



Beyond the Nuclear Umbrella: Re-Thinking the Theory and Practice of Nuclear Extended Deterrence in East Asia and the Pacific

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I. Introduction

Peter Hayes, Professor, RMIT University and Executive Director of the Nautilus Institute, and Richard Tanter, Nautilus Institute Senior Associate, provide an overview of the Nautilus Institute's exploration of two inter-linked but highly contested aspects of the strategic nuclear situation on the Korean peninsula: the complexity and uncertainty associated with United States assurances of nuclear extended deterrence to South Korea (and Japan), and the potential contribution a nuclear weapon free zone to shifting the current impasse concerning North Korean nuclear weapons.

The views expressed in this article are those of the author and do not necessarily reflect the official policy or position of the Nautilus Institute. Readers should note that Nautilus seeks a diversity of views and opinions on significant topics in order to identify common ground.

II. Article by Peter Hayes and Richard Tanter

-“Beyond the Nuclear Umbrella: Re-Thinking the Theory and Practice of Nuclear Extended Deterrence in East Asia and the Pacific”

By Peter Hayes and Richard Tanter

It is both true and a cliché of international relations that the Korean peninsula remains, sixty years after the outbreak of war in Korea, and two decades after the end of the Cold War, the most likely place on the planet where regional conflict could escalate to nuclear war affecting the entire world. Clearly the state of ever-incipient conflict on the peninsula is of great concern not only in Korea and its immediate neighbours, but almost equally to more distant countries. This paper outlines two inter-linked but highly contested aspects of the strategic nuclear situation on the Korean peninsula: the complexity and uncertainty associated with United States assurances of nuclear extended deterrence to South Korea (and Japan), and the potential contribution a nuclear weapon free zone to shifting the current impasse concerning North Korean nuclear weapons. [1]

The first is an ongoing attempt by Nautilus Institute to re-think nuclear extended deterrence and contemporary security policy in East Asia and the Pacific in both theoretical and policy terms. The second, in the context of the failure of using nuclear extended deterrence to prevent North Korean nuclear proliferation, is the Nautilus Institute proposal to establish in short order a South Korea-Japan Nuclear Weapon-Free Zone (NWFZ). Such a bilateral zone, with the door held open to North Korea to join at a later stage, would act as a circuit-breaker in the stalemated nuclear confrontation; prefigure a United States negative security guarantee to North Korea in a future rapprochement; and reduce ongoing regional anxieties by locking both South Korea and Japan into a legally binding non-nuclear security posture. [2]

Re-thinking nuclear extended deterrence in East Asia and the Pacific

There are three key objectives in the ongoing Nautilus study of nuclear extended deterrence in East Asia and the Pacific:

1. To identify the theoretical underpinnings of the causes of change in the structure and dynamics of nuclear extended deterrence in the alliances;
2. To compare these theoretical findings with the actual role of nuclear extended deterrence in the contemporary East Asian-Pacific security situation, and identify the resulting theoretical deficiencies that need to be addressed;
3. To determine what changes in nuclear extended deterrence postures are necessary, viable and desirable given this theoretical reassessment, and what alternative policy responses to nuclear security threats may be available.

The first aim – to identify theoretical explanations of change in the structure and dynamics of nuclear extended deterrence – is vital since theoretical analyses of nuclear extended deterrence are surprisingly limited, and often either derived from basic deterrence, or an adjunct to policy-oriented case studies. [3] When combined with the dominance of realist accounts of nuclear extended deterrence – both in pure theory and in empirical, policy-oriented national and regional studies – these limits obscure our understanding of how nuclear extended deterrence actually functions. Cases of evident deterrence failure (such as North Korean proliferation) are not linked back to theoretical limitations. To overcome this theoretical poverty, Nautilus employs a comparative assessment of the explanatory power of four theoretical approaches to nuclear extended deterrence: realist, liberalist, Gramscian, and nuclear state formation studies. We will interrogate each of these explanatory frameworks with the fundamental question: what drivers and agents cause change in

the structure and dynamics of nuclear extended deterrence?

