

Stanton Nuclear Security Fellows Seminar

PANEL 4: Nuclear Strategy

1. Sara Moller, MIT SSP

NATO's Nuclear Policy in an Age of Uncertainty

Introduction

Beset with both internal and external challenges, the North Atlantic Treaty Organization (NATO) faces its most demanding security environment in years. Supporters worry the United Kingdom's departure (aka 'Brexit') from the European Union coupled with the election of an alliance 'skeptic' in the United States at a time when Russia is returning to a more assertive foreign policy could pose the "greatest challenge [to the alliance] in a generation." (Stoltenberg, 2016) The malaise caused by these events in policy circles however has largely ignored the implications these developments might have for the Alliance's nuclear future. After all, NATO is not just the most successful alliance in history; it is the oldest *nuclear* alliance. The Alliance has sophisticated nuclear-sharing arrangements dating back decades. How will these arrangements fare in an environment where NATO is facing its gravest challenges in a generation? This project examines the future of the Alliance's nuclear policy in the wake of recent geopolitical shocks through an analysis of earlier critical junctures in the organization's nuclear history.

Issues & Question

In just a short span of years, the Alliance's geostrategic environment has changed markedly. Unlike the 2003 transatlantic crisis over the Iraq War, shocks to NATO's strategic landscape have come not only from within the Alliance but also along its borders. Internally, many Alliance members face a turbulent domestic political environment. The rise of populism in the United Kingdom and United States has led to the election of leaders who have vastly different visions for Europe (and, in the US case, the transatlantic relationship) than did their predecessors. Meanwhile, Turkey's slide toward authoritarianism is raising new questions about the country's commitment to the military alliance. Externally, Russia is displaying more aggressive behavior along the Alliance's borders.

While the full implications of the 2016 Brexit referendum will not be known for some time, many European leaders have already expressed concern that the UK's exit from the European Union (EU) could have serious consequences for NATO. Questions have been raised about whether a more inward-looking United Kingdom will continue to be a major contributor to European security. For years, the UK has been one of only a few allies to consistently spend 2% of its GDP on defense spending, the target laid out in the NATO Ministerial Guidance of 2006. (Dunn and Webber 2016, 473) Recent austerity-driven defense cuts however have led to growing uncertainty about the future of UK defense spending in general, and the Dreadnought replacement for the Trident program, in particular. Going forward, even if London manages to retain the 2% defense spending target, a shrinking economy will mean a reduction in the amount spent on defense in absolute terms.

Aside from concerns about defense spending, the UK departure has also raised questions about the country's commitment to existing security arrangements.¹ Of course, the EU is not NATO. However, London's decision to remove itself from the former at a time when the two are growing closer together is cause for concern among supporters of both European projects. (Dunn and Webber, 2016) Will an inward-looking UK continue to perform its role as a vital pillar of the Alliance's deterrence posture? As the only European alliance member with nuclear forces permanently assigned to NATO, decisions taken in London in the coming months and years could have far reaching implications for the nuclear alliance.² Another possibility of course is that the political significance of these developments is greater than any potential military implications for the Alliance's nuclear policy, planning, and force posture. Certainly, this might be the case were it not for the other domestic crises simultaneously occurring within the Alliance.

The July 2016 coup attempt in Turkey (especially, the events that unfolded at the Incirlik Airbase) led to renewed debates about the wisdom of locating NATO's largest nuclear-weapons storage facility in Europe in a country prone to political instability. Home to around fifty U.S. B-61 nuclear gravity bombs stored in underground vaults inside a newly-upgraded security perimeter and armed with Permissive Actions Links (PALs), most experts consider the security measures at the airbase sufficient to prevent theft or loss of control.³ (Woolf 2016) At least one senior arms control expert however has called for these weapons to be removed from Turkey. (Lewis 2016)

Of perhaps greater concern is Turkey's continuing slide toward authoritarianism. The policies of the ruling Justice and Development Party (AK Parti) are not only at odds with NATO's democratic credentials but are in some instances directly opposed to the principles of collaboration, coordination, and collective defense upon which the Alliance operates. The Turkish government's refusal to allow German lawmakers to visit Bundeswehr troops stationed at Incirlik and the NATO base near Konya jeopardizes relations with other NATO members and threatens the viability of NATO installations in-country. The diplomatic squabble has already prompted Berlin to relocate some 250 troops to Jordan and suspend all arms exports to Turkey. (*Deutsche Welle*, 2017) And, in a move likely to be seen by many analysts as further evidence of a Turkish pivot away from NATO, the Erdogan government recently announced plans to purchase the Russian-made S-400 missile defense system. (*New York Times*, 2017) In addition to signaling its intention to develop a military infrastructure independent of NATO, the purchase of a Russian air defense system (which will require Russian advisors, trainers, and operators to be stationed in Turkey) raises real concerns about the future security of Incirlik as well as the interoperability of the Alliance's weapons systems. Taken together, these developments raise doubts about Ankara's commitment to the military alliance.

