



BOOK REVIEW ROUNDTABLE:

The Future of Extended Deterrence

February 28, 2018

Table of Contents

1. "Introduction: Debating the Role of Extended Nuclear Deterrence in East Asia," by Matthew Fuhrmann
2. "Nuclear Umbrella or Nuclear Albatross?" by Eric Gomez
3. "The Nuclear Umbrella Is Necessary, But Is It Adequate?" by Andrew O'Neil
4. "Is It Time to Rethink the 'Nuclear' in 'Nuclear Umbrella?'" by Crystal Pryor
5. "Stable Umbrellas: Here Today, Gone Tomorrow?" by Christopher P. Twomey

Summary

Our reviewers respond to Terence Roehrig's new book, "Japan, South Korea, and the United States Nuclear Umbrella," and ask some tough questions about the purpose and future of extended deterrence.

1. Introduction: Debating the Role of Extended Nuclear Deterrence in East Asia

Matthew Fuhrmann

Extended nuclear deterrence remains central to world politics in light of growing concerns about Chinese, North Korean, and Russian ambitions. Terence Roehrig's new book, *Japan, South Korea, and the United States Nuclear Umbrella* contributes to the scholarship on this important issue.¹ The book provides a helpful overview for anyone seeking to understand the dilemmas that the United States faces when attempting to protect allies with nuclear threats, especially when it comes to Japan and South Korea. Roehrig's central argument is that the U.S. nuclear arsenal is not especially useful for deterring attacks because nuclear threats lack credibility. Nevertheless, the American nuclear umbrella remains significant in East Asia because it reassures allies and promotes nonproliferation.

The contributors to this roundtable recognize the value in Roehrig's book but also highlight some of its limitations. Their reviews raise important questions that carry implications for both alliance politics and nuclear proliferation.

The degree to which readers agree with Roehrig's arguments may depend on their general attitudes about the role of nuclear weapons in international relations. Some scholars and policymakers believe that the world would be safer if countries placed a smaller emphasis on nuclear weapons. Many individuals in this camp embrace the "global zero" movement — an international campaign to eliminate

¹ Terence Roehrig, *Japan, South Korea, and the United States Nuclear Umbrella: Deterrence After the Cold War* (New York: Columbia University Press, 2017).

nuclear weapons — and the 2017 treaty that bans nuclear weapons.² Another school of thought suggests that nuclear weapons should not be eliminated because they produce desirable political effects, at least for the countries that possess them. In this view, having a reliable nuclear arsenal allows the United States to deter attacks with greater ease, while without it, major war would be more likely.

This roundtable captures unique views about the (dis)utility of nuclear weapons. Two commentators, Crystal Pryor and Eric Gomez, argue that Roehrig may place too much emphasis on nuclear forces. Pryor questions whether the benefits of the U.S. nuclear umbrella outweigh the costs. She accepts Roehrig's argument that U.S. nuclear threats lack credibility in the context of extended deterrence. Yet Pryor challenges the notion that U.S. nuclear forces reassure officials in Seoul or Tokyo. She points to many other factors that keep both of these countries nonnuclear, including international norms, the nuclear Nonproliferation Treaty, and American coercive pressure. Moreover, the maintenance of the U.S. nuclear umbrella is dangerous, Pryor argues, because it raises the risk of catastrophe due to miscalculation. She therefore concludes that the United States should consider eliminating the nuclear dimension from its alliances with Japan and South Korea. Both the United States and its allies might be better off if they downplayed the role of nuclear weapons in their alliance relationships.

Gomez reaches a similar conclusion, albeit for slightly different reasons. He argues that conventional capabilities, especially precision strike weapons and ballistic missile defense systems, can take the place of U.S. nuclear forces. As U.S. allies

² For an overview of this debate, see George Perkovich and James M. Acton, eds., *Abolishing Nuclear Weapons: A Debate* (Washington, DC: Carnegie Endowment for International Peace, 2009).

develop these capabilities, the need for the U.S. nuclear arsenal may diminish. To substantiate this argument, Gomez considers three conflict scenarios where the U.S. defense commitment might come into play: Chinese occupation of islands in the East China Sea, a North Korean invasion of South Korea, and Pyongyang's first use of nuclear weapons. The U.S. nuclear umbrella is most relevant for the third scenario, according to Gomez, yet it may not even be effective in deterring a North Korean nuclear attack. He concludes that nuclear weapons "should not be an albatross around the neck of America's security policy in East Asia."

The other reviewers (Christopher Twomey and Andrew O'Neil) are more sanguine about the role of U.S. nuclear weapons in East Asia. They suggest, contrary to the other commentators, that Roehrig understates the potential significance of the American nuclear umbrella in extended deterrence. Twomey suggests that U.S. nuclear weapons could be relevant for counterforce missions against North Korea, given the difficulties in locating and destroying Pyongyang's missiles and other relevant military technology. He also cites evidence suggesting that Japanese and South Korean officials believe that U.S. nuclear forces enhance extended deterrence — not just symbolic reassurance — even though those weapons may be used under extreme circumstances only. Twomey also posits that nuclear weapons are more likely to enter the fray in a dispute over Taiwan than in Japan or South Korea, a topic Roehrig does not extensively analyze in his book.

O'Neil likewise maintains that nuclear weapons are more relevant to the landscape in East Asia than Roehrig's book leads us to believe. Roehrig's argument that extended deterrent nuclear threats lack credibility rests, in part, on the existence

of a nuclear taboo — the strong opprobrium of nuclear first use.³ O’Neil is less convinced that normative aversion to using nuclear weapons renders them ineffective for extended deterrence in East Asia. He substantiates this argument by highlighting the apparent weakening of the nuclear taboo during the Trump administration. Recent experimental evidence supports this view, showing that the American public is less averse to nuclear first use than previous research would lead us to believe.⁴ O’Neil also worries more than Roehrig about the possibility of independent nuclear arsenals in East Asia. Despite the presence of the U.S. nuclear umbrella, he argues, Japan and South Korea may seek their own nuclear weapons as North Korea’s nuclear capabilities increase in the years and decades ahead.

Whether or not one agrees with Roehrig’s argument, his book is an important part of the debate about the future of nuclear weapons. Ultimately, the contributions in this roundtable point out the need for more extensive research and thinking about the role of nuclear weapons in the 21st century.

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³ Nina Tannenwald, *The Nuclear Taboo: The United States and the Non-Use of Nuclear Weapons Since 1945* (Cambridge, UK: Cambridge University Press, 2007).

⁴ Scott D. Sagan and Benjamin Valentino, “Revisiting Hiroshima in Iran: What Americans Really Think About Using Nuclear Weapons and Killing Noncombatants,” *International Security* 42, no. 1 (2017), 41-79.

2. Nuclear Umbrella or Nuclear Albatross?

Eric Gomez

Despite stringent international sanctions, North Korea's nuclear weapons and ballistic missile programs have developed at breakneck speed and show no sign of slowing down. The Trump administration's "maximum pressure" approach to the problem has little to show besides growing fear of a U.S. preemptive strike and a war of words between two colorful leaders. Yet North Korea's ability to hold the United States homeland at risk with a nuclear weapon raises important questions about the future of extended deterrence commitments and especially the U.S. nuclear umbrella over South Korea and Japan.⁵

China's growing military power also presents a serious, albeit less urgent, challenge to extended deterrence. Improvements in weapons technology, extensive organizational reforms, and assertive moves in disputed areas like the South China Sea stoke regional fears that China's rise may not be peaceful. As Beijing narrows the local balance of power gap with the United States, security commitments made by Washington decades ago could become harder to maintain.⁶ A relatively calm

⁵ Benjamin Haas, "South Korean Media Call for Country to Build its Own Nuclear Weapons," *The Guardian*, Sept. 4, 2017, <https://www.theguardian.com/world/2017/sep/04/south-korean-media-calls-country-build-own-nuclear-weapons>; Mira Rapp-Hooper, "Decoupling is Back in Asia: A 1960s Playbook Won't Solve These Problems," *War on the Rocks*, Sept. 7, 2017, <https://warontherocks.com/2017/09/decoupling-is-back-in-asia-a-1960s-playbook-wont-solve-these-problems/>.

⁶ Eric Gomez, "A Costly Commitment: Options for the Future of the U.S.-Taiwan Defense Relationship," Cato Institute Policy Analysis no. 800, Sept. 28, 2016.

U.S.-China relationship suggests a very low probability of a serious crisis for the foreseeable future, but U.S. policymakers must keep this long-term challenge in the back of their mind as they contend with the immediate crisis on the Korean Peninsula.

Both the North Korea and China challenges make Terence Roehrig's book, *Japan, South Korea, and the United States Nuclear Umbrella*, a valuable tool for American analysts grappling with questions of extended deterrence in an increasingly volatile Northeast Asia. The book opens with an excellent summary of deterrence theory before laying out the history of the U.S. nuclear umbrella to Japan and South Korea. Roehrig uses this accessible blend of theory and history to explore the future of both extended deterrence and the nuclear umbrella.

