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Nuclear weapons, the United States and alliances in Europe and Asia: Towards an institutional perspective

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Abstract

America’s alliances in Europe and in Northeast Asia now all involve some institutional cooperation on U.S. nuclear weapons policy, planning or employment—from consultative fora in Asia to joint policy and effective sharing of nuclear warheads in NATO. Such cooperation is often analyzed through the prism of ‘extended nuclear deterrence’, which focuses on the extension of U.S. security guarantees and their effect on potential adversaries. This article argues that this underplays the importance of institutional factors: Allies have historically addressed a wide range of objectives through such cooperation, which has helped catalyze agreements about broader alliance strategy. The varied form such cooperation takes in different alliances also flows from the respective bargaining power of allies and the relative importance of consensus, rather than the perceived threat. The article concludes that nuclear weapons cooperation will remain a crucial part of successful U.S. alliance management, as allies negotiate their relationship with each other in the face of geostrategic change.

Key words

Nuclear weapons; alliances; institutions, NATO; Asia; deterrence.

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Author bios

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Despite the early enthusiasm in the Obama presidency for the goal of nuclear disarmament, nuclear weapons remain central to U.S. alliances in Europe and Asia. Several NATO members questioned the need for stationing U.S. nuclear weapons in Europe around 2010, but the 2012 NATO Deterrence and Defence Posture Review (DDPR) confirmed the enduring relevance of integrated nuclear forces (Kamp, 2012). As Russia's threatening references to its nuclear capabilities have become more explicit, there are now signs that NATO's Nuclear Planning Group (NPG) is returning to strategic discussions of a kind it has not had for many years (Kroenig, 2016). North Korea's increasing nuclear capabilities and Chinese assertiveness in territorial disputes highlight the importance of nuclear weapons for the security of America's Asian allies. So far, the United States has resisted calls to re-introduce forward basing of nuclear weapons in East Asia. However, it has institutionalized dialogues since 2011 with both South Korea and Japan on the role of nuclear weapons in its alliances that had no parallel in its bilateral Cold War alliances in Asia.

What explains the enduring relevance of nuclear weapons in U.S. alliances despite widespread professions of support for nuclear disarmament? What drives change in the way that the United States and its allies cooperate on U.S. nuclear weapons issues? And what explains the differences that remain between U.S. alliances, from merely consultative fora in Asia, to genuinely joint policy, planning and even physical 'sharing' of U.S. nuclear warheads with its NATO allies? Addressing these questions is not only important for grasping the dynamics of nuclear proliferation and efforts to reduce the salience of nuclear weapons in international relations; it also has major relevance for understanding Washington, DC's alliance relationships in the twenty-first century.

Most analysis of the U.S. nuclear umbrella continues to take place through the narrow prism of extended deterrence (Knopf, 2012; D. Trachtenberg, 2012; Pilat, 2016): The United States seeks to use its nuclear arsenal to deter threats against its allies, and uses cooperation both to give credibility to its threats in the eyes of potential adversaries, and to reassure anxious allies that its commitment is robust. This framework is thus especially popular among those who claim that nuclear cooperation in alliances is driven by overly anxious client states and an overbearing great power protector (Tanter & Hayes, 2011). However, it does not address the significant role that U.S. allies play in actively shaping the cooperation on U.S. nuclear weapons in their respective alliances. Nor does it hold much utility in explaining why cooperation has taken such

different forms between, for example, two of the main frontline states of the Cold War, South Korea and Germany.

In contrast, this article argues that a more explicit focus on the institutional role of nuclear weapons cooperation is more useful to understanding their enduring relevance in U.S. alliances. The United States and its non-nuclear allies have historically addressed a far wider range of objectives than the deterrence of adversaries through such cooperation, which has rather helped catalyze agreements about broader strategy within their alliances. The different form and extent of nuclear weapons cooperation flows largely from the relative bargaining power of allies and the need for consensus, not from subjective measures of threat. Nuclear weapons cooperation will thus remain a crucial part of successful U.S. alliance management in the twenty-first century, as allies negotiate their relationship with each other in the face of geostrategic change.

In the following section, we outline how the extended deterrence paradigm has dominated thinking about nuclear weapons and America's alliance relationships. We then examine the wide range of interests that non-nuclear allies have sought to achieve by and through institutionalized cooperation on U.S. weapons, arguing this far exceeds the mere deterrence of adversaries. The third section demonstrates that the ability of allies—both during and since the Cold War—to achieve these objectives is best explained by their relative bargaining power within their alliance, rather than by a need for deterrence based on objective or subjective measures of threat. The article concludes with observations about the future role of nuclear weapons cooperation in U.S. alliances.

