A New Era of Causality and Responsibility: Assessing the Evolving Superpower Role of the United States

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Introduction

The rapid onset of human-induced climate change will strongly influence the perception of States. These perceptions will evolve as will new interpretations of causality and responsibility in the dynamic arena of globalization and international regimes. Criticisms of the United States in particular will be driven ongoing by past suspicions of non-coercive hegemony, enforced Hyperpower, and competition for successive or singular Superpower status. The air and oceans, now recognized as common property resources, will no longer be open range for flagship States and their corporate interests seeking independent solutions to overcome resource constraints.

An interdisciplinary approach is used to bridge the notions of causality in science, politics and the law, assessing individual and collective responsibility for reducing climate change damage in a complex systems framework. This framework situates the influence of globalization, the inter-woven roles of States and their economic trading arrangements within the dimension of human evolution. On the positive side, human response to the accelerating and unpredictable cascade of environmental change can lead to more front-line monitoring and innovation, community-centred empowerment, and optimism. But without adequate resources, flexibility and involvement, it will also drive despair, defensive strategies and desperate measures. There remain both expectations and reservations for the United States to use its accumulated advantage to contribute to climate change solutions in the international community. Whether or not this role can be accomplished under the banner of an isolated Superpower will be subject to continuing debate.

This paper begins by establishing an environmental setting where the power, actions and responsibilities of the United States, and any imagined role as hegemon, Hyperpower or Superpower play out. "Climate" and "environment" are viewed here as holistic contexts which include human activity in space and time, with increasing capacity to transcend territorial limits through technological advancement and enhance the multi-dimensional roles of State citizens. The human preoccupation with observable cause and effect, linked to humankind's evolutionary rise as toolmakers is then linked to visceral responses to globalization and economic progress: value judgments have been conveniently assigned to Superpowers in light of how the media portrays their ability to dictate "rules of the game", impose cultural imagery and reinforce everyday practices with or without resorting to physical coercion. However, the definition of a Superpower rests upon comparative standings. The multiplicity of global threats and possible retreat by dominant powers to defensive, isolated positions will force the reconceptualization of Nation-states and their roles. In isolation, a ruler no longer exists without others to rule.

Speaking of Climate and Environment: Global Warming as Contextual Environment

Interdisciplinary dialogue requires any application of standard terms be examined both in their general and specialized usage. Under complexity theory (Ahl and Allen, 1996), it is also important to recognize how terms are used across hierarchical structures. Speaking of "climate" and the "environment" strictly as physical and ecological conditions outside of human society remains commonplace in many Western disciplines, denoting a subordination critiqued by many. In relation to human-induced climate change, most evident in global warming, this usage appears quite entrenched given the critical centrality of applied scientific evidence recognized by the UN Intergovernmental Panel on Climate Change (IPCC).

There often remains a partiality attributed to applied sciences, on account of their assumed objectivity and rigour, as well as commercial prospects for patented innovation. As Anthony van Raan (1999, 66) argues: this would not be a problem if we critically investigate interdisciplinarity in an "instrumental sense", observing scientific activities and their output as "input knowledge" for other academic pursuits such as sociological research and policy analysis. There has been a delay, under the international climate regime, to focus on socioeconomic analysis to measure the societal impacts, adaptation and vulnerability associated with climate change. This analysis has commonly followed the lead of scientific inquiry by focusing on computable costs and risk assessment, rather than political, institutional and psychological determinants and obstructions. This outcome is not too surprising given how climate change was originally defined by the international regime. Article 1.1 of the UN Framework Convention of Climate Change (FCCC) defines climate change as a "change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate change variability observed over comparable time periods". The multi-dimensionality of human action is clearly downplayed. Similarly, the development, perceptions and motivations of individuals and collectives is also given less regard than observable actions. This enduring gap makes it difficult to address the extent to which climate change is a *behavioural* problem.

There remains much potential for discussion of climate change across the social sciences and humanities, where it is more customary to refer to a particular "climate" or "environment" as a political or psycho-social context. The exception has been neo-classical economics which has traditionally treated throughput production impacts spilling into the environment as *externalities*. It should, however, be noted that recent environmental economic interpretations and those of ecological economics in particular (see Daly and Cobb, 1994) now pursue a more holistic view of the human-environment relationship. This paper elects to view individuals, associations and societies at large, along with their actions and responsibilities, as meshing in both physical and social environments. Global warming thus becomes a contextual challenge: part of an emerging

"environment" which poses an evolutionary hurdle rather than a management duty of dealing with an unbalanced legacy coupled with unfortunate, disparate momentum.