Although Roehrig treads somewhat cautiously in his analysis, and has left some important strategy and policy debates under-discussed, his is an otherwise exceptional book that offers a great starting point for future research.

Roehrig makes two important arguments about the nuclear umbrella and the role it plays in extended deterrence. First, he argues that "The nuclear umbrella [over Japan and South Korea] likely does little to deter anything other than nuclear war, because threats to use nuclear weapons...are simply not very credible."⁷ During the Cold War, nuclear weapons were the best way for the United States and its allies to offset the large militaries of North Korea and China. Today, however, modern conventional weapons provide the United States and its allies with other means for

⁷ Terence Roehrig, *Japan, South Korea, and the United States Nuclear Umbrella: Deterrence After the Cold War* (New York: Columbia University Press, 2017), 187.

countering quantitatively superior adversaries without the same need for nuclear weapons. As Roehrig writes, “The United States has numerous, potent conventional options that would have similar strategic effects [as nuclear weapons] on an adversary and would be highly credible.”⁸ Roehrig does acknowledge that the destructive power of nuclear weapons coupled with ambiguity over the conditions that would lead to their use may be valuable for deterrence, but the book’s core take-away is that the nuclear umbrella is real but is not, in the end, credible for its primary purported aim of deterrence.

Second, Roehrig argues that the nuclear umbrella is vital for alliance reassurance and for maintaining a generally strong relationship with Japan and South Korea. He writes, “Despite the significant credibility problems of nuclear weapons in extended deterrence...the nuclear umbrella is an important political signal that reflects and helps buttress the overall health of the alliances.”⁹ According to Roehrig, closing the U.S. nuclear umbrella would likely have greater costs than benefits. Tokyo and Seoul are highly sensitive to U.S. actions that weaken the nuclear umbrella. For example, Roehrig argues that Japanese analysts and officials were very concerned by the Obama administration’s decision to retire the Tomahawk Land-Attack Nuclear Cruise Missile (TLAM/N) in the early 2010s.¹⁰ He also notes that South Korea embarked on a covert nuclear weapons program in the 1970s after regional events — the U.S. defeat in Vietnam and rapprochement with China — called into question the reliability of the nuclear umbrella.¹¹ Closing the nuclear umbrella at a time of intense uncertainty would likely exacerbate regional

⁸ Roehrig, *Japan, South Korea, and the United States Nuclear Umbrella*, 156.

⁹ Roehrig, *Japan, South Korea, and the United States Nuclear Umbrella*.

¹⁰ Roehrig, *Japan, South Korea, and the United States Nuclear Umbrella*, 110–111.

¹¹ Roehrig, *Japan, South Korea, and the United States Nuclear Umbrella*, 126, 148.

tension despite the fact that the U.S. pledge to use nuclear weapons is so difficult to make credible. As Roehrig states, “To remove the umbrella based on the lack of credibility may be a serious negative political signal and a modification of the status quo that would be very disturbing to allies.”¹²

Thus the United States finds itself in a strategic catch-22. It is practically impossible for Washington to make the nuclear umbrella credible as a deterrent due to the military and reputational problems attendant with nuclear use, so allies can never be completely reassured. However, if Roehrig’s assessment is correct, the costs of abandoning this dubious position would likely outweigh the benefits. While Roehrig does a commendable job explaining the current state of extended deterrence and the nuclear umbrella, his analysis does not dive deeply enough into what the future may hold. On the whole, *Japan, South Korea, and the United States Nuclear Umbrella* is a valuable resource for understanding how these three countries arrived at the current moment. Yet Roehrig misses an opportunity to discuss in detail some important issues related to extended deterrence that could have major policy implications in the years to come.

For starters, the U.S. nuclear umbrella is not the only component of America’s extended deterrence commitments to Japan and South Korea. Yet Roehrig only briefly touches upon this fact in the book.¹³ A strong Japan and South Korea armed with conventional precision strike and ballistic missile defense (BMD) capabilities could reduce the relative importance of the nuclear umbrella in extended

¹² Roehrig, *Japan, South Korea, and the United States Nuclear Umbrella*, 36.

¹³ On Japanese efforts, see Roehrig, *Japan, South Korea, and the United States Nuclear Umbrella*, 116–120. On South Korean efforts, see Roehrig, *Japan, South Korea, and the United States Nuclear Umbrella*, 140–145.

deterrence. While the U.S. nuclear umbrella may still be valuable for deterring the use of a nuclear weapon, it is substitutable. Eventually, stronger U.S. allies could enable Washington to adopt a more restrained force structure and strategy in East Asia.

Japan and South Korea are making significant investments in conventional strike and BMD that bolster their contribution to extended deterrence, with each country emphasizing different capabilities based on their particular threat perceptions. Tokyo's close cooperation with Washington on BMD was prompted by North Korean satellite launches and ballistic missile tests that flew over Japanese territory. This emphasis on BMD fits into Japan's defensively-oriented military posture and the importance Tokyo places on close cooperation with the United States as part of its overall defense strategy. The Japanese military is also improving its conventional strike capabilities, though these developments are in a much earlier stage compared to BMD cooperation with the United States.¹⁴ Moreover, while North Korea provides the immediate impetus for Japan's pursuit of conventional strike capabilities, the long-term threat they are intended to counter is China.¹⁵ Tokyo does not want a defense posture independent of the United States and places great emphasis on the U.S. nuclear umbrella, but even

¹⁴ Franz-Stefan Gady, "Japan's Defense Ministry Confirms Plans to Buy Long-Range Stand-off Missiles," *The Diplomat*, Dec. 11, 2017, <https://thediplomat.com/2017/12/japans-defense-ministry-confirms-plans-to-buy-long-range-stand-off-missiles/>.

¹⁵ Leo Lewis and Kana Inagaki, "Japan Plans Missile to Test Chinese Strategy in East China Sea," *Financial Times*, Aug. 17, 2016, <https://www.ft.com/content/760e5c60-6445-11e6-a08a-c7aco4ef00aa>; Clint Richards, "Japan's New Remote Island Defense Plan," *The Diplomat*, Aug. 13, 2014, <https://thediplomat.com/2014/08/japans-new-remote-island-defense-plan/>.

historically pacifist Japan realizes it must play a greater role in providing for its own defense as regional threats grow more serious.¹⁶

By contrast, South Korea's approach to conventional strike and BMD is driven entirely by North Korea. Recent developments in its defense posture stress independence from, rather than integration with, the United States. After North Korean military forces sank a South Korean warship and shelled an offshore island in 2010 "[South Korean] leaders...concluded that to deter North Korea from further provocations, it needed to have its own capability to strike targets throughout [North Korea]."¹⁷ South Korea now possesses an impressive array of conventional ballistic and cruise missiles and has developed two operational concepts that call for early strikes against North Korean leadership targets, missile sites, and the city of Pyongyang in the event of a conflict.¹⁸ South Korea can, in theory, use these conventional strike forces unilaterally. Roehrig notes this, stating that "...South Korea is not reliant solely on U.S. conventional strike or the nuclear umbrella to preempt or retaliate."¹⁹ However, South Korea's conventional strike capability depends on U.S. intelligence, surveillance, and reconnaissance (ISR)

¹⁶ Jennifer Lind, "Japan's Security Evolution," Cato Institute Policy Analysis no. 788, Feb. 25, 2016.

¹⁷ Roehrig, *Japan, South Korea, and the United States*, 142.

¹⁸ Franz-Stefan Gady, "South Korea to Build New Ballistic Missile Targeting North Korea," *The Diplomat*, Oct. 23, 2017, <https://thediplomat.com/2017/10/south-korea-to-build-new-ballistic-missile-targeting-north-korea/>; Jun Ji-hye, "3 Military Systems to Counter N. Korea: Kill Chain, KAMD, KMPR," *The Korea Times*, Nov. 1, 2016, https://www.koreatimes.co.kr/www/news/nation/2016/11/205_217259.html; Roehrig, *Japan, South Korea, and the United States*, 141-143.

¹⁹ Roehrig, *Japan, South Korea, and the United States Nuclear Umbrella*, 143.

capabilities for targeting. Until Seoul develops more sophisticated ISR, its strike capability will not be fully independent from the United States.

South Korea's search for military options independent from the United States extends to BMD. Seoul is anxious to develop indigenous BMD systems, and has repeatedly rejected invitations to integrate its capabilities with American and Japanese systems. This does not mean that South Korea will go it alone completely on BMD; Seoul has participated in training simulations with the United States and Japan and hosts a Terminal High-Altitude Area Defense (THAAD) battery near the city of Seongju. But South Korea's longstanding antipathy toward Japan makes it wary of becoming enmeshed in a regional BMD architecture that links its fate to its former colonial overseer.

