by linking economic benefits with bilateral relations (Paper 2). The concept of partnership is open to potential allies and adversaries and does not necessarily assume cooperative outcomes. It recognizes national differences in culture, ideology, and interests and seeks to build a mechanism to manage the areas of potential conflicts.⁷² “Both China and Europe seek ways to constrain American power and hegemony, whether through the creation of a multipolar world or through multilateral institutional constraints on the United States.”⁷³ In Southeast Asia, Beijing is developing relations with the Association of Southeast Asian Nations (ASEAN) as “a counterweight to US power” and to “set the regional agenda.”⁷⁴ China also has taken the initiative in Central Asia, creating the Shanghai Cooperation Organization (SCO) in 2001 to fight the “three evils” of separatism, terrorism, and religious extremism. As a result of this good-neighbour (mulling) policy, of all the great powers in the region, China has made the most inroads into Southeast Asia, an area that has begun to view China more favourably, at the expense of the U.S., in the post-9/11 world.⁷⁵

⁶⁸ T. V. Paul, “Introduction: The Enduring Axioms of Balance of Power Theory and Their Contemporary Relevance,” in *Balance of Power: Theory and Practice in the 21st Century*, ed. T.V. Paul, James J. Wirtz, and Michel Fortmann (Stanford, CA: Stanford University Press, 2004), 3.

⁶⁹ Walt, *Taming American Power*, 126-127.

⁷⁰ Yuan-kang Wang, “Offensive Realism and the Rise of China,” *Issues & Studies* 40, no. 1 (March 2004): 173-201.

⁷¹ Robert S. Ross, “Assessing the China Threat,” *The National Interest*, no. 81 (Fall 2005): 81-87, at 87.

⁷² Goldstein, *Rising to the Challenge*, 130-135.

⁷³ David Shambaugh, “China and Europe: The Emerging Axis,” *Current History* 103, no. 670 (September 2004): 243-248, at 246.

⁷⁴ Christopher R. Hughes, “Nationalism and Multilateralism in Chinese Foreign Policy: Implications for Southeast Asia,” *The Pacific Review* 18, no. 1 (March 2005): 119-135, at 130, 120.

⁷⁵ Alice D. Ba, “China and ASEAN: Renavigating Relations for a 21st-Century Asia,” *Asian Survey* 43, no. 4 (August 2003): 622-647.

Of all the multilateral institutions, the U.N. Security Council offers the most effective venue for China, a veto-holding permanent member, to constrain and limit U.S. policies.⁷⁶ Additionally, by Beijing's calculation, membership in international organizations would give China the right to reshape their rules to better suit Chinese interests - Beijing had viewed most institutions as serving Western interests.⁷⁷ Beijing's use of multilateral institutions accords with a realist interpretation: "international institutions serve primarily national rather than international interests"⁷⁸ elaborates how warfare ecosystem create value for participants using China BRI as case study (Paper 2).

DISUCSSION

American Exceptionalism

Washington adopted a style of grand strategy conception based on the judgment of the relative power of the United States. When power is considered limited, isolationism or retrenchment must be thoroughly considered. Isolationism, containment, and engagement all rest upon the cause of liberalism for justification, depending on whether the United States has the power to spread liberalism to the rest of the world (Books *et al.*, 2012; Nye, 1995). Since the end of the Cold War, crafting a liberal world has consistently been the principle of the US' grand strategy, which conceives of the liberal world order as the foundation of security in the long run. Only the rise of China in the 21st century has brought back retrenchment as a viable option (MacDonald *et al.*, 2011; Posen, 2007; Gholz, 1997). This style of altercasting developed from the idea that the conversion of the rest of the world into liberal capitalism fulfils the national interests of the United States for the benefits of US values, security and economy (focus of paper 3). Williams contended that American grand strategy followed a specific world-view called 'the imperialism of the open door.' Imperialism is the description of style and open door regards substance. America's efforts to extend the American system and capital into the domains of other nations were consistently aggressive. The phrase 'open door' was derived from the policy that the United States applied to China in 1899 (van Bastiaan and de Graaff, 2012) and that remained coercive and incursive throughout the 20th century. This policy consists of five elements, including economic expansionism, promotion of free markets and the liberal world order, promotion of democracy, 'externalisation of evil', and US exceptionalism (paper 3). The last component pertains particularly to the 'national role style' because it concerns the 'divine mission' that Washington believes it is on which sets the United States apart from other major powers. The first year of the first presidency of George W. Bush was marked and will be always remembered by a devastating event - the terrorist attacks on 9/11. The aftermath of 9/11 saw an upsurge of influence of neo-conservatives in Bush's administration, led by Paul Wolfowitz, Dick Cheney and Donald Rumsfeld. McCormick has described the neoconservative group as 'Revival Wilsonians' who 'believed in the spread of democracy and the goodness of American intentions and actions - without Wilson's embrace of international law and institutions.'⁷⁹ The war on terror which ensued was wrapped in rhetoric of good and evil, right and wrong.

⁷⁶ Paul, "Soft Balancing in the Age of U.S. Primacy."

⁷⁷ Jin Xin, "Guanyu Kaituo Xinsiji Woguo Duobian Waijiao Gongzuo De Jidian Sikao [A Few Thoughts Regarding Extending Our Country's Tasks of Multilateral Diplomacy in the New Century]," *Shijie jingji yu zhengzhi* [World Economics and International Politics], no. 10 (2001): 36-41; Chu Shulong, Jiang Yi, "Zhongguo De Duobian Waijiao Yu Shanghai Hezuo Zuzhi [China's Multilateral Diplomacy and the Shanghai Cooperation Organization]," *Eluosi zhongya dongou yanjiu* [Russia, Central Asia, and Eastern Europe Studies], no. 5 (2003): 46-51.

⁷⁸ Waltz, "Structural Realism after the Cold War," at 21. See also John J. Mearsheimer, "The False Promise of International Institutions," *International Security* 19, no. 3 (Winter 1994/95): 5-49.

⁷⁹ McCormick, *American Foreign Policy & Process*, 213.

The US was seen as fulfilling a moral mission, which sometimes justified unilateral actions, performed without the support of international organizations or allies. The following quote from a 2002 speech at the West Point Academy exemplifies where Bush's support for the moral principle '... some worry that it is somehow undiplomatic or impolite to speak the language of right and wrong, I disagree. Different circumstances require different methods, but not different moralities...we are in a conflict between good and evil, and America will call evil by its name.'⁸⁰ The president then goes on to compare the war on terror to the Cold War, saying that once more the American stance will require 'resolve and patience...[and also] firm moral purpose.'⁸¹ The need for similar reactions in the future was solidified in the 2002 National Security Strategy, which envisioned United States that is 'realistic about its ability to help those who are unwilling or unready to help themselves.'⁸² Furthermore, America was to 'implement its strategies by organizing coalitions - as broad as practicable of states able and willing to promote a balance of power that favours freedom.'⁸³ In 2007, Rice expanded further her idea of how US foreign policy should merge 'the concepts of values and interests.' What we need is a guiding belief that, 'marries our power and our principles together in a uniquely American way' an American realism, an approach to foreign policy that deals with the world as it is, but strives to make the world better than it is; not perfect, better.'⁸⁴