When the election of the first American president in the post-war era to publicly disparage the Alliance and transatlantic relationship is added to the mix, the picture that emerges is one of an increasingly fractured and vulnerable security organization.⁴ Although the nuclear posture review ordered by President Trump in January 2017 is not yet complete it is not beyond the realm of possibility that the president might conclude that the U.S. nuclear commitment to Europe should be reduced.

¹ Admittedly, the two issues are closely linked since substantial reductions in defense spending may mean that the UK will be unable to provide the full spectrum capabilities necessary to be a full partner.

² The UK has been an important pillar of the nuclear alliance since the 1962 Nassau Agreement. France, the only other European nuclear power, remains outside the Alliance's Nuclear Planning Group (NPG), the alliance's senior body on nuclear matters, despite having rejoined the integrated military command in 2009.

³ Unclassified reports suggest that the United States maintains around 200 gravity bombs in Europe, making Incirlik home to approximately 25% of all U.S. nuclear weapons stationed on European soil.

⁴ Both as a candidate and as president, Trump has adopted a dangerous ambivalence toward the Article 5 security guarantee underpinning the Alliance (i.e. the collective defense clause of the Washington Treaty).

The domestic political developments of 2016 are made more significant given Russia's aggressive behavior of late toward the Baltic countries. The combination of these internal fractures and a heightened external threat environment on the Alliance's eastern borders necessitates a re-examination of the viability of NATO's extended deterrence system. How might the tumultuous political developments of 2016 affect the future of the Alliance's nuclear portfolio? Put differently, what is the likely impact of these geostrategic shocks on the future of NATO's nuclear policy, planning, and force structure?

Methods & Theoretical Framework

In tackling these questions, I adopt a comparative historical approach. Specifically, I plan to use scenario-based analysis to investigate possible future directions the Alliance might take in response to these internal and external challenges. To do so, I will use secondary research to first identify past critical junctures in NATO's nuclear policy as well as the policies adopted by NATO and its members as a result. I expect these past junctures to provide lessons that will help identify the possible routes the Alliance might take going forward. Next, drawing on my previous work on the evolution and adaptation of international security institutions, I will apply a theoretical framework based on four possible pathways of institutional change (disengagement; dis-integration; integration; and status quo) and tease out what each would mean for the future of the NATO nuclear alliance. In addition to identifying possible future scenarios, the project will, hopefully, speak to the question of which of these institutional paths of change is most likely to occur in the coming years. I plan to interview leading policymakers on both sides of the Atlantic as well as longtime watchers of alliance nuclear politics to help guide my research.

Areas Requiring Feedback

One analytical issue to consider when adopting this research plan is whether the developments of 2016 are a blip or a harbinger of things to come. Presidential terms after all last (at most) eight years. Any rift or unravelling of the U.S. nuclear commitment to Europe might be temporary and could conceivably be undone by the next administration. Similarly, the political fractures currently evident in European politics could disappear from the scene in the coming years. In other words, the political shocks of last year might look different in a few years' time. Given a longer time horizon, the significance of these events might not appear as great as they do today. This raises the question of whether recent developments constitute a sufficient shock to the system, i.e. whether the events discussed above have the capacity to shift the trajectory of the alliance's nuclear policy, which is one of the underlying assumptions of this project.

Additionally, there is the question of causality; specifically, whether it will be possible to attribute prior changes to the Alliance's nuclear policy, planning, and force structure to political shocks as opposed to technological advances in weapons systems. Since my expertise is in conventional military alliances, and not nuclear politics, I would welcome any suggestions or help identifying other possible critical junctures for examination for the purposes of comparative analysis.

Policy Implications

The policy implications of this project are self-evident. In addition to speaking to current challenges facing the NATO alliance, the project explores themes (such as the viability of extended deterrence) with direct relevance to other international problems of the day. That the "NATO Model" of extended deterrence is experiencing cracks at precisely the moment when it is being considered for adoption in East Asia will not be lost on international security experts, and is another way in which this project speaks to the wider policy challenges currently facing this nation.