The second aim - to compare these theoretical findings with the actual role of nuclear extended deterrence in the contemporary East Asian-Pacific security situation - entails not only analyzing the full complexity of extended nuclear deterrence in the region, but also asking why these theoretical frameworks have for the most part failed to recognize, let alone resolve, the novel difficulties that have arisen due to this complexity--for example, the impact of American nuclear threats in driving North Korean nuclear proliferation, with consequent negative impacts on perceived American leadership with its East Asian allies. [4]

The third aim builds on the first two: to determine what changes in nuclear extended deterrence postures in alliance context are necessary, viable and desirable given this theoretical review and reassessment, and what - if any - alternative policy responses to nuclear security threats may be available. Realizing this aim requires understanding the rationales and processes by which nuclear extended deterrence is adopted as a solution to security threats. Under what conditions would reducing reliance on nuclear extended deterrence improve or diminish allied security? What concepts exist to define alternatives to existing theory and practice? Are concepts such as collective actor deterrence, tailored deterrence, pivotal deterrence, recessed deterrence, etc. valid and sound in theory, and robust in application?

Linking theoretical and empirical-policy analysis of deterrence is important because much of the theory in this area is abstract, deductive, and hence speculative. As Crawford put it, citing Smoke and George's classic study: it merges "assumptions and propositions about different actors, from different vantage points, that describe and explains a pattern of strategic interaction that converges 'on some central point'". [5] It is significant also because state practitioners overtly refer to and apply this theory to policy in a familiar and direct, if not rigorous, manner.

The theory of post-Cold War nuclear extended deterrence.

Once the classic studies of deterrence and policy studies are excluded, scholarly studies devoted to the topic are surprisingly small in number [6]. We begin by considering a number of promising concepts in deterrence theory developed recently to address problems arising from new types of complexity in the present period. Seven conceptual innovations will be scrutinised from different theoretical perspectives, and then tested against evidence from case studies for coherence, robustness, relevance and capacity to generate further theoretical development.

- a. *Existential deterrence*: Coined by McGeorge Bundy during the Cold War, today this concept refers to the caution induced in decision makers by the mere existence of nuclear weapons. [7] In principle, existential nuclear deterrence can be extended to allies, and may be used in conjunction with conventional extended deterrence. [8]
- b. *Collective Actor Deterrence*: Historically associated with multinational alliances or multilateral institutions, collective deterrence responses to more volatile post-Cold War conditions of flux include concerted or ad hoc. As Morgan argues, collective actor deterrence aims to create or preserve global security public goods rather than just benefits for a few states in alliances. [9]
- c. *Tailored deterrence*: This often controversial concept suggests that nuclear extended deterrence should be adjusted to match the targeted actor's specific motivations, risk adversity, norms and values, and power resources, and often will be only a small part of the resources mobilized to achieve deterrence. [10]
- d. *Pivotal deterrence*: This concept captures the possibility for nuclear weapons states to arbitrate between two adversarial states, and to deter them from attacking each other. This pivotal role

does not imply impartiality, but it further complicates an already complex strategic situation and may supplant or be superimposed on old forms of strategic deterrence. Relevant contexts for the United States may be the Korean Peninsula, China-Japan relations, and Taiwan-China relations. [11]

- e. *Recessed deterrence*: This concept refers to the idea that nuclear weapons states should strive to reduce reliance upon and to deemphasize nuclear weapons in every possible way so that inter-state relations are no longer affected by them. Nuclear arsenals may decay and conflicts reduce to the point that the weapons simply become useless and irrelevant. [12]
- f. *Retired deterrence*: This new concept refers to a situation where once a nuclear arsenal is disarmed, the effects of past nuclear deterrence, including its extended variants, will live on, echoing in memory, casting shadows of threat of renewal, and possibly entangled in on-going nuclear deterrence exercised by other countries. To date, the only empirical example to examine for these effects is South Africa. [13] Retired deterrence may interact with extended deterrence if "disarming" is followed by an offer of protection from a nuclear defender, or by a nuclear threat from a third party. Going further, the set of countries that contemplated pursuing nuclear weapons, then decided to not to do so, such as Sweden or Australia, experience a different kind of reverberation from their near-nuclear past in that they retain a latent nuclear weapons option that still speaks loudly from the grave to continuing aspirations to become a nuclear armed state. This could be an effect that might be characterized as nuclear regret or nostalgia, rather than the relief or remorse associated with decisively retired nuclear arsenals. [14] Such a condition of nuclear regret will also be relevant to epistemic and policy communities within retired deterrence states that are having second thoughts, and wish, under new circumstances, whether domestic or external, to revisit the decision. [15]
- g. *Dependent deterrence*: This new concept refers to the threat by a nuclear defender to withdraw nuclear extended deterrence in order to coerce the protégé to adopt a policy it otherwise prefers to eschew. Under these circumstances, Gramscian hegemony no longer obtains, and pure coercion is involved. The coercion may not be the only factor involved: the fact that hegemony has failed may indicate a more equal relationship between defender and protégé, such that the defender must either coerce or negotiate with the protégé to achieve specific goals outside nuclear deterrence. Such a bullying or bargaining may also indicate that such (non-nuclear) goals are more important to both the defender and the protégé than maintaining nuclear extended deterrence.