Rescher (2011) viewpoint - perfection is impossible, but it still needs to be pursued. Last but not least, the US State Secretary is strongly convinced of the need to blend pragmatism and idealism, as she asserts: 'We have need for pragmatism because without power and prudence, we can accomplish nothing...But we also have need of idealism because if our policies are not guided by our principles then we are left with little more than power.'⁸⁵ Again, focus on the importance pragmatists attribute to wisdom and careful consideration, to rationality and 'the intelligent pursuit of objectives'. The 2006 National Security Strategy however, is more direct in this regard, as one of its sections is entitled 'How We Will Advance Freedom: Principled in Goals and Pragmatic in Means.'⁸⁶ Stating that 'freedom cannot be imposed; it must be chosen', the document assures that the US will be acting consistently with its values but with varying tactics, depending on the particularities of the situation.'⁸⁷

China's Grand Strategy

The defensive characteristics of Chinese grand strategy could be traced to the imperial China era. For example, a historical approach assumes that the classic Chinese grand strategy prefers a 'low violence' style. Although, China conquered other nations through force (Johnson, 1998) the ancient Chinese grand strategy of developing and maintaining military power might be restrained from excessive use of force (Zhongbo,2011). The construction of an amicable international environment beneficial to China's progress has always been the main theme of Beijing's grand strategy discourse (Goldstein, 2005). The power to impose sanctions according to psychological role conception is essential to American strategists, whereas the power to symbolise togetherness according to sociological role conception is the key to understanding the Chinese grand strategic behaviour. Our stress on relational orientation in Chinese grand strategy does not contradict most other studies of Chinese grand strategy, which believes that a more assertive China will emerge. China's grand strategy can contain psychological sources (Chih-yu Shih and Huang,2015).

⁸⁰ "Selected Speeches of President George W. Bush 2001-2008," 129.

⁸¹ Ibid.

⁸² "National Security Strategy 2002", 9.

⁸³ Secretary Condoleezza Rice. "Remarks at the Women's Foreign Policy Group Annual Luncheon.

⁸⁴ Secretary Condoleezza Rice. "Remarks at the Women's Foreign Policy Group Annual Luncheon.

⁸⁵ Ibid. Secretary Condoleezza Rice. "Remarks at the Women's Foreign Policy Group Annual Luncheon

⁸⁶ "National Security Strategy 2002," 5.

⁸⁷ Ibid.

This observation was apparent during the Cultural Revolution, when China endorsed national liberation elsewhere 'to win adherents to the Chinese programme for radical change in the international system' that China had desired (Van Ness, 1970). A strong power that subscribes to relational bilateralism does not aim for the immediate subjugation of the other side. Rather, relational bilateralism encourages the strong power to show benevolence in the short run to achieve stability in the long run and, accordingly, transcend potentially dangerous alliances of the weak side with a third party. Implicit in relational bilateralism is the multilateralism proposition, which predicts that a sociological role conception would refrain from asserting any rule of IRs in a multilateral frame. Instead, such role conception would explain how and why a general rule should always be qualified in a specific condition. This characteristic explains the Chinese trait of boycotting or abstaining from support of a general rule of global governance-be it about carbon intensity, humanitarian intervention, development aid, or public health (Chih-yu and Huang,2015). China would have to test the other side whenever there are signs that relational reciprocity is under threat. To ascertain whether such a threat is being formed, China consistently looks at how national differences are respected when dealing with the United States or with international organisations. When facing a weaker power along the borders, China resorts to testing and warning. In reality, China's relational role-playing often fails fully to convey its message, thus defeating the purpose of sociological role-playing. Miscommunication of this sort could even lead to war, as was the case during the Sino-Indian border clashes in 1962 and the Sino-Soviet clashes in 1969 (Fang,2014 and Wich,1980).

Liberalism in the United States is at the core of these norms. However, the Chinese grand strategy does not promote a substantive norm but is preoccupied instead with achieving a positive image of China. Chineseness depends on social recognition; thus the Chinese grand strategy is ideologically apathetic to outsiders or others. This does not mean that Americanness pays no attention to relationship or social recognition (Thie, 2013; Slaughter,2009). Rather, US foreign policy concerns about relationship are assessed and manoeuvred to suit the purpose of certain general principles embedded either in liberalism or hegemonic stability. Thus, bilateral diplomacy is the proper focus for China in its attempt to become allies with a world divided by national interests, due to the exemption of bilateralism from linear historiography or duties of global governance. China's official white papers on peace and development do not adopt the term 'all countries' when referring to the world at large. Instead, they always refer to 'each country' when explaining them in China's foreign policy,⁸⁷ because each country is different in various ways. This emphasis pertains specifically to China's undeclared preference for bilateralism and the notion of strategic opportunities in China is similar to the American grand strategy thinking, China's purpose is to demonstrate a self-restraining role in exchange for other countries' acceptance of its progress. No country is required to adapt to China's rise. The Chinese national role is specifically 'a responsible major power' (Foot, 2011). However, from a sociological role conception, China's universal inspiration is in a more abstract nostalgia for the status of Middle Kingdom than in a concrete world order (Marsh and Dreyer,2004; Kissinger,2011). For example, the approach of Chinese strategists in handling border disputes with India, Russia, Kyrgyzstan, Vietnam, Myanmar, and North Korea without subscribing to any particular standard is notable. Even the seemingly universal conformist roles expected of Taiwan, Hong Kong, and/or Tibet present dissimilar unification models. Chih-yu and Huang (2015) asserted that 'the power to impose sanctions according to psychological role conception is essential to American strategists, whereas the power to symbolise togetherness according to sociological role conception is the key to understanding the Chinese grand strategic behaviour for the sake of relational security in the specific contexts, the relational style of Chinese grand strategy is independent of the rise of its power'.

Given that a grand strategy relies on self - and other-role conceptions that incur altercasting, a major power's grand strategy could appear arbitrary regardless of whether the source of role conceptions is psychological or sociological. The end of the Cold War brought another round of power reassessment and prompted Washington to redesign its grand strategy. In light of the collapse of the Soviet bloc, Washington redefined its role to that of globaliser. When designing the grand strategy, America has a precise definition of exactly who its enemies or rivals are. This identity-based role conception ensures that the American grand strategy always focusses on picking an enemy from outside the ring of democratic states and of the market system (Chih-yu and Huang, 2015). The construction of an amicable international environment beneficial to China's progress has always been the main theme of Beijing's grand strategy discourse (Goldstein, 2005) and defence-oriented, but not always peaceful which believes that a more assertive China will emerge, world power.⁸⁸ This responsive characteristic is supported by the emergent refocussing of Chinese foreign policy on the protection of core national interests (Nathan *et al.*, 2012). However, aforementioned critics have argued that these adjustments are insufficient (Ma, 2013). A defensive grand strategy focussed on core national interests is a step ahead of the relationship-based role, which implies that relationship becomes merely a functional concern. The popularity of the discussion on core national interests in the current century enhances the instrumentality of the harmonious world ideal. The appeal to core national interests could reflect a new style of role conception, namely, one that is identity-based. China is intrinsically a distinctive national entity in this interest, with a quality that is not shareable with others. By contrast, relationship-based identity, as Qin (2009) has argued, involves an ontological statement.

FINDINGS AND ANALYSIS

Dewey (1927) book argued that governing is at its worst when reserved to the very few, the experts. Technocratic rule divorces politics from the day-to-day experience of ordinary citizens who know best 'where it [the policy problem] pinches'.⁹⁰ The same complaint arises in the domain of international relations. Inquiry about global affairs is at its worst when sequestered to the activities of a few academicians whose rarefied knowledge bears little or no relation to the practical demands of everyday policy making. The relationship between the community of international relations scholars and the foreign policy establishment has been strained by a similar concern for policy relevance '[o]nly when International Relations brings science to the discussion does it have anything of enduring value to offer', beyond well-informed opinion (Frieden and Lake, 2008). With less emphasis on science and more on opinion, practical policy analysis -for instance, how to control nuclear proliferation, stop terrorism or design better strategies for international peacekeeping - has become remote from the subject matter of much international relations scholarship (Jentleson, 2002). The questions international relations scholars typically ask are too technical and intramural to impact foreign policy decision-making, and the attention of foreign policy professionals all too often recedes at the mention of grand theories and scholarly treatises. One suggestion is that international relations scholars rely on more modest and situationally - specific mid-range theories, as opposed to grand '-ism' theories such as constructivism, realism and liberalism (Nincic and Lepgold, 2001).