Preoccupations with Causality and Responsibility

The foregoing establishes an interdisciplinary lens through which the notions of causality and responsibility can be understood in relation to the roles of State and citizenry. The notion of "causality" has slanted history. It builds upon the requirement that there be a recognized "act of causing", that is, through the establishment of a clear linkage between cause and effect. This usage rests upon the doctrine that all things have a cause (from French/Latin: *causitio /causationis*). The problem is: this gives the impression that cause and effect are strictly unidirectional and thus prohibits appreciation of both reciprocity and broader feedback loops. This problem is compounded by the premise that scientific experimentation and adversarial legal traditions can prove that every outcome has a single or at least dominant set of determinants. However, the international use of the term – not always consistent with domestic legal variants – appears to have evolved more than most realize. Roda Verheyen (2005) maintains that judgments about causality for climate change damage are now internalizing the value of consensus and will thus allow environmental and ethical issues to impact judgments about the determination of cause and effect, as well as the assignment of responsibility.

It can be argued that this continuing preoccupation with cause and effect originates from humankind's ascendancy as "tool-makers". Progress measured in technological advancement, economic welfare gains has not yet translated into universal improvement, robust successors (such as China and India), or even pivotal evolutionary development. The momentum of resource

depletion and growing demands will soon exceed global carrying capacity and threaten species safeguards including our own (Worldwatch Institute, 2006). In short, the evidence of human-induced climate change clearly shows we failed in our pursuit of sustainable development. The reluctance of any suspected hegemonic group, backed by capitalist ideology, to accept this emergent reality, acknowledge its part and act cooperatively to mitigate further damage, has not too surprisingly drawn condemnation. Nevertheless, the reliance upon the hegemonic argument and a single Nation-State scapegoat seems outdated, considering the complicity of international relations and the influential character of globalization.

Hegemony and globalization

The assessment of "hegemony" solely in terms of economic and cultural domination has strayed considerably from its Greek root (meaning "to lead"). This assignment of leadership status reveals how skewed political perceptions have become: there is much focus upon assumed influence and the demonstration of monetary wealth rather than ethical or spiritual leadership. Perceptions of an individual State – its international influence, resource strength, leverage, and the support of their citizenry – remain as central issues. However, the failure to recognize the restructuring of territorial entities in the wake of globalization, with the United States as a case in point, is perhaps more telling. Response to globalization and related questions of sovereignty and environmental justice may draw a defensive *(visceral*) response, because we are, individually and collectively, struggling to unravel and harness the increasing complexity of international relations and transactions (Byrne, 1998; Bar-Yam, 2004). Psychological tension between the sanctioned drive to apply rational assessments and the discomfort of dealing with uncertainty only reinforce our value judgments. In turn, globalization as driven by continuing capitalist expansion creates opportunism which thrives on this uncertainty.

Between economic, political and cultural geographers, interesting debates has been sparked over the interwoven nature of globalization and power relations. John Agnew points out in *Mastering Space* (1995) that we have reached a critical juncture in

international relations which must force the re-examination of "state-centredness" and the need to establish "real reciprocity between people and places". This could be possible if the States and international regimes worked together to harness the forces of globalization. Wheeler et al. (1998, 12) describe a dynamic, interdependent global economy where the thrust of globalization drives a "complex set of processes", underscored by five intersecting trends. These trends include: 1) that capital and investments are globally mobile; 2) less regulated markets will prevail, and government and political control will wane; 3) multi-national firms will become stronger, able to "act as the principal agents of change"; 4) the influence of Nation-states and territorially-defined political interests will decline; and 5) both momentum and cohesion will be the result of dual trends: "one trend toward more homogeneous global conditions as a result of widespread competition, and the other toward enhanced differences as localities strive to maintain their identities".

Political geographers have recently reflected upon the economic and cultural circumstances which gave rise to sequential geopolitics. Britain's nineteenth century supremacy, coupled with the growing stigma of imperialism and economic decline, was viewed as a pre-condition for America's post-World War 11 dominance of markets and expansion in the twentieth century. Cultural geographers thereafter noted that racial domination became dispersed and internalized, with force no longer necessary where elites successfully perpetuated expectations through dominant story lines (Agnew, 1998; Anderson, 1998, on the imagery of "Chinatowns").

