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The Interdependencies of Security Conceptualization and Provision: National, Environmental, and Human(e) Security[2]

Abstract

Security is an increasingly contested concept in terms of referent object and the scope of issues covered in its conceptualization and provision. Traditional approaches have addressed the survival of states in a hostile operating environment focusing on questions of war and peace from the perspectives of national or systemic interstate security. Even if traditional approaches can be seen to have functioned reasonably well within the limited parameters of the old state-centric operating environment, they have fallen short in addressing new challenges to state and international security that do not originate from state actors. They have also proven to be very limited in their ability to embrace nontraditional security (NTS) perspectives relevant to the provision of human security for vulnerable individuals and groups, or biospheric security. Furthermore, there is a lack of understanding and consideration of the intersections and interdependencies between different levels of security analysis and policy provision. This paper, therefore, advocates a holistic model of understanding of the mechanisms of the contemporary security operating environment, and comprehensive policy prescription to address old and new security challenges, traditional and NTS issues, and the spillover between them.

Introduction

In contemporary discourse and increasingly in practice, security is an essentially contested concept in terms of referent object, the scope of issues covered (the degree of securitization), and indeed within specific issues. New thinking on security has come to the fore, with input from academics, and from practitioners in international organizations (IOs) and middle-power states. The rise of nontraditional security (NTS) perspectives and 'new security challenges' have seen the broadening of the scope of enquiry along the x-axis of issues from a strict focus on national survival in a hostile operating environment and

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2. Based on a presentation by the author at the Jeju Peace Forum on November 7, 2020; prepared for the *Jeju Forum Journal.*

questions related to war and peace, to include some or all of the following: a focus on non-military rather than military threats, transnational rather than national threats, and multilateral or collective rather than self-help security solutions.[3] Within both security and peacebuilding discourses, there have also been increasing emphases on individual human beings and the planet or global biosphere, corresponding to a bi-directional expansion along the y-axis of referent objects.[4]

In policy terms, the quest for security is the attempt to secure freedom from existential threat for a referent object, whether state, international system, individual, or biosphere. Each of these referent objects faces an expanding multitude of threats, no longer limited to that of violent conflict. Conceptualizations of security in the academic and policy communities need, therefore, to embrace a comprehensive understanding of security. In a similar manner, peace can no longer be characterized as the simple absence of war, (if that was ever truly the case), but rather, in our efforts to construct a truly sustainable peace, we need to broaden our understanding of those forces which stimulate conflictual relationships.[5] Johan Galtung has characterized this as the difference between 'negative peace' and 'positive peace.'[6] Through such an understanding, it becomes possible to generate policies and initiatives that will alleviate conflictual pressures.

This paper first, therefore, addresses the mechanisms of traditional understandings of security, and the descriptive, predictive, and prescriptive capacities of the dominant state-centric security paradigms. These traditional approaches do a reasonable job of assessing state and systemic security challenges and policies but are unable to address human-centered or transnational societal security concerns. The global impact of the COVID-19 pandemic at all levels of society, and growing awareness of the challenges to mankind from the natural environment as well as from mankind to the biosphere, have demonstrated that the old, state-centric models of security are insufficient to address the contemporary threat environment. Hence the second analytical section explores the evolution of the NTS, human security, and humane security paradigms and their intersections. The third section explores the complexities, interdependencies, and interrelations between the different security conceptualizations, and concludes with a call for comprehensive security conceptualization and governance policy prescription.

Traditional Security Analysis and Policy Prescription

Traditional security considerations dominated domestic and international agendas throughout the Cold War, when two geopolitical blocs posed existential threats towards each other, and the dominant powers on each side engaged in arms proliferation to a degree that went far beyond mutually assured destruction (MAD). They still tend to be the default mindsets of many security actors. In terms of 'winning' or managing conflicts in one's national interest, deterring acts of aggression from others, and the building of peace, the focus of traditional state-centric or national security provision has been on changing the rational payoffs associated with different courses of action. Specifically, measures have been considered whereby the consequences of decisions likely to lead to war would be made costlier, or the pursuit of peace the more attractive option. This representation of security decision-making has been termed the rational actor model (RAM).[7] This leads to a "conception of international politics as 'essentially bargaining situations' in which alert, intelligent, coordinated nations speak and move in order to influence other nations by changing their expected payoffs."[8] The RAM and its implications for strategic engagement, therefore, form the basis of policy prescription for both neorealist coercive approaches and

neoliberal engagement and transformative approaches.