⁸⁸ 'Zhongguo de heping fazhan baipishu' ('White Paper of China's Peaceful Development'), September 6, 2011, http://news.xinhuanet.com/politics/2011-09/06/c_121982103.htm.

⁸⁹ Goldstein, view is held in Martin Jacques, *When China Rules the World: The End of the Western World and the Birth of a New Global Order* (New York: Penguin, 2012); Swaine and Tellis, *Interpreting Chinese Grand Strategy*.

⁹⁰ John Dewey, *The Collected Works of John Dewey, 1882-1953*, edited by J. A. Boydston (Carbondale Illinois Press, 1969-1991), published as *The Early Works: 1881-1898* (EW).

Another idea is that international relations scholars and foreign policy professionals engage in dialogue about policy-relevant research, given that they already have the institutional and networking infrastructure to effectively communicate their common purposes (Hill and Beshoff, 1994; Nincic and Leggold, 2001). For realists, geopolitical power has the most causal weight; for liberals, economic interests; and for constructivists, perceptions and concepts. However, as one 'professor-in-government' notes, 'there are too many variables that come into play, or too many distinct issue areas in too many different scenarios involving too many diverse decision makers, for any single IR [International Relations] or foreign policy theory to hold for everything, everyone and every time' (Nincic and Leggold, 2001). So, pragmatism might hold the key to modelling a more flexible and pluralist approach to theorizing international relations - seamlessly integrating *theoria* and *praxis* (public value theory, paper 2). This community of inquiry would have two important benefits. One, it would silence scholarly objections that global distributive justice is infeasible. Two, it would bring Dewey's and Charles Sanders Peirce's visions of cooperative inquiry into the service of international relations scholars and foreign policy professionals concerned with problems of global injustice.⁹⁰ A uniquely pragmatist international relations theory might offer the discipline's scholars, foreign policy professionals, and even philosophical pragmatists the hope of resolving the problem of policy relevance; bridging that yawning divide between the worlds of theory and policy, ideas and practice (Nincic and Leggold, 2000). Moves by international relations pragmatists to either equivocate between generic and philosophical forms of pragmatism or reduce pragmatism to one of its single commitments should not raise serious concerns for pragmatist philosophers. Pragmatic has multiple synonyms: practical, expedient, useful, and even entrepreneurial.

Etymologically, the Greek Root *Pragma* refers to 'things, facts, deeds, affairs' and 'action, from which our words 'practice' and 'practical' come' (Thayer, 1968) consistent with the writings of their originators in the case of Dewey (1996) that means familiarity with thirty-seven volumes of his collected works. For classic pragmatists Dewey, this interaction involves human adjustment, adaptation and growth. Through the use of various instrumentalities (tools, techniques, methods, approaches), humans manipulate conditions in their environment-whether by inquiring into problems, appreciating art or engaging in political action- and, in turn, their attitudes and habits are transformed by the interaction. Three dominant theories in the field of IR - realism, liberalism and constructivism has to be modified to capture the concept of 'space' an emerging pragmatist approach improving our understanding of affairs between and among nations because digital and geoscience has remove the barrier in international relations and the 'art of inquire' (paper 2). The practice of international diplomacy has to adapt like Banks (2006 [1984]) notes how IR theory involves competition between a 'plurality of ideas' (paper 2). Likewise, Jervis (2006 [1998]) states: 'No one approach consistently maintains a leading position: each of them catches important elements of international politics, and many of our arguments are about the relative importance of and the interrelationships among various factors.' In the United States especially, the sober and prudent rules of international conduct as laid down by the general theory of classical realism came to be twisted and misused. Walt (1998), the 'compliant diplomat' of the future should remain cognizant of realism's emphasis on the inescapable role of power, keep liberalism's awareness of domestic forces in mind, and occasionally reflect on constructivism's vision of change. Isacoff (2009) looks to pragmatism as a resource for guiding developments in IR historical research and opens with the observation that 'most IR research is more interested in models and explanations of why things happened, rather than the equally significant issue of how we know about past events'. The question now is, 'how do we measure the impacts of grand strategies executed by United States or China on global economy'?

Measuring Impacts of Grand Strategy

Global VAR (GVAR) Methodology

The GVAR model by Pesaran *et al.* (2004), has numerous applications of the GVAR approach developed over the last decade. The GVAR handbook edited by di Mauro and Pesaran (2013) provides an interesting collection of a number of GVAR empirical applications from 27 scholars/contributors. The GVAR handbook is a useful non-technical resource aimed at general audience and/or practitioners interested in the GVAR approach. Regional applications investigate the increasing importance of the Chinese economy, United States economy, forecasting of the Swiss economy, imbalances in the Euro Area, regional and financial spill-overs across Europe, and modelling inter-linkages in the West African Economic and Monetary Union. Garratt *et al.* (2006) for a comprehensive review of long-run identification methods in macro-econometric literature. The first contribution on the identification of long-run relations in the GVAR literature (Does *et al.*, 2007) who used bootstrapping to compute critical values for the likelihood ratio tests of over identifying restrictions on the long-run relations of the country-specific models.

Pesaran *et al.*, (2009a) is the first GVAR forecasting application to the global economy. Forecasting regional labour markets with GVARs is undertaken in Schanne (2011) using German regional labour market data. Conditional forecasting is considered in Bussière *et al.*, (2012), who apply a GVAR model to analyse global trade imbalances. Forecasting of trade imbalances is also considered in Greenwood-Nimmo *et al.*, 2012b. Similarly, Bussière *et al.*, (2012) concluded that GVAR models may be a useful forecasting tool for policy institutions. Now casting of global growth with GVARs is considered by Chudik *et al.*, 2014, who focus on the information content of timely purchasing manager indices (PMIs) for the now casting of growth. Forecasting with a regime-switching GVAR model is considered in Binder and Gross (2013) who find that combining the regime-switching and the GVAR methodology improves out-of-sample forecast accuracy significantly in an application to real growth domestic product (GDP), price inflation, and stock prices.

1. Global finance applications

Alessandri *et al.*, (2009) develop a quantitative framework for gauging systemic risk which explicitly characterizes banks' balance sheets and allows for macro credit risk, interest income risk, market risk, network interactions, and asset-side feedback effects. Doern and van Roye (2013) use a GVAR to study the international transmission of financial stress and its effects on economic activity and find that financial stress is quickly transmitted internationally. Kok and Marco (2013) use a mixed-cross-section (23 countries and 41 international banks) GVAR specification to investigate contagion among sovereigns and banks. Dreger and Wolters (2011) investigate the implications of an increase in liquidity in the years preceding the global financial crises on the formation of price bubbles in asset markets. The use of a GVAR model for modelling credit risk has also been explored in Pesaran *et al.*, (2007) who investigated the potential for portfolio diversification across industry sectors and across different countries and find that full firm-level parameter heterogeneity along with credit rating information matters a great deal for capturing differences in simulated credit loss distributions. Further results on the modelling of credit risk with a global perspective are provided by Pesaran *et al.*, 2006. A number of other empirical GVAR papers focus on modelling various types of risk. Gray *et al.*, (2013) analyze interactions between banking sector risk, sovereign risk, corporate sector risk, real economic activity, and credit growth for 15 European countries and the United States.