Cause and Responsibility in a Complex Systems Framework

Global warming and associated climate impacts such as droughts, increasing sea-levels and extreme weather events will necessarily shift debate beyond the realm of political economy. Authors Pritchard and Sanderson (2002, 147) have considered how political economy fits into a systems framework, writing: "The political processes that relate people to ecosystems are diverse. Rules about property, access to and allocation of resources, sovereignty, regulation of environmental externalities, and restrictions on land use (zoning) are all manifestations of political processes", prefacing nevertheless that: "every element of every ecosystem, and every natural resource user, falls under multiple political jurisdictions that cover many scales, some nested and some overlapping" (ibid, 147).

The complexity of multiple levels of legal concepts, rules, applicability and precedent, especially in relation to how human conduct their lives, use resources, and consider impacts upon others, is acknowledged as a particular challenge. Reconciliation of divergent perspectives and economic interests will obviously be a problem, but even more so will the assumption that international law can comfortably rest its developments upon the concept of "national territorial integrity". In 1996, the International Court of Justice (ICJ) maintained that States have a "general obligation… to ensure that activities within their jurisdiction and control respect the environment of other states or of areas beyond national control" (Report 241), thereafter laying arguments for climate change mitigation upon this foundation. But, the reality of successful multinational penetration into foreign lands and increasing influence of corporate interests upon domestic policy will continue to undermine this premise. Struggling to contain public opinion both at home and afar, the United States in particular is facing a parental challenge, having spawned the rebellious capitalist child.

Responsibility remains essentially a function of perceived influence. An entity is considered responsible only to the extent that there is control or influence to impact outcomes, along with the means to rationally and accurately gauge the consequences.

This interpretation largely continues as an uncontested notion for those viewing child development or the psycho-social dimensions of rights and responsibilities in confined circumstances. The growing disparity between our learned or domestically enforced assumption of duties and the expanding, unbridled role of transnational citizens and their agents (commercial, political or otherwise) will force the re-examination of the acts of individual and collective agents. As Paul Giles observed in 2001, such dislocations are likely to drive developments in postnational American Studies, and there is a certain irony in designing a critical transnational perspective that assumes the territorial integrity of States. Giles' references to Julia Kristeva's 1993 contributions are insightful, in particular on the challenges of reconciling *the universal and the particular*: the projection of an emotive "open frontier" and persistence of borderland tensions leads us to wonder about socio-political immaturity generally and how international relations often appear as squabbles among petulant children.

Under climate change, there is bound to be increasing resource pressure, territorial dispute and international instability, in tune with Jared Diamond's now popularized account of *Collapse*. The question will move beyond which societal form exists to "choose to fail or succeed". The crux will likely lie in human nature itself. In his seminal contributions, Jean Piaget (1968) theorized that the patterns of human development and adaptation transcend geographic variation. As Piaget's editor, David Elkind, reflected: "…Piaget's theory, in the most general sense, is that of subject-object equilibration, the view that mental growth is governed by a continual activity aimed at balancing the intrusions of the social and physical environment with the organism's need to conserve its structural systems" (1968, *v*). As such, the dynamic motivations at the core of individual human development have interesting parallels with Thomas Schelling's depiction of the struggle between both [conflict and cooperation] and [innovation and complacency].

Conflict and Power: From Causality to Complex Systems

The 2005 Nobel Prize recipient in economics, Thomas Schelling, has greatly enhanced our understanding of the complex dynamics of conflict and cooperation, developing game theory upon his seminar work, *The Strategy of Conflict* (1960). In his earlier RAND Publications (1959 and 1958, respectively), he offered visionary insights: reflecting upon the randomization of threats and promises, and arguing that the rational expectations associated with bargaining games seldom existed with the symmetry imagined. His insights remain relevant for modern-day study of both irrational and uninformed *visceral* response – be it of ideological or religious fervour, or even just the "feel-good" comfort of entrenched trade alliances. It may be true that a tidy, balanced symmetry cannot be expected, but all ecological structures, including human society, rely upon patterned momentum to ease through adaptive change and protect organizations against unpredictable shocks (Holling and Gunderson, 2002). Schelling's account of "Research by Accident" (1996) evidently reveals an understanding of this complexity of living systems: that there can simultaneously be moments of serendipitous innovation interspersed within the stagnating complacency that we may only have to replace or improve upon the old.