From a realist perspective, the costs of unfavorable decision-making outcomes can be increased either at the implementation means stage (defense), or at the post-action ends stage (deterrence). Conflict is inevitable but can be managed in one's interest through the strategic application of coercive forces.[9] The decision whether to launch an attack is based on rational calculation of the costs of carrying out the assault combined with the probability and scale of an improved post-bellum operating environment. Thus, if one wishes to persuade an aggressor not to attack, one or both variables must be altered. This can be done through strategic acts involving defensive measures and spending.[10] Alternatively, in contrast to dissuasion by defense, dissuasion by deterrence operates by frightening an opponent out of attacking, not because of the difficulty of launching an attack and carrying it home, but because the expected reaction of the attacked will result in one's own severe punishment.[11]

Liberal approaches work on the other end of the equation outlined. An opponent is likely to embark on a course of action that will result in an outcome detrimental to one's interests, if, for them, the costs of the action are less than the difference between an unhappy status quo and a happier post-bellum operating environment. Rather than increasing the costs to them of the action (defense)

3. Amitav Acharya, "Human Security: What Kind for the Asia Pacific?" in Dickens, D. (Ed.) T*he Human Face of Security: Asia-Pacific Perspectives.* Canberra Papers in Strategy and Defence, No 144 (Canberra: Australian National University, 2002).
4. Alpaslan Özerdem and SungYong Lee, *International Peacebuilding: An Introduction* (London: Routledge, 2016), p.146.
5. Özerdem and Lee *International Peacebuilding,* p.82.
6. Johan Galtung, "Violence, Peace, and Peace Research" *Journal of Peace Research* Vol. 6, No. 3 (1969), pp.167–191
7. See generally, Graham Allison and Philip Zelikow, *Essence of Decision: Explaining the Cuban missile crisis,* 2nd Edition, (Longman: New York, 1999).
8. Graham Allison, *Essence of Decision.* (Boston: Little, Brown and Company, 1971), p.22.
9. Oliver Richmond, *Peace in International Relations Second Edition* (London: Routledge, 2020), pp.62-67.
10. Robert Jervis, "Cooperation Under the Security Dilemma" in Betts, R.K. (Ed.) *Conflict After the Cold War: Arguments on Causes of War and Peace* Fifth Edition (New York: Routledge, 2017) pp.389-404: 393-7.
11. Kenneth N. Waltz, "Why Nuclear Proliferation May Be Good" in Betts, R.K. (Ed.) *Conflict After the Cold War: Arguments on Causes of War and Peace* Fifth Edition (New York: Routledge, 2017) pp.418-430: 420.

or decreasing the desirability of the outcome (deterrence), one should instead increase the desirability of the status quo. This can be achieved either through the offer of direct incentives (appeasement) or through a process of making everybody better off through cooperation and the generation of collective goods.[12] Furthermore, economic interdependence exacerbates the costs of war.[13] Incentives for conflict are lower as "in a relatively open liberal international economy, access to raw materials, finance, and markets is obtained at less cost and on a greater scale than would be possible via military control of territory or spheres of influence."[14]

Figure 1: Rationality and the Decision to go to War[15]

Status Quo Operating Environment	Macro-Decision (War implementation stage)	Post-Bellum Operating Environment
[a] Systemic costs of operating environment for state actor.	[c] Cost of waging war.	[e] Benefit of post-bellum.
[b] Systemic benefits of operating environment for state actor.	[d] Benefit of waging war	[f] Cost of post-bellum.
Inducements/Appeasement	Defense	Deterrence

Figure 1 maps out the cost-benefit equation referred to in the assessment of both realist and liberal rationales for war and peace. If [a]-[b]>[c]-[d] or [c]-[d]<[e]-[f] then it is rational for a revisionist state to resort to the use of force to change the status quo. Those states who do not wish to see the status quo changed, or force resorted to, can use the strategies in the third row to alter the cost benefit analysis of the revisionist state in any of the columns, so that either [a]-[b]<[c]-[d] or [c]-[d]>[e]-[f].[16] These rational inducements for peace also apply at the systemic level of conflict management. It is important that no state develops the capacity as well as the rational incentive to endanger what international order and systemic security is present in the international operating environment. In other words, no state should be granted the opportunity and motivation to become a 'revisionist' state.