Drivers and agents of deterrence change

What drives change in nuclear extended deterrence? What are the agents that generate and condition the parameters of change? And, what are the ways to understand whether changes are positive or negative with respect to security outcomes? Theories that frame answers to these questions have great import for the real world because policies based on them could miss opportunities to adjust nuclear postures at best, or even lead to catastrophe at worst. A pluralist approach is necessary here because different theories throw light on different aspects of nuclear extended deterrence.

For example, realist theory does not deal well with globalization processes that affect nuclear extended deterrence structures in multiple ways, including: diffusion of dual use technology to potential proliferating states; facilitation of nuclear black markets or the migration of skilled nuclear personnel; the migration of defender country's citizens into antagonist cities, thereby complicating nuclear targeting; the emergence of potential transnational non-state terrorist nuclear weapons controllers; and so on.

One key source of change may be the increasingly contradictory and multiple roles required of nuclear extended deterrence. The US nuclear commitment to South Korea, for example, ostensibly protects South Korea and Japan from nuclear attack, discourages their nuclear weapons development, reassures their leaders that the United States will not "decouple" its forces from the region, deters DPRK nuclear alliance with third parties, compels the DPRK to return to denuclearization talks, and buttresses American power projection capability.

Viability of conceivable alternatives

A third area of concern involves questions of the necessity, viability and desirability of reformed versions of nuclear extended deterrence (such as collective deterrence), and of three conceivable generic alternatives to reliance upon nuclear extended deterrence: namely *nuclear rejection*, *nuclear recession*, and *conventional deterrence* (possibly combined with existential deterrence).

New Zealand is the only case of nuclear rejection to date. [16] In that case, the Lange Labor government, influenced by a highly developed, politically savvy and well-informed domestic peace movement initially barred nuclear-armed or nuclear-powered ships entering New Zealand territorial waters or using its ports. A year later, following the refusal by the United States to confirm that one of its warship on an intended port visit to New Zealand would not be carrying nuclear-weapons, the United States announced that it considered its obligations to New Zealand under the ANZUS (Australia, New Zealand, United States) alliance as suspended. The Lange government passed the New Zealand Nuclear Free Zone, Disarmament, and Arms Control Act 1987, and all subsequent governments have supported its retention. [17]

Nuclear recession involves, as in the case of western Europe after the Soviet Union collapsed, the gradual shifting of American nuclear deterrence into the background, and primary reliance on other methods of deterrence. [18] This requires examining the relationship between nuclear extended deterrence and conventional extended deterrence to elucidate the conditions under which a shift to conventional extended deterrence may be to the advantage of defenders and protégés, as in the contemporary Korean case. [19] Although some work in the policy realm on this issue exists (especially in the Japanese and NATO situations), theoretical examination of the connection between the possible nuclear and conventional elements of extended deterrence is in its infancy. [20]