Three Overlooked Scenarios

While Roehrig's book is a good foundational text on modern extended deterrence in Asia, it fell short in addressing the three most likely conflict scenarios that could invoke U.S. extended deterrence commitments: China establishing military control over disputed islands in the East China Sea; a North Korean invasion of South Korea; and the first use of a nuclear weapon by North Korea. In each scenario, the political and psychological rationales that Roehrig establishes for maintaining the nuclear umbrella persist, but he does not address the declining relative importance of U.S. nuclear weapons as South Korea and Japan develop their ability to implement deterrence by denial using conventional capabilities and BMD. Only in the third scenario does the U.S. nuclear umbrella offer unique deterrence value, and even there it generates risks of its own.

East China Sea

One of Japan's most pressing short-term security challenges is maintaining its control over islands in the East China Sea that China also claims. While the possibility of China initiating a large-scale conflict against Japan over the uninhabited Senkaku/Diaoyutai islands is unlikely, lower-level friction is entirely plausible. As Roehrig states, "Conflict in gray zones...is of greater concern, along with the possibility that a small-scale or accidental clash could escalate."²⁰ Beyond traditional war, Japanese strategists have been preoccupied deterring lower-level aggression in general, and they specifically seek to deter a fait accompli in which China seizes disputed territory and threatens escalation should Japan try to restore the status quo ante.

The U.S. nuclear umbrella is ill-suited for deterring such gray-zone scenarios in the East China Sea. It strains credulity to think U.S. leaders could convince Beijing that it will use nuclear weapons to prevent or reverse the seizure of uninhabited rocks in the East China Sea. According to Daryl Press's book on credibility, "Leaders assess the credibility of threats by comparing the expected costs of carrying out those threats against the interests at stake."²¹ Press's views on credibility have been overturned in recent years by new research, but none of the new literature disputes his emphasis on the balance of interests for making credible threats.²²

²⁰ Roehrig, *Japan, South Korea, and the United States Nuclear Umbrella*, 64.

²¹ Daryl G. Press, *Calculating Credibility: How Leaders Assess Military Threats* (Ithaca, NY: Cornell University Press, 2005), 25.

²² Van Jackson, *Rival Reputations: Coercion and Credibility in US-North Korea Relations* (Cambridge: Cambridge University Press, 2016); Alex Weisiger and Keren Yarhi-Milo, "Revisiting

The U.S. nuclear umbrella plays no plausible role in a gray-zone scenario involving Chinese aggression in the East China Sea because the U.S. stake in uninhabited rocks is too negligible to risk Chinese nuclear retaliation. As Fiona Cunningham and M. Taylor Fravel's work on China's nuclear strategy argues, "[Chinese analysts] implicitly assume that the stakes would be too low for the United States...and that Washington would either restrain or abandon its allies if defending them gave rise to a situation in which the United States would need to threaten to use nuclear weapons."²³

While the U.S. nuclear umbrella offers little protection in an East China Sea scenario, improved conventional strike capabilities would allow Japan to implement a deterrence-by-denial approach much more credibly. As Roehrig explains in his chapter on deterrence theory, "Deterrence by denial seeks to defeat an attack or...to make an aggression so costly that it would not be worth attacking in the first place."²⁴ Intelligence gathering assets, anti-aircraft and anti-ship missiles stationed on nearby Japanese islands, and maritime patrol ships and aircraft would make it very difficult for China to covertly seize territory and would provide highly credible non-nuclear options for defending Japanese territorial claims. Beijing does possess a quantitative advantage in ships and aircraft, but Tokyo does not need parity with China to effectively impose high military costs that could deter Chinese overreach.

Reputation: How Past Actions Matter in International Politics," *International Organization* 69, no. 2 (March 2015): 473-495.

²³ Fiona S. Cunningham and M. Taylor Fravel, "Assuring Assured Retaliation: China's Nuclear Posture and U.S.-China Strategic Stability," *International Security* 40, no. 2 (Fall 2015): 35.

²⁴ Roehrig, *Japan, South Korea, and the United States Nuclear Umbrella*, 15.

A North Korean Invasion

The U.S. nuclear umbrella is also unnecessary to deter a North Korean invasion of South Korea due to Seoul's increasingly powerful conventional forces. South Korea's geography creates predictable invasion routes that are heavily fortified by American and Korean troops who have had years to train for stopping such an invasion. Moreover, South Korea's offensive conventional strike capability allows it to hold North Korean leadership targets at risk with weapons that would almost certainly be used in the event of an invasion. Roehrig states, "It is not clear that [North Korea] is any more deterred by the threat of nuclear weapons than it is by the likelihood of an overwhelming conventional response that would have the same strategic effect."²⁵

Roehrig points out that the U.S. nuclear umbrella "adds another layer of punishment" for North Korea should it invade, but Washington would probably hesitate to make good on its nuclear threats. Putting aside the reputational and normative costs of violating the nuclear taboo, there are strong operational downsides to using nuclear weapons in an invasion scenario that Roehrig does not emphasize enough. A U.S. nuclear attack meant to blunt an invasion would necessarily entail strikes against North Korean troops near the Demilitarized Zone (DMZ) because this is where the majority of troops are permanently deployed. Fallout from these strikes would be a major hazard to both civilians close to the DMZ (Seoul is only 35 miles away) and defending allied troops. The contamination caused by nuclear strikes against North Korean targets in the country's interior would kill civilians, complicate a conventional counter-attack into the North, and

²⁵ Roehrig, *Japan, South Korea, and the United States Nuclear Umbrella*, 185.

make post-conflict stabilization more dangerous.²⁶ While it is impossible to prove a negative in this case — that is, that the U.S. nuclear umbrella does not deter a North Korean invasion — the conventional superiority of U.S. and South Korean forces represents a more credible and effective deterrent than that umbrella.

North Korean Nuclear First-Use

Of the three scenarios examined here, the U.S. nuclear umbrella is probably most valuable for deterring North Korea from resorting to nuclear first-use, but even under this scenario the umbrella is hardly an unmitigated good. The logic of the nuclear umbrella for deterring a nuclear strike by North Korea rests on punishment. If Kim Jong Un uses a nuclear weapon first, he would be inviting U.S. nuclear retaliation in kind, as well as, in all likelihood, the end of his regime. Yet consider for a moment the technical characteristics of North Korea's nuclear forces and its unfavorable military balance vis-à-vis the United States. In this context of nuclear and conventional inferiority, its nuclear weapons should be most valuable for heading off a U.S. preemptive strike against its nuclear forces and political leadership.²⁷ The U.S. nuclear umbrella may be a credible deterrent, but it may also indirectly fuel a North Korean escalatory first-strike strategy if

²⁶ Roehrig, *Japan, South Korea, and the United States Nuclear Umbrella*, 188-190. For a more sympathetic assessment of the effects of nuclear strikes against North Korea see Keir A. Lieber and Daryl G. Press, "The New Era of Counterforce: Technological Change and the Future of Nuclear Deterrence," *International Security* 41, no. 4 (Spring 2017): 9-49, especially 27-32.

²⁷ Vipin Narang, "Why Kim Jong Un Wouldn't Be Irrational to Use a Nuclear Bomb First," *The Washington Post*, Sept. 8, 2017, https://www.washingtonpost.com/outlook/why-kim-jong-un-wouldnt-be-irrational-to-use-a-nuclear-bomb-first/2017/09/08/a9d36ca4-934f-11e7-aace-04b862b2b3f3_story.html?utm_term=.350206fa7a12.

conflict breaks out. In other words, it is just as likely that North Korean nuclear first-use prevents U.S. nuclear retaliation by raising the stakes of an ongoing conflict. The United States may be able to soothe Pyongyang's itchy trigger finger by adopting a "no first-use" pledge, but, as Roehrig shows, ambiguity over nuclear first-use is a defining feature of the U.S. nuclear umbrella.²⁸ It is also unclear whether North Korea would believe such a U.S. pledge.

Preventing a Nuclear Liability

The U.S. nuclear umbrella should not be an albatross around the neck of America's security policy in East Asia. As Tokyo and Seoul improve their conventional military capabilities, the relative importance of the U.S. nuclear umbrella for deterring many types of regional conflicts should decrease. Stronger Japanese and South Korean conventional forces could more credibly deter a variety of likely conflict scenarios than nuclear weapons, and the United States should encourage allies to take up more of the burden for regional security. If the United States is able to place greater responsibility for deterring conflicts on the conventional prowess of its allies, it could then afford to scale back its own force posture in East Asia and pursue a more restrained regional strategy.²⁹ Roehrig offers persuasive insights into why scrapping the nuclear umbrella is inadvisable, but neither should U.S. strategy hinge on a tool that cannot credibly address the region's most important challenges.

²⁸ Roehrig, *Japan, South Korea, and the United States Nuclear Umbrella*, 183.