A stable international security system is one in which all great powers are satisfied with the distribution of authority in the system to the degree that there is no benefit for any actor greater than the cost involved in changing the system. An unstable international system is one in which changes in technology, the distribution of power, or other variables, either mean that benefits of change for one or more influential actors now exceed the costs, or that the relative benefits and costs are unclear and thus it may be worth a gamble. This means that one or more of the great powers is dissatisfied with the current system and may seek to change it due to a shift in their cost-benefit analysis calculations, thereby becoming a revisionist power.

Stability can be ensured through reducing the desire of a revisionist power to enact change, reducing their capacity to achieve it, or through presenting them with an overwhelming concentration of power in the hands of forces committed to the maintenance of systemic peace and security. These forces could be represented by a hegemon (hegemonic stability theory and hegemonic peace), by a winning coalition of likeminded great powers, or through the mechanisms of collective security (discussed below). In a similar manner, Lepgold and Weiss contrast decentralized (realist) and collective (liberal modernist) types of international security systems, as detailed in Figure 2.

Figure 2: Conflict Management Systems[17]

	Decentralized Conflict Management	Collective Conflict Management
State behavior is	Unconstrained by general norms	Coordinated with others, based on general norms
Decision criteria are	Individualistic self-help: what particular states think is best	Pursuit of broad, group-based self-interest
Goal of action is	Pursuit of narrowly defined self-interest	What is best for group or system
Military forces are	Independent: no need to share resources, command, etc.	Part of a collective force: resources, command, etc. are joint
Action occurs when	State's individual interests are at stake	Peace and stability of self or others is threatened

A decentralized conflict management order is essentially one based on self-help in pursuit of national interest – i.e. states only intervene when directly affected. Lepgold and Weiss define collective conflict management (CCM) as a pattern of group action, usually but not necessary sanctioned by a global or regional body, in anticipation of, or in response to the outbreak of intra- or interstate armed conflict, including any systemic effort to prevent, suppress, or reverse breaches of the peace where states are acting beyond the scope of specific alliances.[18] Implicit in this description is the concept of automatic response to breaches of the peace.

This is also the foundation of the principle of collective security upon which both the League of Nations and the United Nations (UN) were founded. Under such systemic security conditions, peace seen as being indivisible, and an attack on one is regarded as an attack on all. If all acknowledge and commit to a duty to come to the aid of any victim of aggression, and punish the aggressor, regardless of the identity of either, then peace ensues from the rational impossibility of any one state winning a war against all the rest. Furthermore, rule utilitarian evaluation of the benefits of a peaceful operating environment versus the costs of a Hobbesian war of all-against-all, makes it rational for all to sign up to such a regime, even if, at times, based on simple utility, defection would seem to be the dominant strategy.

Yet many contemporary threats to national and regional security do not lend themselves to the machinations of state-centric rational payoffs, revolving as they do around trans-state or sub-state issues such as climate change, environmental degradation, pandemics (including COVID-19), refugee flows and forced migration, poverty and distributive injustices, and natural and, given the role of human agency, nature-induced disasters. These new security challenges and NTS issues threaten national and international/systemic security, but they also threaten the human security of vulnerable human beings and groups, individually and collectively.[19]

NTS, Human Security, and Humane Security

New thinking on security has tended to come not from those great powers most preoccupied with relative distributions and concentrations of military power and war-fighting capabilities, but rather from academics and practitioners associated with IOs such as the UN, as well as from middle power states, notably Canada and Norway, but also, perhaps most importantly, from Japan.[20] Critical and postmodern perspectives have tended to conceive of security as emancipation, or the autonomy to carry out what one would freely choose to do, while the constructivists of the Copenhagen School introduced the concept of securitization, examining how certain issues are transformed into a matter of national security by those