References:

- Davis, Ian. 2015. "The British Bomb and NATO: Six Decades of Contributing to NATO's Strategic Nuclear Deterrent," *SIPRI/NET*.
- Dunn, David Hastings and Mark Webber. 2016. "The UK, the European Union and NATO: Brexit's unintended consequences," *Global Affairs* 2(5):471-80.
- Fruhling, Stephan & Andrew O'Neil. 2017. "Nuclear weapons, the United States and alliances in Europe and Asia: Toward an institutional perspective," *Contemporary Security Policy* 38(1): 4-25.
- Gall, Carlotta and Andrew Higgins. September 12, 2017. "Turkey Signs Russian Missile Deal, Pivoting From NATO." *The New York Times*. Available at: <https://www.nytimes.com/2017/09/12/world/europe/turkey-russia-missile-deal.html?mcubz=0>. Accessed on September 12, 2017.
- "German lawmakers postpone visit to Konya NATO base in Turkey." July 16, 2017. *Deutsche Welle*. Available at: <http://www.dw.com/en/german-lawmakers-postpone-visit-to-konya-nato-base-in-turkey/a-39700640>. Accessed on September 12, 2017.
- "German MPs visit Konya NATO base in Turkey." September 8, 2017. *Deutsche Welle*. Available at: <http://www.dw.com/en/german-mps-visit-konya-nato-base-in-turkey/a-40410034>. Accessed on September 12, 2017.
- House of Commons. 2006. *UK Select Committee on Defence Eighth Report*. Available at: <https://publications.parliament.uk/pa/cm200506/cmselect/cmdfence/986/98605.htm>. Accessed on September 10, 2017.
- Lewis, Jeffrey. July 18, 2016. "America's Nukes Aren't Safe in Turkey Anymore." *Foreign Policy*. Available at: <http://foreignpolicy.com/2016/07/18/americas-nukes-arent-safe-in-turkey-anymore/>. Accessed on September 12, 2017.
- Lewis, Jeffrey and Bruno Tertrais. 2015. "Deterrence at Three: US, UK and French Nuclear Cooperation," *Survival* 57, 4 (August-September): 29-52.
- Sechser, Todd S. 2016. "Sharing the bomb: how foreign nuclear deployments shape nonproliferation and deterrence." *The Nonproliferation Review* 23:3-4.
- "Turkey needles NATO by buying Russian weapons." September 12, 2017. *Deutsche Welle*. Available at: <http://www.dw.com/en/turkey-needles-nato-by-buying-russian-weapons/a-40475465>. Accessed on September 12, 2017.
- Woolf, Amy F. 2016. "U.S. Nuclear Weapons in Turkey," Congressional Research Service (IN 10542), Washington, D.C.

2. Dani Nedal, MIT SSP

Urban Concentration and Nuclear Security Policy

- *On what issue are you working and why is it important?*

My research addresses the effects of urbanization and urban geography on nuclear weapons policies. In particular, I look at how heightened urban concentration (the concentration of population in one or few cities) constrains state options regarding the use of nuclear weapons (strategy/doctrine), which in turn shapes preferences regarding proliferation (whether or not states pursue weapons) and force structure (how many and what kinds of weapons and delivery platforms). It is important because we need better theories to help explain and predict when states will pursue nuclear capabilities and how they might use them.

- *What is the big question?*

The big question is why do some states conform closely to the logic of the nuclear revolution while others pursue more ambitious nuclear policies that look more “conventional” and therefore “illogical”. That is, for some countries nuclear weapons are viewed as absolute and nuclear war produces no winners, the purpose of nuclear weapons is to deter attacks against one’s core interests and prevent war, and such state of mutual deterrence is seen as relatively easy to achieve. Others behave as if relative size matters, nuclear war can be fought and won, nuclear weapons can be used for coercion or warfighting without triggering all-out war, and mutual deterrence can potentially (and should) be overcome and replaced with superiority.

- *How are you going to answer this question?*

I address this question using a multi-method research design, which includes four comparative case studies of great power nuclear strategy (US, USSR/Russia, UK, China), six case studies of nuclear and quasi-nuclear regional powers (France, India, Pakistan, Japan, Australia, Canada), alongside large-N analysis of force structure and proliferation, using Extreme Bounds Analysis, Cross-Validation, and Hazard Analysis.