²⁹ Ted Galen Carpenter and Eric Gomez, "East Asia and a Strategy of Restraint," *War on the Rocks*, Aug.10, 2016, <https://warontherocks.com/2016/08/east-asia-and-a-strategy-of-restraint/>; Barry Posen, *Restraint: A New Foundation for U.S. Grand Strategy* (Ithaca, NY: Cornell University Press, 2014).

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3. The Nuclear Umbrella is Necessary, But Is It Adequate?

Andrew O'Neil

These days it is hard to believe, but less than ten years ago, a number of observers were predicting the gradual demise of extended nuclear deterrence. The heady rhetoric surrounding President Barack Obama's 2009 Prague speech,³⁰ calling for the abolition of nuclear weapons, encouraged a climate in which advocates of disarmament optimistically foreshadowed the declining currency of nuclear weapons. Implicit in this vision was a conviction that America's closest allies had a responsibility to disavow the nuclear umbrella in order to strengthen global momentum for disarmament.

The 2010 *Nuclear Posture Review*³¹ and preceding Congressional Strategic Posture Commission³² provided a key reality check on this assumption. Both reviews revealed an intense anxiety on the part of policymakers in Japan and, to a lesser extent, South Korea over whether the Obama administration would move to enshrine a sole-purpose commitment — that the United States would only use

³⁰ Remarks by President Barack Obama in Prague as Delivered, Prague, Czech Republic, April 5, 2009, <https://obamawhitehouse.archives.gov/the-press-office/remarks-president-barack-obama-prague-delivered>.

³¹ U.S. Department of Defense, *Nuclear Posture Review Report*, April 2010, https://www.defense.gov/Portals/1/features/defenseReviews/NPR/2010_Nuclear_Posture_Review_Report.pdf.

³² William J. Perry and James R. Schlesinger, *America's Strategic Posture: The Final Report of the Congressional Commission on the Strategic Posture of the United States* (Washington, D.C.: United States Institute of Peace Press, 2009).

nuclear weapons in response to others' nuclear use — in U.S. nuclear doctrine.³³ This anxiety stemmed from two specific concerns. The first was operational in nature. Defining the circumstances in which the United States would *not* use nuclear weapons was seen as detracting from the strategic ambiguity underpinning extended deterrence, a vagueness that U.S. allies preferred. For Japanese strategists in particular, keeping Chinese and North Korean planners guessing over the “firebreak” between conventional and nuclear responses to provocations was one of the key ways extended deterrence worked. Removing this through a sole-purpose declaration was therefore seen as operationally sub-optimal.

The second was related to existential worries over the long-term credibility/reliability of the American nuclear umbrella and the broader alliance security commitment of the United States. While proponents of a sole-purpose declaration argued that it would send a critical signal about the decreasing value of nuclear weapons in international relations, and would serve to further deflate proliferation pressures, most U.S. allies were ambivalent. For Japan and South Korea, the *nuclear* dimension of security reassurances from Washington was (and still is) seen as a sign of the greater depth of U.S. commitment to their security. Put another way, the U.S. willingness to consider using nuclear weapons in defense of its allies — and in the process exposing the American homeland to retaliation — deepens the credibility of U.S. security guarantees in the eyes of those allies. Japanese officials made it clear to U.S. policymakers that a sole-purpose policy would be received negatively in Tokyo. Even Australia, which for some time has

³³ See Andrew O'Neil, *Asia, the US and Extended Nuclear Deterrence: Atomic Umbrellas in the Twenty-First Century* (London and New York: Routledge, 2013), 66, 90-91.

declared that only a nuclear attack on Australia would activate the U.S. nuclear umbrella, conveyed its unease to Washington over the prospect of a no-first-use commitment, noting that, as a valued ally, it expected to be “consulted closely on the specific details” before any decisions were made.³⁴

America’s alliances with Japan and South Korea are not the only ones the United States has in Asia. However, they remain the most important alliances for two key reasons. The first is that the depth of the political ties and operational commitments underpinning both alliances is arguably only surpassed by the institutional depth of NATO. The second reason is that both of these U.S. allies confront immediate, and potentially intractable, threats to their security from the world’s newest nuclear power that also happens to be the world’s most aggressive and unpredictable state — North Korea. In his outstanding new book, Terence Roehrig explores the underlying dynamics of the nuclear dimension of the U.S.-Japan and U.S.-Republic of Korea (ROK) alliances.³⁵ Given how central the nuclear umbrella is to America’s alliances in Asia and Europe, it is striking how few high-quality, contemporary accounts of this kind have been published. Along with Brad Roberts’ 2016 book³⁶, Roehrig’s new work, *Japan, South Korea and the United States Nuclear Umbrella: Deterrence After the Cold War*, represents the most significant contribution to the literature on extended nuclear deterrence in recent years. Using a wide variety of sources, and drawing on his high-level knowledge of

³⁴ Department of Defence, “Australian Position on the Obama Administration’s Nuclear Posture Review,” (Attachment A), Aug. 6, 2009, 4.

³⁵ Terence Roehrig, *Japan, South Korea, and the United States Nuclear Umbrella: Deterrence After the Cold War* (New York: Columbia University Press, 2017).

³⁶ Brad Roberts, *The Case for US Nuclear Weapons in the 21st Century* (Stanford: Stanford University Press, 2016).

the topic, Roehrig provides a comprehensive account of the Cold War experience, the contemporary threats “that drive the nuclear umbrella,” Japanese and South Korean perceptions of extended nuclear deterrence, and U.S. capabilities, doctrine, and force planning.

In light of the Trump administration’s haphazard approach to alliance management, the mixed signals Trump himself has been sending regarding the “value” the United States gains from its allies, and the administration’s apparently more permissive attitude toward the possibility of nuclear proliferation on the part of Japan and South Korea,³⁷ the publication of Roehrig’s book is exquisitely timed. Yet, the book’s contemporary relevance does not detract from the depth of historical awareness that informs its analysis. Roehrig rightly acknowledges that the origins and early days of the nuclear umbrella in Northeast Asia continue to shape the dynamics of extended nuclear deterrence relationships with Japan and South Korea today. Because of its ability to reach back into history, contextualize the present, and envision a series of future scenarios, this is a book that will make a significant and lasting contribution to our understanding of the nuclear umbrella.

Japan, South Korea and the United States Nuclear Umbrella is underpinned by three interlocking arguments. The first is that, while the nuclear umbrella is real in the sense that the United States maintains the systems and strike capabilities to use nuclear weapons in defense of its allies, it is highly unlikely that any American president would authorize the execution of such a mission. The second argument is that the nuclear taboo is still pervasive in U.S. thinking despite America

³⁷ Van Jackson, “Let’s Make a (Nuclear) Deal: Bargaining, Credibility, and the Third Offset Strategy,” *Contemporary Security Policy* 38, no. 1 (2017): 35-40.

maintaining the world's biggest nuclear arsenal, and notwithstanding some of the Trump administration's muscular rhetoric in relation to the role of nuclear weapons in American strategy. The third argument is that, paradoxically, although the credibility of the American nuclear umbrella is low, its existence helps demonstrate U.S. commitment to its Asian allies, including persuading allies to forgo the option of obtaining a nuclear arsenal themselves.

It's Unlikely Any U.S. President Would Authorize a Nuclear Strike in Defense of Japan or South Korea

Roehrig finds implausible any scenario in which a U.S. president launches a nuclear strike in response to an armed attack by North Korea or China. This is not due to a lack of commitment to defend South Korea or Japan. On the contrary. According to Roehrig, the extraordinary conventional strike power of U.S. forces will more than adequately do the job of inflicting unacceptable damage on any state that attacks an American ally, irrespective of whether this attack involves the use of nuclear weapons: "Given the power and precision of U.S. conventional weapons, their use can have strategic effects similar to nuclear weapons, and threats to use them are far more credible."³⁸

This argument has understandable appeal for many strategists. Indeed, it pivots off Thomas Schelling's timeless distinction "between national homeland and everything 'abroad' [being] the difference between threats that are inherently credible, even if unspoken, and the threats that have to be made credible."³⁹ At the

³⁸ Roehrig, *Japan, South Korea and the United States Nuclear Umbrella*, 181.

³⁹ Thomas Schelling, *Arms and Influence* (New Haven: Yale University Press, 1966), 36.

same time, Roehrig's argument goes to the heart of a concern on the part of many policymakers in allied capitals that the United States may fail to live up to its rhetorical assurances in the moment of truth. They worry that everything would *not* be on the table in the event of war, which would fundamentally contradict and undermine long-standing U.S. assurances to close allies, in Europe as well as Asia. These assurances, while at times ambiguous, have nevertheless been predicated on an assumption that a nuclear attack on an ally would almost certainly trigger a nuclear response. Such an assumption is built into NATO's military doctrine and has been a key feature of alliance discussions in Northeast Asia over several decades. In the entirely plausible event that North Korea initiates the use of nuclear weapons against the South, there would be significant pressure for a matching response, irrespective of whether conventional forces could deliver equivalent devastation.