Theoretical perspectives on extended nuclear deterrence

Nuclear extended deterrence is best understood today using new concepts that go beyond those employed in existing theory. Four theoretical approaches have informed existing formulations of nuclear deterrence and its extension to third parties in interstate conflicts. These are: a) *Structural realism*, the theory of international affairs in which only states matter, existing in anarchic conditions of endless and intense rivalry, and wherein states resolve conflicts by war, with outcomes determined by the relative means of coercive power at their disposal, including nuclear weapons [21]; b) *Liberal institutionalism*, which proposes that the anarchic world system is also amenable to cooperation between states, and focuses on how such cooperation leads to the development of norms, rules and organisations whereby international affairs are regulated and managed, including nuclear weapons proliferation, arms control, and disarmament [22]; c) *Gramscian hegemonic theory*, which by drawing on political economy, suggests that less powerful states not only defer to great powers, but also consent to their subordination, and therefore must share ideologies of common political, economic and security interest that legitimates the leadership of an external great power [23]; and d) *Nuclear state formation theory*, which argues that nuclear weapons are one of the instruments of terror used by state elites not only to project threat against potential and actual adversaries in a way intended to influence their behaviour, but also necessarily to reinforce their domestic control. [24]

Of course, these are “ideal” categories. In reality, they overlap considerably. For example, the realist precept that what matters most are coercive capacities of states also informs the other three theories due to the peculiar and unique characteristics of nuclear weapons, albeit in different ways in each case. Elements of each theory are found in the core concept of nuclear extended deterrence, itself a concatenation of notions drawn from game theory, microeconomics, psychology, political science, etc.

Each theory also explains differently what brings about nuclear extended deterrence and changes in it. In the structural realist model, acquisition of a secure retaliatory force, such that it can counter-attack, even if the state itself is destroyed by a pre-emptive nuclear strike, is a critical enabling condition of the credibility of nuclear extended deterrence. In the liberal-institutionalist model, the construction of a shared discourse and “rules of the road” by nuclear weapons states during the Cold War to stabilize mutual nuclear deterrence made it possible to manage allies caught between fears of abandonment and entrapment due to nuclear extended deterrence. In the Gramscian model, a balance between a shared ideology of nuclear deterrence, tightly integrated alliance institutions to deploy and operate nuclear forces, and unique nuclear forces fielded by the hegemonic power, is required to extend nuclear deterrence—and change may arise at any one or all of these levels to disrupt or rupture a nuclear alliance. Finally, in the nuclear state formation-terror model, states use nuclear threat to contain and manipulate their populations, and in some societies, generate resistance that erupts into social movements that lead to changes in deployments, the removal of nuclear weapons hosted on allied territory, or to the termination of nuclear extended deterrence altogether.

There have been dramatic changes in the global system in which nuclear weapons exist since the Cold War ended. These include the rise of three nuclear and conventionally armed states (United States, Russia, and China) that far exceed the military capacity of other states; regional conflicts frozen by defence-dominated deterrence and without recourse to nuclear weapons (such as Korea before October 2006); states facing a constant danger of pre-emption with nuclear and conventional high-risk standoffs (such as Israel, India and Pakistan); and states outside such conflicts and not related to defensive or offensive deterrent capabilities either directly or indirectly extended by others (such as New Zealand or Mexico).

Consequently, nuclear weapons are now woven into international affairs in a more complicated and multi-dimensional fashion than during the bipolar Cold War. Firstly, the triangular nuclear standoff between the United States and its nuclear allies in Europe, the former Soviet Union, and China has shifted to general rather than immediate deterrence against the threat of pre-emptive attack, allowing nuclear weapons to recede into the “background” of great power politics.

Secondly, regional conflicts have also driven small and regional powers to proliferate nuclear weapons in recent years—most obviously between India and Pakistan, but also in Korea and potentially in the future, Iran offsetting Israel’s nuclear force. These small arsenals are primarily targeted against neighbors and serve immediate deterrent roles due to locally “hot” conflicts that could bring smaller nuclear powers into head-on collisions. There are now ten nuclear weapons states, each with its own strategic culture and context in a complex web of threat and reassurance relationships.

Thirdly, transnational, networked sub-national actors actively seek and may obtain nuclear weapons, complicating the doctrinal and operational aspects of nuclear deterrents. Fourth, the revolution in military affairs has made it conceivable that great powers could extend deterrence without relying on nuclear weapons. These states may increase their long range interventions against proliferating states (or non-state actors) which may develop crude long-range delivery systems to deter the nuclear great powers from making such interventions. In turn, these great powers may invest

heavily in defences to counter such threats from third-rate nuclear weapons states, and may transfer these systems to allies.