2. Forecasting global economy

There are two important issues in forecasting the global economy: the presence of structural breaks and model uncertainty. Structural breaks are quite likely, considering the diverse set of economies

and the time period spanning three or more decades, which covers a lot of historical events (financial crises, wars, regime changes, natural disasters, etc.). Galesi and Lombardi (2009) study the effects of oil and food price shocks on inflation and construct a GVAR model to examine oil price shocks and other key factors affecting global inflation. Using the GVAR model, Déés *et al.*, 2009 provide estimates of New Keynesian Phillips Curves (NKPC) for eight developed industrial countries and discuss the weak instrument problem and the characterization of the steady states. The effects of demand shocks and shocks to relative prices on global imbalances are examined in Bussière *et al.*, (2012)'s GVAR model of global trade flows.

Impacts of Pragmatism on Grand Strategy

1. Climate Pragmatism

Global energy use is expected to rise nearly 50 percent by 2035 and as much as double or triple by mid-century.⁹¹ For the United States and other nations to effectively pursue energy innovation, resilience to extreme weather, and pollution reduction, policymakers must make a clean break from the pitched and polarizing climate wars of the last twenty years and embrace a more pluralistic and pragmatic approach.⁹² UN Secretary General Ban Ki-Moon announced that the focus of his efforts would shift away from climate and toward accelerating the development and deployment of clean energy, especially in the developing world.⁹³ China presses ahead with the deployment of new, low-carbon energy technologies to enhance security of supply, improve public health conditions, and build a profitable new domestic manufacturing sector.⁹⁴

Observing these trends, the International Energy Agency declared in 2010 that the long-term global energy outlook is 'patently unsustainable' and raises a clear long-term imperative: the development of cleaner, more affordable, and massively scalable new energy technologies.⁹⁵ At the same time, with virtually all of global energy demand growth occurring in emerging economies,⁹⁶ the country that can invent, manufacture, and export clean and cost-competitive energy technologies can harness a multi-trillion dollar export opportunity.⁹⁷ The history of American innovation shows that smart public investments can effectively catalyse the invention of remarkable new technologies to advance public welfare, from railroads and rural electrification to semiconductors, smart phones, and the Internet. Without such innovation and improvement, the rapid pace and massive scale of low-carbon energy deployment required to meet global energy demand while averting potentially catastrophic climate risks will prove all but impossible to achieve. This central innovation challenge must be tackled directly and proactively. Worldwide, air pollution causes an estimated three million deaths per year, according to the World Health Organization.⁹⁸

⁹¹ 007 and 2035 global energy use figures from International Energy Outlook 2010, US Energy Information Administration, July 27, 2010, <http://www.eia.gov/oiaf/ieo/>. 2050 global energy use figures from IPCC Special Report: Emissions Scenarios, Summary for Policymakers.

⁹² Roger Pielke Jr., *The Climate Fix* (New York: Basic Books, 2010).

⁹³ Suzanne Goldenberg, "Ban Ki-moon ends hands-on involvement in climate change talks," *Guardian*, January 27, 2011, <http://www.guardian.co.uk/environment/2011/jan/27/ban-ki-moon-un-climate-change-talks>.⁹⁴ "An Overview of China's Renewable Energy Market," *China Briefing*, June 16, 2011, accessed June 23, 2011, <http://www.china-briefing.com/news/2011/06/16/an-overview-of-chinas-renewable-energy-market.html>.

⁹⁴ "An Overview of China's Renewable Energy Market," *China Briefing*, June 16, 2011, accessed June 23, 2011, <http://www.china-briefing.com/news/2011/06/16/an-overview-of-chinas-renewable-energy-market.html>.

⁹⁵ *World Energy Outlook 2010*, International Energy Agency, January 2010, <http://www.worldenergyoutlook.org/2010.asp>.

⁹⁶ *World Energy Outlook 2010*, op cit. note 10.

⁹⁷ Rob Atkinson et al., *Rising Tigers, Sleeping Giant*, Breakthrough Institute and Information Technology and Innovation Foundation, November 2009, http://thebreakthrough.org/blog/Rising_Tigers.pdf; and "Who's Winning the Clean Energy Race," *The Pew Charitable Trusts*, March 2010, http://www.pewtrusts.org/our_work_report_detail.aspx?id=57969.

⁹⁸ "Exposure to Air Pollution: A Major Public Concern," *World Health Organization*, 2010, http://www.who.int/ipcs/features/air_pollution.pdf.

Whatever one's view of climate change, most Americans and most nations can agree that reducing pollution at modest or no cost to the economy is the definition of 'no regrets' action. If many of these efforts also offer near-term climate mitigation benefits, so much the better. More than three billion people will be living in places with 'near un-liveable' temperatures by 2070, unless greenhouse gas emissions fall, large numbers of people will experience average temperatures hotter than 29°C.⁹⁹

2. Resilience, Governance and Pragmatism

Resilience is defined as 'the ability of an individual, a household, a community, a country or a region to withstand, cope, adapt, and quickly recover from stresses and shocks such as violence, conflict, drought and other natural disasters without compromising long-term development' (European Commission, 2016). Concept of resilience emerged from systems ecology and biology into social sciences lexicon transposed to different meaning (Brasnet *et al.*, 2013). Holling (1973) refers to resilience as 'a measure of the ability of these systems to absorb changes of state variables, driving variables and parameters, and still persist', which suggests a much more dynamic understanding of resilience, applied to psychology (Seligman, 2011), political economy (Cooper and Walker, 2011) disaster and crisis response (Boin *et al.*, 2010), development and humanitarian aid (Duffield, 2012) and peace-building (Chandler, 2012a; 2012b). Brasnet *et al.* (2013) argue that 'like it or not, resilience is fast becoming the organising principle in contemporary political life'. This understanding of resilience was endorsed by the Council in its Council Conclusions on an EU Approach to Resilience (Council of the EU, 2013), followed up by the Action Plan for Resilience in Crisis Prone Countries for 2013-2020 (European Commission, 2013). These documents have further recognised the need to prioritise a number of elements in the EU's policy cycle: risk assessment, risk reduction, prevention, mitigation and preparedness, and swift response to and recovery from crises - scenarios. The EU Resilience Compendium (European Commission, 2014) illustrates with concrete examples how the resilience approach is being translated into reality. The most notable examples of EU resilience initiatives include AGIR (The Global Alliance for Resilience Initiative) in the Sahel and SHARE (Supporting the Horn of Africa's Resilience). The vagueness and malleability of the term mean that it has been embraced by a wide range of actors and in a multitude of contexts (Wagner and Anholt, 2016), elaborated in the public value policy formation in paper 2. In the area of foreign policy, resilience has thus been preferred over more 'tainted' and politically riskier concepts such as democratisation (Juncos, 2016).