12. See generally Bruce Russet and John O'Neal, *Triangulating Peace: Democracy, Interdependence, and International Organizations* (New York: Norton, 2001).
13. Özerdem and Lee *International Peacebuilding,* p.40.
14. Barry Buzan, and Gerry Segal, "Rethinking East Asian Security" in Klare, M.T. and Chandrani, Y. (Eds.) *World Security: Challenges for a New Century* (New York: St. Martin's Press, 1998).
15. Figure developed by author based on his own research.
16. Brendan Howe, "Comprehensive Security and Sustainable Peacebuilding in East Asia: Reflections on a Post-COVID-19 Operating Environment," *Korean Journal of Security Affairs* 25(1) (2020): pp. 11-12.
17. Adapted from: Joseph Lepgold and Thomas G. Weiss, 1998. *Collective Conflict Management and Changing World Politics.* New York: State University of New York Press, p. 6.
18. Lepgold and Weiss, *Collective Conflict Management* p. 5.
19. Amy L. Freedman and Ann Marie Murphy, *Nontraditional Security Challenges in Southeast Asia: The Transnational Dimension* (London: Lynne Rienner Publishers, 2018) pp.1-5.
20. Nicholas Thomas and William T. Tow, "The Utility of Human Security: Sovereignty and Humanitarian Intervention," Security Dialogue 33, no. 2 (2002): 177–92, 180.

acting on behalf of a state.[21] In the early 1980s Japan adopted a 'comprehensive security' (sogo anzen hosho) policy under the direction of Prime Minister Zenko Suzuki. Comprehensive security not only looked beyond the traditional security elements of individual self-defense by focusing on regional and global security arrangements, but also stressed the need to take into account other aspects vital to national stability, such as food, energy, the environment, communication, and social security.[22] It was an explicitly inclusive approach that emphasized multilateralism, and that can be traced to Japanese thinking on security as far back as the 1950s.[23]

These NTS agendas have grown in impact and popularity to the extent that they amount to a post-Cold War security norm, at least from the perspectives of good governance, both domestic and international. In particular, Human security is nested within the distinct strands of new thinking on security. Indeed, soon after the collapse of the Cold War world order, at the start of the 1990s, within the UN system, it was first given explicit acknowledgement by Secretary-General Boutros Boutros-Ghali in the 1992 Agenda for Peace, where the concept was cited in relation to preventative diplomacy, peacemaking, peacekeeping and post-conflict recovery. The concepts related to this strand of NTS, however, had a significant pre-history in the work of international commissions.

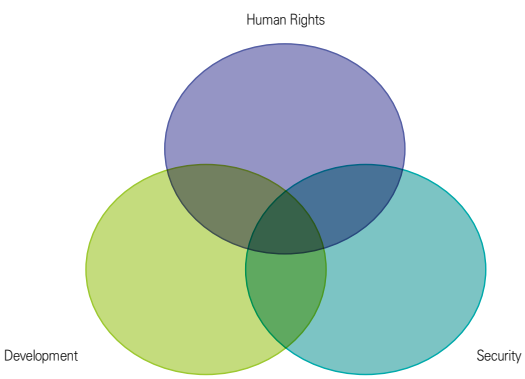
The Brandt Report focusing on development issues has been produced by the Independent Commission, first chaired by Willy Brandt (the former German Chancellor), since 1980. It argues for a comprehensive conceptualization of security combining social, economic, and political threats with the more traditional military ones. Likewise, in 1982 the Independent Commission on Disarmament and Security Issues-commonly (known as the Palme Commission) adopted its first Final Report published under the title 'Common Security,' by which was meant "States can no longer seek security at each other's expense; it can be obtained only through cooperative undertakings." Finally, the 1987 Report of the World Commission on Environment and Development, Our Common Future, otherwise known as the Brundtland Report, linked aspects of security, development, and the environment, in an important international precursor not only to global governance initiatives on human security and human development, but also to the humane security paradigm developed below. "The Commission focused its attention in the areas of population, food security, the loss of species and genetic resources, energy, industry, and human settlements - realizing that all of these are connected and cannot be treated in isolation one from another."