The dominance (and limits) of the extended deterrence paradigm

The U.S. “nuclear umbrella” is embedded in commitments to defend its NATO allies, and in bilateral alliances with Japan, South Korea and Australia. In practice, these commitments are demonstrated through a combination of U.S. and allied statements (Chalmers, 2010); through material preparations for U.S. nuclear operations that can include high-profile deployments of nuclear-capable systems for demonstration purposes (Solomon, Barnes, & Gale, 2013; Gibbons-Neff, 2016); forward-basing of U.S. nuclear weapons and delivery systems and, in the case of the NATO alliance, “nuclear sharing” of U.S. warheads; and through consultation arrangements that accord U.S. allies structured insight and influence on American nuclear policy. The umbrella is

most institutionalized in the case of NATO, where allies have sought to create what Yost characterizes as “a presumption of concerted action in the event of a crisis” (Yost, 2011, p. 1411). Since the end of the Cold War, there has also been a growing link between the nuclear umbrella and missile defense in how allies have negotiated the relative cost of escalation in alliance strategy (Frühling, 2016).

Policy choices regarding the nuclear umbrella are most commonly analyzed through the prism of extended deterrence. This is perhaps understandable given that the field in recent years has been dominated by two disparate groups of analysts: U.S. academics and think tank experts, many of whom are themselves former government officials, who are most concerned with U.S. policy; and disarmament advocates who regard the nuclear umbrella as an obstacle on the path towards the ultimate elimination of nuclear weapons. Both perspectives tend to focus on the nuclear umbrella as something supplied by the United States, as the security guarantor, to satisfy the demands for deterrence and assurance by its non-nuclear allies (Campbell, Reiss, & Einhorn, 2004).

The literature on deterrence has a venerable tradition, but it has been geared to explain decision-making based on rational choice and evaluating credibility *through the lens of adversaries* (Knopf, 2010). It has focused on whether deterrence has “worked” against adversaries, and how adversaries perceive the credibility or otherwise of American extended nuclear deterrence commitments (Russett, 1988; Wilson, 2008; Fuhrmann & Sechser 2014). Consistent with this perspective, engagement by non-nuclear allies in the policy, planning and employment of U.S. nuclear weapons is often taken as confirmation that U.S. allies simply desire the coverage of the nuclear umbrella. It is a perspective reinforced by casting “assurance” of allies as a secondary, separate U.S. objective of extended deterrence relationships. Assurance is far less clearly defined as a stand-alone concept than deterrence (Knopf, 2012), but is well established in discussion of U.S. alliances (Yost, 2009).

However, the prism of extended deterrence (and assurance) can be difficult to relate to the historical role of U.S. nuclear weapons in its alliances, and allied interest in them. For example, while the U.S. commitment to defend Japan has been a centerpiece of Japanese security strategy since the Second World War, ambiguity about Japan’s demand for nuclear weapons has also been a longstanding characteristic of its strategic policy. As early as 1960, a secret ancillary agreement was struck between the United States and Japan following the conclusion of the

Treaty of Mutual Cooperation and Security that permitted (in certain circumstances and in consultation with Tokyo) “the introduction into Japan of nuclear weapons” (U.S. Department of State 1960). Yet, in 1967, Prime Minister Sato enunciated the three non-nuclear principles committing Japan not to possess, manufacture, or allow the stationing of nuclear weapons on its territory. This was supplemented the following year by a Diet commitment to the nuclear umbrella, peaceful nuclear energy and global disarmament (Pyle, 1996, p. 33). This policy declaration occurred in the wake of China’s test of its first atomic (1964) and thermonuclear (1967) devices, which constituted a major strategic shock for Japanese policy makers and triggered an active search for extended nuclear deterrence guarantees from the United States (Gavin, 2012, pp. 77-80).

As the only country to have suffered a nuclear attack, Japanese society still remains hostile to nuclear weapons (Rost Rublee, 2009, Chapter 3). But there is also skepticism about whether this grass roots hostility plays any substantive role in shaping the position of Japanese elites on the role of nuclear weapons in its own defense strategy (Solingen, 2010). Indeed, Japan is often regarded as the archetypal threshold state that has created—as part of its civilian nuclear program—the option to quickly acquire a nuclear arsenal if it loses confidence in the U.S. nuclear umbrella (Samuels & Schoff, 2015). Japan’s continuing demand for specific U.S. security assurances under the nuclear umbrella is the product of a perception that it confronts a deteriorating regional security environment, but it also has veered historically between demand for, and rejection of, visible demonstrations of U.S. nuclear commitments in the alliance (Satoh, 2014).

Equally problematic for understanding the role of nuclear weapons in U.S. alliances is the directionality implicit in the concept of extended nuclear deterrence: of the United States supplying guarantees to its allies (Carpenter, 1994; Gerzhoy 2015; Fuhrmann & Sechser 2014; Schofield 2014). The United States controls the nuclear warheads, and it may choose whether to use nuclear weapons as it sees fit. But, in practice, almost all aspects of nuclear weapon cooperation in an alliance require the consent and contribution, at significant political and financial cost, of the non-nuclear allies.

States that host U.S. nuclear weapons bear financial costs (through host nation support), military opportunity costs (for forces required to guard or employ the warheads, such as Dual

Capable Aircraft in NATO), and diplomatic costs (if the cooperation attracts criticism from other states). In addition, civilian casualties could also be substantial if these weapons were used, or targeted by the adversary, on allied territory. Reliance on nuclear weapons is thus a “Faustian bargain” (Thayer, 1995), not just for nuclear powers but for all states that regard them as instruments of security. This fact alone has created strong domestic pressures that matter for the role of nuclear weapons in U.S. alliances because, as Robert Putnam has argued, “central decision makers strive to reconcile domestic and international imperatives simultaneously” (Putnam, 1988, p. 460). Balancing the cost and benefit of nuclear weapons thus often involves a two-level game, with many allied populations more skeptical about the value of nuclear weapons than their governments.