The revised European Neighbourhood Policy (ENP) strategy adopted at the end of 2015 focus on resilience-building as a foreign policy goal '[t]he measures set out in this Joint Communication seek to offer ways to strengthen the resilience of the EU's partners in the face of external pressures and their ability to make their own sovereign choices' and 'the new ENP will take stabilisation as its main political priority' (Commission and HR/VP, 2015b). In politics and international relations, resilience has increasingly been conceived as a new form of governance, in particular, as an 'anticipatory form of governance' (Cooper and Walker, 2011) and governance 'from a distance' (Joseph, 2014). Resilience (consequence) requires us to be prepared for unknown risks; adaptation, learning by doing and flexibility as a way to respond to shocks, to embrace change and to live with rather than completely eliminate uncertainty (Duffield, 2012; Reid, 2012; Evans and Reid, 2014) and this 'spatial critical thinking' in nature, that will require techniques, infrastructure like 'internet of things' and geoscience for collective intelligence. Resilience represents a shift from a logic focused on known threats and prevention (predominant during the Cold and post-Cold War period) to a new governmental logic (or rationality), which emphasises complexity and uncertainty; and thus, the impossibility of predicting threats, what I termed 'polysingularity'.

⁹⁹ Climate change: More than 3bn could live in extreme heat by 2070 <https://www.bbc.com/news/science-environment-52543589>.

In policy practice, the setbacks that Western powers have suffered since the early 2000s have led to a resurgence of pragmatic policy-making (Goetschel,2011) and form the rationale for adaptive thinking rationality termed spatial polysingularity (paper 2). The construct component of resilience, acknowledges uncertainty and complexity as a contemporary condition in societies, but emphasises internal capacities and capabilities as the way to deal with foreign policy as ‘wicked problems’ (Table 1), rather than external intervention (details in paper 2). Chandler (2015b) affirmed that resilience can be defined as ‘the internal capacity of societies to cope with crises, with the emphasis on the development of self-organisation and internal capacities and capabilities rather than the external provision of aid, resources or policy solutions’. Joseph (2016), resilience, ‘turns from the grand projects of social engineering and universal rights to take a much more pragmatist view of social life’. Spatial polysingularity encapsulate United Nations Development Programme (UNDP) mandate to change from a focus on large-scale institution-building to a more pragmatic approach, ‘making whatever structures do exist resilient through propping up the individual capacities of the people running them’, that is, working with what is already there through a ‘coaching and mentoring approach’ reported by Haldrup and Rosén, 2013.

Pragmatist philosophy (sociology) particularly relevant in times of crisis: rather than being seen as fatalistic, crises can lead to innovation through learning and, as a consequence, resilience can help unblock deadlocks and help us reach our full potential and affirmed by Schmidt, 2015 and Joseph, 2016: ‘[t]he paradox of contemporary understandings of the world is that the more uncertain we are of the bigger (global) picture, the more we must rely on the small detail of the little picture’-since we cannot grasp complexity at the macro-level, we should turn our attention to the micro-level in order to better adapt to changes, these necessitate framework thinking called spatial polysingularity applying the theoretical framework of Tobler’s (1970) Second Law (TFL) asserts that , ‘phenomenon external to an area of interest affects what goes on inside’ (paper 2) . Scholars (Chandler,2015a; Duffield, 2012; Chandler,2012a) have argued that Western powers and international organisations build ‘the resilience of the underdeveloped as a way to increase the security of the developed world’ because ‘there are no war or peace time anymore in post-modern world’ and the scenario I termed - ‘warfare ecosystem’ (Otaiku, 2018d page 5). It can also be seen as part of a neo-liberal agenda of rolling back the state (by increasing self-sufficiency) and removing barriers to free markets. Resilience then allows the West to maintain a policy of intervention, but this time avoiding charges of neo-colonialism by shifting responsibility to the governance targets, giving them ‘responsibility without power’ (Joseph,2013) and could be seen as a continuation of neo-liberal forms of government, that encapsulate ‘national interest’. EUGS denote a pragmatic turn in European foreign policy? If so, what are the implications of this turn? The optimism contained in the opening statement of the European Security Strategy adopted in 2003 - ‘Europe has never been so prosperous, so secure nor so free’ (European Council, 2003) could not be in more contrast to that of the new EU global strategy.

The new security strategy states: ‘We live in times of existential crisis, within and beyond the European Union, a scenario I called ‘anticipated warfare’ (Otaiku, 2018d) where no peace or war time, an exemplar is pandemic ‘COVID -19’. European project, which has brought unprecedented peace, prosperity and democracy, is being questioned today by Britain” (EUGS, 2016). The EEAS strategic assessment of 2015 speaks of a ‘more connected, contested and complex world’ (EEAS, 2015) require spatial thinking (see paper 2, wicked problems construct). The broader crisis affecting the international liberal order require ‘spatial thinking’ for consensus (Otaiku,2018b). Tobler’s (1970) First Law (TFL) ‘Everything is related to everything else, but near things are more related than distant things’. EU faces an internal crisis, which is testing the European project, a crisis which stems from the Eurozone economic crisis and the rise of populism and Euroscepticism, now worsened by the crisis resulting from the vote of the United Kingdom to leave the EU. External crises include a deteriorating geopolitical environment in the Southern and Eastern neighbourhoods, the rise of

Islamic terrorism and the threat represented by ISIS, hybrid threats (Otaiku,2018d) and the refugee crisis which has questioned the 'liberal peace' and Western interventionism (Mac *et al.*, 2013; Mazait,2014), and in so doing the EU's own global liberal project. Framework construct promote a 'bottom-up approach' or at least to 'blend top-down and bottom-up efforts' and '[p]ositive change can only be home-grown, and may take years to materialise' (EUGS, 2016; Chandler,2012b).

Grevi (2016) affirmed that, 'the strategy calls for a pragmatic and flexible posture and issues at stake should determine the adequate format to deliver solutions'. Grevi goes on to argue that, this approach seems closer to the "more instrumental, result-oriented attitude" of the COVID-19 Pandemic. EU foreign policy construct on resilience acknowledged that '[t]here is no magic way to solve crises' and that 'there are no neat recipes to impose solutions elsewhere' (EUGS, 2016), the solution it is argued is 'responsible engagement' rather than passivity and requires joint assessments and shared strategies for the implementation of these policies (Council of the EU, 2013; European Commission, 2016). Pawlak (2015) affirmed that, today IR complexity requires abandoning the 'silo mentality' which confirmed 'warfare ecosystem construct, Table 2). Snyder and Vinjamuri (2012) refer to principled pragmatism as 'an approach that evaluates the costs and benefits of different strategies on the basis of their ability to deliver or secure a set of designated principles' which narrates China global power balancing technique. Principled pragmatism takes into consideration the 'reality' of power and interests by recognising that norms can only be advanced when they are 'anchored in a supportive configuration of power and interest' (Snyder and Vinjamuri, 2012) like China BRI project in East Asia. Resilience provided 'a middle ground between over-ambitious liberal peace-building and under-ambitious stability' (Wagner and Anholt, 2016) and 'security' or 'defence' (Corry,2014). Resilience not state-centric even if some of its instruments still focus on capacity-building at the state level and it does not seek to address 'external threats'. Its reference point is the building of internal capabilities and capacities in order to better cope with (mainly) non-military and complex risks (Corry,2014) like '[t]he EU Global Strategy starts at home' (EUGS, 2016) and China grand strategy.

3. Pragmatic Visualization and Decision Making

Tobler (1970) First Law (TFL) has grown rapidly in the past decade, largely in tandem with growth in GIScience and has become more popular and widely adopted, more and more attention has been paid to its fundamentals, and there has been a resurgence of interest in such topics as global position system (GPS) and its generalization in visualization, quantitative geography, and spatial statistics. TFL forms the conceptual foundation for the entire field of geostatistics (Burrough and MacDonnell, 1998; Cressie,1991; Goovaerts,1997), and its cousins in other disciplines. Recent contributions to the tools of spatial analysis, such as Geographically Weighted Regression (Fotheringham *et al.*, 2002), now provide the techniques to implement this interesting methodological position. These arguments provide the context to a discussion of the validity and value of TFL in GIScience and real time decision making like Google maps. It can be read as a statement either about form (interpreting related in the sense of similar), or about process (interpreting related mechanistically). There is the fractal principle: that, geographic phenomena reveal more detail the more closely one looks; and that this process reveals additional detail at an orderly and predictable rate (Mandelbrot, 1982).