The seminal text on human security at the UN is usually considered, however, to be the United Nations Development Programme's (UNDP) Human Development Report 1994, which examined new dimensions of human security and focused attention on the dual agenda of freedom from fear and freedom from want.[24] This report outlined seven components of human security including (i) economic security which requires an assured basic income; (ii) food security which means all people have both physical and economic access to basic food; (iii) health security which means freedom from diseases and infection; (iv) environmental security such as freedom from dangers of environmental pollution; (v) personal security which is physical safety; (vi) community security which ensures survival of traditional cultures and ethnic groups; and (vii) political security which means protection of basic human rights and freedoms.[25] Meanwhile, the Commission on Human Security (CHS) established under the chairmanship of Sadako Ogata, former UN High Commissioner for Refugees, and Amartya Sen, Nobel Laureate in Economics, in its final report Human Security Now, defines human security as protecting people from critical (severe) and pervasive (widespread) threats and situations, and creating political, social, environmental,

economic, military and cultural systems that together give people the building blocks of survival, livelihood and dignity.[26]

Fundamentally, human security is a multi-disciplinary paradigm for understanding global vulnerabilities at the level of individual human beings. It incorporates methodologies and analyses from a number of research fields including strategic and security studies, development studies, human rights, international relations, and the study of international organizations. It exists at the point where these disciplines converge on the concept of protection.[27] Furthermore, there is a close relationship between human security envisioned as the protection of persons, and human development as the provision of basic human needs.[28] As former UN Secretary-General Kofi Annan observed, "we will not enjoy security without development, development without security, and neither without respect for human rights. Unless all these causes are advanced, none will succeed."[29] Indeed, human security exists at the intersection of the three governance pillars of the UN: Security, Development, and Human Rights, as portrayed in Figure 3.

Figure 3: The Three Pillars of the UN



Human security, while widely accepted globally, remains controversial and subject to competing interpretations in two ways. First, the two elements of freedom from fear and freedom from want have received different degrees of emphasis, resulting in 'narrow' definitions focusing primarily on the former, and broader definitions which encompass human development perspectives to a much greater extent. There is even a geopolitical divide, with 'Western' states and commentators emphasizing narrow freedom from fear and the protection of human rights, whereas 'non-Western' interpretations place a greater emphasis on development. These geopolitical divides are also reflected in the second area of contestation, the relationship between human security, the responsibility to protect (R2P), and national sovereignty. Non-western states and commentators, in particular those that have been subject to colonialization, fear that the human security paradigm is little more than an attempt at continuing Western interventionary hegemonic practices. Essentially the 'West' holds a narrow view of human security, but an interventionary interpretation

21. Barry Buzan, Ole Waever and Jaap de Wilde, Security: A New Framework for Analysis (Boulder, CO: Lynne Rienner, 1997).
22. Tsuneo Akaha, "Japan's Comprehensive Security Policy: A New East Asian Environment," Asian Survey 31, no. 4 (1991): 324–40.
23. Comprehensive Security in Asia: Views from Asia and the West on a Changing Security Environment, ed. Kurt W. Radtke and Raymond Feddema (Leiden/Boston/Cologne: Brill, 2000).
24. United Nations Development Programme (UNDP). *Human Development Report 1994* (New York: UN, 1994).
25. UNDP *Human Development Report 1994*: pp. 24-33.
26. Commission on Human Security (CHS), *Human Security Now* (New York: CHS, 2003): p. 4.
27. Timo Kivimäki, "Western and East Asian Protection of Human Security" *Asian International Studies Review* Vol.21 No.1 (2020) pp.1-24: 3-4.
28. Oscar A. Gomez and Des Gasper, "Human Security: A Thematic Guidance Note for Regional and National Human Development Report Teams" (UNDP: 2013) http://hdr.undp.org/sites/default/files/human_security_guidance_note_r-nhdrs.pdf.
29. Kofi Annan, "In Larger Freedom: Towards Development, Security and Human Rights for All" *Report of the Secretary-General* (2005). https://www.un.org/en/events/pastevents/in_larger_freedom.shtml.