So far, only New Zealand has been unwilling to bear the domestic political costs of the nuclear umbrella. In 1984, with a strong eye to public opinion, the newly elected Lange government demanded guarantees that U.S. Navy ships would not bring nuclear weapons into New Zealand ports. The Reagan administration refused, upholding its “neither confirm nor deny” policy regarding the presence of nuclear weapons on board U.S. navy vessels, and suspended its alliance obligations to New Zealand (McMillan, 1987). The fact that the United States sought to make an example of New Zealand over such a relatively minor matter demonstrates that the costs of nuclear cooperation to allies can be substantial, but also that it is often Washington, DC, which is most concerned about allies bearing their share. Even West Germany, whose defense benefited most from NATO’s nuclear posture, rebuffed proposals in the late 1970s that the *Bundeswehr* operate nuclear-armed ground-launched cruise missiles (GLCMs) and that it should be the only country to host such systems in NATO. This came as a surprise to the United States and many other allies, and was only overcome when Belgium, Italy, The Netherlands and the United Kingdom agreed to become host nations for GLCMs as well (Readman, 2011, pp. 74-86).

Finally, the metaphor of the “umbrella” created by extended nuclear deterrence by itself suggests something far more tangible and unequivocal than what actually exists. Alexander Lanoszka has shown that allies’ decisions about their own nuclear weapons programs are influenced more by nuanced assessments of U.S. conventional force deployments and broader foreign policy, than by a binary question of whether a nuclear umbrella exists or not (Lanoszka, 2014). A promise to use nuclear weapons to defend an ally is, in the end, a promise to do the unthinkable, in equally unthinkable circumstances. Even during the Cold War, the official U.S.

commitment to use nuclear weapons to defend its allies was at times contradicted by the comments of former and serving U.S. officials. During a National Security Council meeting in 1970, President Richard Nixon remarked that: “We will never use the tactical nuclears [...] nuclear umbrella in NATO [is] a lot of crap” (as quoted in M. Trachtenberg, 2012, p. 167). In a speech to NATO leaders in 1979, former Secretary of State Henry Kissinger famously recommended that “European allies should not keep asking us to multiply strategic assurances that we cannot possibly mean or if we do mean, we should not want to execute because if we execute we risk the destruction of civilization” (Kissinger, 1981, p. 240). Yet, despite these expressions of skepticism from senior U.S. officials, nuclear cooperation remained a central element of U.S. alliances during the Cold War and after.

Overall, then, the concept of extended nuclear deterrence, with its implication of the United States supplying nuclear guarantees to satisfy a demand for reassurance and security by its allies, is of limited value for explaining the practice of nuclear weapons cooperation in U.S. alliances. Where we see variation between different U.S. allies is in how nuclear weapons cooperation is managed—in particular, the scope and use of formal or informal consultation mechanisms; the types of statements made by the United States and its allies in regards to nuclear guarantees; and the physical presence of U.S. nuclear weapons and their operational integration with host nation forces. The nature and scope of these arrangements are more tangible to grasp than the elusive question of whether extended nuclear deterrence is successful in deterring actual and would-be adversaries. Moreover, they also map more closely to the actual decisions allies take when they consider nuclear weapons issues in the wider context of alliance management.

What this suggests is that greater insights can be gained by focusing on the institutional role of U.S. nuclear weapons within U.S. alliances. International Relations scholars tend to analyze institutions as an intervening variable between state interests and policy outcomes (Keohane, 1984). Institutions increase cooperation through lower transaction costs, catalyze agreements, and reduce uncertainty by increasing transparency (Hellman & Wolf, 1993). Institutions thus allow increased checks over whether states abide by, or intend to abide by, their alliance commitments, which can increase the credibility of security guarantees and give allies

the confidence to further integrate their defense efforts.¹ While institutions are designed to serve the interests of their member states (Koremenos, Lipson & Snidal, 2001), their existence raises exit costs and can therefore increase the persistence and propensity of alliances to evolve over time (Rafferty, 2003). Through alliance institutions, small allies in particular can have increased influence insofar as they can affect norms, principles, rules, and decision-making criteria within the alliance (Krasner, 1982). We therefore need to look at the role of nuclear weapons in U.S. alliances as part of a broader process and framework of intra-alliance bargaining, through which the United States and its allies actively manage the terms and conditions of their relationship over time (Resnik, 2010/11, p. 149). The deterrent effect of the alliance is only one among a range of factors that influence this process, and often not the decisive one.

Why do non-nuclear allies seek cooperation on U.S. nuclear weapons?