There is the principle that two distinct conceptualizations of geographic information are possible, as collections of countable, discrete objects littering an otherwise empty space, and as a finite set of continuous fields, or functions of location (Goodchild,1992b; Worboys,1995).There is the fractal principle: that geographic phenomena reveal more detail the more closely one looks; and that this process reveals additional detail at an orderly and predictable rate (Mandelbrot,1982) by application of Tobler's law combined with internet of Things (IoTs) illuminate's complexity and uncertainty in pursuit of objectives or rationality affirmed by classical pragmatist theorists Weber (1909); Hotelling (1929); Kantorovich (1939); Koopmans and Reiter (1951); Regional Science: Beckmann (1952);

Isard (1956); Stevens (1961); Geography: von Thunen (1826); Christaller (1933); Agriculture: O'Heady and Candler (1958); Operations Research: Dantzig *et al.*, (1954); Baumol and Wolf (1958); Ford and Fulkerson, (1962) called 'Pragmatic Visualization' can be applied to wicked problems or design thinking (Table 1). Globalization of knowledge not only entails technical knowledge, but ideas which transform societies ideas like democracy and markets and knowledge which forms the basis not only of the adoption of policies which serve to enhance growth but also of institutions which apply pragmatic visualization. Pragmatic visualization can be applied in military doctrine. Its objective is to foster initiative and creative thinking. Doctrine provides the military with an authoritative body of statements on how military forces conduct operations and provides a common lexicon for use by military planners and leaders (Otaiku,2018a) and defining doctrine:

NATO's definition of doctrine, used unaltered by many member nations, is: "*Fundamental principles by which the military forces guide their actions in support of objectives. It is authoritative but requires judgement in application*".¹⁰⁰

The Canadian Army states: '*Military doctrine is a formal expression of military knowledge and thought, that the army accepts as being relevant at a given time, which covers the nature of conflict, the preparation of the army for conflict, and the method of engaging in conflict to achieve success ... it is descriptive rather than prescriptive, requiring judgement in application. It does not establish dogma or provide a checklist of procedures, but is rather an authoritative guide, describing how the army thinks about fighting, not how to fight. As such it attempts to be definitive enough to guide military activity, yet versatile enough to accommodate a wide variety of situations.*'¹⁰¹

The United States of America: '*A U.S. Air Force Air University staff study in 1948 defined military doctrine functionally as those concepts, principles, policies, tactics, techniques, practices, and procedures which are essential to efficiency in organizing, training, equipping, and employing its tactical and service units.*'¹⁰²

Impacts of Warfare Ecosystem

Recent reflections on altercasting in foreign policy analysis can use the division between the identity-based and the relationship-based roles¹⁰³ applied to United States and China warfare ecosystem altercasting for security, economic power and International Order. The grand strategy of the United States tends to measure friends and foes largely through the same scales as those borne out of its own practices, which include anti-proliferation, competitive elections, and market openness, an integral function of altercasting via intervention, so converting different 'others' into the specific type of regime that is friendly and beneficial to Americanness affirms the 'warfare ecosystem discourse' (Table 2). US foreign policy concerns about relationship are assessed and manoeuvred to suit the purpose of certain general principles embedded either in liberalism or hegemonic stability. Chineseness depends on social recognition for grand strategy ideologically apathetic to outsiders or others. This does not mean that Americanness pays no attention to relationship or social recognition.¹⁰⁴

¹⁰⁰ AAP-6(V) NATO Glossary of Terms and Definitions.

¹⁰¹ Canada Department of National Defence. The Conduct of Land Operations B-GL-300-001/FP-000, 1998: iv-v.

¹⁰² Futrell, Robert Frank. Ideas, Concepts, Doctrine: Basic Thinking in the United States Air Force, 1907-1960. December 1989, Air University Press.

¹⁰³ Weinstein and Deutschberger, 'Some Dimensions of Altercasting', pp. 454-66; Erving Goffman, For application in foreign policy analysis, see Sebastian Harnisch, 'Conceptualizing in the Minefield: Role Theory and Foreign Policy Learning', *Foreign Policy Analysis*, Vol. 8, No. 1 (2012), pp 47-71.

¹⁰⁴ Cameron Thie, *The United States, Israel, and the Search for International Order: Socializing States* (New York: Routledge, 2013); Anne-Marie Slaughter, 'America's Edge: Power in the Networked Century', *Foreign Affairs*, Vol. 88, No. 1 (2009), pp. 94-113; David A. Lake, 'Relational Authority and Legitimacy in International Relations', *American Behavioural Scientist*, Vol. 53, No. 3 (2009), pp. 331-53.

The US foreign policy concerns about relationship are assessed and manoeuvred to suit the purpose of certain general principles embedded either in liberalism or hegemonic stability. Chineseness depends on social recognition for grand strategy ideologically apathetic to outsiders or others. This does not mean that Americanness pays no attention to relationship or social recognition.¹⁰⁴ The relational orientation in Chinese grand strategy does not contradict most other studies of Chinese grand strategy which believes that a more assertive China will emerge.¹⁰⁵ Warfare ecosystem tools (isolationism, containment, and engagement) all rest upon the cause of liberalism for justification, depending on whether the United States has the power to spread liberalism to the rest of the world.¹⁰⁶ Washington adopted a style of grand strategy where liberalism has been an internally determined value and, therefore, fits well with the identity-based role source. Since the end of the Cold War US' warfare ecosystem features has been the foundation of security in the long run (roles and responsibilities of participants of warfare ecosystem, paper 2). Only the rise of China in the 21st century has brought back retrenchment as a viable option¹⁰⁷ affirmed by Apeldoorn and Graaff's application of W. A. Williams' simplified argument for illustration.¹⁰⁸ Williams contended that American grand strategy followed a specific worldview called 'the imperialism of the open door'. America's efforts to extend the American system and capital into the domains of other nations were consistently aggressive.

The phrase 'open door' was derived from the policy that the United States applied to China in 1899¹⁰⁹ and that remained coercive and incursive throughout the 20th century. These combined dimensions allowed the United States to reduce the rest of the world into contrasting national roles according to their convertibility and their capacity relative to the United States (Cottam, 1986) - the value stream of US grand strategy as an intelligent pursuit of objectives or rationality of their foreign policy. The NSC-68 documented the beginning of the Cold War and aggressively aimed at checking and preventing the perceived Soviet Union's plan for world domination was reported by (Trachtenberg, 1999). The United States thus assumed the role of world police. Washington regarded the Kremlin as the external evil/enemy (i.e. communism vs. anti-communism) reported by Caldwell (2009).

¹⁰³ Weinstein and Deutschberger, 'Some Dimensions of Altercasting', pp. 454–66; Erving Goffman, *The Presentations of Self in Everyday Life* (Garden City: Double Day, 1959). For application in foreign policy analysis, see Sebastian Harnisch, 'Conceptualizing in the Minefield: Role Theory and Foreign Policy Learning', *Foreign Policy Analysis*, Vol. 8, No. 1 (2012), pp. 47–71.