As perverse as it may sound, a U.S. president would face compelling incentives to respond in-kind to a nuclear attack on Japan or South Korea in order to uphold the credibility of America's alliance commitments worldwide, especially those in Europe. Any decision by a U.S. president *not* to respond in-kind to a North Korean nuclear attack would probably spell the end of the nuclear umbrella in Europe and raise serious questions about the very future of the NATO alliance. A legitimate question would be whether the United States intended to take the same approach in the event Russia launched a nuclear attack on a NATO ally. Senior U.S. officials undoubtedly appreciate the wider implications and costs of non-use in such circumstances, and this would certainly influence the equation of any decision-making process following a North Korean nuclear strike on Japan or South Korea.

The Nuclear Taboo Remains Pervasive in U.S. Thinking

The tradition of nuclear non-use is said to be a strong thread running through American strategic policy. As the only state to have fired nuclear warheads at another nation, the United States faces perhaps unique normative constraints in using nuclear weapons. Roehrig argues that,

“U.S. [nuclear] use, especially first use, but also in retaliation, would lower the firewall and make it more difficult to begin rebuilding nuclear norms so that others did not resort to nuclear weapons too quickly in the future against either the United States or another country...Washington would be setting a precedent for the utility and acceptability of using nuclear weapons.”⁴⁰

In the context of its alliances with Japan and South Korea, from Roehrig’s perspective, this logic remains just as compelling.

There can be little doubt that the tradition of U.S. nuclear non-use is rooted in a normative aversion to repeating Hiroshima and Nagasaki. However, it is important not to exaggerate the influence the nuclear taboo will have over U.S. decisions going forward. Since the Eisenhower administration, U.S. nuclear doctrine has swung between high-barrier and low-barrier approaches to nuclear use. We now appear to be entering a period when those barriers are being lowered even further.

⁴⁰ Roehrig, *Japan, South Korea and the United States Nuclear Umbrella*, 171.

Coming on the heels of President Trump’s thinly-veiled nuclear threats against North Korea throughout 2017, the 2018 *Nuclear Posture Review* endorses an unprecedentedly permissive approach to nuclear employment. This includes reference to nuclear use in response to “significant non-nuclear strategic attacks” that encompass attacks on U.S. and allied infrastructure in addition to civilian populations and command and control assets.⁴¹ Said to reflect President Trump’s personal views on the role of U.S. nuclear weapons in the broader menu of U.S. military options, the 2018 review indicates a significant watering down of the nuclear taboo. Under an administration that has demonstrated a blatant disregard for global norms and an absence of integrated strategic thinking when it comes to America’s role in the world, Roehrig is perhaps overly optimistic regarding what he portrays as a fixed normative aversion to nuclear use in U.S. policy.

Despite the Lack of Extended Nuclear Deterrence Credibility, It Still Reassures Allies

Strategic policy is full of paradoxes, and even contradictions. So Roehrig’s argument that Japan and South Korea remain reassured by a nuclear umbrella that lacks credibility should not be dismissed. He maintains that “despite questions of credibility, an uncertain umbrella retains value as a deterrent.”⁴² Because adversaries like North Korea can never be sure that the United States will not use nuclear weapons, it retains a useful effect as a deterrent. With respect to the more

⁴¹ U.S. Department of Defense, *Nuclear Posture Review*, Jan. 2010,

<https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/1/2018-NUCLEAR-POSTURE-REVIEW-FINAL-REPORT.PDF>.

⁴² Roehrig, *Japan, South Korea and the United States Nuclear Umbrella*, 197.

difficult proposition of reassuring allies of the credibility of the nuclear umbrella, Roehrig maintains that it is important to contextualize this in terms of the levels of confidence in the broader U.S. security commitment: “So long as both allies retain confidence in the overall U.S. defense commitment and the costs of going nuclear are sufficiently high, Japan and South Korea will continue their nonnuclear status.”⁴³

Again, Roehrig may be taking his optimism too far here. As he acknowledges, domestic calls for an indigenous South Korean nuclear force have become more bullish as Pyongyang has doubled down on its nuclear program. In Japan, pressures to proliferate have historically been more of a slow burn. Yet, those pressures should not be underestimated in light of North Korea’s propensity to leverage its nuclear force for coercive purposes and China’s expanding strategic footprint.⁴⁴ Japanese policymakers watch U.S. nuclear behavior with rapt attention and remain highly sensitive to any indication Washington may be watering down its extended deterrence commitments. In Seoul, anxiety over U.S. abandonment persists in parallel with concerns about potential decoupling (due to the Trump administration’s tendency to fixate on the North Korean threat to the U.S. mainland).⁴⁵ As North Korea’s capacity to strike targets in Northeast Asia with

⁴³ Roehrig, *Japan, South Korea and the United States Nuclear Umbrella*, 197–98.

⁴⁴ David W. Kearn, “China’s Expansion in the South China Sea: A Return to Great Power Politics,” *HuffPost*, June 12, 2015, https://www.huffingtonpost.com/david-w-kearn/chinas-expansion-in-the-s_b_7562344.html.

⁴⁵ For a good analysis of this phenomenon, see Mira Rapp-Hooper, “Decoupling is Back in Asia: A 1960s Playbook Won’t Solve These Problems,” *War on the Rocks*, Sept. 7, 2017, <https://warontherocks.com/2017/09/decoupling-is-back-in-asia-a-1960s-playbook-wont-solve-these-problems/>.

nuclear weapons becomes increasingly likely, an uncertain nuclear umbrella may no longer be adequate to contain those domestic pressures in Tokyo and Seoul to obtain their own nuclear arsenal. In other words, assumptions about “the nuclear umbrella being ‘good enough’ when it is part of a strong, credible alliance may not stand the test of time.”⁴⁶

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⁴⁶ Roehrig, *Japan, South Korea and the United States Nuclear Umbrella*, 197.

4. Is it Time to Rethink the *Nuclear* in Umbrella?

Crystal Pryor

The concept of extended deterrence — the threat of retaliation to dissuade adversaries from attacking allies — has been central the United States' relationships with many of its treaty allies since the Cold War. While the concept itself is fairly straightforward, whether and how extended deterrence works is more complicated.

The success of extended deterrence has always depended on credibility, which itself is based on two factors — capability and resolve. The United States has long had the *capability* to use nuclear weapons in defense of its allies, but whether it has the *resolve* to do so, particularly against another nuclear-armed adversary, is another question entirely. Scholars have yet to reach a consensus on how a state can best convince both friends and adversaries that it possesses that resolve.⁴⁷

The threat environment in contemporary Northeast Asia has reignited a discussion about the relevance and credibility of U.S. extended deterrence. China's growing

⁴⁷ For arguments that question the significance of reputation or credibility, see Daryl G. Press, *Calculating Credibility: How Leaders Assess Military Threat* (Ithaca, NY: Cornell University, 2005); and Jonathan Mercer, *Reputation and International Politics* (Ithaca, NY: Cornell University Press, 1996). For a more recent rejoinder suggesting that reputation, and more specifically, resolve matters in international affairs, see Alex Weisiger and Keren Yarhi-Milo, "Revisiting Reputation: How Past Actions Matter in International Politics," *International Organization* 69, no. 2 (2015): 473-95. For the role of reputation in U.S.-North Korea relations, see Van Jackson, *Rival Reputations: Coercion and Credibility in US-North Korea Relations* (Cambridge: Cambridge University Press, 2016).

military capabilities pose one kind of challenge. But it's the possibility that North Korea might be able to reach the United States with a nuclear-tipped intercontinental ballistic missile (ICBM) that has led to doubts about U.S. credibility in Japan and South Korea.

During the Cold War, a common question was whether the United States would trade Paris or Berlin for New York or Washington. Today, it is whether the United States will trade Seattle or Los Angeles for Seoul or Tokyo. In the so-called second nuclear age,⁴⁸ policymakers are again raising fears of the United States “decoupling” from its alliances. Decoupling represents the breakdown of extended deterrence, in which the United States backs away from its commitment to its allies' security (or allies break away from the United States). President Donald Trump's “America first” rhetoric and policies have accentuated these concerns.

In such a context, it is worth noting that Terence Roehrig's latest book, *Japan, South Korea, and the United States Nuclear Umbrella: Deterrence After the Cold War*, is the only comprehensive text exclusively focused on Japan and South Korea's relationship to the U.S. nuclear deterrent.⁴⁹ As the policy world agonizes over the future of a nuclear Asia, Roehrig's book is a welcome addition as a scholarly reference on this topic. The primary dilemma he addresses is the continued centrality of the nuclear umbrella for the United States and its allies

⁴⁸ See, for example, James R. Holmes, “The Second Nuclear Age,” *The Diplomat*, Oct. 16, 2012, thediplomat.com/2012/10/welcome-to-the-second-nuclear-age/; and Gaurav Kampani and Bharath Gopalaswamy, *Asia in the 'Second Nuclear Age,'* Atlantic Council, 2017, www.atlanticcouncil.org/images/Asia_in_the_Second_Nuclear_Age_web_1115.pdf.