It is widely accepted that alliances are built on a series of bargains about the anticipated benefits for each party (Walt, 1987). By contrast, analysis of how and why alliances operate once they are established is less common (Christensen, 2011). As Waltz observed, “Alliance strategies are always the product of compromise since the interest of allies and their notions of how to secure them are never identical” (Waltz, 1979, p. 166). It follows therefore that alliances are characterized by a degree of negotiation and bargaining that closely mirrors the overlap and differences among member states on key policy issues. As part of this process, individual allies seek, or seek to avoid, the practical trappings of the nuclear umbrella for a variety of reasons, which often are quite different from an intended deterrent effect directed at adversaries in current or future contingencies. Instead, cooperation on the role of nuclear weapons in U.S. alliances often helps catalyze consensus, reduces uncertainty and increase trust on broader strategic questions of alliance strategy.

In general, maximizing influence over U.S. strategic policy has been an important motive for U.S. allies seeking to participate in nuclear cooperation. For instance, Australia only began to highlight U.S. extended nuclear deterrence in its 1993 Strategic Review, due to an underlying anxiety that the United States was considering detaching itself militarily from the Asia-Pacific

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□ Despite their theoretical and practical significance, alliance institutions in general, and the institutional differences between U.S. alliances in particular, have attracted little attention in the literature. The classic piece is Hemmer and Katzenstein (2002), but this focuses on the multilateral character of NATO.

after the Cold War (Australian Department of Defence, 1993, p. 7). Moreover, Australia's White Papers contain an implicit "sole-purpose" declaration that relates U.S. extended nuclear deterrence (in the case of Australia) exclusively to *nuclear* threats. This is in conflict with current U.S. (and NATO) policy and would be a stumbling block to any joint U.S.-Australian declaration on the subject.² However, this difference has so far not been significant for Australia's alliance with the United States because Australian statements were never concerned with substantiating a deterrence guarantee per se. Rather, Australian policy makers are focused mainly on supporting U.S. extended nuclear deterrence as a way to increase the willingness of the United States to remain invested in the Asian security order.³

Status and influence on general alliance policy can also be a major incentive for allies to participate in nuclear weapons cooperation. During the Cold War, Italy volunteered to host new nuclear-armed GLCMs after it had been excluded from the discussions on NATO's nuclear modernization at the Guadeloupe summit of 1979, which had contradicted the country's self-declared status as a major European ally (Schwartz, 1983, pp. 230-231). Italy's interest in nuclear sharing during the Cold War was shaped largely by considerations of status and prestige, and reinforcement of its integration into NATO in the face of a large domestic Communist Party vote, than merely a desire to have influence over the possible use of nuclear weapons in wartime, or a specific need for nuclear deterrence (Foradori, 2012, pp. 27-28). Likewise, in the post-Cold War era, NATO's decision in the NATO-Russia Founding Act to limit nuclear weapons basing to the "old" member countries continues to create tensions with Poland and other Eastern European allies, who perceive themselves as second-class members.

Even in the case of West Germany, concern with the U.S. commitment to take account of its allies' interests, rather than specific concern about an increasing threat that needed to be deterred, lay at the heart of Helmut Schmidt's famous speech to the International Institute for

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□ Although Australia is not currently under conventional threat, geographical distance from its allies means the country cannot ignore that possibility for the future. Historically, Australia has looked to tactical nuclear weapons as being of potential use in its immediate defence against superior conventional forces. Indeed, it is one of the few U.S. allies that can credibly threaten to use nuclear weapons in or around its own territory with little risk of collateral damage (Frühling, 2010).

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□ Observations based on conversations between the authors and senior Australian officials. See also Frühling (2013).

Strategic Studies in 1977. The speech is widely credited as triggering NATO's deliberations on long-range theatre nuclear force modernization. In his speech, Schmidt highlighted the dangers of what today might be called a "G-2" arrangement between the United States and Soviet Union, arguing that strategic parity should not leave open the door to Soviet dominance in Europe:

No one can deny that the principle of parity is a sensible one. However its fulfilment [...] must apply to all categories of weapons. Neither side can agree to diminish its security unilaterally [...] we in Europe must be particularly careful to ensure that these negotiations do not neglect the components of NATO's deterrence strategy [...] strategic arms limitations confined to the United States and the Soviet Union will inevitably impair the security of the West European members of the Alliance vis-à-vis [the Soviet Union] if we do not succeed in removing the disparities of military power in Europe parallel to the SALT [Strategic Arms Limitation Treaty] negotiations (Schmidt, 1978, p. 4).

Significantly, Schmidt made no reference to solving this issue through NATO nuclear modernization, which made sense given his main concern was the attitude of the U.S. government in its negotiations with the Soviet Union. The issue of the "grey zone" between the strategic nuclear balance and the conventional forces in Europe was ultimately a political more than military one. But it was through the alliance's force planning process for its nuclear capabilities that Europeans could continue to push the issue, and through which the allies would ultimately find the compromise of the dual-track decision in 1979 (Readman, 2011; Garthoff, 1983).

The policy making forum that enabled this process, the Nuclear Planning Group (NPG), was itself created in 1966 because then U.S. Secretary of Defense Robert McNamara sought to influence the thinking of allies on nuclear strategy and the new strategy of Flexible Response, by increasing the transparency of U.S. strategic thinking and military capabilities. In general, NATO members during the Cold War and later crises worked hard to preserve public unity, even when they disagreed behind closed doors about policy (Kupchan, 1988, p. 336; also Papayoanou, 1997, p. 92). A major theme of NATO's nuclear history—including the Multilateral Nuclear Force proposal, the creation of the NPG, and the Long-range Theatre Nuclear Force modernization decision—was the United States' desire to (re)-build broader alliance cohesion through increased nuclear cooperation that signified Washington, DC's willingness to take its allies into its confidence.