of the R2P, with the two being closely linked; whereas in other regions the linkage between the two is rejected, and a broad conceptualization of human security along with a non-interventionary understanding of the R2P dominates.[30]

Meanwhile, Bong-hyun Kim, President of the Jeju Peace Institute, initiated the paradigm of 'Humane Security' which was then further elaborated upon by Seung-chul Chung.[31] According to this conceptualization, while the emergence of the human security concept has shifted the focus from the security of states to that of individuals, humane security shifts attention once more toward nature, highlighting the "importance of an equal and fair relationship between humans and nature, while also paying attention to nature's character in generating the sources of new threats such as climate change and pandemic."[32] It challenges the recognition of human beings as the sole sovereign subjects possessing inalienable rights and authority to use and exploit nature, emphasizing a need to accept nature as a sovereign subject, not as an object. "In other words, humans and nature should form a relationship that mutually respects each other as equal subjects. Only when such a relationship is established can humans refrain from over-exploiting nature and seek a harmonious and sustainable relationship with it."[33]

The concept of humane security, therefore, embraces elements of both the human security paradigm as detailed above, and the environmental security tradition. Environmental security is a policy area in which all the classes of political actor interact; both affected by and able to affect significant elements of the paradigm. It is of growing importance in absolute terms (the biosphere is increasingly endangered by human activity), relative terms (when compared with other security conceptualizations), and academic terms. Policy options and implications are increasingly cross-border or global and are not amenable to RAM pressures. Rather than the tit-for-tat nature of traditional security interactions, environmental security is best modeled by the game theoretical model of a 'tragedy of the commons,' whereby if each actor pursues their narrow selfish interests it will result in catastrophe for all.

From a global governance perspective, the UN has launched multiple initiatives, but remains challenged in its aspirations by the legacies of traditional national security and national interest considerations. These include the 1972 UN Conference on the Human environment in Stockholm which contributed publicity, a declaration on principles, an action plan of recommendations, and a resolution on institutional and financial arrangements. The Stockholm declaration established limitations to sovereignty, noted duties incumbent on state actors, as well as the common heritage of mankind's resources. It also established monitoring networks, created the United Nations Environment Programme (UNEP) to serve as a propagation and organizational framework, and stimulated NGOs and individual governments to act. This was followed by the above-mentioned Brundtland Commission which introduced the concept of sustainable development; the 1987 Montreal Protocol addressing ozone depletion; the 1992 UN Conference on Environment and Development (UNCED) in Rio which launched the United Nations Framework Convention on Climate Change (UNFCC); the 1997 Kyoto Protocol which extended the UNFCCC with more stringent measures; and the 2015 Paris Agreement, which was an agreement within the UNFCCC, dealing with greenhouse-gas-emissions mitigation, adaptation, and finance. The environmental security paradigm has created lots of awareness, some government, IO and NGO action, but not enough enforcement or binding mechanisms.

The intersection of human beings and the environment from the perspective of mutually constituted security threats has also been refenced in the development of the concepts of the 'Anthropocene' and 'ecocide.' The Age of the Anthropocene refers to that era when the greatest impact on mankind's natural operating environment is Man himself. Much of this impact has been negative, an unfortunate biproduct of modernization and development. Ecocide, which also reflects a legalist approach advocated by the initiators of the humane security paradigm, literally means 'killing the environment.' Proponents argue that the crime should be listed alongside and in addition to the four international crimes detailed in the R2P: genocide, crimes against humanity, war crimes and crimes of aggression, and thereby perpetrators should be subject to prosecution by the International Criminal Court (ICC).[34] Table 1 outlines the parameters of these different conceptualizations of security and their relationship to threats.