- *What is the answer to the question?*

My answer to the question is that in countries with high levels of urban concentration, nuclear war at any level is virtually guaranteed to destroy most of urban-industrial society. The only conceivably use for nuclear weapons is therefore existential deterrence. Strategies of nuclear damage limitation, either through limited nuclear use or passive or active defense, offer little to no strategic benefit. These countries are therefore less likely to pursue nuclear weapons in the first place—unless they find themselves under extreme existential threat. When and if they do acquire them, they will tend to adopt countervalue, minimal deterrence, doctrines and smaller, simpler arsenals. Countries with more dispersed urban populations, on the other hand, may entertain the possibility of surviving and perhaps even “winning” nuclear wars, and may feel tempted to explore policies that maximize those chances, such as counterforce doctrines and large and diverse arsenals. These countries are also more likely to engage in nuclear brinkmanship, as well as engage in peacetime comparative calculations vis-à-vis their rivals (as opposed to treating nuclear weapons as “absolute”), leading to more arms racing and peacetime signaling.

- *How does your work fit with existing work?*

My theory contributes to an already extensive body of knowledge on the causes and consequences of nuclear weapons acquisitions and the determinants of specific countries' nuclear policies. Existing theories identify a range of variables from the psychology of leaders and domestic political institutions to state capacity, status concerns, strategic culture, military threats, nuclear assistance, and international institutions, among others. Rather than supplant or refute existing explanations, my theory offers a parsimonious framework that accounts for a lot of the variation in state nuclear policies, for great and small powers alike (while many other theories are limited to either superpowers or regional nuclear powers). My theory also generates clear predictions for new and existing nuclear powers, and complements existing theories while performing better in statistical predictive models than most alternative theories. My theory also specifies the conditions under which it should be sufficient to explain outcomes (i.e. when levels of concentration are high and options are therefore extremely limited) and when other theories may be necessary to explain state policies (when concentration is low and therefore more options are available). One particularly important contribution is that it resolves a long-standing debate regarding the existence of a "nuclear revolution" by identifying the scope conditions under which the postulated "revolutionary" effects of nuclear weapons ought to manifest. Another important contribution is putting the focus back on what makes nuclear weapons so unique: they give states the ability to lay enemy cities to waste and kill large numbers of people quickly and without having to win (long and costly) conventional wars.

- *Policy Implications and Concrete Recommendations*

Several implications follow from the theory. First, more urban-concentrated nuclear powers are easier to deter, but such vulnerability also makes it more likely that they will use their nuclear weapons in the event of a large-scale conventional war (or threat of such war), especially against a conventionally superior foe. This means that North Korea should be fairly easy to deter, and nuclear war is unlikely unless the US and South Korea initiate military actions that directly threaten the regime's survival. This also means that in the event of South Korean or Japanese nuclearization (which the theory suggest is likely in the medium term if China continues on its trajectory and becomes more aggressive), deterrence would be fairly stable and nuclear arms racing would be unlikely. Unless missile defense technology improves dramatically, local investments in missile defense will not pose a great threat to nuclear stability. South Korean and Japanese nuclear doctrines would most likely resemble French and North Korean doctrine and force structures, rather than American or Russian. The theory also predicts that India and Pakistan, because of the asymmetries in their relative levels of concentration, will not mimic each other's nuclear moves as closely as their levels of strategic interdependence would predict; and that Russia should be relatively easy to deter but is likely to pursue asymmetric escalation (Russia's urban population and wealth, unlike the USSR, is heavily concentrated in Moscow and St. Petersburg).

- *What is the weakest or most vulnerable aspect of your study?*

The most vulnerable aspect of the study relates to the inherent challenge of testing theories—and in particular of assessing the relative importance of different factors—when the universe of cases is so small, many of said cases are well-trodden ground, and when outcomes can be overdetermined. Another weakness of the study is the asymmetry in availability of primary sources across cases (and my limited language skills to directly access some of them), which means that causal process observations connecting the observed outcomes and the variables identified by the theory are harder to come by in some cases. In other words, we don't have as much direct insight into the decision-making processes in

countries like China or South Korea as we do in the United States, the United Kingdom, Australia, or even the Soviet Union.

3. Kristen ven Bruusgaard, CISAC

The Politics of Russian Nuclear Strategy

Whereas Russia has retained a focus on the United States as a potential nuclear adversary in the entire period after the Cold War, the United States has been distracted from closely paying attention to Russian nuclear strategy. Renewed tension among the great powers has led to increased Western concern with the potentially destabilizing nuclear strategies of regional adversaries such as Russia.