McNamara's engagement of NATO allies through the NPG played a major role in generating allied support for a change in Alliance strategy, which actually *reduced* NATO's reliance on U.S. tactical nuclear weapons in Europe (Schwartz, 1983, pp. 191-192). At the same time, however, the Europeans were also successful in challenging U.S. assessments about the feasibility of a purely conventional defense, so that the new NATO Strategic Concept enabled by the discussions in the NPG was a genuine compromise (Tuschhoff, 1999, pp. 145, 155). As one recent study notes, because of nuclear consultation, non-nuclear NATO allies were able "to explore the position of the protector state more precisely than ever before and to engage in intra-alliance balancing if necessary to manipulate the protector state not to untie its security from the security of the protégés" (Lutsch, 2016, p. 555). Ultimately, the prime importance of the NPG lies in its role as a forum through which allies can strike bargains on alliance strategy, not in it being a part of the alliance's deterrence posture or signaling deterrence credibility as such.

The longest-standing bargain on nuclear strategy in NATO pre-dates the NPG by more than a decade: Norway (along with Denmark) had sought to "screen" their participation in NATO policies in an endeavor to assure Moscow of Oslo's intentions (Lundestad, 1992). Despite being a frontline state, Norway did not accept permanent basing of allied forces, and refused NATO forces access to Norway for operations east of the 24th meridian, and rejected participation of nuclear-capable aircraft (such as the B-52 and F-111) in exercises (Børresen, 2011; German, 1982). And yet, Norway assumed and accepted throughout the Cold War that allied reinforcements to northern Norway would be equipped with nuclear weapons—a fact that did not cause significant concern given the sparse population of the region (interviews with official and former senior officers, Oslo, 27-29 July 2015). Its objection to peacetime deployment was a consequence of the no-base policy rather than because of a specific objection to using nuclear weapons in the country's defense: Norway acquired nuclear delivery systems itself in the 1950s, before phasing them out again, as accepting warheads would have meant accepting U.S. troops to accompany them (Skogrand & Tamnes, 2001). But it was precisely the existence of NATO nuclear forces elsewhere, and their almost inextricable institutional integration into the allies' defense posture, that allowed Norway to use the exclusion of nuclear weapons in peacetime from its own territory as a means to dissuade Soviet political pressure on Scandinavia.

By contrast, throughout the 1970s and 1980s, West Germany was very active in using the NPG in an attempt to influence NATO planning for the way tactical nuclear weapon might be used in practice. Bonn sought to influence the operation of U.S. extended deterrence in such a way as to minimize damage to West Germany in case of war, which was manifested in a lesser employment of nuclear weapons on German territory than advocated by many proposed U.S. policies. By 1973, West Germany had gained NATO agreement that it would not use nuclear ground bursts or weapons greater than ten kilotons on NATO territory (Schulte, 2012, p. 2012). In addition, Bonn consistently argued for early, but long-range (that is, beyond German territory) use of NATO's theatre nuclear weapons (Daalder, 1991). West Germany's strong involvement in the NPG was not necessarily a sign it was more concerned about U.S. nuclear guarantees than other NATO allies, but more a consequence of its geographic position as the likely battlefield of a NATO-Warsaw Pact conflict.

Extended nuclear deterrence and the bargaining power of allies

What was the basis of West Germany's influence on U.S. nuclear policy and posture during the Cold War? Why was its engagement with the United States on nuclear matters so much closer than that achieved by South Korea, another frontline state that relied on U.S. conventional and nuclear forces for its own survival? By the 1970s, West Germany had become the most important (non-nuclear) U.S. ally in Europe, based on its economic prowess as well as its conventional military strength. The relative material strength of a state is, however, not always a reliable indicator of how much influence or leverage it enjoys in specific relationships (Sechser, 2010). Intra-alliance bargaining has not always resulted in Washington, DC getting its own way on major policy issues. Instead, an emphasis by the United States on preserving unity and discipline among alliance members, while also addressing pressing policy questions, is a common theme in the history of America's alliances, and one where the multinational character of NATO is particularly important.

Central to understanding relative influence in intra-alliance bargaining is what Snyder has termed the "alliance security dilemma". Instead of focusing on the manifest benefits that accrue to weaker powers in alliances with major powers, the alliance security dilemma highlights the intrinsic risks in alliance relationships for both sides that stem from the dual hazards of entrapment and abandonment (Snyder, 1997, pp. 180-192). The relative balance between fears of

entrapment and abandonment can explain allies' relative influence on the terms of the alliance; and the need or absence thereof for the United States to provide institutional influence on its own policies while still achieving allied cooperation with its overall objectives.