30. Brendan Howe, "Human Security, Peacebuilding, and the Responsibility to Protect in East Asia" *Asian Journal of Peacebuilding* Vol. 7 No. 2 (2019): pp. 183-218: p. 184.

31. Seung-chul Chung, "Humane Security: nature as a sovereign subject" Jeju Peace Institute *Peacenet* Issue 2020-22 (2020/8/25). http://jpi.or.kr/?p=15575

32. Chung, "Humane Security"

33. Chung, "Humane Security"

34. Sophie Yeo, "Ecocide: Should killing nature be a crime?" *BBC* November 6, 2020. https://www.bbc.com/future/article/20201105-what-is-ecocide

Table 1 Levels of security/insecurity and existential threats

Type of security	Main actors	Existential threats from	Referent objects	Issues
Traditional	States	States	States	Defense, deterrence, balance of power
Comprehensive/ New security	Inter-governmental organizations (IGOs), states	Non-state actors, environment	States and communities	Water, food, environmental hazards, "natural" disasters, energy, terrorism, international crime, pandemics.
Environmental/ Humane security	States, IGOs, Non-governmental organizations (NGOs), Biosphere	States, multinational corporations (MNCs), communities, development	Ecospheres, biosphere, localized ecosystems	Climate change, global warming, sustainability, the Anthropocene, ecocide, biodiversity, the global commons, pollution, consumption, pandemics, legal personality, responsibility to protect (R2P).
Human security	IGOs, states, NGOs, international community	Environment, states and non-state actors	Individuals and vulnerable communities	Explosive remnants of war (ERW), peacekeeping operations (PKOs), R2P, humanitarian intervention, shelter, food, water, stability, sustainability, "nature-induced" disasters, conflict transformation, basic human needs.

Despite remaining distinct in terms of focus and referent objects, there is a close relationship between traditional and NTS approaches, and considerable spillover between them. All forms of security imply the existence of a referent object free from threats to its continued existence. Likewise, insecurity means that the referent object is not able to enjoy such freedom from threat. Vulnerabilities relate to the likelihood that the referent object(s) will be exposed to existential threats. All of these levels of security and insecurity are intricately linked in a non-hierarchical causality, with the potential to spill over across realms in any direction. These intersections are further developed in the final section.

Complexities, Interdependencies, Interrelations, and Prescriptions

The negative consequences of conflictual operating environments and relationships can spill over both downwards from international and national insecurities to human vulnerabilities, and in the opposite direction. National insecurity can divert resources from human development, distort budgetary allocations, leaving little for human-centered development and resilience building, and exacerbate both distributive injustice and environmental degradation.[35] It can create a permissive political circumstance where national security is privileged over human rights.[36] Furthermore, it is likely to produce and perpetuate an operating environment within which the exceptional use of internal as well as external violence by the state becomes a permanent feature of the state.[37] The human costs of modern conflicts are borne, primarily, by the most vulnerable sections of society.[38]

The legacies of conflicts can impact on the human security of the most vulnerable for years, decades, or even generations to come. Postbellum threats to both life and well-being include the breakdown of law and order, the spread of disease due to refugee camp overcrowding, poor nutrition, infrastructure collapse, scarcity of medical supplies (although ironically often a proliferation of illicit drugs), and continued criminal attacks on civilian populations, unemployment, displacement, homelessness, disrupted economic activity, stagflation, and perhaps, most directly, explosive remnants of war (ERW) contamination. ERW include unexploded ordnance (UXO), landmines, and abandoned explosive ordnance (AXO). Negative effects include physical harm, amputation and death, psychological trauma, food insecurity, infrastructure limitations, and increased rebuilding costs. The costs of funerals or extended medical care can impose insupportable burdens on poor families and communities, thereby functioning as a poverty multiplies, as these vulnerable individuals and groups are forced to sell off the very assets they need to lift themselves out of their desperate conditions in order

to meet them.