Russia's declaratory nuclear strategy has displayed significant variation since the dissolution of the Soviet Union. From a defensive, deterrence-oriented strategy in 1993, Russia moved in 2000 to a much more offensive strategy opening for the limited use of nuclear weapons in regional wars, for then to retract in 2010 with more careful language regarding potential nuclear weapons use. This cannot readily be explained through shifts in the external threat environment. My thesis seeks to better understand this variation by exploring what domestic actors formulate and influence Russian declaratory nuclear strategy. It explains the origins and substance of declaratory nuclear strategy and examines how military and civilian individuals and institutions influence that strategy through cohesive group preferences and institutional clout.

Research Question: What civilian and military actors influence Russian nuclear strategy?

I will conduct a comparative study of three most similar cases of Russian declaratory nuclear strategy: the military doctrines published in 1993, 2000 and 2010. Declaratory nuclear strategy will in each case be categorized according to a typology of offensive and defensive nuclear strategies. Variation in strategy (the dependent variable) will be compared to variation in (i) the preferences of civilian and military individuals, and (ii) the role of civilian and military institutions in the strategy formulation process, in order to determine actor influence.⁵

In order to trace variation in the strategy preferences expressed by civilian and military individuals, and how these covariate with strategy outcomes, I first use an analytical lens based on offense preference theory.⁶ Military organizations condition the preferences of its members, who as a result prefer offensive strategy. Civilian organizations, and their members, tend to prefer defensive strategy.

⁵ "Military actors" are defined as military *individuals*, (serving officers, military academics, military journalists, retired officers and any individual serving in any part of the Russian Armed Forces) and military *institutions* (Russian armed forces units, the General Staff, the General Staff Academy and associated research institutes, a military-led Defence Ministry). Civilian actors are defined as civilian *individuals* (officials or bureaucrats in all non-military parts of the Russian bureaucracy, academics, researchers and journalists) and civilian *institutions* (civilian-led institutions with a role in formulating/supervising military doctrine, operational plans or resource allocation: President, Presidential Administration, Security and Defence Councils, Defence Ministry, Foreign Ministry, Parliament, the Military-Industrial Commission, and civilian research institutes).

⁶ Barry K. Posen, *The Sources of Military Doctrine. France, Britain and Germany between the World Wars*, Cornell Studies in Security Affairs (Ithaca and London: Cornell University Press, 1984).

I test a range of hypotheses to determine whether there is a distinction between the strategy preferences of civilian and military individuals in Russia. I compare these with strategy outcomes, and draw conclusions regarding (1) whose strategy preferences Russian declaratory strategy reflects, (2) group cohesion with regard to strategy preferences, and (3) whether group cohesion covariates with strategy outcomes.

The preferences of military and civilian individuals will be mapped by using the nuclear strategy typology described above to examine and code a large number of Russian-language articles for each case. I categorize vocations and code strategy preference using the qualitative data analysis tool NVivo. This makes it possible to map preference patterns and discern group preferences both within and across the civilian and military categories.⁷ This data set will be augmented by secondary literature, additional reporting on strategy content, archival materials and interviews in order to shed additional light over whose strategy preferences strategy outcomes reflect.

I then explore the role and influence of civilian and military institutions in nuclear strategy formulation. I compare the formal role of institutions in each case with variation in civilian and military preferences and strategy outcomes to determine the relative influence of military and civilian institutions. Although the empirical data will not allow me to process trace strategy formulation in detail, comparing variation in institutional roles across cases will substantiate how individuals use institutions to ensure that strategy outcomes reflect their preferences.

I devise this second analytical lens using civil-military relations theory positing that civilian institutions seek to control the policy impact and power of military institutions.⁸ While civilian institutions depend on the expertise of the military, they wish to retain control over key decisions regarding the use of force, including when and how to use nuclear weapons. The data I use to map military and civilian institutions are official laws and decrees, news reporting, archival materials, biographies, as well as interviews. The empirical data will help me determine the role of each institution in (a) doctrine formulation, (b) formulation and approval of operational military plans, (c) formulation/implementation of arms control policies, (d) budgetary allocation to the military, including nuclear weapons acquisitions. This data will be used to assess the influence of these institutions, in light of the findings on the strategy preferences of the individuals populating those institutions.

The key answer to my research question is that military actors dominate nuclear strategy; and that the influence of civilian actors is limited. There is covariation between the preferences of military individuals and strategy outcomes in Russia in two of the three cases, and in the case where strategy outcomes reflect civilian preferences, they have key allies in the military camp. Secondly, military institutions retain a dominating role in strategy formulation across time, despite a growth in civilian

⁷ I use the following categories to group military and civilian individuals: military officers and bureaucrats, military journalist and academics, military retired officers; civilian officials and bureaucrats, civilian journalists and academics, civilian academics with a military background.