In general, the extent to which U.S. allies have been able to influence American nuclear posture aligns well with the implications of the alliance security dilemma. Oslo was able to gain accommodation from NATO over its fears of entrapment because its negotiating position was based on Norway's geographic importance, not its material strength: Britain insisted on the inclusion of Norway and Denmark in NATO given their strategic importance for the Atlantic sea lines of communication, and later in the Cold War the United States relied heavily on Norwegian support in monitoring Soviet SSBN deployments from the Kola peninsula (Posen, 1983, p. 341).

Similarly, Japan possessed not only the advantage of its own material strength as a major industrial power in Asia, but also the geographic advantage of Okinawa, the lynchpin of U.S. military posture in East Asia. Bargaining over the status of the island gave Tokyo the opportunity to negotiate detailed confidential arrangements during the Cold War on how the United States could employ nuclear weapons from Japanese soil, and reduce feared entrapment in U.S. operations against China, North Korea or the Soviet Union (Komine, 2013). By contrast, South Korea had minimal leverage, aware of its marginal importance at the global level and the almost accidental nature of its alliance with the United States. South Korea had no influence on the shape of the nuclear umbrella on the peninsula, or even U.S. military posture until the formation of Combined Forces Command in 1978 (Jang, 2016). Repeated requests from Seoul for stronger reactions against North Korean provocations often went unmet, and the United States did not even make the existence of U.S. nuclear weapons in South Korea public until 1975 (O'Neil, 2013, p. 61).

The Nixon administration's unilateral announcement in 1970 that it would withdraw 20,000 troops from South Korea, redeploy remaining American forces further south on the peninsula, and withdraw the U.S. ground force presence entirely within five years, triggered a decision in Seoul to begin an indigenous nuclear weapons program (Choi & Park, 2008, p. 376). South Korean concerns about abandonment were further exacerbated when the Carter administration in 1977 flagged the complete withdrawal of U.S. forces, including tactical nuclear weapons. A combination of Congressional pressure, revised intelligence assessments of North

Korea's military strength, and criticism from Asian allies led Carter to suspend the plan in 1979, after South Korea has earlier terminated its own nuclear program with a view to seeking improved relations with Washington, DC (Snyder, 2010, pp. 161-162). However, despite its greater need for assurance and U.S. security guarantees, South Korea never attained even Japan's modest insight and influence over U.S. nuclear posture in its alliance, let alone the explicit nuclear dimension to alliance cooperation that characterized deterrence in NATO.

The alliance security dilemma has very real relevance for major powers as well. Scholars often look for evidence of entrapment (or entanglement) in alliance treaties (Kim, 2011) or conflicts (Beckley, 2015). Nuclear sharing arrangements in NATO fall into neither category. However, they also provide evidence of both deliberate and unintended entanglement, as the United States and its allies integrated U.S. nuclear weapons into NATO's defense strategy and posture and sought to strike, through ever closer institutional cooperation, increasingly detailed bargains about the cost and control of nuclear escalation.

As Tuschhoff (2002) has shown, West German military and political leaders originally were opposed in the 1950s to the introduction of nuclear warheads into the *Bundeswehr*. They saw U.S. proposals to do so as an attempt to reduce U.S. financial commitments to Europe's defense, and to shift cost in conflict onto its allies by relying on nuclear rather than conventional maneuver defense. Yet, agreement in NATO to structure its forces based on the use of tactical nuclear capabilities created mutual dependencies that West Germany was later able to exploit in its opposition to the Kennedy administration's proposals for Flexible Response. McNamara's plans for a conventional defense depended on European allies' agreement to change their own defense planning priorities, while the threat to withdraw (or not to supply) U.S. nuclear warheads undermined NATO's existing defensive power in Europe—exactly the opposite of what McNamara intended to achieve (Tuschhoff, 2002). What Europeans and Americans thus discovered during the 1960s was that nuclear sharing required them to find genuine consensus on operational-strategic principles for the common defense. This was ultimately the impetus for the creation of the NPG, and the ever closer cooperation that, in many ways, culminated with the alliance consensus on the dual-track decision of 1979, and the final adoption of the General Guidelines on Tactical Nuclear Weapon Use in 1987.

The legacy of Cold War nuclear weapons cooperation

The consequences of this approach are still with us today. The United States' commitment of 1962 not to unilaterally vary the U.S. tactical nuclear weapons posture in Europe remains a cornerstone of NATO's nuclear policy consensus. Hence, nuclear sharing arrangements extend the consensus principle to force posture decisions that otherwise would remain purely national U.S. decisions. For the United States this means it could not easily use the status of its own B-61s still stationed in Turkey to signal its displeasure at that country's recent policies, without causing a significant shift in the nature of its alliance with the other NATO members. For Turkey, it means that continued membership in the integrated military structure in NATO—with the “cost” of the commitment to liberal democratic values and integration of its military officers in a professional, Western secular culture—limits the freedom of the United States alone to redefine the terms of their relationship. Because of the way nuclear sharing has been embedded in NATO, it strengthens the cohesion of the Alliance to a far greater extent than would have been the case with mere forward-basing of U.S. nuclear forces—to the point that “nuclear forces are buried deep within NATO's DNA, and are seen by many as a prerequisite to the applicability of Article 5” (BASIC, 2012).