¹⁰⁴ Cameron Thie, *The United States, Israel, and the Search for International Order: Socializing States* (New York: Routledge, 2013); Anne-Marie Slaughter, 'America's Edge: Power in the Networked Century', *Foreign Affairs*, Vol. 88, No. 1 (2009), pp. 94–113; David A. Lake, 'Relational Authority and Legitimacy in International Relations', *American Behavioural Scientist*, Vol. 53, No. 3 (2009), pp. 331–53.

¹⁰⁵ Goldstein, the same view is held in Martin Jacques, *When China Rules the World: The End of the Western World and the Birth of a New Global Order* (New York: Penguin, 2012); Swaine and Tellis, *Interpreting Chinese Grand Strategy*

¹⁰⁶ Stephen G. Brooks, G. John Ikenberry, and William C. Wohlforth, 'Don't Come Home, America: The Case against Retrenchment', *International Security*, Vol. 37, No. 3 (2012/13), pp. 7–51; Joseph Nye, 'East Asian Security: The Case for Deep Engagement', *Foreign Affairs*, Vol. 74, No. 4 (1995), pp. 90–102.

¹⁰⁷ Paul K. MacDonald and Joseph M. Parent, 'Graceful Decline? The Surprising Success of Great Power Retrenchment', *International Security*, Vol. 35, No. 4 (2011), pp. 7–44; Barry R. Posen, 'The Case for Restraint', *American Interest*, Vol. 3, No. 1 (2007), pp. 7–17; Harvey M. Sapolsky, 'Come Home, America: The Strategy of Restraint in the Face of Temptation', *International Security*, Vol. 21, No. 4 (1997), pp. 5–48.

¹⁰⁸ For a more sophisticated trajectories, see Thies, *The United States, Israel, and the Search for International Order*; David Campbell, *Writing Security: United States Foreign Policy and the Politics of Identity* (Minneapolis: University of Minnesota Press, 1992).

¹⁰⁹ Apeldoorn van Bastiaan and Nana' de Graaff, 'Corporate Elite Networks and US Post-Cold War Grand Strategies from Clinton to Obama', *European Journal of International Relations*, Vol. 18, No. 2 (2012), p. 7. America aimed to civilise such nations.

Washington's competition with the Kremlin was described as a 'clash of two world systems, each out to build a world order of its own.'¹¹⁰ The self-centric nature of this American 'globaliser role' resulted in its habitual use of sanctions, the dichotomisation of the world into liberal states and others, and a lack of patience, this is the execution of United States warfare ecosystem pragmatism. This event impelled President George W. Bush to reinforce 'altercasting and highlight the American identity by contrasting the role of the United States with that of the 'evil Fundamentalist terrorists'. The war on terror was the main theme of the 'grand strategy' of the Bush administration, and coercion over consent was the major means to attain the goal of such a grand strategy.¹¹¹ Rebalancing Policy towards Asia emerged to form the pillar of the new round of grand strategy (EU grand strategy with resilience pragmatism), along with an attempt to form a circle of universal values.¹¹² Strengthening the self-role of the United States in the construction of a liberal order in East Asia¹¹³ and in Middle East where hybrid warfare victory is not certain for any world power because any military doctrine requires 'hybrid warfare framework' (Otaiku,2018d) as a construct sustainable solution. Based on the literature on Chinese social relationships and roles,¹¹⁴ I posited that, 'the conceptualisation of the Chinese grand strategy will emerge from a relationship-based role conception based on their IR history.

Rationality is an ontological component of IRs and, therefore, a systemic necessity, according to advocates of the Chinese school of IRs¹¹⁵ that asserts that 'No comprehensive values complement Chinese rhetoric on a harmonious world'. Several Chinese scholars have called for a more assertive grand strategy because China's relatively weak and inefficient reaction to crises in both the South China Sea and over the Senkaku / Diaoyu Islands was due having no grand strategy.¹¹⁶ The warfare ecosystem construct is a metaphor grand strategy mechanism of power by super power in international relations. The premise is that currently China's national interests defending the sovereign rights over disputable seas by exploiting the marine resources that can significantly support China's further economic development.¹¹⁷ This was affirmed by China President Xi Jinping 'The idea of China being at the centre of the world is apparent in his statement that, 'Not only should we understand China's history and culture, but also open our eyes to observe the world. We want to understand different nations' history and culture, remove unwanted elements in them, and take the top off their cream .¹¹⁸

¹¹⁰ Quoted by Trachtenberg, 'Making Grand Strategy', pp. 33–40.

¹¹¹ Bastiaan and Graaff, 'Corporate Elite Networks and US Post-Cold War Grand Strategies from Clinton to Obama', pp. 1–27.

¹¹² Alliance of democracy, for example, shall include India from the south, through Taiwan, to Japan at the northeast, and Mongolia perhaps.

¹¹³ Mark E. Manyin, Stephen Daggett, Ben Dolven, Susan V. Lawrence, Michael Martin, Ronald O'Rourke, and Bruce Vaughn, 'Pivot to the Pacific? The Obama Administration's "Rebalancing" toward Asia', Congressional Research Service, March 28, 2012, <http://www.fas.org/sgp/crs/natsec/R42448.pdf>.

¹¹⁴ Thomas Gold, Douglas Guthrie, and David Wank, *Social Connections in China: Institutions, Culture and the Changing Nature of Guanxi* (Cambridge: Cambridge University Press, 2002); Kwang Kuo Hwang, *Foundations of Chinese Psychology: Confucian Social Relations* (New York: Springer, 2011).

¹¹⁵ Yaqing Qin, 'Guanxi benwen yu guocheng jiangou: jiang Zhongguo linian zhiru guoji guanxi lilun', ('Relationality and Processual Construction: Bringing Chinese Ideas into International Relations Theory'), *Zhongguo shehui kexue* (Social Sciences in China), No. 3 (2009), pp. 69–86.

¹¹⁶ Yan Xuetong, in a lecture he gave at National Chengchi University (Taipei) in March 2013.

¹¹⁷ Ruichen Cao, 'Xifang da guo jueqi shijiao xia zhongguo hai quan yu haiyang da zhanlue tanxi' ('Analysis of China's Sea Power and the Oceanic Grand Strategy in the Western Perspectives of the Rise of Major Power'), *Dalian haishi daxue xuebao* (*Journal of Dalian Maritime Affairs*), No. 5 (2011), pp. 92–95; Limin Lin, 'Pojie bian hai kunju shi zhongguo da zhanlue qi dai jie jue de shiji mingti' ('Breaking up the Predicament at the Maritime Borderline is the Urgent Issue of the Century to Be Resolved'), *Xiandai guoji guanxi* (*Contemporary International Relations*), No. 8 (2012), pp. 41–42.

¹¹⁸ Xi Jinping, 'Let the Life Community Consciousness Rooted in the Neighbouring Countries'.

Diplomacy in the 21st Century

According to some authorities, America-the-superpower is currently in decline.¹¹⁹ Americans are often said, ‘to be a particularly pragmatic people, and many Americans pride themselves on a sensibility others are inclined to label shallowly opportunistic.’¹²⁰ We can re-position IR theory to inspired pragmatist for flexible policy-making approach from trans-disciplinary multiple theories of research for specific conditions of the international situation as a craft tools that resolve or ameliorate particular global problems as wicked problems (Table 1). Consequently, the international stage no longer resembles a Hobbesian war of all against all; instead, it represents an interdependent network of actors with bountiful opportunities, particularly for liberal states to peacefully coordinate actions, that build global institutions and develop cultural and social capital (Milner 2006,1991) asserting the construct warfare ecosystem.