The pursuit of power has in the past been a matter of resource strength and calculated risk. The decline of the British Empire as a Superpower was thus explained as a conscious retreat during the Suez Crisis, when the economic ravages of war and necessary investments in reconstruction separated it from the ensuing bi-polar Hyperpower struggle between Russia and the United States. However, in light of the extraordinary challenge of global warming, the potential force of international law may soon force the reconsideration of standard practices on the part of States to manage their risks and investments. It will in fact be a monumental shift if, as Verheyen (2005) maintains, causality and responsibility are assessed by international consensus, and we can no longer rely upon the dual assumptions that intentional harm must first be proven, and parties cannot be found independently at fault if many contribute to damage. The likely response will be that States become more rigidly risk-adverse and many may act to

curtail international activities, become more self-sufficient, reduce exposure to litigation and any stigma.

Conclusion

The evolving role of the State and its citizenry under both globalization and the climate change regime may force the re-examination of assumptions underlying "causality". It may no longer be the case that one must demonstrate a clear linkage between collective or individual action (cause) and a tangible result (effect). In the past, "responsibility" was assumed to be a function of power, capacity and intention, so that a lack of influence and ignorance were sufficient to diffuse blame. This may no longer be the norm. The onslaught of global warming, increased climatic variability and extreme weather events will create a momentous challenge likely to elicit a remarkable interface of socio-cultural, economic, political and philosophical response. Sub-continental regions and individual nation-states will be increasingly viewed as either victims or perpetuators in an ongoing drama of environmental injustice. The entrenched tendency to view international relations in binary fashion – with States differentiated into developed versus undeveloped nations, or into Superpowers versus the "Others" – will prove problematic. Critical reformulations are necessary to reflect upon the evolving relationship between nation-states and the world's citizenry. Never before will the actions and accountability of empowered States and individuals be subject to so much scrutiny as the legacy of disparate endowments will be juxtaposed against the responsibility of protecting common property resources and our collective life-support system.

Works Cited

Agnew, J. *Geopolitics: Revisioning World Politics*. London: Routledge, 1998.

_____. *Mastering Space: Hegemony, Territory and International Political Economy*. London: Routledge, 1995.

Anderson, K. "Cultural hegemony and the race definition process in Chinatown, Vancouver", *Environment and Planning D: Society and Space*, 6: 127-149.

Ahl, Valerie and T.F.H. Allen. Hierarchy *Theory: A Vision, Vocabulary, and Epistemology*. New York: Columbia University Press, 1996.

Bar-Yam, Yaneer. *Making Things Work*. Boston: Knowledge Press, 2004.

Byrne, David. *Complexity Theory and the Social Sciences: An Introduction*. London and New York: Routledge.

Daly, Herman E. and John B. Cobb Jr. *For the Common Good: redirecting the economy toward community, the environment and a sustainable future*. Boston: Beacon Press, 2nd Ed., 1994.

Diamond, Jared. *Collapse*. London: Penguin Books, 2005.

Piaget, Jean. *Six Psychological Studies*. Vintage Books Edition. Toronto: Random House, 1968.

Giles, Paul. "Dislocations: Transatlantic Perspectives on Postnational American Studies ". *49th Parallel*. Issue 8, Summer 2001.

Gunderson, Lance H. and C.S. Holling, eds. *Panarchy: Understanding Transformations in Human and Natural Systems*. Washington and London: Island Press, 2002.

Pritchard, Lowell Jr. and Steven E. Sanderson. "The Dynamics of Political Discourse in Seeking Sustainability", In *Panarchy* by Lance H. Gunderson and C.S. Holling. Washington and London: Island Press, 2002, 147-169.

Schelling, Thomas. "Research by Accident", *Technological Forecasting and Social Change*, 53, 1996, 15-20.

_____. *The Strategy of Conflict*. Cambridge, Mass.: Harvard UP, 1960.

_____. *Randomization of Threats and Promises*. RAND Publications, 1959.

_____. *For the Abandonment of Symmetry in the theory of Cooperative Games*. RAND Publications, 1958.

van Raan, Anthony F.J. "The Interdisciplinary Nature of Science: Theoretical Framework and Bibliometric Empirical Approach.", In *Practicing Interdisciplinarity* by Peter Weingart and Nico Stehr (eds). Toronto: University of Toronto Press, 2000, 66-78.
Wheeler, James O. et al. *Economic Geography*. 4th Ed. Toronto: John Wiley & Sons Canada, Ltd., 2005.

Verheyen, Roda. Climate Change Damage and International Law. Leiden and Boston: Martinus Nijhoff Publishers, 2005.

Worldwatch Institute. *State of the World 2006 Special Focus: China and India.* New York and London: W.W. Norton & Company, 2006.