Nuclear weapons cooperation thus remains both a subject of intra-alliance bargaining in its own right, but also an important institutional forum for the allies' political-military negotiation of their commitments to each other. Eastern European countries' support for maintaining NATO tactical nuclear forces during the 2012 DDPR stemmed in large part from concern about maintaining allied unity around Article 5 and the continued institutional investment of the United States in European security, and less from concerns about the immediate strategic or operational value of nuclear weapons per se (Kulesa, 2012). As relations with Russia deteriorated after the invasion of Ukraine in 2014, Poland's government toyed with the idea of also requesting to become a host nation for NATO-assigned B-61 nuclear warheads (The Guardian, 2015). This stance is consistent with Poland's particular focus on its perceived second-tier status, given NATO's formal commitment to the NATO-Russia Founding Act. In contrast, many officials in the Baltic States would prefer the status quo on nuclear weapons and the Founding Act, over a debate that would divert NATO's attention from addressing the conventional force posture deficiencies they see as threatening their immediate security (interviews with policy officials in Warsaw, 22-24 July, and Tallinn, Riga and Vilnius, 3-14 August 2015). NATO remains a case

where allies see extended deterrence as crucial for allies that see themselves under threat from a resurgent Russia. At the same time, these concerns do not fit neatly into an analytic prism that looks at nuclear deterrence demand or supply, as distinct from the role of nuclear weapons in the negotiation of general alliance strategy and credibility.

In the U.S. Cold War alliances in Asia, no strategic need for consensus between allies ever arose, and nor did the multilateral institutions to create it. Hence, the advent in 2010-2011 of extended deterrence consultation mechanisms in the U.S.-Japan and U.S.-Republic of Korea alliances appeared to be a watershed in the way the nuclear umbrella operates in Asia (Santoro & Warden, 2015). Until this time, there had been no specific-purpose forum in the region for nuclear consultation. The two dialogues evolved within the parallel alliances but reflected similar concerns on the part of Tokyo and Seoul about the need for enhanced consultation as well as reinforcing the credibility of deterrence. At the October 2016 “2+2” meeting between the South Korean and U.S. foreign and defense ministers, both countries agreed to establish the Extended Deterrence Strategy and Consultation Group, which will focus on detailed policy issues and broaden agency involvement on both sides (U.S. Department of State, 2016).

Around the time of the 2010 U.S. Nuclear Posture Review process, Japanese and South Korean officials signaled a growing desire to confirm that Washington, DC remained committed to the nuclear dimension of extended deterrence. One U.S. official closely involved in dealing with Japanese and South Korean officials at the time recalls that “they were constantly looking for evidence of where the nuclear dimension came into play” (interview with State Department official, Washington, DC, 16 July 2015). This coincided with increasing North Korean belligerence, rapid Chinese military modernization, and emerging doubts about Washington’s long-term commitment to the nuclear umbrella in the wake of President Obama’s 2009 Prague speech. The decision of the United States to decommission the remaining Tomahawk Land Attack Missile-Nuclear (TLAM-N) triggered further anxiety in Tokyo, and to a lesser extent in Seoul (Kristensen, 2009). Significantly, Japanese and South Korean officials pressed their U.S. counterparts for “more NATO-like” extended deterrence arrangements as a means of assurance (Roberts, 2016, p. 206).

While Australia remains content to discuss nuclear issues with the United States in fairly abstract terms, Japanese and South Korean policy makers have thus become increasingly focused

on the details of American nuclear strategy and the hardware of U.S. nuclear forces. Washington has been more forthcoming in providing details on how and why nuclear strategy is developed, including through extensive tours by Japanese and South Korean officials of U.S. weapons laboratories, Strategic Command facilities, and other elements of the nuclear weapons infrastructure – “showing them the gear” to quote one State Department official (interview, Washington, DC, 16 July 2015). This hardware component of nuclear consultation is relatively new to America’s alliances in Asia and it speaks to the growing demands on the United States to provide deeper security assurances as uncertainty multiplies regarding the long term intentions of China and North Korea in Asia, and Russia in the European theatre.

Washington, DC was receptive to these demands, not least because consultative arrangements would provide better lines of communication in assuring allies at a time when Chinese competition for geostrategic influence in Asia was rising to the top of America’s strategic concerns (Friedberg, 2011). But U.S. officials also made it clear the mechanisms instituted in Asia would not replicate NATO policy planning. In particular, the bilateral extended deterrence dialogues would be *consultative* fora, as distinct from NATO’s *decision-making* mechanisms on strategy and planning. One high level official recalls that the United States was explicit with Tokyo and Seoul that bilateral consultations would not involve bargaining over the specific type of extended deterrence assurances conferred by the United States (□interview with State Department official, Washington, DC, 16 July 2015). It is also important to emphasize that, unlike the NATO model, the Japan and South Korean cases have at no point involved discussions on shared nuclear command and control or joint deployment arrangements, and there is little prospect this will occur (Roberts, 2016, Chapter 7). While Japan and South Korea have more opportunities than ever to consult with Washington on the nuclear umbrella, the operational level of extended nuclear deterrence in East Asia is still a U.S. controlled enterprise. This stands in marked contrast to NATO, where nuclear planning remains a genuinely multilateral project.