⁴⁹ Terence Roehrig, *Japan, South Korea, and the United States Nuclear Umbrella: Deterrence After the Cold War* (New York: Columbia University Press, 2017).

despite the very low probability of it ever being employed. Roehrig puts forward several interconnected arguments: First, the umbrella is an important signal to allies and adversaries, and a key part of the region's security architecture. Second, withdrawing the nuclear umbrella would disrupt security relations with U.S. allies. Third, the existence of the nuclear umbrella, even with a miniscule likelihood of use, deters would-be attackers. And fourth, the nuclear umbrella limits the spread of nuclear weapons. Some of these arguments have greater merit than others, but on the whole they tend to justify, rather than scrutinize, the received wisdom on nuclear deterrence.

Differential Threat Perceptions Among Allies

The book's greatest strength is as a useful reference for understanding the role of the U.S. nuclear umbrella in Japan and South Korea. In comparing the two countries, Roehrig explains the differential threat perceptions of North Korea and China in Japan and South Korea, respectively. While Japan and South Korea both view North Korea as a threat, it is a more palpable challenge to South Korea given their shared border. As for China, Japan — unlike South Korea — views it to be a regional rival. As Roehrig notes, China is South Korea's largest trading partner by far and also holds at least some of the cards with respect to North Korea. He offers an illustrative example of the Japan and South Korea's divergence on China in his discussion on ballistic missile defense (BMD). Japan has funneled billions of dollars to jointly develop BMD with the United States. Meanwhile, China is concerned that U.S. deployment of BMD in the region is undercutting its strategic deterrent, and that North Korea simply serves as a convenient excuse.⁵⁰ In

⁵⁰ Roehrig, *Japan, South Korea, and the United States Nuclear Umbrella*, 118.

deference to China's warnings, and despite the threats it faces from North Korean missiles, South Korea has been a reluctant participant in U.S. BMD efforts, instead developing its own capability called Korean Air and Missile Defense (KAMD).

Japan and South Korea also differ in their stance on possessing nuclear weapons. In light of the growing threats from North Korea, many South Koreans have called for re-deployment of U.S. tactical weapons or even development of South Korea's own nuclear arsenal.⁵¹ Japanese people, in contrast, have retained what might be described as a "nuclear allergy," due to their experience during World War II.⁵² While the average Japanese citizen is opposed to the introduction or development of nuclear weapons, Roehrig details the secret agreements made between the Japanese government and the U.S. government on nuclear weapons, as well as the Japanese elite's desire to maintain breakout capability through a civil nuclear program. According to Roehrig's sources, Japan maintains its civil nuclear capability — even after the 2011 Fukushima disaster — at least in part for the latent ability to produce a nuclear weapon.

Why Not Use the Nuclear Umbrella?

Despite the existence of the nuclear umbrella, the United States is very unlikely to use nuclear weapons in defense of its Asian allies. Roehrig highlights several reasons why the United States would hesitate to use nuclear weapons in a conflict

⁵¹ Hans M. Kristensen and Robert S. Norris, "A History of US Nuclear Weapons in South Korea," *Bulletin of the Atomic Scientists* 73, no. 6 (2017): 349–357, doi:10.1080/00963402.2017.1388656.

⁵² See Maria Rost Rublee, "The Future of Japanese Nuclear Policy," *Strategic Insights* 8, no. 2 (April 2009): 4,

<http://edocs.nps.edu/npspubs/institutional/newsletters/strategic%20insight/2009/rubleeApr09.pdf>.

with North Korea, even in response to a nuclear attack. Militarily, the residual effects of nuclear strikes against North Korea would complicate South Korea-U.S. military actions, follow-on operations, and occupation. Regionally, dangerous residual effects would spill across borders into South Korea, China, and Russia. Due to its mountainous geography, an effective attack against North Korea would require the use of many nuclear weapons in a confined space. The fallout from these detonations would affect civilians in North and South Korea and likely civilians in neighboring countries as well. Roehrig also discusses the “nuclear weapons taboo,” the international norm against the use of nuclear weapons.⁵³ He argues the United States would face high reputational costs for using nuclear weapons, even if it were responding to North Korean first use of nuclear, chemical, or biological weapons. Strategically, using nuclear weapons sets a dangerous precedent, especially in first use, but also in retaliation. Finally, using nuclear weapons would complicate nonproliferation efforts because it would not only make future use more acceptable, but other countries might also seek to develop nuclear weapons as a result. Smaller countries like North Korea already see nuclear weapons as a great equalizer. The United States’ use of nuclear weapons in war would legitimate them and make them appear even more valuable. Roehrig says the United States can avoid all of these pitfalls and drawbacks by instead using its precise and lethal conventional weapons, which it currently maintains in the region and beyond.

After developing the various arguments for not using nuclear weapons against North Korea, the most pressing security threat in Asia, Roehrig emphasizes that it

⁵³ Nina Tannenwald, “The Nuclear Taboo: The United States and the Normative Basis of Nuclear Non-Use,” *International Organization* 53, no. 3 (Jan. 1999): 433–468, doi:10.1162/002081899550959.

is even more difficult to envision a scenario involving the use of nuclear weapons against China. Therefore, the nuclear umbrella, rather than intended for use in war, “is part of a broad effort to deter the use of nuclear weapons, provide reassurance to Japan and South Korea of the U.S. defense commitment, contribute to overall credibility of the alliance, and convince Tokyo and Seoul that they do not need their own nuclear weapons.”⁵⁴

What Good Are Unusable Weapons?

Roehrig claims the nuclear umbrella reassures Japan and South Korea and symbolically enhances those alliances, but is it really what keeps Tokyo and Seoul from developing their own nuclear weapons? What about the cost of development and maintenance of nuclear weapons, or international opprobrium for violating the Treaty on the Non-Proliferation of Nuclear Weapons? The decision to pursue nuclear weapons would also mean renouncing a security guarantee of protection with unparalleled U.S. conventional capabilities. Roehrig largely avoids discussing these potential explanations for why Japan and South Korea have not gone nuclear. Relatedly, the proffered U.S. nuclear umbrella was not likely the main driver for Australia (which is not discussed in the book) to forego nuclear weapons capability.⁵⁵

⁵⁴ Roehrig, *Japan, South Korea, and the United States Nuclear Umbrella*, 175.

⁵⁵ See Christine M. Leah and Crispin Rovere, “Issue Brief #1 — Chasing Mirages: Australia and the U.S. Nuclear Umbrella in the Asia-Pacific,” Wilson Center, Mar. 11, 2013, <https://www.wilsoncenter.org/publication/issue-brief-1-chasing-mirages-australia-and-the-us-nuclear-umbrella-the-asia-pacific>.

Furthermore, as the book acknowledges, the main challenge in the region today lies not in outright war but rather in the so-called gray zone — encompassing China’s actions in the South and East China Seas and North Korean cyberattacks — activities that can escalate to war if managed poorly. Roehrig writes that, “In the end, the nuclear umbrella likely does little to deter anything other than nuclear war...”⁵⁶ Therefore, vaunting the nuclear umbrella in the face of gray-zone contingencies does not deter them, but instead heightens the risk of miscalculation on both sides. For example, a cyberattack against critical infrastructure in the region could quickly escalate to full-blown conflict. The nuclear umbrella would not stop this escalation, and if nuclear weapons were ultimately used in retaliation, the effects to the region would be devastating. President Trump is currently engaged in a (rhetorical) campaign of “fire and fury” — not steady assurance to either allies or adversaries — that itself may spiral into serious consequences. Also troubling is the potential for an “emotional” response to an attack against the United States or its allies that leads the U.S. president to use nuclear weapons.⁵⁷ Doubling down on the nuclear umbrella in response to North Korea’s (or China’s) provocative actions, as Roehrig suggests, sends the wrong signal, and in fact risks leading to an unintended nuclear war over a small-scale incident. Roehrig, therefore, fails to convince skeptics that the United States’ Asian allies are safer under the nuclear umbrella than without it.

⁵⁶ Roehrig, *Japan, South Korea, and the United States Nuclear Umbrella*, 187.

⁵⁷ Roehrig, *Japan, South Korea, and the United States Nuclear Umbrella*, 179.

Relying on Nukes to Prevent the Spread of Nukes?

Roehrig believes the promise of the nuclear umbrella keeps nuclear proliferation at bay, yet acknowledges a real tension between the umbrella and stated nonproliferation goals. He addresses this issue in the context of President Barack Obama's 2009 speech in Prague calling for the abolition of nuclear weapons,⁵⁸ along with shifts in U.S. nuclear force posture. There is also discord between the nuclear umbrella and Japan's so-called nuclear allergy, as well as its professed commitment to the elimination of nuclear weapons. Japan is the only country to have had a nuclear weapon used against it in war. As such, its support of any movement to abolish nuclear weapons globally is essential. Yet Japan's emphasis on the nuclear umbrella undermines its ability to unequivocally advocate for nuclear abolition. If Japan did not seek cover under the U.S. nuclear umbrella, it could be a stronger voice against nuclear weapons.