Our second methodological starting point, *Complex Deterrence*, sets out to understand how deterrence, especially nuclear deterrence, is affected by these new conditions. In addition to standard research questions on the axioms of deterrence theory (for example, the challenges posed by cognitive and psychological theorists and a raft of case studies as to the (ir)rationality of decision makers under stress during nuclear confrontations in the Cold War [25]), the contributors tackled how the ambiguity and fluidity of the international system render deterrent threats less and less credible. In particular, Crawford suggests that nuclear extended deterrence is even more incredible today than during the Cold War because the conventional superiority of the United States in almost all conflicts involving US allies makes any threat to use nuclear weapons absurd. [26]

“The rest is left to the imagination ...”

The salience of these theoretical discussions to urgent and practical policy issues was brought out in a recent call by Jeffrey Lewis to policy-makers in both East Asia and the United States to be clear about what he calls two myths “which have produced a situation whereby

“too much emphasis on nuclear weapons might be bad for extended deterrence. The two myths are, first, that there is something called “the nuclear umbrella” and, second, that there are US nuclear forces allocated for missions under that umbrella.”

There is, Lewis insisted,

“a widening, yawning even awesome gap between the rhetoric of traditional nuclear extended deterrence, and the reality of targeting, delivery, detonation, and termination of nuclear war on the Korean Peninsula.”

Heretically, but accurately, Lewis reminds us that there is no binding legal term labelled either “extended nuclear deterrence” or the “nuclear umbrella”:

“The so-called “nuclear umbrella” exists only because the United States is pledged to defend Japan and South Korea and happens to possess nuclear weapons. The rest is left to the imagination.”

Lewis’s central policy point is that much damage to rational policy and alliance relations with US allies in East Asia has been generated by the failure by the United States to admit to both its own public, its allies, and its regional antagonists that it is simply very unlikely to ever use nuclear weapons on the Korean peninsula. Its response to even a nuclear use by North Korea will be conventional – and indeed massively so. Such an honest and rationally grounded admission, coupled with a more credible assurance that it will indeed defend its allies in such a way – genuine and credible extended deterrence – is more likely to produce confidence amongst those allies than the present literally in-credible fictional nuclear assurances.

The implications of Lewis’s call for reassessment become clearer still when they are contrasted with Cheon Seongwhan’s approach to the question of maintenance of mutual confidence between

“defender” and “protégé” in the extended nuclear deterrence relationship. [\[27\]](#)

“In short, South Korea can provide the United States with the alliance security assurance (ASA) and support the U.S. nonproliferation commitments. The alliance security assurance is a U.S. ally’s promise that as an alliance partner receiving nuclear umbrella, it will neither develop nor possess nuclear weapons as long as extended deterrence including nuclear extended deterrence is provided.”

While phrased in the appealing language of “alliance security assurance”, the substance of the approach is less comforting: namely a formalisation of a different kind of assurance – that absent what is regarded as acceptable assurances of United States nuclear extended deterrence, South Korea will become a nuclear proliferator.

Towards a Korea-Japan Nuclear Weapon-Free Zone

These complex and threatening sets of changes in the framework and likely efficacy of nuclear extended deterrence, combined with the obduracy of the lingering Cold War detritus in the political dynamics of the Korean peninsula lead, for both theoretical and policy reasons, to a reconsideration of alternative pathways to a sustainable peace in the region. One approach that has been considered in recent years has been a Northeast Asian Nuclear Weapons Free Zone. [\[28\]](#)

The International Commission on Nuclear Non-proliferation and Disarmament took a strongly positive view of the utility of nuclear weapon free zones, saying they “have made, and continue to make, a very important contribution to nuclear non-proliferation and disarmament”, and recommended both their strengthening and the establishment of new zones. [\[29\]](#)

Nautilus Institute has proposed a new version of an East Asian zone. In the context of the failure of using nuclear extended deterrence to prevent North Korean nuclear proliferation, Nautilus Institute has proposed a new version of a Northeast Asian zone, calling for the establishment in short order of a South Korea-Japan Nuclear Weapon-Free Zone (NWFZ). Such a bilateral zone, with the door held open to North Korea to join at a later stage, would act as a circuit-breaker in the stalemated nuclear confrontation; prefigure a United States negative security guarantee to North Korea in a future rapprochement; and reduce ongoing regional anxieties by locking both South Korea and Japan into a legally binding non-nuclear security posture.