Nuclear cooperation and the future of U.S. alliances

Visible extension of the U.S. nuclear umbrella to allies through forward basing, deployment of nuclear capable delivery systems, official declarations, consultative fora or joint policy and planning thus remains an important element underpinning the robustness of U.S. alliances today. Nuclear warheads remain the crown jewels of military capability, and taking

non-nuclear allies into confidence on nuclear matters is itself a political sign of the depth of U.S. commitment to these countries. But whereas it is a core purpose of U.S. alliances to extend deterrence—and deterrence is almost the sole purpose of nuclear weapons—this article has shown that the concept of extended deterrence has limited utility in explaining the interests the United States and its allies pursue through institutional cooperation on nuclear weapons, and the forms this cooperation takes.

Cooperation on nuclear weapons in U.S. alliances is important because it provides an institutional means to create and maintain alliance cohesion at times when that cohesion has come under threat from perceptions of differing strategic priorities among allies. All the iconic steps by which NATO developed into a genuinely “nuclear alliance”—including the reliance on nuclear weapons after the failure of the 1952 Lisbon Summit goals, the development of nuclear sharing in the late 1950s, the creation of the NPG in the 1960s, and the dual-track decision of 1979—were ultimately taken to promote broader alliance bargains about relative costs and benefits embedded in NATO strategy and posture. In most of these cases, the need for a new bargain arose because of allies’ concerns about U.S. policies, rather than a changed threat from the adversary. Similarly, the more recent creation of the U.S.-Japan and U.S.-Republic of Korea extended deterrence dialogue forums essentially resulted from concerns Washington may be backtracking from its alliance commitments in East Asia, in addition to more immediate concerns about extended conventional deterrence credibility in relation to China and North Korea.

In the end, the institutional cooperation on nuclear weapons that creates the impression of a “nuclear umbrella” is inseparable from the institutional basis that gives U.S. alliances credibility as a whole. Efforts by materially weaker allies to bargain with Washington on the detail and extent of its security guarantees will become more intense, and more explicit, as perceived security threats increase, and as anxiety about abandonment and/or entrapment grows. Fears the United States will become “decoupled” from its regional allies do not have to originate from, or be confined to, developments in the nuclear sphere. That said, as is evident in the case of Japan, any indication the United States may be diluting the strength of its nuclear commitment risks triggering concern about the broader credibility of alliance security assurances. The main benefit of nuclear consultation measures is therefore not to signal extended deterrence. Instead, they provide the means for allies to negotiate the management of alliance costs that relate to possible

conflict, while ensuring that the United States remains committed strategically to the relevant theatre in which the non-nuclear allies are located.

Here, the multinational nature of NATO—compared to bilateral alliances in Asia—remains crucially important, as it raises the political importance of consensus with every member state, and has led to the institutionalized nature of that alliance. U.S. disagreements with Asian allies are bilateral disputes over specific questions, whereas in NATO disagreements risk threatening America's reputation as a leader of the Western Alliance if they are not addressed through intra-alliance compromise. In this sense, the difference in the consultative arrangements in Asia, compared to the policy and planning role of the NPG in Europe, also reflect institutional factors within these alliances unrelated to allies' need for, or desire to create, extended nuclear deterrence.

Despite these differences, perceived attenuation of U.S. commitment to nuclear cooperation with non-nuclear allies in Europe or in Asia would have serious consequences for perceptions of America's alliance commitments more generally. In the NATO context, nuclear consultations have been a high-level staple of the alliance since the 1960s, and any diminution of this would raise questions about the depth of Washington, DC's strategic commitment to defend its European *and* Asian allies. Discussion of the nuclear commitment in NATO has tended to focus on whether U.S. B-61 nuclear weapons should remain deployed on the continent, but the real centerpiece of America's nuclear commitment to NATO remains the various nuclear consultation mechanisms that have been built over several decades. At the same time, however, the NPG itself gains much of its stature and importance from the existence of integrated nuclear forces. Similarly, any pull back by the United States from nuclear consultation in Asia would signal to highly sensitized Japanese and South Korean elites that not only are U.S. security assurances conditional, but that Tokyo and Seoul will have significantly reduced scope to negotiate the terms of assurances in the future.

In Cold War Europe, and more recently in East Asia, consultation on nuclear strategy and posture has thus been an important means for the United States to influence strategic choices and perceptions of its non-nuclear allies. Nuclear capabilities do not exist in a separate strategic universe from the general balance of forces, and nuclear posture and strategy have defense resource implications. U.S. interests in this regard are far broader than the objective of avoiding

further proliferation among its allies. In the past, Washington been able to gain increased emphasis on conventional forces in NATO defense planning when negotiating the new role of nuclear weapons in Flexible Response, and has alleviated allied concerns about concessions to the Soviet Union by pushing for NATO nuclear force modernization. As the United States' relative strategic weight continues to decline, and as Washington, DC continues to face significant fiscal pressures to curtail defense spending while tensions mount in Europe and Asia, critics are right to highlight the need for greater military burden-sharing with allies. Reducing the role and prominence of U.S. nuclear weapons in its alliances, however, would remove a major avenue for United States influence, and therefore render it more difficult for current and future U.S. administrations to promote even conventional military burden sharing with non-nuclear allies.

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