The grand strategy of becoming an acknowledged and respected power corresponding to the United States makes the bilateral relationship with the United States a particularly significant concern. However, China’s progress in the 21st century has faced the unwanted image of the so-called ‘China threat’, which China’s claim on Taiwan ironically reinforces (Chih-yu and Chiung-chiu, 2015). The differences between the types of role conception, namely, identity- versus relationship- based, have led the United States and China to diverse logic in designing grand strategies has to change in 21st century diplomacy by introduction of resilience into policy strategy and development. Keynes (1994) during the Bretton Woods conference asserted that, ‘tariffs and currency depreciations are in many cases alternatives. Without currency agreements, you have no firm ground on which to discuss tariffs. It is very difficult while you have monetary chaos to have order of any kind in other directions’. However, existing multilateral arrangements fail to secure compatibility of monetary and financial systems with free multilateral trade.

The lack of singularity of purpose in the policies of the international institutions in ensuring that their policies meet the requirements for the successful expansion of the system of multilateral free trade and an equitable distribution of its benefits to both developed and developing countries was explicitly recognised in paragraph 4 of the Marrakech Declaration (WTO, 1994) Clearly, what is considered as an acceptable practice for G3, G7 and G20 (warfare ecosystem principal actors) cannot be denied to the United Nations General Assembly which comprises all ‘shareholders’ of the IMF and the World Bank recognized the need for securing greater coherence of the global economic system and for strengthening the “coordinating role” of the UN (UN,2009). Indeed, pragmatism envisions an alternative to absolutist and relativist views of truth, knowledge and reality; it is in one pragmatist’s account ‘a mediate view and like all compromise programs must fight on many fronts at once’ (Hook,1927) searching for global balance-of-power strategies. This interaction involves human adjustment, adaptation and growth. Through the use of various instrumentalities (tools, techniques, methods, approaches), humans manipulate conditions in their environment - whether by inquiring into problems, appreciating art or engaging in political action - and, in turn, their attitudes and habits are transformed by the interaction (Ralston,2011). Famously repudiating the ‘spectator theory of knowledge’ Dewey preferred to talk about inquiry ‘as the struggle of human intelligence to solve problems’, whose aim was ‘an inevitably provisional solution to the practical and intellectual problem that sparked inquiry. Joseph (2016) asserts that “[t]he paradox of contemporary understandings of the world is that, the more uncertain we are of the bigger (global) picture, the more, we must rely on the small detail of the little picture as a function of value co-creation’ - interpretative approach to policy analysis (see paper 2).

¹¹⁹ Robert B. Westbrook, John Dewey and American Democracy (Ithaca and London: Cornell University Press, 1991).

¹²⁰ Gelb, Leslie H. (2009). “Necessity, Choice, and Common Sense: A Policy for a Bewildering World,” *Foreign Affairs* 88, no. 3 (May/June): 56-72, 72.

Volker Stanzel (2018) asserted that ‘the principles of representative democracy must be kept intact; if not, the state will suffer damage to the legitimacy of its system of governance. The crucial question will be how governments can ensure sufficient efficacy and efficiency, and thus, also their legitimacy, to be able to address adequately the needs of a state’. Changes in diplomacy may be able to inform future governments’ actions and the societies that represent them. Therefore, exhibits the following:

- i. Diplomats must understand the tension between the condition of the individual and state requirements, and engage with that tension without detriment to the state (role theory);
- ii. Digitization must be used in such a way that gains in efficiency are not made at the expense of efficacy (Russia as case study of spatial impacts on systems thinking);
- iii. It is important to develop forms of mediation and reconciliation of the interests of both sides that allow governments to operate as sovereign states, but at the same time make use of the influence and the potential of other actors (EU a case study);
- iv. Dealing with publics is likely to raise the gravest problems and requires the development of new and more open forms of state activity that respond to the ways in which emotionalized publics who wish to participate in governance express them-selves (President Donald J. Trump Tweeter diplomacy, that I termed polysingularity in foreign policy dialogue).

Spatial thinking underlies a significant amount of geographic learning such as the use of maps, graphs, images, diagrams, models, and visualizations applied in defence doctrine by the military. In addition, it supports the description, explanation, and discussion of the functions, structures, relationships, and operations of a wide variety of spatio-temporal processes, the current impacts of Google maps today. Geography helps us to understand and enhance our own communities as American citizens - and informs our understanding of the challenges facing the United States in an uncertain world (Richardson,2007). Although uncertainty can never be eliminated, it can be managed through data analysis, planning, and logical decision-making. Only by taking these actions can we behave rationally in decision making (Pollack, 2003). Having made the case for the importance of spatial thinking in the context of uncertainty and the threats it creates for today’s citizens, it is important to note that the use of geospatial technology is expanding in a wide variety of other contexts that are quickly making spatial thinking a requirement to participate effectively as a citizen in modern society (Bednarz and Acheson, 2003) like the use of mobile phone today. A large number of governments, agencies, and organizations are making their data and findings available to the public via online mapping (iGIS, Google mashups) systems.

Thus, it is becoming increasingly necessary for citizens to use these products, or to manipulate them or create their own, in order to make the informed decisions required to participate in democratic government (Bednarz and Acheson, 2003). In fact, geospatial technologies are commonly used to engage stakeholders by giving them access to information and supporting their decision-making through participatory GIS and similar systems (Elwood 2006; Nyerges *et al.*, 2006; Kirschner *et al.*, 2003). Understanding and interpreting spatial data and maps are becoming increasingly important for 21st century citizen’s lifestyle and in workplace. Spatial thinking applied to operations of all sorts of phenomena (Bednarz *et al.*,2006) thus, important to most, if not all, of the natural sciences, social sciences, and humanities; and where Cosgrove (2004) argues ‘the spatial turn’ is evident, particularly in sociology, economics, and history. Spatial thinking plays a major role in a variety of cognitive processes: generic learning, remembering, and problem-solving (Golledge and Stimson,1997), Table 1; and facilitates encoding and recalling information and communicating both spatial and non-spatial relationships (Kulhavy and Stock, 1996; Kitchin and Blades,2002; Verdi, 2002). The process of producing spatial representations creates schemas that link related items and provide an efficient means to search one’s memory (see paper 2 wicked problems framework construct). Linking what with where (i.e., reading and thinking with and through visual representations), makes content easier to understand and remember (Liben,2001).

Bednarz and Bednarz (2008) asserts that, one important barrier to formal instruction in spatial thinking is educators' lack of understanding of spatial thinking and the fundamental concepts and cognitive processes that support it.

CONCLUSION

In international politics weakness invites aggression, and strength begets security. China Sinocentric and *Pax Americana* hegemonic systems reflects their histories of using mechanism of power. The primacy of the United States as world's only superpower was crafted to "seek to ensure that no foreign power can dictate the terms of regional or global security has been consolidated after 20 years of Post-Cold War era. The grand strategies of states are rarely crafted with such precision and using framework help encapsulate distinctive feature of grand strategy (political, military, and economic resources) to protect national interests. The realist theory of international relations predicts that China will balance against American power because no other state in modern history has achieved such a preponderance of wealth, might, and influence. The great rejuvenation of the Chinese nation using the strategic logic to maintain a stable external environment for China to concentrate on economic growth in East Asia and accumulate comprehensive national power, without provoking a vigorous U.S. response today is a global threat to arrival of a multipolar world. Globalization agenda impacts today was used as empirical case study for global balance-of-power strategies and how pragmatism impacts on foreign affairs. The production frontier of possibilities called warfare ecosystem was used to illuminate the global balance-of-power strategies with the acknowledgement that, foreign policy is a wicked problem.

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