A South Korea-Japan Nuclear Weapon-Free Zone is an attractive regional security concept compared with either the status quo or a future for Northeast Asia without such a zone. It should be in force by 2012. Such a zone must meet the standard and conventional requirements of a treaty-based NWFZ, viz:

1. Effective prohibition of the development, manufacturing, control, possession, testing, stationing or transporting of any type of nuclear explosive device for any purpose;
2. Effective verification of compliance;
3. Clearly defined boundaries;
4. Legally binding commitments to the zone by the nuclear weapon states not to use or threaten to use nuclear weapons against the zone parties (at present, NWFZs are the only instrument that secures such legally binding guarantees, and not in the case of all the zones);
5. Legally binding commitments by nuclear weapon states party not to fire nuclear weapons from within or into the zone against third parties; [\[30\]](#)

A Korea-Japan NWFZ would also need to address the following region-specific issues:

6. The need to harmonize the different philosophies and principles that exist already in Japan and Korea with regard to nuclear transit and nuclear extended deterrence;
7. The possibility of the entry of the DPRK at a later stage into the zone as a denuclearized, non-nuclear state; and the opposite possibility that the DPRK would try to co-exist as a NWS, or attempt to sign a protocol intended for a NWS;
8. Specific issues that may arise due to the impact of the zone on China's perceived security interests and thereby on its security relationships with state parties to a KJNWFZ. Such issues might include the implicit United States shift from nuclear extended deterrence to different combinations of enhanced conventional deterrence and what is termed below "existential nuclear deterrence" in US alliance relationships with Korea and Japan, transit through exclusive economic zones, the Taiwan Straits, and theater missile defences.

Two crucial derivative issues also must be addressed to achieve the bilateral trust between Korea and Japan needed for a bilateral zone to be feasible:

9. Restriction of nuclear-capable missile delivery systems in the Zone, how to distinguish nuclear-capable missiles from space-launch vehicles, and how to ensure Japan-Korea equality of access to civilian space-launch capacities.
10. Korea's goal of achieving full "nuclear sovereignty" on a par with Japan, and ensuring that Korea is treated equally with Japan in any divergence from full nuclear sovereignty—that is, that the zone incorporate some basis for integrated nuclear fuel cycle activity that includes enrichment and reprocessing. Should the DPRK join the Zone, then the need for regional energy security strategies to support this accession is another dimension of "nuclear sovereignty" given the likelihood that this would entail nuclear power stations in the DPRK.

Whether these issues would be included in a KJNWFZ or could be treated in separate but related agreements that support such a zone is an open but important question.

One central thrust of the Korea-Japan NWFZ proposal is its approach to the obviously problematic question of North Korea's relationship to the zone [31]. One of the key rationales for the proposal is that first and foremost, it would offer the only peaceful path to eliminate North Korea's nuclear weapons. There are two ways for the North to join the zone. One is to encourage North Korea to sign the zone treaty at the outset, but allow it to waive some of the nuclear-free requirements until it is secure enough to do so. This is what Argentina and Brazil did in the Latin American NWFZ treaty. They took 18 years to remove their waivers, but they eventually did [32]. This approach would recognize North Korea as a legitimate state, but deny it nuclear weapons state-status, and calibrate its gains from joining the zone to the pace of its nuclear disarmament, especially guarantees from nuclear weapons states not to target it.

By offering North Korea "co-founder" status in such a zone, South Korea might bring the North into the tent for the Global Nuclear Summit in May 2012 in Seoul, at which time governments might announce a regional commission to study the zone concept.

The other way is to simply leave the door open until the North decides to disarm and join the zone for its own reasons (most likely the cumulative costs of nuclear outlaw status or a change in leadership); or until it collapses, at which time the zone would cover a unified Korea. Either way, nuclear extended deterrence would continue to operate, albeit weakly, for US allies; and along with China and Russia, North Korea would continue to be an American nuclear target for as long as it remained nuclear-armed. It would be vastly preferable to have Pyongyang join the zone camp from

the outset, because North Korea would reaffirm its intention to denuclearize. The process of implementing the zone — in conjunction with separate negotiations with the US and China — would leverage the North into eventual compliance.

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