⁸ Peter D. Feaver, *Guarding the Guardians. Civilian Control of Nuclear Weapons in the United States*, ed. Robert J. Art, Jervis, Robert, Cornell Studies in Security Affairs (Ithaca and London: Cornell University Press, 1992).

institutions' formal role. The lack of clear civilian strategy preferences seems to diminish civilian impact, even when civilian institutions have a lead role in strategy formulation.

The thesis will contribute to the existing literature on domestic nuclear strategy determinants, which is substantial on US and other regional nuclear powers.⁹ Although Russian nuclear strategy content has been actively debated in recent years,¹⁰ the formulation of that strategy has been examined by few scholars and in little detail.¹¹ My thesis will demonstrate how the Russian military is a highly effective nuclear policy lobbying group, and that the Russian civil-military dynamic of strategy formulation remains dominated by military actors. As such, my thesis will add the nuclear lens to the literature on Russian civil-military relations and to the contemporary efforts at deconstructing the Russian *siloviki* as a unitary group.¹²

Policy relevance

In order to formulate effective Russia policy and deterrence strategy, Western policymakers must have a profound understanding of both the content of Russian nuclear strategy and the drivers of change in this strategy. My thesis will enhance this understanding by an empirically rich study of the Russian nuclear strategy debate and strategy formulation process. This will improve policymakers' understanding of contemporary Russian nuclear strategy, which is a direct result of the strategy debates that have been going on in the entire post-Cold War period.

My project will provide detailed knowledge on who the key players in Russian nuclear strategy formulation are. This will be of particular use for Western policymakers seeking interlocutors for official or non-official strategic dialogue. My thesis will provide detailed analysis on the nuclear strategy formulation process, decomposing the notion that Putin and his very closest advisors make Russian strategy: as key military actors still keep nuclear strategy on close hold.

Lastly, my thesis will depict the very particular model of civil military relations that has emerged in Russia since 2000, where political control over nuclear strategy content in Russia may be on the increase, but where this represents something different than civilian control over military policy as traditionally understood. These insights on the perennial nature of military influence on Russian security

⁹ Vipin Narang, *Nuclear Strategy in the Modern Era. Regional Powers and International Conflict* (Princeton and Oxford: Princeton University Press, 2014); Etel Solingen, "Domestic Aspects of Strategic Postures: The Past and Future in a Middle East Nuclear Regime," *Contemporary Security Policy* 16, no. 1 (1995).

¹⁰ Stephen J. Cimbala & Roger N. McDermott, "Putin and the Nuclear Dimension to Russian Strategy," *The Journal of Slavic Military Studies* 29, no. 4 (October) (2016); David Johnson, "Nuclear Weapons in Russia's Approach to Conflict," *Recherches & Documents, Fondation pour la Recherche Stratégique*, no. November (2016); Dmitry (Dima) Adamsky, "Nuclear Incoherence: Deterrence Theory and Non-Strategic Nuclear Weapons in Russia," *The Journal of Strategic Studies* 37, no. 1 (2014).

¹¹ Mikhail Tsympkin & Anya Loukianova, "Formulation of Nuclear Policy in Moscow: Actors and Interests," in *Engaging China and Russia on Nuclear Disarmament*, ed. Cristina Hansell & William C. Potter (Monterey, CA: James Martin Center for Nonproliferation Studies, 2009); Olga Oliker, "Between Rhetoric and Reality: Explaining the Russian Federation's Nuclear Force Posture" (MIT, 2016).

¹² Brian D. Taylor, "The Russian Siloviki & Political Change," *Daedalus* 146, no. 2 Spring (2017).

and defence policy will be essential to any Western policymaker seeking to understand and engage with Russian security and defence policy in the future.

Challenges

A potential critique of my case selection may be taking issue with the claim that civilian policymakers should have a say in the formulation of nuclear strategy and military doctrine, or with the claim that declaratory strategy is representative of nuclear strategy. Another may be that I need to spend more time exploring alternative explanatory models focusing on external determinants of nuclear strategy. Moreover, I need to make a convincing case that the thesis explores the *who* and *how*, rather than the *why* of Russian nuclear strategy, due to data constraints. Lastly, I need to convince the reader that trends in preference patterns suffice for making generalizations about what individuals and institutions influence nuclear strategy.