On the other hand, human insecurity can lead a group of victims to take refuge in a neighboring country, impacting upon the latter's security conditions. Furthermore, those refugees may regroup and undermine the security of those who forced them to flee. Lack of food or energy can undermine national cohesion and weaken national strength, increasing national insecurity, or likewise lead to trans-border migration. Environmental degradation can also pose national security challenges through the intervening variables of human insecurity and climate refugees.[39] Desperate conditions among the disaffected youth of refugee camps or inner cities have the potential to produce fertile breeding grounds for religious extremism or terrorism. Indeed, the root of many conflicts in the contemporary international operating environment can be found in the sub-state level of domestic societal tensions, whether relating to the frustration of basic human needs, lack of distributive justice, structural violence, or expectancy gaps.

Health crises impact the socio-economically most vulnerable populations with the greatest severity, as has been seen during the COVID-19 pandemic mortality rates. Furthermore, in many countries, those with pre-existing and undiagnosed chronic diseases will not get care and may die from lack of attention and treatment.[40] Thus, poverty serves as a health insecurity multiplier. At the same time, COVID-19, and government responses to it, have served as a poverty multiplier, thrusting many more into conditions of human insecurity in terms of lack of freedom from want. The lockdown policies of many governments have corresponded with an uptick in domestic violence and suicide statistics, further demonstrating the increased insecurity of vulnerable individuals and groups.

Despite clearer skies and waterways as a result of the lockdown, potentially leading to fewer deaths as a result of environmental health issues, researchers are now uncovering a link between pollution and the severity of the impact of the disease.[41] Furthermore, concerns are emerging over the huge amount of non-biodegradable waste being produced, used, and discarded, in terms of masks and personal protective equipment (PPE). Finally, the poor are most vulnerable to the consequences of environmental degradation, poverty often precludes sustainable development practices, and natural disasters are exacerbated by environmental degradation.[42] Thus, a vicious cycle of insecurity exists beyond the reach of state-centric security models and policymaking.

Within governance literature, human security, development, and poverty are readily understood as interrelated and connected in a complex causality. These linkages are even more apparent when it comes to consideration of environmental degradation and

35. UNDP *Human Development Report* "What is Human Development?" (2015). http://hdr.undp.org/en/content/what-human-development.

36. David C. Unger, *The Emergency State: America's Pursuit of Absolute Security at All Costs* (New York: The Penguin Press, 2012).

37. Jae-Jung Suh, "Rethinking National and Human Security in North Korea." In Park, K. (Ed.) *Non-traditional security issues in North Korea* (Honolulu: University of Hawaii Press, 2013), p.5.

38. John Tirman, "The Human Costs Of War: And How To Assess The Damage," *Foreign Affairs,* October 8 2015. https://www.foreignaffairs.com/articles/middle-east/2015-10-08/human-cost-war.

39. Simon Lauder, "Climate Change a Huge Security Problem: Keelty" *ABC News.* 25 September 2007. http://www.abc.net.au/news/2007-09-25/climate-change-a-huge-security-problem-keelty/680208.

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natural disasters. Natural disasters lead to human and economic losses with the potential to have a long-term impact on national economies, in turn leading to a new generation of vulnerable extreme poor. The extreme poor need resources to survive, and often resort to short-term desperate and unsustainable measures degrading the natural environment. This degraded environment in turn increases vulnerability to natural disasters. In this circular linkage, the poor are the most vulnerable when natural disasters occur, and human security issues are the most pronounced in areas of heaviest dependence on natural resources.

In order to break these vicious cycles of insecurity spillover, resilient communities must be constructed, and they must be built from the bottom up in harmony with local values and nature, rather than the top down and imposed through national security and development policy platforms, focusing on the domination of nature. Furthermore, as families, neighbors, and local authorities are likely to be the first responders assisting those affected by natural disasters, local communities must not only be educated and trained but also empowered. Contemporary critical perspectives call for "positive, proactive programs that promote peace building, rather than negative, reactive programs intended to reduce violence" and a focus on promoting "harmony, understanding, and effective problem solving."[43] In other words, a focus on how to bring people constructively together to build a whole greater than the sum of the parts, rather than on how to keep them apart in order to mitigate against the worst manifestations of conflicts of interests. The logical implications of this broader, deeper, transformative approach to peacebuilding include a much greater focus on both human security and humane security rather than the security of states.[44]

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