The problem with emphasizing extended *nuclear* deterrence is that it makes nuclear weapons seem more important than they are. Roehrig asserts that U.S. nuclear promises have many benefits, including preventing Japan and South Korea from obtaining nuclear weapons of their own, but he does not actually demonstrate as much. The more the United States, Japan, and South Korea emphasize the importance of nuclear weapons for deterrence, the more that weaker or threatened countries such as North Korea will want them. The U.S.

⁵⁸ Remarks by President Barack Obama in Prague as Delivered, Prague, Czech Republic, April 5, 2009, <https://obamawhitehouse.archives.gov/the-press-office/remarks-president-barack-obama-prague-delivered>.

nuclear umbrella inevitably generates pressures to develop weapons elsewhere. After all, the umbrella preceded North Korea's nuclear weapons program.

Finally, if the nuclear umbrella were retracted today but the alliances remained solid, it is unlikely that Japan and South Korea would invest in building nuclear weapons anew — particularly if doing so directly threatened their alliance with the United States. In exchange for closing the nuclear umbrella, the United States can invest in various diplomatic initiatives and conventional military mechanisms to reassure its allies.

Time for a Nuclear Pivot

The time has come to move away from Cold War thinking. Models of deterrence that were relevant then should not be applied wholesale to the modern nuclear age. First, there is a dramatic difference between the former Soviet Union and North Korea or China today. The nuclear umbrella does not have the same relevance now as it did during the Cold War, when it was intended to protect U.S. allies against an overwhelming Soviet nuclear attack. In any future contingency in Asia, the United States is much more likely to draw on BMD and conventional weapons than nuclear weapons. Second, the commitment to maintaining the nuclear umbrella has negative implications for arms control, such as in Russia, because it creates incentives for the United States to resist a further draw-down of the U.S. nuclear arsenal. Third, with the passage of the United Nations Treaty on the Prohibition of Nuclear Weapons, states under the nuclear umbrella find

themselves in a quandary.⁵⁹ Japan, for one, advocates a world without nuclear weapons, but also demands protection based on them. The Japanese people will eventually hold its policy elite to account for this hypocrisy.

Disarmament advocates can build on Roehrig's assessment of the dubious credibility of nuclear deterrence in Asia to reach the conclusion that the United States should retract the nuclear umbrella, rather than maintain it as he prescribes. If the world would be a safer place with fewer nuclear weapons, the United States can get the ball rolling by eliminating an already empty promise to use nuclear weapons in Asia. Japan and South Korea can assist global processes of nuclear disarmament by shifting their attention to the more realistic elements of their alliances with the United States, like BMD and conventional deterrence, and by continuing to publicly foreswear the development of nuclear weapons.

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⁵⁹ "Treaty on the Prohibition of Nuclear Weapons," Nuclear Threat Initiative, <http://www.nti.org/learn/treaties-and-regimes/treaty-on-the-prohibition-of-nuclear-weapons/>.

5. Stable Umbrellas: Here Today, Gone Tomorrow?

Christopher P. Twomey

Strategic rivalry in Northeast Asia is likely to be a major source of security tension in the 21st century. Beyond the major implications stemming from North Korea's increasingly robust arsenal, long simmering security tensions among China, Japan, Taiwan, and South Korea are deepening the nuclear element in their competition. Terence Roehrig's new book is a useful resource for understanding precisely what the book's title describes: *Japan, South Korea, and the United States' Nuclear Umbrella*.⁶⁰ While cognizant of the challenges posed by strategic dynamics in Asia and noting tremendous impediments to nuclear retaliation in the face of an attack on U.S. allies, Roehrig is nevertheless optimistic about the positions of United States, South Korea, and Japan. Throughout the book, he evaluates a range of arguments advocating major shifts in U.S. and allied strategic postures, including the development of new, smaller nuclear weapons; the forward deployment of nuclear weapons ashore; and the indigenous development of such weapons in Tokyo or Seoul. In the end, Roehrig finds these arguments overstated and unnecessary. He concludes that under current U.S. posture, "...the nuclear umbrella remains an important political signal that is an integral part of regional security architecture."⁶¹

⁶⁰ Terence Roehrig, *Japan, South Korea, and the United States Nuclear Umbrella: Deterrence After the Cold War* (New York: Columbia University Press, 2017).

⁶¹ Roehrig, *Japan, South Korea, and the United States Nuclear Umbrella*, 9-10.

This insight about the viability of the current nuclear umbrella to regional stability is important, but hardly the book's only contribution. Roehrig also provides a nice conceptual overview of extended deterrence and the challenges it raises, drawing constructively on recent work on reputations, credibility, and resolve — all without becoming excessively theoretic. But where the book proves most valuable is in providing a comprehensive compilation of policy statements and diplomatic engagement as expressions of U.S. extended deterrence commitments to Japan and, especially, South Korea.⁶² The evolution of these policies is subtle and nuanced, and Roehrig's meticulous analysis captures this well. While the book emphasizes declaratory policy, signaling, and diplomatic engagement, it contains solid discussions of related capabilities for all players. It also lays out the challenges posed by China's military rise and evolving North Korean conventional and strategic capabilities.⁶³

⁶² There is probably more to say about South Korea in the strategic realm, given Japan's nuclear allergy and the more proximate threat faced by Seoul. Still, interesting work in English suggests some reason for further concerns in the Japanese case: Satoshi Machida, "Who Supports Nuclear Armament in Japan? Threat Perceptions and Japan's Nuclear Armament," *Asian Journal of Political Science* 22, no. 2 (May 4, 2014): 128-46.

⁶³ Although not his primary goal, the study would have benefited from more discussion on the evolving nuclear strategy for China, e.g., as done in Michael S. Chase and Arthur Chan, "China's Evolving Strategic Deterrence Concepts and Capabilities," *The Washington Quarterly* 39, no. 1 (Jan. 2, 2016): 117-36. Roehrig is on solid ground building from Fiona S. Cunningham and M. Taylor Fravel, "Assuring Assured Retaliation: China's Nuclear Posture and U.S.-China Strategic Stability," *International Security* 40, no. 2 (Oct. 1, 2015): 7-50. But there is more movement apparent in Chinese doctrine even in their perspective. This contributes to his somewhat overly optimistic conclusions, as discussed below.

Roehrig's broadly positive message is reassuring. Still, if one explores the topic of nuclear weapons and extended deterrence in Asia beyond Japan and the Korean Peninsula, there is stronger grounds for pessimism about the region than his analysis concludes. So while this book is commendable in many respects, issues that it addresses only in passing — and sometimes not at all — are important in their own right and complicate the somewhat rosy picture that Roehrig conveys.

But this is not to suggest Roehrig oversimplifies his analysis. The book superbly illustrates the importance of moving beyond analyzing countries in pairs (or “dyads”) when the reality of regional relations is much more intertwined. Without trivializing the differences between Japanese and South Korean circumstances, Roehrig notes “the nuclear umbrella for each U.S. ally is, in many respects, an interconnected commitment.”⁶⁴ He has done an excellent job examining one set of regional interactions in the nuclear (and missile defense) realms. But in so doing he has focused on the issues where there is more room for optimistic appraisal. The context of strategic rivalries outside Japan and South Korea, and extended deterrence in relation to new military technologies (like precision-guided munitions, low-yield nuclear weapons, space-based systems, and cyber weapons), introduces additional dangers unaccounted for in Roehrig's analysis. Competitive relationships — not just cooperative ones — involve interconnected commitments, and Asia is rife with such complex interactions. U.S. behavior towards North Korea, for example, affects Chinese perceptions of crisis stability in its relationship with the United States. Japanese missile defense systems developed to face North Korea also complicate China's strategic calculus. And Pakistani nuclear

⁶⁴ Roehrig, *Japan, South Korea and the United States Nuclear Umbrella*, 183.

modernization drives a response in India which has implications for China.⁶⁵ In other words, broadening the geographic and technical scope of analysis creates more grounds for pessimism.

A Conventional Fight May Not Be Enough

Central to Roehrig's optimistic conclusion are his assumptions about the limited marginal contribution that new types of nuclear weapons, or changes in the current deployment pattern of nuclear weapons, make compared to advanced conventional capabilities. But that conclusion must be based partly on an evaluation of the conventional military balance. While Roehrig briefly notes challenges posed by China's military modernization, much more could be said. For instance, U.S. allies like Japan and South Korea find themselves vulnerable to some coercive leverage since they fall within the range of China anti-access, area denial (A2/AD) weapons.⁶⁶ As China's military modernization increases their vulnerability, it is likely that Chinese interests will evolve in a way that will clash with Japanese (and to a lesser extent, South Korean) interests.⁶⁷ While Asia hands

⁶⁵ My own work on such interlocking effects is presented in Christopher P. Twomey, "Asia's Complex Strategic Environment: Nuclear Multipolarity and Other Dangers," *Asia Policy*, no. 11 (2011): 51-78.

⁶⁶ And Taiwan as well; see discussion below. The best discussion of this is found Stephen Biddle and Ivan Oelrich, "Future Warfare in the Western Pacific: Chinese Antiaccess/Area Denial, U.S. AirSea Battle, and Command of the Commons in East Asia," *International Security* 41, no. 1 (July 2016): 7-48.

⁶⁷ On the recent shifts in the military balance between the U.S. and China in potential areas of contestation, see Eric Heginbotham et al., *The US-China Military Scorecard: Forces, Geography, and the Evolving Balance of Power, 1996-2017* (Rand Corporation, 2015).

commonly think of the Japan-controlled Senkaku islands as the most likely object of conflict between China and Japan, there are other potential battlegrounds that may be more problematic. One need not believe that Chinese geopolitical ambitions are insatiable⁶⁸ to recognize that China and Japan will differ on preferred outcomes regarding Taiwan, a unified Korea, the status of the South China Sea and its surrounding states, and other issues. As the shifting conventional balance facilitates expanding China's interests in these areas, new areas for nuclear posturing and rivalry may develop.

Beyond the implications of a deteriorating conventional military balance, other grounds for pessimism about Asia's strategic future stem from the role of nuclear weapons during a hypothetical war in North Korea. Roehrig is certainly correct to assert that nuclear weapons, whether held by Washington, Seoul, or even Tokyo, would do little to address low-level provocations or gray-zone conflicts.⁶⁹ And while some loose talk in 2010 did connect those provocations to failures of strategic deterrence,⁷⁰ serious analysis would look elsewhere to explain those cases, such as North Korea's willingness to take big risks. But deploying new types of U.S. nuclear weapons in unconventional ways might help address entirely different strategic goals, like preventing decoupling and advancing the counter-force mission.

⁶⁸ And I certainly do not. M. Taylor Fravel and Christopher P. Twomey, "Projecting Strategy: The Myth of Chinese Counter-Intervention," *The Washington Quarterly* 37, no. 4 (Jan. 10, 2015): 171-87.

⁶⁹ On the enduring utility of gray zone strategies, see Van Jackson, "Tactics of Strategic Competition: Gray Zones, Redlines, and Conflicts before War," *Naval War College Review* 70, no. 3 (Summer 2017): 39-61.

⁷⁰ Gordon Chang, "The Failure of Deterrence in Korea," *World Affairs*, March 26, 2013

<http://www.worldaffairsjournal.org/blog/gordon-g-chang/failure-deterrence-korea>.

With the North Korean development of mobile missiles, at least those with regional range, the counter-force fight becomes dramatically more difficult. Were an intense conflict to break out on the Korean peninsula and include any significant North Korean use of WMD against either civilians or combatants, U.S. leaders (and their South Korean counterparts) would come under tremendous pressure to prevent further use. Given imperfect intelligence, surveillance, and reconnaissance (ISR) capabilities, knowing exactly where North Korean mobile missile launchers are will prove difficult at best. Relying on the precision of advanced conventional munitions in a degraded electromagnetic environment also has risks. Korea's mountainous terrain further complicates such targeting. North Korea defense planners already make use of deeply buried bunkers for command and control of nuclear weapons, as well as for warhead storage. It also uses caves for "scoot and shoot" artillery tubes; some variation of this could similarly protect mobile nuclear launchers. While the use of U.S. nuclear weapons is far from a silver bullet against any of these tactics, small-sized nuclear weapons can have area effects that overcome imperfect ISR, modestly moved weapons, and penetration disadvantages against bunkered systems. Forward deployment of nuclear weapons, while perhaps raising some "use or lose" concerns that Roehrig correctly notes,⁷¹ would also decrease the response time for their use in ways that can ameliorate some of the above North Korean advantages. One area for future research based on Roehrig's work would be detailed net assessments of what an extensive conventional military conflict might look like and how nuclear weapons (particularly, lower yield ones) could contribute to it. Such a study should, in addition, build on the points that Roehrig develops regarding the added dangers of

⁷¹ Roehrig, *Japan, South Korea and the United States Nuclear Umbrella*, 147.

introducing weapons into such conflicts by, for example, exacerbating the problems of nonproliferation, expanding war to include other regional players, and maintaining proportionality for the sake of keeping conflict limited.

Taiwan and the Nuclear Umbrella

Roehrig's work could also be expanded to take into account the position of Taiwan. All studies are, by necessity, limited in scope. However, follow-on work relating to Taiwan is needed for several reasons. Certainly, the Cold War-era parallel between Taiwan, Japan, and South Korea warrants some discussion: All three were treaty allies in the 1950s-70s; all hosted U.S. nuclear weapons during the Cold War; and like South Korea, Taiwan had to be dissuaded from pursuing its own nuclear weapons. Today, like both Seoul and Tokyo, Taipei, finds itself on the weak side of a deteriorating conventional military balance vis-à-vis China. Although the U.S. security commitment to Taiwan today is vastly different than it was during the Cold War — not to mention from the commitments given to Japan and South Korea — the United States does nevertheless have “certain obligations” under the Taiwan Relations Act, obligations that are gaining particular emphasis today from the Trump administration. Roehrig makes a number of good points regarding the low stakes in conflicts over gray-zone crises, arguing that in the absence of an intense conventional fight, nuclear diplomacy should not be expected to play much of a role in such low-level regional conflicts.⁷² But in any Taiwan conflict scenario, it gets much easier to imagine an intense conventional conflict that includes nuclear posturing in some way.

⁷² Roehrig, *Japan, South Korea and the United States Nuclear Umbrella*, 186.

Indeed, Taiwan's political status is arguably the only plausible issue that would force conflict between the United States and China and involve nuclear posturing, or at least, it is the most plausible out of many implausible conflict-triggering issues. By extension, Taiwan is relevant to Roehrig's study because a war there could very well drag Japan (and South Korea) in, despite their strong desires to stay out. Similarly, developing the capabilities necessary to intervene in any Taiwan conflict may drive the United States to think about its strategic posture in the region in the future. In that case, the capabilities the United States has in Asia for such a contingency would necessarily play some role in defining the context of Sino-American rivalry. Seoul and Tokyo have to assess alliance commitments in relation to that broader rivalry. As much as South Korea and Japan may want to avoid involvement in a Sino-U.S. conflict over Taiwan, their strategic position is affected by any U.S. engagement over Taiwan, and in the final disposition of such a conflict if it occurred.

The Credibility Problem

Finally, Roehrig's differentiation between the credibility of the United States actually using nuclear weapons and the utility of the political symbolism of those weapons is a difficult contrast to draw. I have written myself of the ways that military organizational cultures can shape interpretation of the balance of power, so I am broadly sympathetic to this sort of argument.⁷³ Still, in this case (indeed, in any case) the source of that symbolism needs to be laid out explicitly: What does the nuclear umbrella commitment suggest or imply to whom, and why? Is this

⁷³ Christopher P. Twomey, *The Military Lens: Doctrinal Differences and Deterrence Failure in Sino-American Relations* (Ithaca, NY: Cornell University Press, 2010).

simply a matter of educating U.S. allies about the limited utility of nuclear weapons in these contexts (and as noted above, additional work is necessary on this score before one can conclusively assert such a claim)? Roehrig approvingly shares Dennis Healy’s famous quote that “5 percent credibility of American retaliation to deter... but 95 percent credibility to reassure [allies],”⁷⁴ which is intuitively appealing but not well validated through rigorous empirical study. Ally reassurance is a task that falls primarily to diplomats, even when military capabilities are involved. Deterrence of adversaries — and sending the corresponding signals — tends to rely more directly on military capabilities per se. Furthermore, at least some Japanese and South Korean officials expect that there are circumstances in which nuclear weapons would be used.⁷⁵ Those circumstances are no doubt exceedingly narrow. But it is the existence of such scenarios that makes extended nuclear deterrence credible, not purely their symbolism.

This review has highlighted areas where additional work can build on the robust foundation Roehrig lays down in his carefully structured and clearly argued book. Roehrig’s study highlights the complexity of interactions in this issue area and the widening scope of the challenges it poses. If policymakers err in managing these relationships — both in deterrence and assurance — the scale of the ensuing catastrophe will be appalling.

⁷⁴ Roehrig, *Japan, South Korea and the United States Nuclear Umbrella*, 194.

⁷⁵ The extensive advanced fuel cycle work in Japan and South Korea are important tangible expressions of nuclear signaling in those countries, emphasizing their ongoing concerns. Tristin Volpe conceptualizes such programs as supporting “latent” nuclear capabilities that generate significant political benefits. Tristan A. Volpe, “Atomic Leverage: Compellence with Nuclear Latency,” *Security Studies* 26, no. 3 (July 3, 2017): 517–44.

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